

OUTDOOR EDUCATION IN THE ELEMENTARY SCHOOL

by

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## THE PROBLEM AND DEFINITION OF TERMS

Outdoor education applies to a wide variety of learning experiences that take place in an outdoor setting. It is not a new idea. Learning from and through nature is as old as the human race. The first classroom was the outdoors, where man taught his offspring some of the essentials for survival. Much of the early day education in our country took place outside the walls of the schools. Attitudes, habits, and skills needed to provide the necessities for living represented the bulk of the educational needs of those communities.

As finer school buildings were constructed, extensive laboratories were equipped, library shelves were filled, and the out-of-doors was brought inside through a multiplicity of visual aids, it was easy to forget that the outdoors still had a contribution to make to education. A vital and effective resource for teaching was in danger of being ignored.

Outdoor education is an emphasis in general education, not a new subject matter area to be included in an already over-crowded curriculum. It can be used at any age level. It may be as simple as a five-minute listening time for the kindergarten in the schoolyard or as involved as a week's camping trip for a sixth grade. Very seldom does outdoor education "just happen". As with good teaching inside the walls of the classroom, what is taught outdoors takes careful planning and preparation. The teacher needs a general background of

knowledge about children and subject matter that will enable him to use the "teachable moment"--the times when learning can go on most efficiently.

Outdoor education is also described as a common sense method of learning. It is natural; it is plain, direct, and simple. L. B. Sharp summarized the philosophy underlying outdoor education and its implication for all subject matter, in all areas of study, and at all levels in the following words:

That which can best be learned inside the classroom should be learned there. That which can best be learned in the out-of-doors through direct experience, dealing with native materials and life situations, should there be learned.<sup>1</sup>

As an organized movement, outdoor education has existed over the past thirty years. The Civilian Construction Corps of the 1930's demonstrated some of the educational implications of outdoor experiences.<sup>2</sup> Since that time this emphasis has varied from extensive curriculum planning including outdoor education in some schools to almost completely ignoring the possibilities of using the outdoors as a learning experience in others.

Smith felt that the term outdoor education must be accepted at face value before its place in the pattern of total education can be seen. He explained:

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<sup>1</sup>L. B. Sharp, Preface to Outdoor Education for American Youth.

<sup>2</sup>Morris Weiner, "Outdoor Education Can Help Unlock the School," Educational Leadership, 24:697, May, 1967.

It is not another discipline with prescribed objectives like mathematics or science; it is simply a learning climate which offers special opportunities for direct laboratory experiences in identifying and resolving real-life problems, for acquiring new skills with which to enjoy a lifetime of creative living, for attaining attitudes and insights about human and natural resources, and getting us back in touch with those aspects of living where our roots were once firmly established.<sup>1</sup>

Educators who have explored the possibilities of outdoor programs and have observed their success in the past are enthusiastic about the potential of teaching in the out-of-doors. Jay B. Nash firmly believes that outdoor education with its emphasis on significant work experience for youth, and on knowledge of the out-of-doors and community living for the younger children, offers one of the highly desirable ways to accomplish conservation results needed for the preservation of the wilderness and of the nation. At the same time, it can broaden the experience range of the total educative process, vitalize the school programs, and tie youth to the democratic group in which he lives. With such potentials, the outdoor education program represents a natural and desirable extension of the school curriculum.<sup>2</sup>

#### Statement of the Problem

It was the purpose of this study, through a review of available literature: (1) to discover some of the contributions

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<sup>1</sup>Julian W. Smith and others, Outdoor Education, p. 19.

<sup>2</sup>Jay B. Nash, Introduction to The Role of Outdoor Education, p. vi.

of outdoor education to the needs of society and to an effective school program, (2) to review some of the types of outdoor education programs now in use at the elementary school level, and (3) to examine some of the conditions which may affect the outlook for outdoor education in the elementary schools.

#### Importance of the Study

The scope of outdoor education includes some areas which should be among the vital concerns of our nation today: constructive use of increased leisure time, awareness of the need for--and the willingness to practice--wise use of our natural resources, and recognition of the need to preserve wilderness and open-space areas before it is too late. These are some attitudes and appreciations which are not easily acquired as adults but which need to be developed early in life. The schools, beginning at the elementary level, have the opportunity and the responsibility for building some of these concepts.

The change in our culture from a rural society to one of city dwellers has deprived many children of the opportunity to be close to nature and the soil. Great numbers of Americans have little understanding of man's relationship to the physical universe. They lack the knowledge, skills, and attitudes to appreciate the outdoors or to profit from outdoor experiences. Brainerd showed his concern about this situation when he said:

Our urbanizing populations are broadly ignorant of the resource base of our crazy culture. They look at land as a place to erect a building or park a monstrous car, without adequately assessing the value of the land as a watershed, as fertile soil, or as beauty. How has our indoor



education failed, and why?<sup>1</sup>

Another advantage of outdoor education is the excellent setting it provides for creative teaching away from the stereotypes of the classroom. There are opportunities for learning activities that grow out of the interests, needs, and purposes of children. A permissive situation is created where teachers dare to teach in accordance with what is known about human growth and the nature of learning.<sup>2</sup>

For these reasons it seems that outdoor education has an essential contribution to make to the elementary school program. Its setting provides a good climate for teaching and learning and its subject matter is related to every-day needs. However, there seems to be very little uniformity in the emphasis given to outdoor education in the elementary school curriculum. Policies and practices vary widely across the nation with a definite concentration of active programs in certain states.

It is hoped that by further study of some of the outdoor education programs now existing and the contributions they have made, some impetus might be given toward the goal of acquainting more teachers and administrators with the possibilities of using the out-of-doors in the school program.

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<sup>1</sup>John W. Brainerd, "Taking the School Out-of-doors," School Science and Mathematics, 60:64, January, 1960.

<sup>2</sup>Julian W. Smith, Outdoor Education, p. 7.

### Limitations

In this study the material was surveyed in terms of its use at the elementary school level. Because of the general treatment of the subject by many authors, this was not always possible. No attempt has been made to explore all of the possibilities of correlating the outdoors with the elementary school program. Although outdoor education can be applied to almost any area of the curriculum, in this study most of the emphasis has been given to topics related to the resources of nature.

### Method of Procedure

This study was carried out through library research. This included some background information on conservation of resources and on recreation and leisure, as well as the available literature related to the use of the out-of-doors in the elementary school program. The references for this study were obtained from the Kansas State University Library, the Manhattan Public Library, and a personal file of conservation and outdoor education materials.

### Definition of Terms

Outdoor education. Outdoor education consists of those direct learning experiences that involve enjoying, interpreting, and wisely using the natural environment in

achieving, at least in part, the objectives of education.<sup>1</sup>

Leisure. Leisure is the time available for doing as one likes, within the range of one's interests and abilities.<sup>2</sup>

Conservation. Conservation consists in the recognition by man of his interdependence with his environment and the development of a way of life that will maintain a secure future for that relationship through intelligent policies and practices.<sup>3</sup>

Natural resources. The basic natural resources of the earth are our soils and water, our minerals, our air, our plant and animal life.<sup>4</sup>

#### CONTRIBUTIONS TO THE NEEDS OF SOCIETY

Outdoor education should be viewed in relation to the needs of the society in which it originated. As changes take place in American society, it is imperative that these changes be reflected in the schools. Smith suggested that the following influences in our present culture have been instrumental in giving impetus to education in and for the outdoors:

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<sup>1</sup>Julian W. Smith, Outdoor Education, p. 6.

<sup>2</sup>Marion Clawson and Jack L. Knetsch, Economics of Outdoor Recreation, p. 12.

<sup>3</sup>Paul F. Brandwein, "Conservation," The Science Teacher, 34:13, April, 1967.

<sup>4</sup>Matthew J. Brennan, "Conservation as an Area of Study Appropriate to Science," The Science Teacher, 34:17, April, 1967.

1. Urbanization has deprived many children and youth from contact with the land.
2. The frenzied tempo of modern living, together with the monotony of assembly line work, has lessened man's opportunity for creative expression.
3. Automation and mechanization have increased the amount of time for off-the-job living but have not offered the opportunity for development of knowledges, skills, and attitudes necessary for worthy use of leisure time.
4. Sedentary living has resulted from mechanization and deprived man of many of the previous opportunities for normal physical exercise. This has made it necessary for him to find other ways of keeping physically fit.
5. The industrial age with its abstractions, words, and spectators has produced a need for real and firsthand experiences.<sup>1</sup>

These characteristics of today's society constitute the setting for outdoor education. In spite of all the advantages of modern society in bringing an improvement in the standard of living, it has also created certain basic needs. Included among these needs, according to Smith, are the need for spiritual satisfactions, the need for physical and mental fitness, the need for creative living, and the need for roots in the soil.<sup>2</sup>

A variety of patterns and programs are possible in an outdoor education program. As a rule these can be sufficiently unstructured so as to allow freedom and individual initiative for both leader and participant. These experiences can make

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<sup>1</sup>Julian W. Smith and others, Outdoor Education, p. 4.

<sup>2</sup>Ibid., p. 9.

effective contributions to the physical, emotional, and spiritual needs of children and adults.<sup>1</sup> An increase in leisure time for a large segment of our population has accentuated the need for assistance in guiding people to make more creative use of these extra hours.<sup>2</sup> The outdoor education setting offers the opportunity for recognition of our heritage of natural resources and a greater realization of the need to preserve them.<sup>3</sup>

While attempting to meet these needs of society, outdoor education is answering one of the objectives of the school--providing an effective climate for learning. What is known about the nature of learning has definite implications for outdoor education. John Dewey's philosophy and emphasis on the importance of direct experiences and problem solving are also current theories of learning. Education in the out-of-doors provides the setting for such learning.<sup>4</sup>

#### Satisfaction of Individual Needs

The function of education is fundamentally to equip youth for useful lives in their society through learning the ways of that society and acquiring the desire and ability to

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<sup>1</sup>Ibid., p. 12.

<sup>2</sup>Ibid., p. 24.

<sup>3</sup>Ibid., p. 11.

<sup>4</sup>Ibid., p. 39.

help that society meet the challenge of a changing world. According to Freeberg and Taylor, such needs cannot be met unless the individual has the knowledge to live effectively with himself and in association with other individuals and groups.<sup>1</sup>

Intangible values. The contributions outdoor education can make to fulfill these individual needs have been expressed in a variety of ways. Kelley pointed out:

Some good comes from exposure to the out-of-doors because I am convinced that there is some sort of bond between the human organism and the earth from which he sprang. We do not have scientific proof of this as yet, but we see innumerable examples of it. We feel it ourselves. There is a feeling of peace, a disappearance of life's urban problems, when one stands and contemplates a great forest, or a sunset. There is not time to multiply the many examples of what urban dwellers will do to escape into the solitude and glory of the great open spaces.<sup>2</sup>

It has been difficult to assess many of the benefits resulting from outdoor education programs in the schools. The American Association of School Administrators admitted this in the following statement:

As with every other facet of the educational program, teachers and administrators must probe deeply for evidence that efforts in outdoor education have been worthwhile, that learning is taking place, and that progress is being made toward reaching goals the school and community have

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<sup>1</sup>William H. Freeberg and Loren E. Taylor, Philosophy of Outdoor Education, pp. 74-75.

