

What This is...and Why

This is the first issue of **ART ZOO**, bringing news from the Smithsonian Institution to teachers of grades three through six. The purpose is to help you use museums, parks, libraries, zoos, and many other resources within your community to open up new learning opportunities for your students.

Our reason for launching a new publication *dedicated to promoting the use of community resources among students and teachers nationally* stems from a fundamental belief, shared by all of us here at the Smithsonian, in the power of objects. Working as we do with a vast collection of national treasures that literally contains the spectrum from "art" to "zoo," we believe that objects (be they works of art, natural history specimens, historical artifacts, or live animals) have a tremendous power to educate. We maintain that it is equally important for students to learn to use objects as research tools as it is for them to learn to use words and numbers—and you can find these objects close at hand, by drawing on the resources of your own community.

Our idea, then, in producing **ART ZOO**, is to share with you—and you with us—methods of working with students and objects that Smithsonian education staff members have found successful. Two pilot issues of *Art to Zoo* will be published during the second half of this school year. Then, beginning in the fall of 1976, the publication will be made available on a regular subscription basis.

Featured in this first pilot issue is an article on the Smithsonian traveling exhibition, *Blacks in the Westward Movement*, with suggestions for ways in which you can use the show as well as resources in your own community to lend a black perspective to the study of American history. Also included in this first issue is an article from the National Portrait Gallery on "reading" portraits and using them to enrich your social studies curriculum, and an article from the Chesapeake Bay Center for Environmental Studies, advocating use of your school playground or students' backyards to demonstrate the principles of ecology. The *Focus* will take up such diverse topics as the creation of an art sensory environment in your classroom.

Indeed, the possibilities for ART ZOO seem as endlessly various as the Smithsonian itself. But in order to test the practicality of our ideas and to ensure that our articles will be responsive to the needs of students and teachers nationally, we need your help.

You are one of approximately two hundred and fifty teachers, in thirty-five schools across the United States, who have been asked to respond critically to *Art to Zoo*. We are asking that within three weeks of receiving each of the two pilot issues, you fill out the questionnaire accompanying that issue and give it to your school principal, who will then send it on to us. To make it easier for you to know who we are, we will be listing—in the masthead on page 4—the Smithsonian museums and divisions whose education staff members will be contributing regularly. Please read the issues carefully and be absolutely frank in stating your opinions. We're counting on your help.



This shows Louisiana freedmen en route to Kansas, as pictured in the exhibition, *Blacks in the Westward Movement*. Photo courtesy of the Kansas State Historical Society

Blacks in the Westward Movement

In 1536, Estevanico, a black Moor of legendary skill, blazed a trail into the American Southwest, enabling Fray Marcos de Niza, whose party he guided, to be the first white man to set foot in Arizona and New Mexico.

The contributions made by Estevanico and other blacks to the opening of the American West have been vastly underrated by most history books and the media. Soon, however, a special Bicentennial exhibition from the Smithsonian's Anacostia Neighborhood Museum may visit your community, allowing you and your students to develop new thoughts on this important dimension of our nation's development, from the days of the early Spanish explorers to the settling of the "last frontier."

Entitled *Blacks in the Westward Movement*, the show is being circulated nationally by the Smithsonian Institution Traveling Exhibition Service according to the schedule below. The exhibition shows how black explorers, miners, founders of cities, adventurers, teachers, civil rights leaders, businessmen, soldiers, and lawmen worked in the face of formidable odds and discriminatory laws to contribute to westward expansion. The period covered is from about 1500 to 1930, with emphasis on the fifty years following the Civil War.

March 13 - April 11, 1976	Milwaukee, Wis. Milwaukee County Historical Society	Lincroft, N.J. Monmouth Museum	Green Bay, Wis. Ethnic Heritage Center, University of Wisconsin	Knoxville, Tenn. Beck Cultural Exchange	Washington, D.C. Federal Deposit Insurance Corporation
May 1 - May 30, 1976	Big Rapids, Mich. Ferris State College	Lincroft, N.J. Monmouth Museum	Philadelphia, Pa. Bryant School	Knoxville, Tenn. University Center, University of Tennessee	St. Cloud, Minn. St. Cloud State University
June 19 - July 1, 1976	Madison, Wis. ARBC	Norfolk, Va. Norfolk Bicentennial Commission			

To help you make the material in this exhibition meaningful to your third-through sixth-graders, we have developed two different approaches, which you can modify to suit your curriculum. Essentially, these approaches follow a plan derived from evidence (or "clues") that can be found in the photographs, objects, and other materials in the exhibition. Your students will draw tentative conclusions about a key issue raised by you prior to their museum visit; back in the classroom, they will explore the issue further by comparing notes with their classmates and by seeking information to support or refute what they concluded in the museum. You will guide them through this inquiry process by asking leading questions and by posing problems and presenting hypothetical situations that will help them to see relationships between their own experience and the experiences of the individuals and groups under study.

