

NEWS FOR SCHOOLS FROM THE SMITHSONIAN INSTITUTION Office of Elementary and Secondary Education Washington, D.C. 20560

The Museum Idea

by DENNIS O'TOOLE Curator of Education National Portrait Gallery

Good teaching, I believe, is the ability to get students to see the old as new and the new as old. It is the art of leading people to take a second look at what they look at every day and having them see it—really *see* it—for the first time. It is the capacity to get students to find the familiar in the unfamiliar, the known in the unknown: to understand what they see.

One very exciting way of opening a student's eyes to the new in the old and the old in the new is through your local museum and the objects, or *things*, natural and man-made, living and nonliving, which museums collect, preserve, display, and interpret. Museum objects may be either extraordinary or commonplace, but they are always authentic. They are always the real thing. Their authenticity and the manner in which they are displayed and interpreted give them a unique power to educate.

This, then, in essence is the "museum idea," which like all ideas, is portable. If you want to open your students' eyes to things and through things, the best place to start is at your local museum. But if you don't want to stop there, or if there is no museum in your area, here are some ways of conveying the "museum idea" to your students in your own classroom.

• Have students plan their own personal "Museum of Me."

As a way of introducing the notion that an assemblage of things can be made to tell a story, ask each student to consider what objects he or she would bring together to tell people about himself. After each student decides what to



include in his "Museum of Me," he needs to draw up a plan to show how the items chosen can best be arranged to communicate to persons who have never met him all the essential information about his hobbies, pets, family, friends, school, hopes, and dreams. This can be accomplished with a drawing or a three-dimensional model of his museum. The children's drawings and models might then serve as the basis for a classroom exhibition composed of real objects brought in by the children to tell about "me." One way of helping students decide what to include in such an exhibition is to have each one make a *time line* showing what he or she considers the most important events in his or her life; the time line can then form the core of a personal display of objects, photographs, and drawings relating to those events. The time line *shown on this page* was made by a sixth-grade student at Stevens Elementary School in Washington, D.C.

• Create a classroom mini-museum on a theme or subject relevant to your curriculum—

such as Ancient Greece, The Civil War, or Early Man. Once students have chosen a theme, they might work as individuals, in groups, or together as a class to (1) decide what sorts of objects will be borrowed and exhibited, (2) find, repair, and care for the things they have selected, (3) choose and prepare an exhibition space, and (4) display the objects, accompanied by whatever labels, graphics, and audiovisual materials they think appropriate. Then students will want to devise ways of attracting visitors through posters, announcements, and other means, and find ways of interpreting their exhibition for the public through such techniques as guided tours and demonstrations.



Sixth-graders at Oak View Elementary School, in Fairfax, Virginia, put finishing touches on a classroom mini-museum called "Early Man."

All of these exercises can help students understand what museums are about: why they exist and what the people who work in them do. More important, through activities such as these, students can find out for themselves that there's much to be learned from handling, studying, and displaying *real things*. These are lessons that cannot be learned from television, radio, the printed and spoken word or, in fact, in any other way.

And that is the "MUSEUM IDEA."

DATA RETRIEVAL SHEET ON MUSEUM CAREERS

Key Questions What area of responsibility does this job entail?	Museum Director	Exhibit Specialist	Curator	Museum Educator
What skills are needed for this work?				
How did the person learn these skills?				
Is the person paid to do this work?				
Can this work be done by both men and women?				
Is this job com- bined with a- nother job (or jobs listed on this sheet and if so, which one(s)?	4 2			

Student-made filmstrips and slide shows can do a lot to give your classroom exhibition a special fillip----and short Super-8 films, while somewhat more difficult to produce than filmstrips and slide shows, can be even more effective. The photo essay on page 3 of this issue of Art to Zoo and the interview on page 4 are designed to encourage students to consider film as an effective means of communication and self-expression, which they can put to good use.

• Find out how your local museum works.

Arrange for teams of your students to meet and interview the people in museums who (1) decide what the museum will acquire and display, (2) research and take care of the collection, (3) build cases, arrange lighting, and see to other aspects of display, (4) receive and send objects on loan, and (5) help visitors learn from the collections and exhibitions. The teams can then report their findings to the class as a whole. A data retrieval sheet, such as shown on this page, will help students collect and organize their information efficiently.