<sup>2</sup>Earl C. Kelley, "As We See It," Education in and for the Outdoors, A Report of the National Conference on Outdoor Education, 1962, p. 58.

set and hold to be important. Feelings, appreciations, and attitudes are difficult to measure and to assess. But lack of measuring methods and devices does not make them less worthwhile.<sup>1</sup>

Intangible values do not lend themselves to analyzation in a statistical table. The spiritual value of the outdoors in satisfying individual needs remains largely unexplored. Man needs to be identified with something larger than himself. In spite of living in the midst of material plenty, he is restless and afraid and his actions reveal a need for things that are rooted and enduring. Since man's present environment is transient he seems to find in the changelessness of the mountains, forests, and deserts the experiences of an almost forgotten permanence and stability.<sup>2</sup>

Responsible citizenship. Activities in which responsibility is shared give experiences in democratic living which are difficult to assess, but which may have a real contribution toward training in responsible citizenship. An American Association for Health, Physical Education, and Recreation committee made these observations about the dropout problem:

In contrast with seven and one half million boys and girls now enrolled in our nation's high schools, more than one million have dropped out. . . . Now these one million lost youngsters are not merely a problem in themselves. They are the symptom of a greater problem. They point up with inexorable clarity the inadequacy of

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<sup>1</sup>American Association of School Administrators, Conservation--in the people's hands, p. 284.

<sup>2</sup>Julian W. Smith and others, Outdoor Education, p. 41.

traditional high school offerings to meet the needs and challenge the abilities of that docile herd of captives which remains within the school's walls, presumably through inertia or following the urge to conform.

No one in his senses will advocate outdoor education as a panacea for curing all these ills, but it is one of the most logical and promising tools modern educators are learning to use as part of the process. It can make a significant contribution to meeting the needs of millions of boys and girls our high schools are now losing in whole or in part.<sup>1</sup>

Important as learning about the out-of-doors may be, other learnings derived from outdoor education may have far greater value for youth today. Even if nothing else could be said for outdoor education, the important opportunity for citizenship should not be overlooked. In the camp or outdoor setting, youth has an opportunity to learn cooperation in a new dimension.<sup>2</sup>

The American Association for Health, Physical Education, and Recreation also suggested that knowing how to relate one's self with others is probably the most important learning needed for our modern culture. Very little is done in our society today without the involvement of other people.<sup>3</sup>

Gabrielson and Holtzer felt that the camp community illustrates the converging needs of the individual and society.

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<sup>1</sup>American Association for Health, Physical Education, and Recreation, Outdoor Education for American Youth, p. 6.

<sup>2</sup>Cecil Garrison, Outdoor Education--Principles and Practice, p. 18.

<sup>3</sup>American Association for Health, Physical Education, and Recreation, op. cit., p. 13.



They said:

For example, while undergoing experiences such as meeting all kinds of weather, preparing his own food, and living and working with members of different religions and races, the camper comes to realize that his own comfort is directly related to others and how much he must respect the rights of the other campers. Meeting the hardships of the out-of-doors often turns out to be enjoyable and leaves vivid impressions of human values.<sup>1</sup>

Individual problem solving. Churches are beginning to recognize the potential of outdoor excursions as a part of their educational programs in bringing to the child a personal confrontation with life. A parish education publication described some possibilities:

A child sees, firsthand, the dynamic lessons in cooperation and perseverance exhibited by a mound of industrious ants, in the crack of the sidewalk, as they labor with a tiny cookie crumb. . . . Countless stories will point out these lessons of life, but they can be learned no more dramatically and realistically than through observing God's own creatures living out these principles.<sup>2</sup>

They further suggested that witnessing the cycle of life from the building of a birds' nest to the first flying lessons could help a child see some of his own problems through these observations:

A deep reverence and appreciation for God's gift of life is imparted to the class. A new perspective on parental care is gained by the children as they see the tireless and unselfish parent-birds at work. Patience is rewarded without measure when an entire class can witness

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<sup>1</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, p. 2.

<sup>2</sup>Martha Fink, "The Sky's the Limit," Resource, pp. 21-22, July, 1967.

a baby bird's early feeble attempts at flight. Conversation about such a scene can help the children identify their own conflicts of trial and error, frustration and determination. Thus a valuable lesson is shared by all, beyond classroom walls.<sup>1</sup>

Character building. Sheldon Coleman, industrialist and conservationist, believes that an outdoor education program in this country's schools has the potential for opening up a whole new world for many young people. He stated:

I have strong convictions about what the out-of-doors can do for the youth of our country, particularly in the sense of giving us happier, healthier kids who aren't likely to get into trouble with the law. What I have in mind are such attributes as physical fitness, emotional stability, moral respectability and good citizenship. Boiled down, these things merely mean a proper attitude toward life and toward the society in which the boy or girl lives--something, I'm afraid, a few millions lack these days.<sup>2</sup>

Some evidence that real outdoorsmen seldom get into serious difficulty with the law was pointed out by Coleman. For further proof he cited these cases:

J. Edgar Hoover, famed director of the Federal Bureau of Investigation, came up with just as startling a discovery. Case histories of the "most-wanted criminals" over the years revealed that fewer than one percent had ever been Boy Scouts. This is a tribute not only to scouting but to the outdoors as well. The inference is obvious--the outdoor training and experience received by Scouts keep them from deviating from the straight and narrow path and make them proud to be good citizens.

This character building influence is not restricted to young people alone, either. J. J. Jones, a jailer of Knox County, Tennessee, examined the belongings of 10,000

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<sup>1</sup>Ibid., p. 22.

<sup>2</sup>Sheldon Coleman, "Youth Needs the Out-of-Doors," Sports Afield, May, 1965.

inmates over a period of years and discovered that fewer than two percent had owned a hunting or fishing license when arrested.<sup>1</sup>

Coleman recognized that much can be accomplished by individuals, in the home, in youth organizations, and by interested volunteers. He felt, however, that the real answer lies in moving the great outdoors into the nation's classrooms and moving the classrooms outdoors occasionally. He expressed his optimism in these words:

By doing this, I am convinced we would see a startling change in the incidence of juvenile delinquency, the lack of physical fitness and the growing prevalence of emotional disorders.<sup>2</sup>

Physical fitness. Although not designed as a physical fitness program, there is considerable physical activity involved in the activities relating to teaching in the out-of-doors. Freeberg and Taylor felt that this contribution to the physical fitness of the individual need not be minimized. Physical activity also relieves the emotional strain under which people live and helps relieve the pressures of our highly competitive life.<sup>3</sup>

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<sup>1</sup>Ibid.

<sup>2</sup>Ibid.

<sup>3</sup>William H. Freeberg and Loren E. Taylor, Philosophy of Outdoor Education, p. 128.

## Encouragement of Creative Living Through Leisure

Philosophers through the ages have been concerned with leisure. Aristotle advised that people must be educated to "use leisure rightly", and that the true purpose of education was to teach man to do this.<sup>1</sup>

As early as 1918 educators recognized in a formal statement that how man spent his leisure time should be a concern of the schools. This was reflected in the inclusion of the "worthy use of leisure time" as one of the Seven Cardinal Principles of Education.<sup>2</sup>

If this need was felt a half century ago, it would be more urgent today. In spite of these early beginnings there is still the fallacious notion that education should prepare people for work but that little preparation is necessary for creative living in leisure. Thus it appears that the average person is being prepared only for his work, which is constituting a decreasing segment of his life.<sup>3</sup>

In terms of the work week and how much of it is devoted to actual employment, the average wage earner in America today has approximately 3,000 free hours a year for his leisure now,

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<sup>1</sup>American Association for Health, Physical Education, and Recreation, Leisure and the Schools, 1961 Yearbook, p. 2.

<sup>2</sup>William H. Freeberg and Loren E. Taylor, Programs in Outdoor Education, p. 94.

<sup>3</sup>American Association for Health, Physical Education and Recreation, Goals for American Recreation, p. 25.

with a prediction for an increase in this number.<sup>1</sup> In the professional fields and on the management level, it is expected that the increase of free time will not be as great. Thus, those who will have the most free time will be those less prepared to make significant use of their leisure, unless the schools recognize the role they should take in this problem.<sup>2</sup>

If the schools do not educate for the "worthy use of leisure," no other agency or institution will do so, on a universal basis starting early in the child's life. All other agencies put together would reach only a fraction of the population and would be limited by authority and financial backing. Most families are no better equipped to supply recreational experiences for their children than they are to teach the school curriculum.<sup>3</sup>

Education for leisure should permeate all of the years of formal education and the life of the individual. It should not be confined to a specific time or place but be infused into all learning so that each individual can live a richer, fuller,

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<sup>1</sup>American Association for Health, Physical Education and Recreation, Leisure and the Schools, p. 3.

<sup>2</sup>Ibid., p. 6.

<sup>3</sup>George D. Stoddard, "The Merging Pattern of Outdoor Recreation and Education--Problems, Trends, and Implications," Trends in American Living and Outdoor Recreation, Outdoor Recreation Resources Review Commission Study Report 22, p. 128.

life as a result of this education.<sup>1</sup>

The outdoors occupies a strategic place in education for leisure. Man had a heritage of outdoor living but changes in our culture have removed him from this earlier close contact with the land. Man's mode of living changed and with these changes he was deprived of the skills, attitudes and appreciations which are so necessary for total enjoyment of the out-of-doors.<sup>2</sup>

The greatest contribution of outdoor education may be in the re-creation of mind and body of the millions of people who need to find release from the tensions of modern living. The outdoors offers repeated opportunities for each individual to find activities in which he can participate freely and find satisfaction.<sup>3</sup> Much of a man's work in a machine age has ceased to be challenging and stimulating. Leisure time should provide an opportunity for creative experience, a basic human need.<sup>4</sup>

#### Recognition of the Need for Conservation

There has been general agreement that the rapid depletion

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<sup>1</sup>American Association for Health, Physical Education and Recreation, Leisure and the Schools, p. 14.

<sup>2</sup>Ibid., p. 105.

<sup>3</sup>Julian W. Smith and others, Outdoor Education, p. 24.