Approach No. 1

The focus of the first approach is the "Black Exodus" from the South, which began in 1879, at the end of Reconstruction. The key issue is *migration*. In the school classroom, through analysis and class discussion of their own families' experiences with moving, students explore the meaning of *migration*. Later, in the museum, through study of the silkscreens, photographs, and documents of Section IV of *Blacks in the Westward Movement*, and then again back in the classroom, they study the experiences of a group known as the "Exodusters," who migrated to Kansas, Nebraska, and Oklahoma in the late 1870s.

Before going to the museum, ask each child to consider: When was the last time your family moved? Do you remember the experience? What kind of transportation did you use and how long did it take you to get there? What did you take with you? What were your reasons for moving?

Have the children interview members of their families for help in answering these questions and to find out how parents, grandparents, brothers, and sisters felt about moving. Have them draw pictures of their families on moving day, showing the transportation used, the important possessions taken, and the happy, sad, and mixed feelings of different family members.

Now you are ready to visit the museum.

In the museum, begin by asking the children if they know the meaning of the term, *racial discrimination*. The extent of their understanding undoubtedly will vary. By asking them *why* they think some people in this country are discriminated against and by giving them the chance to talk about their own experiences with discrimination, you can help to bring this issue into focus. Then ask them to imagine:

You are ten years old and black, living in Nashville, Tennessee, after the Civil War. Because of discrimination, your father, a carpenter by trade, is unable to find a job. Your mother works as a laundress to support you and your brothers and sisters. You haven't shoes or warm clothes to wear or even

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a bed to sleep in, and you are hungry. One day your father comes home with news of "sunny Kansas." Blacks can own land and find decent work in Kansas, he has heard, and a man named "Pap" Singleton is leading a party there which leaves Nashville the day after tomorrow. Your father wants to start packing right away, but the rest of your family is not so sure. You sit up and argue half the night. Should you remain in Nashville, where you've lived all your lives—where you have relatives and friends and although life is hard you know what to expect—or should you brave the uncertain dangers of the journey West? What do you decide to do?

Following discussion of this question, explain that a hundred years ago, many black families in the South who faced this dilemma decided to take the big chance and move West, hoping to escape discrimination and find new opportunities. From the pictures in the exhibition, students can find information about how these families made the journey, what they took with them, and what they found when they got there.

Have the children work in teams to search out this information, using "clues" in the pictures; and ask that a recorder for each team write down the information on a piece of paper. The children might be helped in looking for picture clues by first "reading" as a group the portrait of Benjamin "Pap" Singleton, the "Black Moses" who inspired and led black migrations into Kansas for more than a decade, beginning in 1869. Although honored for his work at the height of his activity, Singleton, an ex-slave and skilled craftsman, died in poverty and near obscurity in 1892. What can you tell about his character and status from this portrait, painted in about 1879? (Hints for reading portraits may be found in "What Can You Do with a Portrait?" on page 3 of this issue.)

Back in the classroom, on the day following your museum visit, have a spokesman for each group present his or her group's findings about the black pioneers, and encourage the children to compare their own experiences with moving to those of the Exodusters. Then assign one or both of these activities:

- 1. On a classroom map, find the route you might have taken to get from Nashville, Tennessee, to Nicodemus, Kansas (near Topeka), in 1891. How long is this route in miles? What kind of transportation would you have used to cross it? About how far could you have traveled each day using this transportation? How many days would it have taken you to get from Nashville to Nicodemus?
- 2. As if you had actually made the trip, write a letter to your grandmother back in Nashville telling her about your journey and describing your new home. What kind of house do you live in now? Is there enough food for you to eat in Kansas? Has your father found a job or managed to acquire some land of your own? Do you think it would be wise for your grandmother to leave Nashville and come to live in Kansas?

Approach No. 2

This approach explores the wide variety of roles played by blacks in the westward movement. The children learn that just as adults in our society today play many different roles, black men and women contributed in numerous ways to the opening of the American West.