<sup>4</sup>Jay B. Nash, Philosophy of Recreation and Leisure, p. 166.

of our natural resources is a problem of our society. However, for most people it has not become a matter of personal concern. Many are only dimly aware of the implications that the explosive rate of increase of the human population and the random growth of technology has had on our nation's national resources. In a Department of the Interior report it is stated that in technology and population lie the roots of most of our resource problems.<sup>1</sup>

Hamm and Nason indicated that one of the big problems in conservation is the inability of man in his limited life span to see a large perspective in the wasting away of resources.<sup>2</sup> An informed and aroused public, cognizant of the problem and actively engaged in promoting conservation, may be a necessity for man's survival.

In the following statement, the Association for Supervision and Curriculum Development recognized the necessity of arousing the public to matters of national concern:

Public ignorance and indifference are the twin threats to our common stability. Against them educators must advance in growing power, the even more vital forces of popular enlightenment and democratic social action.<sup>3</sup>

Concern about our nation's lack of planning for some of

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<sup>1</sup>Department of the Interior, Man . . . an endangered species?, Conservation Yearbook Number 4, p. 14.

<sup>2</sup>Russell L. Hamm and Larry Nason, An Ecological Approach to Conservation, p. 5.

<sup>3</sup>Association for Supervision and Curriculum Development, Large Was Our Bounty, 1948 Yearbook, p. 147.

our land resources was shown by Stewart L. Udall, Secretary of the Interior, when he said:

Indeed the challenge to conservation statesmanship in our time is the achievement of balance between the works of men and the handiwork of nature.

Admittedly, we must move ahead with the development of our land resources. Likewise, our technology must be refined. But in the long run life will succeed only in a life-giving environment, and we can no longer afford unnecessary sacrifices of living space and natural landscapes to "progress."

The sad truth is that development tends to outrun planning in our society. More often than not, the bulldozer's work is done before the preservationist and the planner arrive on the scene.<sup>1</sup>

Stotler pointed out the necessity of starting early in building conservation concepts, since many important attitudes have been formed by the time the child is seven to ten years of age. He said that much of the money spent on conservation education has been wasted because early grades were by-passed and the attention directed toward the upper grades.<sup>2</sup>

Several authors mentioned the importance of guiding the thinking of the children of today who will be the decision-makers of tomorrow in regard to resource use.

The American Association of School Administrators felt that this is an educational problem of no small proportion when

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<sup>1</sup> Stewart L. Udall, "Plea for . . . A Green Legacy," Christian Science Monitor, September 11, 1961, p. 13.

<sup>2</sup> Donald Stotler, "The Discovery Approach to Conservation Education," Enlightened Choices Through Conservation Education, Proceedings of the 11th Annual Conference of the Conservation Education Association, 1964, p. 17.



they made the following statement:

Within a few short years many children and youth, almost completely lacking in firsthand acquaintance with nature and with vital natural resources, will be called upon to help make important decisions about their use. If they have little or no understanding of these resources, . . . then their decisions will not be as well considered and as sound as they ought to be.<sup>1</sup>

This was expressed in another way by Stapp in these words:

Some day our youth will be adult members of a community, perhaps your community. As citizens and voters, no matter what their occupations may be, they will make decisions affecting not only the community in which they live, but also their country. To an increasing extent the votes they will cast and the choices they will make will be concerned with our natural resources and their wise use. They will be asked to make decisions about recreation, parkways, beautification, water needs and air and water pollution control. Since decisions on problems like these will affect the total environment in which we live, we must help our young people (and ourselves) obtain the experiences and the knowledge necessary to assure wise decisions.<sup>2</sup>

Carr expressed an appreciation for progress that has been made, as well as a continuing concern for preserving natural areas near centers of population, in the following discussion of the need for outdoor interpretation:

Growth of the outdoor interpretive-educational movement in America has been nothing short of phenomenal during the past forty years. There are more professional interpreters of the natural scene now than ever before; more park naturalists, camp nature counselors; more nature centers, trailside museums and wildlife sanctuaries, than one could

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<sup>1</sup>American Association of School Administrators, "Conservation--in the people's hands, p. 7.

<sup>2</sup>William B. Stapp, "Inservice Teacher Training in Environmental Education," The Science Teacher, 34:33, April, 1967.

dream of in days gone by. Despite this increase, the need for added interpretive centers and programs is greater than at any time in our country's history. There are more people in the United States today and fewer natural areas near concentrations of population where this type of education is so sorely needed. To protect the wild areas of nature that are left, it is essential that more of our citizens, especially children, be introduced to nature where it still exists--in the out-of-doors.<sup>1</sup>

There is widespread recognition of the important role outdoor education programs can play in conservation education. The Outdoor Recreation Resources Review Commission felt that the development of a conservation attitude is best accomplished when the learner has satisfying experiences with the resources involved, such as occurs in a balanced outdoor education program.<sup>2</sup>

Smith doubts that an understanding of conservation can be developed only through discussion and reading. He said:

It may well be that only through experiences involving the care and wise use of natural resources themselves can we develop citizens who will in future years properly safeguard these resources. A child who has raised vegetables in a school garden probably appreciates the problems of handling soil and water resources in a way that the child without this experience cannot. A child who knows some of the plants and animals of the woods and their place in the natural scheme is more likely to be concerned with their conservation than the child who has never made their acquaintance. A child who has had many outdoor experiences and who has learned how to enjoy without destroying his environment is better equipped to serve

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<sup>1</sup>William H. Carr, "Meaning and General Principles of Outdoor Interpretation," Manual of Outdoor Interpretation, p. 15.

<sup>2</sup>Julian W. Smith, "Developments in the Field of Education Affecting Outdoor Recreation Resources," Trends in American Living and Outdoor Recreation, Outdoor Recreation Resources Review Commission Study Report 22, p. 135.

as a citizen than one who has not had these opportunities.<sup>1</sup>

Shomon suggested that a fourth "R" (resources) be added to the classroom. However, he said that unless these same pupils are taken out-of-doors to learn about natural resources firsthand, the full meaning of conservation is not driven home.<sup>2</sup>

Outdoor education, according to Freeberg and Taylor, can have a tremendous impact on the students understanding of the conservation of resources. Experiences that bring the child close to nature serve to make conservation more meaningful. Through these experiences, these authors felt that children understand their relationship with their environment and their responsibility in cooperating with nature to preserve this environment.<sup>3</sup>

#### Provision of an Effective Climate for Learning

It is necessary for education to frequently re-evaluate the school curriculum and methods of teaching in order to meet the demands of educational responsibility in an ever-changing world.<sup>4</sup> Providing a favorable climate for learning is always a basic consideration wherever the education occurs--indoors

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<sup>1</sup>Julian W. Smith, Outdoor Education, p. 81.

<sup>2</sup>Joseph J. Shoman, Manual of Outdoor Conservation Education, p. 81.

<sup>3</sup>William H. Freeberg and Loren E. Taylor, Philosophy of Outdoor Education, p. 320.

<sup>4</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, p. 31.

or outdoors.<sup>1</sup>

Concern for the learning climate was reflected in these observations by Kelley:

Since education is supplementary and preparatory, we build school buildings designed to shut out life so that the child can give complete attention to our abstractions or tools for conveying these abstractions, to books, blackboards, and chalk. The windows of the classroom are often purposely built high so that the child cannot look out of them and be distracted.

All of this isolation is consistent with the assumption that children are not living but are preparing for life, that knowledge set out to be learned can be acquired and kept in cold storage, that it is of no use now but will come in handy sometime.<sup>2</sup>

In its 1964 Yearbook, the American Association of School Administrators voiced the same concern:

Much of what a pupil learns about the world around him is secondhand. Every day he goes inside the classroom to study about what exists outside. He reads what somebody else has written about soils, plants, and water, when he could go outside the school building to see them and to study them and make discoveries for himself.<sup>3</sup>

In another quotation from the American Association of School Administrators, a child's waning enthusiasm for learning in an unfavorable setting was described as follows:

Children start school with great enthusiasm for learning, but too often the spark grows dimmer as they progress from year to year and from grade to grade. It may well be that this waning of enthusiasm is due to instructional

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<sup>1</sup>John W. Hug and Phyllis J. Wilson, Curriculum Enrichment Outdoors, p. 3.

<sup>2</sup>Earl C. Kelley, Education for What Is Real, p. 19.

<sup>3</sup>American Association of School Administrators, Conservation--in the people's hands, p. 269.

methods and curriculum content that take much of the adventure and joy of discovery out of learning. One of the richest and most inexpensive laboratories available to any school--yet used the least--is the out-of-doors. Teachers for the most part have been trained to teach inside classrooms and all too often feel ill at ease and inadequate in an outdoor environment.<sup>1</sup>

Outdoor education cuts across many curricular areas. It has no subject matter of its own; its major contributions are ways of learning, according to Smith. He listed eight characteristics of outdoor education, all of them methods to expedite the learning process: (1) direct experience, (2) discovery, exploration, adventure, (3) sensory learning, (4) activities natural to childhood and youth, (5) intense interest, (6) reality, (7) problems in context, and (8) learners most active.<sup>2</sup>

Firsthand experiences. Several authors recognized the unique contributions of outdoor education to the learning process. Learning by doing is a fundamental philosophy in outdoor education and is a vital part of the entire education process.<sup>3</sup> Learning through direct experiences cannot be ignored. Learning is stimulated and new interests are aroused by providing intriguing firsthand experiences. Such experiences penetrate more deeply and are longer lasting than

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<sup>1</sup>Ibid., p. 271.

<sup>2</sup>Julian W. Smith and others, Outdoor Education, pp. 41-42.

<sup>3</sup>Gabrielson and Holtzer, op. cit.

vicarious ones.<sup>1</sup>

According to the American Association of School Administrators, research, experience, and just plain common sense indicate that learning through firsthand experience takes place more rapidly, is retained longer, and leads to greater understanding than vicarious learning. They advocated such experiences because of their potential in leading to further discoveries:

The wonder, excitement, and thrill a youngster has over a discovery of his own and the values he attaches to his findings leave lasting impressions and awaken desires to probe further into something else.<sup>2</sup>

Problem solving. Outdoor education also gives opportunities for learning through problem solving in a real setting. Smith felt that often the setting is as significant as the problem itself.<sup>3</sup> Sometimes final solutions in problem solving may be difficult to obtain and may take time and effort. However, Hug and Wilson stated that because the problem had been real to him the child will be more apt to be willing to actively gather information and analyze the significance of what he has found. Through this experience he has gained an insight into

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<sup>1</sup>John W. Hug and Phyllis J. Wilson, Curriculum Enrichment Outdoors, p. 1.

<sup>2</sup>American Association of School Administrators, Conservation--in the people's hands, 1964 Yearbook, pp. 269-70.

<sup>3</sup>Smith, op. cit., p. 42.

an important method of learning.<sup>1</sup>

Total involvement. A student learns best when his total organism is involved. He needs to have the opportunity to do more than look at a book and engage in purely mental activities. It is good for youngsters not only to be told how to plant a tree but also actually to do it. To contrive such a learning situation in the classroom is difficult.<sup>2</sup>

Sensory learning. The use of all of the senses is important in the learning process. The outdoors provides an abundance of opportunities to increase the power of observation through using every possible sensory impression. Even in the outdoors, it is wise to guide children in the development of attitudes toward these observations in order to make the best possible use of sensory experiences.<sup>3</sup>

The out-of-doors is a ready-made laboratory for learning. It has an infinite variety of potential learning experiences which should challenge the best efforts of both teacher and children in planning for its increased use in the schools today.<sup>4</sup>

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<sup>1</sup>Hug, op. cit., p. 2.

<sup>2</sup>American Association for Health, Physical Education and Recreation, Outdoor Education for American Youth, pp. 12-13.

<sup>3</sup>Julian W. Smith and others, Outdoor Education, p. 43.

<sup>4</sup>Ibid., p. 44.

## PATTERNS OF OUTDOOR EDUCATION

Outdoor education can begin as soon as one steps outside the schoolroom door. It can take place on the school steps, on the sidewalk, in the school yard, in a nearby park, or elsewhere in the community. It might be for as short a period of time as five minutes, or half an hour, or it might be for as long as a half day or a full week.<sup>1</sup> The degree to which a school uses one or more of the types of programs depends to a great extent on the leadership, training, and academic background of its faculty and administration.<sup>2</sup>

There are a variety of ways in which the public schools and other community agencies promoting outdoor education can accomplish their goals. Some of the most common practices or patterns followed are: use of the school grounds, field trips or school journeys, school gardens and farms, school forests, nature centers or outdoor laboratories, and the resident school camp. These programs may overlap each other and are not necessarily an entity within themselves.<sup>3</sup>

Many schools are offering desirable learning experiences in one or more of the variants of outdoor education but a far larger number have not awakened to the potential offered by

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<sup>1</sup>American Association of School Administrators, Conservation--in the people's hands, p. 268.

<sup>2</sup>William H. Freeberg and Loren E. Taylor, Programs in Outdoor Education, p. 101.

<sup>3</sup>Ibid., p. 100.



this approach to teaching and learning. Outdoor education is still in the pioneer stage. Recently, however, an increasing number of school systems are expanding existing programs or have started some new programs in the out-of-doors.<sup>1</sup>

The passage of the Elementary and Secondary Education Act of 1965 helped create a new surge of interest in outdoor experiences. Many schools have used Title I and Title III funds made available by this Act to develop projects that focus on the use of the out-of-doors.<sup>2</sup>

To have an effective program a school need not wait for legislation and financial support for a large scale program. The resources of the area in which the school is located and the teacher's ability to see the learning potential in this area will affect the way the out-of-doors is used in each individual classroom. A creative teacher with a background, or at least an interest, in outdoor education can enrich any school subject or area of learning in the curriculum by giving the class direct experiences in the out-of-doors. A good program in outdoor education may be provided at very little expense by the maximum use of community resources.<sup>3</sup>

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<sup>1</sup>Ibid.

<sup>2</sup>Morris Wiener, "Outdoor Education Can Help Unlock the School," Educational Leadership, 24:697, May, 1967.

<sup>3</sup>Freeberg and Taylor, op. cit., p. 99.

## School Grounds and Adjacent Areas

Many people, including classroom teachers, equate outdoor education with extensive field trips and school camping. Some schools lose good teaching opportunities while a class waits for an outdoor area to be developed or even for a scheduled trip to a wooded area. According to Freeberg and Taylor, outdoor education can take place just outside the school room entrance--wherever nature can be studied firsthand.<sup>1</sup>

Gabrielson and Holtzer suggested that a school's own property is a good place to initiate an outdoor program. It is convenient for classes to participate in outdoor activities right on the school property so more frequent excursions can be made during class time. A facility located some distance from the school would involve additional transportation time and adjustment of the class schedule. The students generally seem to take more interest and pride in an area located on their school property than in one which does not belong to the school.<sup>2</sup>

It is possible to learn much about the natural world in a comparatively small area. Learning situations are plentiful in every community, according to Gabrielson and Holtzer. A lawn in front of the school building after a rain, a sidewalk where small plants thrive between the cracks, an empty lot, a soil-

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<sup>1</sup>Ibid., p. 1.

<sup>2</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, p. 53.

covered sidewalk--finding any or all of these presents no difficulty.<sup>1</sup>

To further illustrate the virtually unlimited resources close at hand, Gabrielson and Holtzer said:

A skilled teacher can utilize a tree on the school's own property as a teaching object, and literally cover the world of micro-organisms, higher forms of plants and animals, geology, conservation, and the entire universe for that matter.<sup>2</sup>

Another resource which should not be overlooked is the neighborhood vacant lot. In almost every community, even though it may seem to be a closed, urban community, there will be some of these. Klotz believes that this resource should not be overlooked and cited several advantages of such an area: (1) it is more accessible than natural areas; (2) field trips may continue during the entire school year to study the phenology of the area; and (3) valuable comparisons can be made over the years if careful records are kept. Rather surprising changes will take place even though the vacant lot is surrounded by a skyscraper jungle and appears to be widely separated from any feeder area.<sup>3</sup>

Some schools have used even limited areas very effectively by establishing a man-made outdoor laboratory on

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<sup>1</sup>Ibid., p. 52.

<sup>2</sup>Ibid., p. 51.

<sup>3</sup>John W. Klotz, "Natural Areas As a Community Resource," American Biology Teacher, 24:19, January, 1962.

existing property. The Bowling Green Elementary School in Sacramento developed a wooded area, a meadow, and a bog on a little more than an acre of property. This became a transplanted nature area with plant and water life brought in from other areas. An "artificial spring" from a water pipe formed the bog. The area eventually became a sort of bird sanctuary giving a new dimension to the teaching possibilities of that school. Benches were put up in a semi-circle to make an outdoor classroom.<sup>1</sup>

Other schools have overcome the handicap of failing to preserve part of the grounds as a natural area. The Intermediate School in Freehold, New Jersey established a miniature "natural" area between two wings of the school building. It now includes, ". . . reproductions of several New Jersey land resource areas, 200 different plants, 28 types of animal life, and 2 ponds. Classes from kindergarten to eighth grade use this facility which cost only about \$500 to develop."<sup>2</sup>

The park-school plan is an extension of the use of the school site and constitutes an ideal setting for outdoor education. The general plan is to locate the school site adjacent to existing parks or to choose new sites where an outdoor area could be developed.<sup>3</sup>

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<sup>1</sup>Norman Marsh, "Outdoor Learning on the School Site," California Education, 3:9, 11-12, May, 1966.

<sup>2</sup>Erling Clausen, "Outdoor Laboratory Builds Interest in All Studies," Soil Conservation, 30:82-83, November, 1964.

<sup>3</sup>Julian W. Smith and others, Outdoor Education, p. 79.

The park-school concept is more than simply putting the facilities together. It involves the cooperation of community and school authorities in the support and administration of these areas.<sup>1</sup> In some programs the school is responsible for the buildings and the outdoor laboratory is maintained by the park commission of the city. All areas are used by the schools and the community with less duplication of funds and facilities.<sup>2</sup>

Such a park-school facility can become a "Community School." Freeberg and Taylor described some of its advantages in this way:

The modern trend toward the "Community School" is most appropriate to meet the needs of children in a nation that is fast losing its rural heritage. In such a school the entire community becomes a laboratory for education and recreation for people of all ages and this includes the school building itself. Education cannot afford to be limited to children from age six to eighteen.

The community school reaches out into the community for resources and instructional material to supplement the curriculum with firsthand direct contacts with life. The parks, being available to all people of the community, provide natural laboratories for education. Parks can help the schools in providing human satisfaction and rich educational opportunities for the children of the community.<sup>3</sup>

#### Field Trips

Of all outdoor learning experiences, the most common is

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<sup>1</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, p. 60.

<sup>2</sup>Smith, op. cit., p. 290.

<sup>3</sup>William H. Freeberg and Loren E. Taylor, Programs in Outdoor Education, p. 265.

the field trip. It may consist of a few minutes spent in a school yard or an extended visit to a forest or farm. Freeberg and Taylor defined a field trip or school journey as any planned experience outside the classroom undertaken by a teacher and her class which is used to introduce an area of study or to supplement the study of a subject.<sup>1</sup>

The value of any field trip depends upon the extent to which it is a real learning experience. To the children participating, it should be interesting and adventurous. Educationally, it should relate to the total program of the classroom.<sup>2</sup>

The simplest outdoor activity that the classroom teacher can use is taking a class on "looking and hearing" walks. Even with the minimum of advance preparation such a walk can be very rewarding. However, no walk should be without guidance for there is a great difference between sensing something and perceiving it. Smith gave an example of this difference:

Many persons go through life without hearing the songs of birds because no one had ever directed their attention to them when they were young. A good musical ear doesn't insure hearing a bird song the first, second, or even third time.<sup>3</sup>

To insure its being a worthwhile experience, the trip should first of all include careful pre-planning. A few well-chosen objectives lay a better basis for a profitable

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<sup>1</sup>Ibid., p. 102.

<sup>2</sup>Julian W. Smith and others, Outdoor Education, p. 50.

<sup>3</sup>Julian W. Smith, Outdoor Education, p. 11.

experience than an attempt to accomplish too much. Some teachers hesitate to take field trips because of insecurity in handling the group in such an informal situation. Repeated use of the outdoors for class periods helps the children understand that the outdoors can be more than recess and play.<sup>1</sup>

Some teachers have been reluctant to plan field trips unless there are large natural areas available. Occasionally outdoor education leaders are concerned with covering distance, and overlook the learning possibilities in stopping often to observe and to investigate. Basically the same understandings of the concepts and principles of the natural world can be gained on an acre of land as on a hundred or more acres. One class staked out a square yard of earth and found over fifteen species of plants and about the same number of insects. Larger areas have advantages and the alert teacher would find greater opportunities in a 25-acre area than a one-acre tract. Yet, size is not a guarantee of effective teaching.<sup>2</sup>

Although city parks generally offer little in the way of natural areas undisturbed by man, they still offer opportunities for learning about the phenomena of nature. A trip to such a park at different seasons of the year could be a lesson in life cycles of both plant and animal life. The less

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<sup>1</sup>John W. Klotz, "Natural Areas as a Community Resource," American Biology Teacher, 24:19, January, 1962.