Portraits of many black contributors to western expansion may be found in the exhibition, all of them containing clues to the characters and occupations of their subjects. Among them you meet . . .

James Beckwourth, fur trapper and trader and prospector for gold, who discovered in the course of a lonely and dangerous lifetime important trails and passes to the West . . . San Francisco businesswoman Mary Ellen Pleasant, who used her earnings for the cause of black freedom . . . George Washington, founder of Centralia, Washington . . . West Coast millionaire William Alexander Leidesdorff . . . Isaiah Dorman, hero of the Indian Wars . . . and famed oдео star Bill Dusky Demon Pickett, who died in the saddle at age 71 while trying to rope a wild horse.

Altogether, the lives of more than forty men and women are presented in the context of the major social and political issues of the times. Here is how you can use this material to acquaint your students with the various roles played by blacks in the westward movement.

Before going to the museum, have the children research the occupations of their own parents. Have them interview their parents about their work and, when possible, observe them on the job to find out about the kinds of tools and transportation used; the special skills needed; the drawbacks and satisfactions

Data Retrieval Chart on Roles Played by Blacks in the Westward Movement

Key Questions	Cowboy	Miner	Fur Trapper	Homemaker	Soldier	Owner of Business
What are the advantages and satisfactions of this work?						
What are the dangers and other drawbacks?						
Is the work usually done by both men and women or by one sex only?						
What skills are needed for this work?						
What special tools are necessary?						
What is the transportation used?						
What are the names of some of the people who did this work?						

Data Retrieval Chart on Roles Played by Blacks in the Westward Movement

of the work; and whether the job is customarily done by both men and women or by one sex only. Have each child draw "portraits" of his mother and father containing clues to these questions. The day before the museum visit, draw up (on a large piece of butcher paper or on the chalkboard) a data retrieval chart—see top of page—which organizes the data for five or six of the most frequently held parental occupations.

In the museum, after reading two or more portraits as a class for practice, have the children work individually or in teams to complete data retrieval sheets patterned after the chart completed in the classroom.

Back in the classroom, discuss the information gathered from the exhibition, once again recording the children's collective data on a retrieval chart. From this information, what conclusions can the students draw about the roles played by blacks in the westward movement? Do any of these conclusions run counter to the ideas they held before visiting the exhibition?

Finally, divide the class into seven teams and ask each team to create an exhibition of objects and pictures representative of one of the seven different roles studied in the museum. The idea here is to provide concrete reinforcement of the concepts learned and to allow the children to express what they have learned. Their objects can be toy replicas—such as spurs, a pistol, a cowboy hat—as well as old-fashioned clothing, tools, and utensils found in attics and basements at home or in the neighborhood.

More Advice on the Exhibition

These two approaches to Blacks in the Westward Movement may of course be modified to suit the level and interests of your students. Other ideas for preparatory and follow-up activities may be found in the teacher's guide to the exhibition produced by the Smithsonian Institution Traveling Exhibition Service and available through museums exhibiting the show. These activities could be used either in connection with the two suggested approaches or with a guided tour or other program offered by an exhibiting museum.

Whatever your plans for using the exhibition, we strongly recommend that you discuss them several weeks in advance with a staff member of the museum where you will see the show. The staff member can advise you as to the best time to bring your class and will set up an appointment for you if the museum requires, as many do, that all group visits be scheduled. Staff also will answer any questions you might have about the content of the exhibition and inform you of any special films, demonstrations, or other events that may have been scheduled to augment the show. As with all museum visits, careful advance planning is your key to success with Blacks in the Westward Movement.

Other Options

Suppose that Blacks in the Westward Movement will not be visiting your community. Is it still possible to lend a black perspective to the study of western expansion? Where can you go besides commercial publishers to find materials?

First, a 57-page booklet based on the show is available free to all recipients of Art to Zoo. Generously illustrated with photographs from the exhibition, this booklet may be used in much the same way as you would use the exhibition itself—as a basic resource to stimulate further inquiry.