<sup>2</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, p. 50.

heavily used and the less carefully kept parts of the park are most valuable for teaching purposes.<sup>1</sup>

### School Gardens and Farms

The school garden is one of the oldest and also one of the most common of all outdoor education programs in this country. Many schools have used some form of gardening as a teaching device since the early 1900's. The emphasis on "learning by doing" gave impetus to school gardening activities. The school garden has been popular in European countries much longer and has been used more extensively there than in the United States.<sup>2</sup>

School gardening was probably at its peak in the United States during the time of the Victory Gardens of World War II. While promoting these gardens for economic and patriotic reasons, educators discovered that this activity could enrich the school program in other ways. School gardens are now found in every state and for every grade level.<sup>3</sup>

School gardens range from window boxes or a small plot of soil on the school yard to several acres scattered throughout the city. The vegetable garden is the most common type of school gardening project, probably because of its universality

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<sup>1</sup>Klotz, op. cit.

<sup>2</sup>William H. Freeberg and Loren E. Taylor, Programs in Outdoor Education, p. 136.

<sup>3</sup>Ibid., pp. 136-137.



and practical value.<sup>1</sup> Hopefully, these programs should be broad enough to involve the children in planning and caring for landscaped areas around the school and any other activities related to the growing things on the entire school ground.<sup>2</sup>

The public schools of Cleveland, Ohio have had a gardening program since 1904. There is a Division of School Gardens in the school administrative system. Gardening is taught as a unit in science from the elementary grades through junior high school. The Cleveland schools have 23 acres of school gardens and six greenhouses spread throughout the city.<sup>3</sup> In 1960 nearly 15,000 students from all grade levels participated in the program.<sup>4</sup>

The Cleveland garden program is given encouragement throughout the year by a Saturday morning television show called "Down to Earth." The School Garden Exhibit is a garden science project for all grades and all schools.<sup>5</sup>

The Minneapolis Public Schools Junior Garden Program was started in 1944 as a Victory Garden and has continued since that time. They have found the program to be the most effective in grades three through six. Through excellent cooperation

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<sup>1</sup>Ibid., p. 146.

<sup>2</sup>Ibid., pp. 136-37.

<sup>3</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, p. 23.

<sup>4</sup>Freeberg, op. cit., p. 139.

<sup>5</sup>Ibid., pp. 139, 141.

from parents and the Parent Teachers Association, home garden projects are carried on during the summer. Visits to the individual plots by the PTA Garden Chairman of each school have served to foster good public relations between home and school.<sup>1</sup>

Smith summarized some of the values of school gardens in these words:

Children's gardens have important contributions to make, not only in learnings and understandings related to the out-of-doors, but also in the personal development of the gardener through participation in cooperative work and healthful physical exercise. The activity should have a carry-over value into adult life far above that of many activities.<sup>2</sup>

School gardens are sometimes combined with a school farm program. Experiences which both gardens and farms can provide will become more and more valuable as urbanization continues.<sup>3</sup>

In the past, school farms were acquired largely for the vocational agriculture program of the school. They are even more valuable because they furnish a variety of learning situations centered around rural living for the whole school and the community.<sup>4</sup> The fact that a school farm can be self-supporting should make this outdoor education program more attractive to the administration and to taxpayers.<sup>5</sup>

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<sup>1</sup>Ibid., pp. 141-43.

<sup>2</sup>Julian W. Smith and others, Outdoor Education, p. 67.

<sup>3</sup>Gabrielson and Holtzer, op. cit., p. 25.

<sup>4</sup>Smith, op. cit., pp. 73-74.

<sup>5</sup>Gabrielson and Holtzer, op. cit., p. 25.

Two outstanding examples of school farms operated as outdoor education centers are those in Battle Creek, Michigan and Tyler, Texas. Children from kindergarten age through high school visit the farms and use them as a valuable laboratory for learning.<sup>1</sup>

The school farm of the Battle Creek schools has provided interesting experiences for all age children for the past 15 years. About six hundred fifth and sixth graders have a plot of ground for gardening and a Junior Garden Club of approximately one hundred children continue work in these plots during the summer. Although the gardening facilities are used primarily by the fifth and sixth grades, all grade levels and many community groups use the farm as an outdoor laboratory. The operation of the farm is primarily devoted to education. Some cash crops are raised which contribute to the general upkeep of the farm.

Freeberg and Taylor described the farm at Tyler, Texas:

The Tyler, Texas school farm is another outstanding example of getting the most out of an investment in outdoor education. In 1950, a group of educators realized that although most city youngsters were only two generations removed from the farm, they needed more knowledge of conservation and the importance of farm life in the struggle for food, clothing, and shelter. A complete school farm was established as an outdoor laboratory.

The 160-acre farm, managed by a former vocational

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<sup>1</sup>Ibid.

<sup>2</sup>William H. Freeberg and Loren E. Taylor, Programs in Outdoor Education, pp. 171-72.

agriculture teacher, boasts of a registered dairy herd, beef cattle, rabbits, laying flock, a farm shop, growing crops and a well-rounded pasture program.

While the farm is self-sustaining, its chief purpose is to furnish the Tyler public school system with a laboratory for teaching conservation and appreciation for rural life.

During the school year children feed the cows, hogs, and chickens. They watch the farmer cultivate the crops and learn farm life by assisting him with the many chores. They become acquainted with feeding pens, hay crops, legumes, fence repair, and other activities and problems of farm life. The farm manager often stops the tractor or whatever work he is doing to give the visiting class a lecture on how clover builds the soil, or whatever farm task may be at hand when they arrive.<sup>1</sup>

#### School Forests

Probably the least known pattern of outdoor education is the school forest. The program had its beginning when the need for good forestry practices became evident following heavy cutting in many forests, particularly in the midwestern states of Michigan, Wisconsin, and Minnesota.<sup>2</sup>

The tree planting of the Civilian Conservation Corps in the 1930's gave impetus to the program. Some state legislatures enacted laws which gave cities or school districts permission to acquire land and engage in forestry. The major part of the early use was for reforestation. Later far-sighted educators

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<sup>1</sup>Ibid., pp. 172-73.

<sup>2</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, p. 24.

saw the opportunity for outdoor teaching in the school forest.<sup>1</sup>

According to Smith, one of the major benefits of a school forest may be the permanent values to youth because of having had a part in the development of land. This is another possible way the schools can make a contribution to citizenship and social responsibility.<sup>2</sup>

This view of individual responsibility is expressed by Carhart:

The forest future of the nation must rest on something more than tables, graphs, and the text of reports; it must rest on the belief of the individual that he, personally, has a stake in how our timberlands are handled. Not merely an interest in one phase of it, but in every part of the program . . . timber production, watershed protection, and the other values we may derive from the complex forest community.<sup>3</sup>

Wisconsin, Michigan, Illinois, Minnesota, and Ohio have been among the leaders in school forest programs.<sup>4</sup> A survey in 1960 by Freeberg and Taylor revealed that there were many good school forests and that the number was increasing. Forestry programs were found in over one half of the states. A few states have outstanding programs that have gained nationwide attention.<sup>5</sup>

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<sup>1</sup>American Association for Health, Physical Education and Recreation, Outdoor Education for American Youth, pp. 51-52.

<sup>2</sup>Julian W. Smith and others, Outdoor Education, p. 70.

<sup>3</sup>Arthur Carhart, Timber or Your Life, pp. 306-07.

<sup>4</sup>Gabrielson and Holtzer, op. cit., p. 24.

<sup>5</sup>William H. Freeberg and Loren E. Taylor, Programs in Outdoor Education, p. 202.

In Wisconsin, school owned forests are increasing in areas where farm land is being abandoned because of poor soil. The state had an early start with enabling legislation for school forests in 1927. School forests in Wisconsin have been aided by Trees for Tomorrow, Inc., a non-profit organization backed by pulpwood mills. Organized in 1944, its major objectives are education and technical assistance. Donations of seedlings and land, scholarship programs, and a conservation camp for school use are among its projects.<sup>1</sup>

The Felch School Forest is one of over 600 school forestry programs in Michigan. The Felch School owns 320 acres with twenty varieties of trees. Every child and teacher plants seedlings in the school forest. All grade levels plan other activities using the forest to supplement classroom teaching.<sup>2</sup>

In the Mesick School Forest in Michigan it was found that one of the most worthwhile concepts taught was erosion control. The increase of trees planted by farmers in the area demonstrated the true value of the program. The living evidence of what the school forest had done in controlling erosion was influential in demonstrating to the farmers how they could improve their own eroded areas with a cash crop.<sup>3</sup>

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<sup>1</sup>Ibid., pp. 202-03.

<sup>2</sup>Ibid., pp. 207-07.

<sup>3</sup>Julian W. Smith and others, Outdoor Education, p. 73.

The State Department of Education in Ohio highly recommends the school forest program. Ohio schools interested in starting their own programs can also receive assistance from the Ohio Forestry Association, Inc. The association has suggested some factors essential to good school forest programs: (1) ownership by the school with complete control is desirable; (2) ideally it should adjoin the school property and a ten-acre minimum is suggested; (3) programs should be planned with the students and not for them; (4) elementary students could plant trees, gather seed, use nature trails, rake fire breaks, identify and measure trees; and (5) adequate records must be kept relating to changes in the forest as well as administrative data.<sup>1</sup>

The necessity for long range planning in the development of a forest is explained by some Wisconsin school forest enthusiasts:

A successful school forest, like any other enterprise that involves many people, depends on at least one man with conviction of its importance, the courage to crystallize the thinking of others and the ability to bring about unity of action. Since a school forest is not a short time activity, leadership should look forward into the future, as the turnover in school work is often very rapid.

The quality of leadership of the person who directs the school forest activity is evidenced in the way the work is carried on after he leaves the scene. Thus it requires that the conviction and courage be radiated to others, so that the work may be enduring. When this vision is

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<sup>1</sup>Freeberg and Taylor, op. cit., pp. 216-25.

lacking, school forests perish.<sup>1</sup>

#### Nature Centers and Outdoor Laboratories

Most nature centers consist of an educational building or buildings, a natural area, and a full-time naturalist staff. Such an outdoor laboratory is concerned with natural phenomena in the local area and the purpose is to interpret local natural history to the community. It is frequently a community development designed to serve the local citizens and may not be under any direct supervision by the school.<sup>2</sup>

Impetus for developing nature centers has come from the Nature Centers Division of the National Audubon Society. Technical and consulting services are provided and a number of publications are available to help in local planning.<sup>3</sup>

The nature center is a relatively new idea. It fills a place for millions of Americans whose world of nature has been shoved farther and farther away from them. Ideally it should be at least 50 acres, with the geological features and forms of plant and animal life which have always been there. The basic purpose of nature center is to provide a green island for every community where open space is still available. This

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<sup>1</sup>Wakelin McNeel, Jr. and Edwin Vander Heuvel, "A Case for School Forests," Michigan Education Journal, 42:22, December, 1964.

<sup>2</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, pp. 60-61.

<sup>3</sup>Ibid., p. 61.



green island would be an area of undeveloped land near or within a city suitable for providing a community outdoor program in nature enjoyment and conservation education. The nature center is designed to serve everyone in the community, from school groups of all ages, to adults with nature hobbies, and families who are seeking pleasant relaxation.<sup>1</sup>

In the preface to a National Audubon Society publication, Shomon described the need for such centers in these words:

Nature and conservation centers can help prevent America from becoming a totally overdeveloped and desecrated land. They can assure our nation valuable breathing space, precious natural beauty, solitude. They can present our young generation and those that follow them new visions, insights and hopes by reuniting them once again with the good land--our Mother Earth.

To achieve these noble goals we need nature centers across the length and breadth of the land. We need many thousands of them. We need them of different types-- government-owned and operated, privately-owned but partially tax supported, and privately-owned and operated.<sup>2</sup>

In another publication Shomon stated that a creditable nature center should put into practice the concept of "land for learning." He suggested that in its broadest form it would include several areas of land:

1. An intensive educational use area
2. A special, small-scale conservation farm or ranch
3. A natural resources management area without buildings where good conservation practices are demonstrated and work experiences provided

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<sup>1</sup>Byron L. Ashbaugh, Planning a Nature Center, pp. 5-6.

<sup>2</sup>Joseph J. Shomon, Preface to Planning a Nature Center, p. 3.

4. A natural area with restricted use and little artificial development, excepting nature trails.<sup>1</sup>

A nature center is not only land but also a special way to tell the story of land to people. The interpretive buildings with their tools and displays help translate the language of the land.<sup>2</sup> A meeting place is provided for visiting classes or for adult groups in the community. Displays, books, laboratories, and audio-visual equipment are valuable tools in a nature center. Relief maps, charts, models, or actual specimens can help relate what the visitors see in the outdoors. The exhibits and specimens relate to the ecology of the local area. This is in contrast to the variety of unusual specimens desired in most zoos and museums.<sup>3</sup>

Ashbaugh outlined some suggestions for developing nature trails:

Trails lead visitors around and through the land of the center. Their objective is not simply to make travel and communication easier but to show what the land includes and what can be demonstrated on it. Trails show the trees, smaller plants, biotic communities, the native animals that live in the area and how these are related to each other, to other resources and to man.

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Nature trails vary in length and layout. Short, winding trails reduce fatigue and capture the element of discovery at every turn. An effective nature trail is about a

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<sup>1</sup>Joseph J. Shomon, Manual of Outdoor Conservation Education, p. 33.

<sup>2</sup>Ashbaugh, op. cit., p. 32.

<sup>3</sup>Gabrielson and Holtzer, op. cit., p. 61.

half-mile in length, properly labeled and takes somewhat less than an hour to walk. As a rule the width of a trail should be narrow. At points of interest where groups can assemble, the teaching stations, the trail should be wider, and cleared.

Some longer, interconnecting trails are desirable. These should be provided with signs that give information on their length, points of interest and the direction that should be followed. All trails should be laid out as loops so that visitors can return to the starting point without retracing their steps. A walk along a nature trail should be filled with adventure, learning situations and enjoyment.<sup>1</sup>

Some schools are fortunate in being able to use facilities operated and owned by other agencies. In some cases these provide a much more complete nature laboratory than a local district would be able to support financially.<sup>2</sup>

An example of a community agency giving full cooperation to the outdoor education program of the school is found in Michigan. In Detroit's Kensington Park a 700-acre nature study area was set aside at the time the 4,300 acre park was planned. In 1962 the public park agency operating the park was providing naturalist services for 250 school classes that visit the outdoor education area each year.<sup>3</sup>

Another illustration is the Little Red School House operated by the Cook County Forest Preserve District on the outskirts of Chicago. An old schoolhouse was transformed into

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<sup>1</sup>Ashbaugh, op. cit., pp. 48-49.

<sup>2</sup>Gabrielson and Holtzer, op. cit., p. 61.

<sup>3</sup>American Association for Health, Physical Education, and Recreation, Education In and for the Outdoors, pp. 40-41.

a nature museum and trails go out from the building. A natural-ist is on duty to explain exhibits and how to use the trails. The labeled trails can be self-guided and the labels are changed with the seasons.<sup>1</sup>

Children can have a part in the planning and care of nearby nature trail areas which are under the administration of the local school district. The Danville Elementary schools in Contra Costa County, California made use of several acres of wild land immediately adjacent to the school building. Teachers and pupils planned the trails, children wrote seasonal trail bulletins, planted wild flower seeds and added native trees and shrubs.<sup>2</sup>

The Freshwater School near Eureka, California planted a three-acre windbreak and developed a nature trail in that area. In Monterey County another school built a nature trail on school property to allow maximum use by all grades. Trail planning and development was done by the children, keeping the destruction of plant life to a minimum. Some things along the trail were marked and others were left unmarked to stir imagination and curiosity. Labels usually included information about plants and their uses, descriptions of birds and their habits,

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<sup>1</sup>"Danville's Nature Trail," California Journal of Elementary Education, 29:96-98, November, 1960.

<sup>2</sup>Grant H. Ferguson, "Nature Study in Our School Yard," CTA Journal, 57:18-19, November, 1961.

and reminders of things to observe.<sup>1</sup>

### School Camping

The term "school camps" is used to identify a program where a class or group of classes spend several days in a resident camp setting. Gabrielson and Holtzer felt that this resident camp provided the best opportunity for carrying on a comprehensive program of outdoor education because almost all aspects of such a program may be conducted in this setting where children live, work, study, and play twenty-four hours a day.<sup>2</sup>

Most school camps throughout the country have been designed for children from the fourth through the eighth grade. Freeberg and Taylor reported that many educators felt that the sixth grade is the ideal grade level for school camp programs. In most schools this is the last grade in a self-contained classroom. Scheduling is a greater problem in the departmentalized junior and senior high school. At the sixth grade level they are still full of imagination and curiosity, they are at a stage just before the boy-girl interest, and they are emotionally old enough to adapt to a living away from home situation. The largest number of camping programs are for a

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<sup>1</sup>Edwin Leach, "Children Build a Nature Trail in Monterey County," California Journal of Elementary Education, 29:92-95, November, 1960.

<sup>2</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, pp. 21-22.

one-week period.<sup>1</sup>

Most established camps are staffed with a camp director as well as other counselors and program leaders. The classroom teacher has been the leader in the pre-planning for this experience. During the week at camp he becomes a part of the staff. Pupil-adult leader planning continues at the camp site. The children share responsibilities in the routine activities relating to general camp housekeeping as well as in projects for the improvement of the camp. The entire week's program is planned with a balance of outdoor learning activities, work, and recreation.<sup>2</sup>

Because the school takes on certain responsibilities of the home while the children are at camp, expenditures over and above classroom costs are necessary. Staff costs are greater, also. Smith explained some of the practices that have been followed in the financial operation of outdoor classrooms. Generally the family assumes the cost of the food for the students and the board of education is responsible for the cost of instruction. No child is denied a camping experience because of a lack of financial resources, and frequently these costs are met by service clubs and social agencies, or other organizations who believe in the camping program.<sup>3</sup>

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<sup>1</sup>William H. Freeberg and Loren E. Taylor, Programs in Outdoor Education, pp. 252-53.

<sup>2</sup>Julian W. Smith and others, Outdoor Education, p. 103.

<sup>3</sup>Ibid., p. 11.

To date, according to a report by Smith, most of the schools providing educational experiences in camp settings have made use of available existing facilities. He also mentioned a trend for state departments (such as parks and conservation) to construct group camps which are used by the agencies during the summer months and by the schools during the rest of the year. Although some schools own their own camps, a far greater number lease existing camps during the off season.<sup>1</sup>

Smith made these observations concerning the implications for curriculum building in a school camping program:

Living in a camp combines a democratic living experience with adventure in exploring the outdoors. . . . The activities at the campsite are as much an integral part of the curriculum as the educational program that takes place in the classroom.

. . . Many of the learning processes involving children and their teachers can be planned, put into operation, completed, and evaluated in the short time of the school camp. It often would take many weeks to complete these processes in the classroom, and even then they would lack the reality and vitality which are concomitants of direct experience.<sup>2</sup>

In the total-living situation of the outdoor resident school setting Hammerman believes there are numerous gains, many of which cannot be measured in terms of tangible results. He said:

Not the least of these is the improved relationship that invariably develops between teacher and pupils. . . .

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<sup>1</sup>Ibid., p. 112.

<sup>2</sup>Ibid., p. 96.

Furthermore, the total-living situation enables the classroom teacher to observe his pupils under a variety of conditions in which he would not ordinarily see them. Under these circumstances an entirely new pupil-teacher relationship is bound to be established. Deeper understanding and mutual appreciation are some of the positive outcomes.<sup>1</sup>

Hammerman described another positive value in this way:

Cohesiveness and unity of spirit result when individuals are pursuing a common goal. . . . Children have an opportunity to assume real responsibility. They are responsible not only to themselves but to one another for the well-being and smooth functioning of the total group. The day-in, day-out, close contact with others serves to rub off the rough edges of personality, and provides the setting for learning to plan and work cooperatively with one's peers.<sup>2</sup>

Some form of organized camping has been in existence in the United States for nearly a century. The first venture in school camping as an integral part of the curriculum and conducted on a year-round basis was in 1939 when the Clear Lake Camp in Michigan was made available through the W. K. Kellogg Foundation. From this beginning it spread quickly to California and Texas. In 1963 the American Association of School Administrators reported that camping programs were being carried on in the schools in 40 different states.<sup>3</sup>

Reports from these programs show enthusiasm for school camping as well as variety in the ways the program can be

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<sup>1</sup>Donald R. Hammerman and William M. Hammerman, Teaching in the Outdoors, p. 11.

<sup>2</sup>Ibid., pp. 14-15.

<sup>3</sup>American Association of School Administrators, Conservation--in the people's hands, p. 303.



developed in the local school system.

In the Clear Creek Outdoor School in California the special area of study is the source of water supply, the effect of water in a natural environment, and its use and control by man. The campers see in miniature the water problems of a large city as counselors lead them to observe facts and make discoveries.<sup>1</sup>

Also in California, two days of the week's camping program for the elementary schools of Yuba and Suller Counties consists of Air Force survival instruction. A fifteen-year-old girl attributed her well-being after being lost three days in the Sierras to the fact that she had remembered the instruction from this camping experience.<sup>2</sup>

In Alberton, Montana sixth and seventh graders attend a seven-day camp stressing conservation. The program is low-cost, and makes good use of local resources. They live at a ranger station and among other topics they study timber and grazing management, forest fire control, and water and air pollution.<sup>3</sup>

The directors of the Ohio Mohican School in the Out-of-Doors reported that the sixth graders who attend their

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<sup>1</sup>Maybelle DeMay, "Children Learn About Water Conservation," CTA Journal, 58:28, January, 1962.