Second, consider the resources of your own community. Chances probably are better than you think that your local museum, library, or historical society

has visuals, documents, artifacts, or other materials that can add immediacy and depth to this area of study. To aid you in finding these materials, a number of useful guides have been written. We found especially helpful: Directory of Afro-American Resources, by Walter Schatz, which identifies organizations and institutions throughout the United States holding primary source materials and supporting documents on the history and experiences of black Americans; and Exploring Black America: A History and Guide, by Marcella Thum, which recounts the social and cultural history of blacks in the United States, presenting at the end of each chapter an annotated list of places to visit in connection with the chapter topic. Also useful, but less up to date, is A Guide to Negro History in America, by Philip Drotning.

And, in addition to the resources listed in these volumes, do not forget one of the richest resources of all. Do not forget people. There may be individuals in your community with private collections of relevant materials or even firsthand experiences that they would be more than willing to share with your students. So look around.

you, the question: where located the resources them most effectively? Chances are that the materials you find will be scattered. A portrait or a genre painting in a downtown library or city hall, a collection of correspondence in an uptown attic, and a single diorama in a museum in a neighboring city constitute just one of many combinations you might come up with. It is not feasible to take your students to see all of these things on the spot, and even if you could, it is highly unlikely that they would benefit much from such a disjointed experience.

The answer is to create a packet of materials, based on the resources you have found, for use in your classroom. Documents, old posters, pages from diaries, correspondence, and other printed materials can be inexpensively reproduced by photo-offset and the copies covered with plastic laminate to allow students' handling. Slides can be purchased or taken of paintings and exhibits so that "readings" of these visuals can be done in the classrooms. By combining this packet with a visit to a site or landmark or a visit from a community resident whose recollections or memorabilia will lend yet another dimension to the subject, you can add immeasurable enrichment for very little expense.

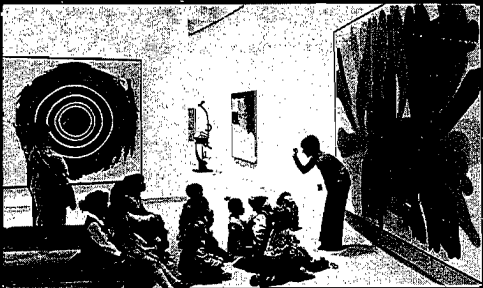
Bibliographies

Two bibliographies—one for you and one for your students—relevant to Blacks in the Westward Movement are available (see address below). Your list contains titles that were particularly helpful in the preparation of this article, either in providing background information in black history or in suggesting the pedagogical direction to take in planning the approaches to the exhibition. The student list, which was compiled for us by the Department of Library Science of the District of Columbia Public Schools, includes books that were used as classroom source materials by teachers who took their elementary classes to see the show during its stay at the Anacostia Neighborhood Museum.

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To get the free booklet and bibliographies, write to the Office of Elementary and Secondary Education, 1163 Arts and Industries Building, Smithsonian Institution, Washington, D.C. 20560.

What Can You Do with a Portrait?



At the Hirshhorn Museum and Sculpture Garden



At the National Portrait Gallery



At the National Collection of Fine Arts



At the Anacostia Neighborhood Museum. Washington Star photo by Francis Rount

Mention the Smithsonian and most people think of the Hope Diamond, the Great Hall, the Kitty Hawk Flyer, First Ladies' gowns, and other famous attractions, not realizing that there is much more to this institution than first meets the eye.

The Smithsonian, founded in 1846, is in fact a vast complex of museums and art galleries, scholars and experts, with facilities here in Washington, D.C., around the country, and overseas. It owes its beginning to James Smithson, a wealthy English scientist, who willed his fortune to the United States "to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." Over succeeding generations, the Smithsonian has carried out the terms of this bequest through scholarly activity in the fields of history, science, and art; through museum and library operation; and through the dissemination of information. In recent years, increasing emphasis has been placed on public education, with classes, films, lectures, musical events, guided tours, and other activities offered to growing numbers of children and adults. This photo-strip shows schoolchildren from the Washington metropolitan area engaged in activities created especially for them by several education departments of the Smithsonian.



At the National Museum of History and Technology



At the National Museum of Natural History

Every community in the United States is endowed with a portrait collection. Portraits can be found in museums, in historical societies, in restored houses, and in the homes of citizens. They are reproduced in textbooks, on stamps, and on money. Photo-portraits appear daily in newspapers and magazines. Many commercial products carry likenesses of historical figures on their labels. What you may not realize, however, is that these likenesses present opportunities for new ways of approaching subjects having to do with the thoughts, actions, and creations of human beings. Portraits are particularly effective in bringing these subjects alive for elementary-age children.

To find out how portraits can be used in the classroom, we went to the Education Department at the Smithsonian's National Portrait Gallery, which collects and displays portraits of men and women who contributed to the history and development of the United States, from Pocahontas to Richard Nixon. The Education Department describes one of its goals as *putting people back into history*. "Too often we learn history as a series of events," said Lisa Strick, associate curator of the department. "We forget that people initiated these events, and people were affected by them. We use portraits to help students learn about people who lived in a different time. Children can learn a remarkable amount about a person just from looking at a portrait of him—if they approach it correctly."

For teachers of elementary-age students, approaching a portrait correctly involves two steps. The first is to teach children how to *look* at a portrait and draw conclusions from what they see. The second is to involve students in the portrait-making process in some way so that they can appreciate the problems and decisions faced by the portrait artist. Can you do these things in your classroom? Sure you can. Here are a few suggestions, from the gallery, for making portraits come alive.



Henry Laurens, oil painting by John Singleton Copley. Photo from the National Portrait Gallery

Learning to Look

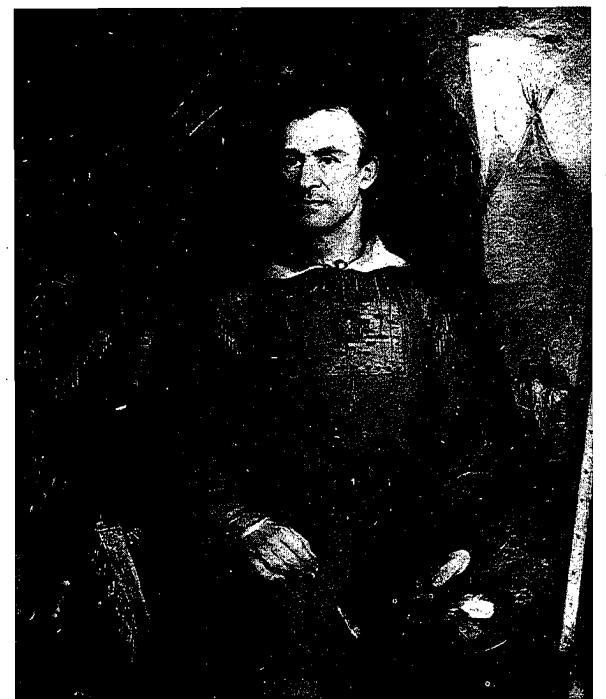
What can you learn from a portrait? That depends on what kind of a portrait you have. Some artists attempt little else than to describe what a person looked like. But others try to do more—they place in their works "clues" to an individual's occupation, achievements, or interests. Even eight-year-olds can be successful at "reading" such portraits, and most will enjoy the process.

Take, for example, the portrait shown here, *Henry Laurens*, by John Singleton Copley. What can you learn about Laurens from it? If you have an opaque projector, show the portrait to your students. Invite them to act as "detectives" and search the picture for "clues." Third- and fourth-graders should be able to answer questions such as: When do you think this man lived? Was he rich or poor, or middle class? Was he educated? Do you think he was important? Could you make a guess about Laurens's accomplishments and occupation?

Encourage students to be spontaneous in answering such questions and ask them to identify the "clues"

that are the basis for their reactions. In identifying clues, the children might point out, for example, that Laurens's clothing and hair style place him as a contemporary of George Washington. The furniture and the richness of his clothing indicate a gentleman who is well off. The books, paper, and pen on the table show that he can read and write, and might also suggest a connection with law or government. Students may conclude that the sword Laurens wears indicates some military experience. His forceful expression and impatient posture may suggest to them a busy, important executive.

Laurens was, in fact, a wealthy South Carolinian who supported the patriot cause during the Revolutionary War, serving his country as a diplomat and a president of the Continental Congress. He was indeed an important public figure, as most students will be pleased to guess correctly.



George Catlin, oil painting by William J. Fisk. Photo from the National Portrait Gallery

Two more portraits from the gallery's permanent collection are reproduced here, on page 3. What can you and your students learn from them? One is a portrait of George Catlin, an artist who made a career out of painting portraits of American Indians and scenes of Indian life in the 1830s and '40s. He lived with the Indians so that he could understand their customs. Most of his paintings, numbering in the hundreds, now belong to the Smithsonian Institution. The other portrait is of George Washington Carver, the eminent agricultural scientist. Carver is most famous for his work with the peanut and the soybean, but he was also a pioneer in other kinds of research. A shy and gentle man, he loved working with flowers.