<sup>2</sup>"A Case of Survival," CTA Journal, 56:25, October, 1960.

<sup>3</sup>Donald A. King, "Alberton's Outdoor School," Montana Education, 43:32-33, September, 1966.

one-week camp are from both rural and city areas. "The two groups react no differently," the author stated. "There are the same surprises, fascinations, and wonderment at what they find whether it's seeing and touching a captured reptile or helping make observations at the camp's weather station."<sup>1</sup>

Tyler, Texas has a fifteen-year history of success with their camping program at Camp Tyler. This is a school operated camp, and fifth and sixth graders spend from two days to a week at the camp. This camp originated because of community interest. Through the leadership of the local Kiwanis Club, a Smith County youth foundation was established to give the leadership and financing needed. The schools operate the camp for twelve months in exchange for a nine-month use of the facilities the foundation has provided. During the summer months the 4-H, Campfire Girls, and other groups use the camp.<sup>2</sup>

Mand described the school camping experience as the last stage in the pattern of development of a program in outdoor education. He concluded with a word of caution:

School camping is the dessert of the outdoor education program, providing time and a sense of high adventure. However, it is a dessert that should follow the main course of systematic, continuous use of the out-of-doors resources of the school and community.<sup>3</sup>

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<sup>1</sup>"Nature's Classrooms," Ohio Schools, 44:24-25, December, 1966.

<sup>2</sup>Pat Martin, "The Camp Tyler Success Story," Texas Outlook, 49:32-33, December, 1965.

<sup>3</sup>Charles L. Mand, Outdoor Education, p. 34.

## THE OUTLOOK FOR OUTDOOR EDUCATION

There are a number of factors which have influenced the growth of outdoor education in recent years. Their significance may also determine the place of outdoor education in the future curriculum of the schools. Among these factors are the trend toward outdoor living, the increase in teacher training opportunities for outdoor teaching experiences, larger sites for new schools with more outdoor teaching opportunities close to the regular classroom, and the possibility of financial assistance in initiating an outdoor education program into the curriculum. Research-oriented as our society seems to be, studies yet to be made on the values of the program may be another determining factor.

## Outdoor Living

During the past few years there has been a noticeable trend toward outdoor living. The outdoor barbecue areas in the back yard, the campers and boat trailers on the nation's highways, the crowds at parks and recreational areas--all are visible evidence of this interest.

This trend was noted by Heffernan when she said:

Again and again one reads fantastic reports about the increased use of the outdoors. In one state, it is reliably estimated that such use has doubled in the past five years. One has only to visit our state and national parks, our beaches, our mountain and lake resort areas to realize how many families are seeking wholesome

recreation in the outdoors.<sup>1</sup>

"A view of this current scene indicates that the need for outdoor education will become increasingly acute as the interest of people in the outdoors grows at an accelerated rate," Smith maintained.<sup>2</sup> He predicted a positive outlook on the increased use of education in and for the outdoors in the following statements:

To give hope for the future, many promising developments in outdoor education are under way in the nation's educational system. . . . Many of today's children and youth are having significant learning experiences in outdoor education that will help them become happier and more effective citizens. Many of them will espouse the cause of outdoor education and conservation and will find satisfying outdoor-related experiences for themselves.<sup>3</sup>

#### Teacher Preparation

Colleges and universities, national organizations, and local groups which have made a special effort to prepare teachers for teaching in the out-of-doors are scattered throughout the nation. Their programs vary, sometimes in relation to resources available.

Pre-service. New Jersey was among the first of the states to prepare education majors in outdoor education, according to the 1964 Yearbook of the American Association of

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<sup>1</sup>Helen Heffernan, "They Grow Nine Feet High," Childhood Education, 44:75, October, 1967.

<sup>2</sup>Julian W. Smith and others, Outdoor Education, p. 295.

<sup>3</sup>Ibid., pp. 295-96.

School Administrators. Now education majors in the six state colleges spend five days of their sophomore year at the New Jersey State School of Conservation near Branchville.<sup>1</sup>

Colorado State College at Greeley followed an interdisciplinary approach when a program for teacher education and leadership training in outdoor education was established in 1960. As finally developed, the division of education was the "home base" but the divisions of the arts, health and physical education, humanities, social and natural sciences were involved in contributing to instruction which would prepare teachers for including outdoor education in all subject matter areas.<sup>2</sup>

Hammerman noted that the program of teacher training at Northern Illinois University included outdoor education experiences during three different years. The final year the students spend a week planning with and teaching pupils who are resident campers. This is in addition to their nine weeks of student training in an indoor classroom.<sup>3</sup>

Southern Illinois University at Carbondale has become one of the centers for outdoor education work. L. B. Sharp, often called the "Father of Outdoor Education," made the study

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<sup>1</sup>American Association of School Administrators, Conservation--in the people's hands, pp. 273-74.

<sup>2</sup>Smith, op. cit., pp. 262-66.

<sup>3</sup>Donald R. Hammerman, "First-Rate Teachers Need First-hand Experience," Journal of Teacher Education, 11:408, September, 1960.

when a master plan for an outdoor education program was developed at the University in the early 1960's. A 1,400-acre tract of land adjoining University-owned land was developed as an Outdoor Education Center and is used also by schools and other groups in the area. Students from the College of Education work with elementary classes who visit the Center.<sup>1</sup>

In a study conducted by the Nature Conservancy in 1963, a survey was made of the college natural areas being used as research and as teaching facilities. The conclusion stated in part:

There is a strong trend toward the acquisition of college natural areas, as evidenced by the fact that over half of the areas reported here have been established within the last five years. . . . Natural areas are providing our educational institutions with vital facilities for teaching and research.<sup>2</sup>

Graduate work. At Southern Illinois University a master of science or a doctor of philosophy degree in education, with special emphasis in outdoor education, is offered. The concentration may be in administration and supervision or elementary and secondary education. It is anticipated that other areas of concentration will be added as the Outdoor Center develops.<sup>3</sup>

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<sup>1</sup>American Association of School Administrators, op. cit., pp. 274-79.

<sup>2</sup>The Nature Conservancy, College Natural Areas as Research and Teaching Facilities, p. 28.

<sup>3</sup>American Association of School Administrators, op. cit., p. 279.

At Michigan State University outdoor education is also considered an area of emphasis in the graduate program. The course work and activities related to outdoor education are interwoven into the candidates major field. All have field experiences in camps and other outdoor settings.<sup>1</sup>

In-service. Smith pointed out the importance of in-service opportunities in the teaching of outdoor education:

In-service education is an immediate answer for schools, colleges, and agencies that desire to initiate outdoor education programs. Since any new outdoor activities will be a part of, or related to existing courses and programs, much of the leadership must come from staff members and personnel already in the school or agency. Much has been and is being done in in-service education at all levels--local, state, and national.<sup>2</sup>

At the local level, some of the patterns for in-service training are study committees, local workshops and clinics, and off-campus courses. Some universities, upon request of one or more school systems, offer workshop experience in the local camp-park facility or in an outdoor center.<sup>3</sup>

Gabrielson and Holtzer noted that there are numerous national organizations that offer in-service programs conducted by experts in conservation, recreation, and other fields. Among these national organizations offering outstanding workshops and camps for training in outdoor education are

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<sup>1</sup>Julian W. Smith and others, Outdoor Education, p. 267.

<sup>2</sup>Ibid., pp. 277-78.

<sup>3</sup>Ibid., p. 278.

the American Camping Association, the Outdoor Education Association, Inc., and the National Audubon Society.<sup>1</sup>

### School Sites

A trend toward larger sites for school buildings is bringing new opportunities for outdoor education. An authority on school planning, N. L. Englehardt, summarized his feelings about the land around a school building when he said:

Educators gradually have been increasing their use of the out-of-doors for different types of educational experiences for their students. The out-of-door classroom adjacent to its indoor counterpart, the drama circle in the grove, the hydro-electric dam on the school stream, and countless other natural centers have the sky for their roof and only the horizon to limit imaginations. Land is basic to human living; it is equally important for a school's advancement.<sup>2</sup>

A report by the Soil Conservation Service requesting conservation assistance in developing school grounds included the change in thinking on size of sites. In 1949 the American Association for School Administrators suggested for elementary schools, a five-acre tract plus an additional acre for each 100 pupils and for secondary schools, ten acres plus an additional acre for each 100 pupils. This report also showed the contrast fifteen years later:

Entries in the annual School Building Architectural

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<sup>1</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, pp. 79-80.

<sup>2</sup>N. L. Englehardt, "What Size School Sites?," American School and University, 1956, p. 68.



Exhibit of the American Association of School Administrators show that school officials are buying larger sites each year. In the 1964 entries at Atlantic City there were thirty-one schools with sites of 50 to 100 acres, twelve schools with sites of between 100 and 200 acres, and two junior colleges with sites of 247 acres and 400 acres, respectively.<sup>1</sup>

The larger school sites are described as potential "green islands" by Wilson and Brown. They felt that a school district is money ahead to invest in a fifteen-acre elementary school site rather than a five-acre one. They further suggested, "Land around any school can be an excellent place for a 'green island,' because it belongs to everyone and when developed wisely, can be used seven days a week throughout the year."<sup>2</sup>

The editors of School Management humorously described the importance of saving the natural areas on new school sites in this way:

The next time your district breaks ground for a new school, get up early that first morning, drive out to the site, and plant yourself firmly in front of the bulldozer. Don't move until the operator promises he will spare every tree, shrub, and weed that isn't actually on the spot where the school will be built.

This simple, albeit daring act could save your district thousands of dollars, enrich the school's curriculum, and perhaps result in a swamp or anthill being named in your honor.

What will you have done to deserve this? You'll have provided your school with an outdoor laboratory--an extra

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<sup>1</sup>"Larger School Properties Provide for Outdoor Laboratories," Soil Conservation, 30:187, March, 1965.

<sup>2</sup>Russell E. Wilson and June S. Brown, "Schools Can Be 'Green Islands'," Michigan Education Journal, 42:20, April, 1965.

"classroom" that could enrich your entire curriculum.<sup>1</sup>

#### Federal Programs

Some of the increased activity in outdoor education today has been the result of federally funded projects. As stated earlier in this report, Morris Weiner credited the Elementary and Secondary Education Act of 1965 (ESEA) for this new surge of interest in outdoor experiences. Title I and Title III funds have spurred the development of many projects having the use of the outdoors as an essential element. Weiner also noted that the trends in outdoor programming under the Elementary and Secondary Education Act included more outdoor laboratories as supplemental "classrooms"; an extended school year with the school assuming more special outdoor programs during the summer months; increased focus on natural science and conservation; cultural enrichment and use of more community resources; and resident outdoor education or school camping.<sup>2</sup>

Some schools took advantage of these funds almost immediately. At the end of the second application period in February, 1966, twenty proposals for programs in outdoor education had been approved.<sup>3</sup> A later mimeographed report from

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<sup>1</sup>"How to Use Your School Grounds as a Laboratory," School Management, 8:38, August, 1964.