George Washington Carver, oil painting by Betsy Graves Reyneau. Photo from the National Portrait Gallery

Pictures like these really are worth a thousand words, and may make students curious to learn more about the subjects or persons portrayed. If you look, you will find portraits of many other individuals that

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WHAT CAN YOU DO WITH A PORTRAIT?

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have the same "clue finding" potential. Let the children help you look for them and tell you what they see.

Making Your Own "Clue Pictures"

After students have learned to look at clue portraits, they may want to make some of their own. Using crayons or poster paint, they can make pictures of people from history, of contemporary public figures, or even of each other. Recalling portraits they have seen, students should try to include in their works objects and backgrounds which will be clues to the identities of their subjects. A writer, for example, might be shown with books, or with a pen and paper. A sports figure might be depicted in an "action" pose. After the children have completed their portraits, they can have fun guessing the identities of each other's subjects.

More Portrait Activities

If your students enjoy working with portraits, you might want to try some other activities with them. Some suggestions from the National Portrait Gallery:

- *Conduct a "portrait hunt" at your school.* Give students twenty minutes or so to search the building for different kinds of portrait material. Tell them that a portrait is a likeness in *any medium* of an *actual person*. Pictures of animals or of imaginary people are not portraits, but photographs, sculptures, silhouettes, and images of real people which appear on stamps and labels or packages *are*. After students have located the portraits in their school, they may want to extend their search into the community.

- *Make "self-portrait bags."* Ask each child to bring in an unlabeled paper bag, three or four objects that he thinks are representative of him. In class, open the bags one at a time and ask the children to guess who the "artist" is in each case. Do the objects really represent *that person*, or could they represent a lot of people? Why did the "artist" choose those particular objects? What is the artist telling you about himself?

- *Try a "pose and gesture charade."* Write several adjectives, such as "thoughtful," "angry," "powerful," on index cards, and give them to students who enjoy acting. Ask each student to think up and strike a pose that will convey the idea of his or her adjective. Students should try to rely on *pose and gesture only*—not facial expression, costume, or props. The rest of the class must then try to guess (or choose from a list) the word the child is acting out. This activity can make students more aware of how their bodies "talk" and why the position of the sitter can be important in a portrait.

- *Have students make photo-portraits of each other.* Give each child the opportunity to plan how he wants to be represented in his picture, asking him to think ahead of time about which aspects of his personality he wants to stress. Discuss how such things can be brought across through the use of pose, gesture, expression, costume, background, and props. On the day the pictures are to be taken, have the students bring in objects they feel are expressive of their self-images.

- *Make your own "Who's Who" of a particular period or theme, such as the Colonial era.* Each student can choose or be assigned one figure to learn about. After either finding or drawing a portrait of that person, the child can write a short biography or story about him or her. The portraits and biographies can then be mounted in a looseleaf notebook to make a student-created reference. Try this also with such themes as the westward movement, explorers, inventors, black Americans, and state history.

There are many other ways in which portraits can be made a working part of your curriculum. Start a class portrait collection, consisting of student-made portraits, cutouts from newspapers and magazines, postcards, or museum reproductions—and use your imagination. The object is to bring a visual dimension to what the children are studying, and to make students more aware of *people* and the roles they play in the development of a country's history and civilization.

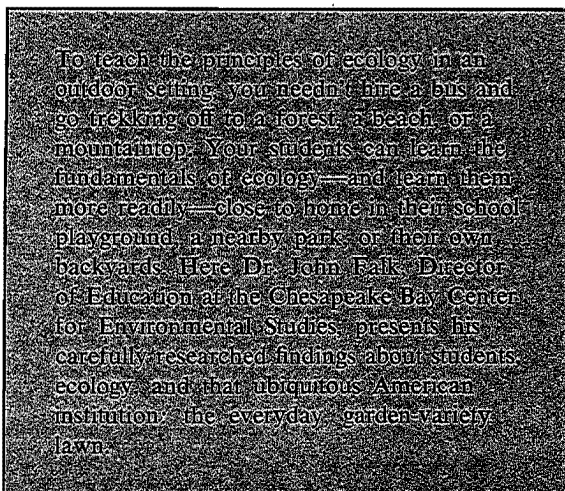
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For help in obtaining these materials and for other instances of support throughout the preparation of this article, we are grateful to the staff of the Anacostia Neighborhood Museum, especially to the Director, Mr. John Kinard; to the Supervisory Program Manager, Mrs. Zora Felton; and to the Director of Research for Anacostia Studies, Mrs. Louise Hutchinson.

Of Beetles, Worms, and Leaves of Grass

JOHN FALK



Recognizing that most children are capable of understanding the principles of ecology only when they can first experience for themselves the concrete manifestation of the basic concepts, I have worked for a number of years to develop outdoor learning activities in ecology for elementary students. These activities emphasize investigation with real materials, giving children the opportunity to handle plants, compare leaves, dig up weeds to look at their roots, and observe the movements and interactions of a variety of insects. In the process, important concepts are readily and eagerly learned.

I have chosen as the site for these activities not a nature preserve or a wilderness area or any other type of *natural* community, but a man-managed environment within easy reach of each and every teacher in the United States. *My choice always has been a lawn.*

Lawns are my preference for a number of reasons. Although local, man-managed sites such as backyards substitutes for more "desirable" sites such as ~~conservation~~ parks and wildlife refuges, my research has indicated that this preference should be reversed: *lawns* are the more desirable for introductory lessons. Not only are they the most accessible habitat to the majority of people in the United States, they are also surprisingly homogeneous nationwide in terms of common plant and animal forms. Further enhancing the value of lawns as learning environments is the fact that they are biologically "simple" communities, which support a limited number of plants and animals but have at the same time all of the basic qualities of even the most complex communities. Designed by their very nature to stand man's heavy use (as is obviously not the case with natural communities), lawns are tough enough to withstand the trampling, handling, and other abuses to flora and fauna occasioned by the active student involvement that must occur for conceptual learning to take place.

In the lawns of your community, therefore, you have at your disposal a ready-made teaching tool. The following two suggestions for using this tool are adapted from a curriculum package entitled Outdoor Biology Instructional Strategies (OBIS), which I helped to develop in 1972-74 through a National Science Foundation-sponsored project at the University of California at Berkeley.



A Child's Drawing Done at the Chesapeake Bay Center for Environmental Studies

Adaptation-Predator-Prey. You divide your class into teams and assign each team a plot of lawn to study. The children hunt for materials, such as seeds, eggs, insects, and worms, which they think might be food (*prey*) for animals living in or passing through the area. Then they work with natural materials found on the site and with simple man-made materials (paper clips, toothpicks, pipe cleaners, string) to build devices analogous to the claws, beaks, and jaws of likely predators. More direction can be given to this activity by assigning each child a specific function for his predator device to fill—picking up eggs, or digging up roots are two possibilities. The object is to introduce the *predator device* as one type of *adaptation* or feature of an organism that enables it to survive and reproduce.

Plant Hunt. Students work in teams of three to five participants to find as many different plants as possible within a fifteen- to thirty-minute time period. They pick two leaves or pieces from each plant specimen collected, placing one of these pieces in a team-owned container and the other in one of twenty-five or more paper cups (one cup for each type of plant collected) set out in the middle of the lawn. After examining with hand lenses what they have found, the children discuss and try to verify whether each piece of plant in their team's collection is from a different type (or *species*) and whether each cup in the center of the lawn is uniform in content. This activity helps to develop student interest and skill in sampling plant populations and also demonstrates in very concrete terms the meaning of the concept *species*.

There are many other lawn activities that students enjoy—"inventing" plant adaptations, for example, or studying the plants near a building to determine the effect of a man-made structure on the life surrounding it. The key is to encourage active investigation with real materials by drawing on the resources of a ~~familiar environment~~ in fresh and imaginative ways.

For more information about OBIS, write to Dr. John Falk, Chesapeake Bay Center for Environmental Studies, Box 622, Edgewater, Maryland 21037.

The Anacostia Neighborhood Museum—originator of *Blacks in the Westward Movement*—is a community museum offering a range of cultural and educational activities relating to the black experience. Since its establishment as part of the Smithsonian in 1967, the museum has maintained an active program of changing exhibitions focusing on the works of black artists as well as on social and historical themes.

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Regular contributors include:

THE ANACOSTIA NEIGHBORHOOD MUSEUM
THE CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES
THE HIRSHHORN MUSEUM AND SCULPTURE GARDEN
THE NATIONAL AIR AND SPACE MUSEUM
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THE NATIONAL MUSEUM OF NATURAL HISTORY
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