<sup>2</sup>Morris Weiner, "Outdoor Education Can Help Unlock the Schools," Educational Leadership, 24:697-99, May, 1967.

<sup>3</sup>Clarke L. Herbert, "Outdoors with Title III," The National Elementary Principal, 46:71, November, 1966.

the United States Office of Education on the PACE Program (Projects to Advance Creativity in Education) listed 87 projects involving outdoor education approved as of June, 1967. In this Title III ESEA report, thirty-four states were represented with states already active in outdoor programs most frequently mentioned.<sup>1</sup>

Some effect has been noted in Kansas. The State Department of Education reported no outdoor education programs in effect in the elementary schools of Kansas in June, 1967.<sup>2</sup> News reports have indicated encouragement from Elementary and Secondary Education Act funds. The Unified School District Number 345 (Seaman) reported making plans for leasing land for an outdoor education park at Perry Reservoir with a future view to the development of a curriculum for outdoor education for all grades tailored to this area.<sup>3</sup>

Changing attitudes are reflected in another school district in the area. The Topeka Board of Education killed a motion to establish an outdoor education center in late 1967 with the members against the proposal saying "the project was outside the realm of education."<sup>4</sup> In March, 1968 the proposal

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<sup>1</sup>Department of Health, Education, and Welfare, "The PACE Program--Title III ESEA," July 12, 1967. (Mimeographed.)

<sup>2</sup>Kansas State Department of Public Instruction, personal letter from Jan L. Holman, Science Consultant, June 30, 1967.

<sup>3</sup>News item in the Topeka Daily Capital, September 22, 1966.

<sup>4</sup>News item in the Topeka Daily Capital, October 3, 1967.

was reconsidered by the Topeka Board of Education and permission was given to apply for federal aid to undertake an innovative pilot program in outdoor education. If the pilot program proved successful, according to the news story, ". . . the district will consider implementing a five-year outdoor education program at the Perry Reservoir and the incorporation of outdoor education as a regular part of the school curriculum."<sup>1</sup>

If these situations are repeated in other areas and in other states, these federal funds could bring about an increase in the use of outdoor education as a regular part of the school curriculum.

#### Research

Programs of outdoor education can make a significant contribution to education by providing a laboratory setting that is conducive to educational research. Hammerman stated that between 1930 and 1964 approximately 150 studies were conducted at the masters and doctoral level.<sup>2</sup>

Most of the earliest studies were made to seek justification for a school camping program. One of these was a study conducted by the New York City Board of Education in 1948. The experiment involved one class that spent two weeks in

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<sup>1</sup>Ibid., March 20, 1968.

<sup>2</sup>Donald R. Hammerman, "Research Implications for Outdoor Education," Journal of Health, Physical Education, and Recreation, 35:89, March, 1964.

camp while a control group remained in the usual school program. Measurements were made in subject matter areas and personal growth. The experimental group showed significant improvement.<sup>1</sup>

In the 1940's and 1950's much of the research was devoted to the administrative and organizational aspects of the outdoor education program. Some studies were proposed for a specific outdoor school development. Hammerman was disappointed in the lack of research concerned with the philosophical implications of the outdoor education movement.<sup>2</sup>

Most of the studies on outdoor education listed in the Dissertation Abstract Indexes after 1960 dealt with topics such as: development of an instrument for evaluating some of the mechanics of a program, defining the role of the coordinator, or determining the changes a college student undergoes as a result of helping with the program. This indicated that there is still very little research being done to evaluate learning or to measure changes in behavior and attitudes as a result of outdoor education experiences.

A great deal of additional research is still necessary. Gabrielson and Holtzer believe that outdoor education has a contribution to make in the experimental setting it provides

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<sup>1</sup>Charles L. Mand, Outdoor Education, p. 67.

<sup>2</sup>Hammerman, op. cit.

for study in psychology, human relations, and sociology.<sup>1</sup> A study which was related to those areas was the basis of a doctoral thesis by Morris Davidson of the University of California in 1965. He made an analysis of the changes in self-concepts and sociometric status of fifth and sixth grade children as a result of two different school camp curricula. One group's program was more adult-centered and the other, child-centered. Both showed positive changes but on entirely different items. As a result of the study Davidson concluded that the camping experience produced an environment conducive to improved relations between the members of the peer group and between child and adult.<sup>2</sup>

The future of outdoor education, the extent to which it receives acceptance and becomes a vital force in the American educational program, will depend a great deal upon how well the pioneers and experimenters do their job. As objective evidence related to the value of outdoor education becomes available, the basis for growth and approval will be established.<sup>3</sup>

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<sup>1</sup>M. Alexander Gabrielson and Charles Holtzer, The Role of Outdoor Education, p. 16.

<sup>2</sup>Morris Davidson, "Changes in Self-concepts and Sociometric Status of Fifth and Sixth Grade Children as a Result of Two Different School Camp Curricula," Dissertation Abstracts, 26:3752, January, 1966.

<sup>3</sup>Gabrielson and Holtzer, op. cit., p. 19.

## SUMMARY AND CONCLUSIONS

Outdoor education is not new to the educational scene. It was in use before the formal classroom, when man taught his children the essentials for daily living. Individual teachers through the years have used the outdoors for many directed and incidental learning experiences.

Studies of outdoor education programs in the elementary school indicate that a program which has so much to contribute to the curriculum should not be left to chance. If it is included only as incidental teaching some students may never really discover the out-of-doors and how it can enrich their lives.

Outdoor education has existed in some form for about thirty years, beginning with school camping programs. School gardens were at their peak in the 1940's. In the last decade, efforts have been made to preserve natural areas for school use near centers of population before development takes place.

Many present day schools with an already overcrowded curriculum are not anxious to add a new subject area. Outdoor education is not a new area, but an emphasis that can be given to any subject already in the curriculum.

The first purpose of this study was to discover some of the ways outdoor education could contribute to an effective school program and satisfy some of the present needs of society.

Several writers emphasized the role of outdoor

education in relieving the tensions brought about by crowded living conditions and the frenzied tempo of modern living. Urbanization and mechanization have forced man farther away from his earlier contact with the land and have also created a society with more leisure time. No classroom is better equipped than the out-of-doors for teaching the creative and responsible use of both human and natural resources.

Since the school is the only agency that can reach all children during their most impressionable years, it is imperative that the school should be concerned with developing wholesome attitudes. The resident school camp seemed to offer exceptional opportunities for training for responsible citizenship and learning how to relate to others.

Providing a favorable climate for learning is always a basic consideration in developing a school curriculum. Motivation for learning seems to present less problems in an outdoor setting. Direct experiences, opportunities for discovery, sensory experiences, and problem solving in a real setting are some characteristics of outdoor education which expedite the learning process.

The literature describing elementary school outdoor programs showed a variety of practices being used. In the second part of this study six of the more common patterns were reviewed: use of the school site, field trips or journeys, school gardens and farms, school forests, nature centers or outdoor laboratories, and the resident school camp. Most



authorities agreed that the resident school camp, most often suggested for the sixth grade, best represents a complete program in outdoor education.

Some states have had outdoor education programs for many years. California, Michigan, Illinois, Ohio, and Wisconsin have a number of well-established programs and reports of new projects list several in each of these states. This might indicate that once an outdoor education program has been accepted as a vital part of the curriculum it is not likely to be dropped but will instead be revised and supplemented.

The final portion of this study was a look at some factors which point to a continuing emphasis on outdoor education programs in the elementary schools. The trend toward outdoor living provides an incentive for preparing children to make full use of outdoor experiences. Colleges and universities are offering more opportunities for teachers to be trained to teach in the out-of-doors. Many schools are using funds which were made available through the Elementary and Secondary Education Act to initiate new programs. School sites are larger, and often include natural areas which are readily accessible to the classroom.

Educators have always looked to research for help in determining the effectiveness of a program. At the time of this writing a limited amount of evaluative research had been done. Research will undoubtedly continue and the experimental setting provided by the outdoors will also give opportunities

for studies in psychology, human relations, and sociology.

Outdoor education offers unlimited opportunities to the imaginative teacher who has the initiative to look outside the classroom walls. This is a program that does not have to wait for school-wide organization before being introduced. Teachers who are willing to pioneer in their own classrooms may give the impetus that is needed to acquaint others with the possibilities of effective learning through outdoor education.

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OUTDOOR EDUCATION IN THE ELEMENTARY SCHOOL

by

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B. S., Kansas State University, 1948

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AN ABSTRACT OF A MASTER'S REPORT

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Outdoor education applies to a wide variety of learning experiences that take place in an outdoor setting. It is a learning climate rather than a subject area.

It was the purpose of this study: (1) to discover some of the contributions of outdoor education to the needs of society and to an effective school program, (2) to review some types of outdoor education programs now in use at the elementary school level, and (3) to examine some of the conditions which may affect the outlook for outdoor education in the elementary schools.

Outdoor education has a vital contribution to make in teaching the creative and responsible use of both human and natural resources. Millions of people today have found in the out-of-doors a release from the tensions of a highly competitive society. Discovering satisfying and creative uses for increased leisure time is possible through outdoor activities. Experiences which bring children closer to nature foster an appreciation of our heritage of natural resources and the realization of the need to preserve it.

Many characteristics of outdoor education provide a setting conducive to learning. Children are easily motivated by direct experiences, sensory learning, problem solving, and opportunities for discovery and exploration.

There is considerable variety in the types of outdoor programs now being used in the elementary schools. Some of the more common patterns included: use of the school sites,

field trips, school gardens and farms, school forests, nature centers and outdoor laboratories, and the resident school camp. Most authorities agreed that the resident school camp best represents the goal of a complete program in outdoor education in meeting individual needs and offering an excellent learning situation. Much of the success of all programs depends on the imagination of the individual teacher and the confidence he has in teaching in an outdoor setting.

The study showed a concentration of outdoor education programs in certain areas. California, Michigan, Wisconsin, Ohio, and Illinois were among the states reporting a number of successful programs over a period of years. These same states made extensive use of the outdoors in teacher training at colleges and universities and were also well represented in the listing of applications for federal funds for new projects.

Certain factors point to a continuing emphasis on outdoor education programs in the elementary schools. The trend in American society toward outdoor living provides an incentive for learning more about the outdoors. An increase in the number of workshops and conferences and the availability of courses on both graduate and undergraduate level is serving to capture the interest of teachers in the potentials of outdoor education. Elementary school sites are larger, making it possible to include natural areas which are readily accessible to the classroom.

Some of the predictions regarding the outlook for out-

door education may depend on additional research. Not enough evaluative research has been done at this time. The future of outdoor education may thus depend on how well the participants in the program today do their job.