TEACHER'S NOTE AND SUGGESTED READINGS

A how-to-do-it kit on the "Museum Idea," containing slides, teacher's guide, and taped narration, will soon be available on loan from this office. For details, write to Ann Bay, A&I 1163, Smithsonian Institution, Washington, D.C., 20560. In addition, here is a useful reading list:

Burcaw, G. Ellis. Introduction to Museum Work. Nashville: American Association for State and Local History, 1975.

Harrison, Molly. Changing Museums. London: Longmans, 1967.

Kempner, Natalie Kent. "Growing Chickenwire Trees and Asphalt Gardens," Learning: the Magazine for Creative Teaching, January 1976.

Schools Council. Pterodactyls and Old Lace: Museums in Education. London: Evans Brothers, 1972.

ARTZOO is a publication that brings 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 learning opportunities for your students.

Our reason for launching a 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 "200," 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 objects close at hand, by drawing on the resources of your own community.

Our idea, then, in producing $\mathbf{A} | \mathbf{Z} | \mathbf{Z} | \mathbf{Z} |$ is to share with you — and you with us — methods of working with students and objects that Smithsonian education staff members have found successful. This is the first of four pilot issues published in Oct./Nov., Dec./Jan., Feb./Mar., and Apr./May of this school year.

You are one of approximately 50,000 teachers across the United States chosen to receive and respond critically to these four issues. With the Apr./May issue, an evaluation form will be sent to you. To make it easier for you to know who we are, we have listed—here in the masthead—the Smithsonian museums and divisions whose education staff members contribute material regularly. Please read the articles carefully and be absolutely frank in stating your opinions. We're counting on your help.





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- THE CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES
- THE COOPER-HEWITT MUSEUM OF DECORATIVE ARTS AND DESIGN
- THE HIRSHHORN MUSEUM AND SCULPTURE GARDEN THE NATIONAL AIR AND SPACE MUSEUM THE NATIONAL COLLECTION OF FINE ARTS
- and the RENWICK GALLERY THE NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY
- THE NATIONAL MUSEUM OF NATURAL HISTORY THE NATIONAL PORTRAIT GALLERY THE NATIONAL ZOOLOGICAL PARK
- The Smithsonian Institution, founded in 1846, is a vast complex of museums and art galleries, scholars and experts, with facilities here in Washington,

A Film Starts Out

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TEACHER'S NOTE: Recently a number of us at the Smithsonian shared in the pleasure of making the film, *Museums: Where Fun Is Learning* [described on *page 2* of this issue of *Art to Zoo*] and in the course of doing this, learned a great deal not only about the process of filmmaking but also about the special nature of film as a medium of communication and creative expression. This experience soon got us thinking about *kids* and filmmaking and how even very young students can benefit from making films themselves.

Filmmaking as a classroom activity is becoming increasingly popular in schools across the country for a number of good reasons. As children learn the technical aspects of filmmaking, skills in research, writing, art, music, sequencing, and photography are brought into play. Through involvement with camera and projector, students learn to look and really *see* . . . and in the course of this "learning by doing" process, develop a critical facility that enables them to react with reason and judgment to film and television.

Virtually no experience in cinematography is required to teach filmmaking. With one or more of the books listed in the bibliography at the end of this article to guide you, you will find that the teaching skills that stood you in good stead in other subject areas will be of far more service than any formal training in cinematography could ever be. Moreover the equipment you will need is minimal. A Super-8 mm camera with a built-in electric eye exposure control is recommended because it is easy to use and relatively cheap to buy. You will also need an editing set and a Super-8 projector.

Instead of having each student develop his own project independently at the outset, you may wish to have your class make its first film cooperatively, perhaps dealing with some area of classroom study. Not only do teaching films made by children for children provide motivation for research, but they are often more effective than more sophisticated professional films designed to do the same job. The photo essay that follows outlines the steps of filmmaking from conception of that first "bright idea" to screening of the finished film. The photographs were taken both here at the Smithsonian and at the Summer Filmmaking Program of the Beauvoir School, Washington, D.C. (teachers, ENE-MAI KVELL and BARBARA SZORADI).

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 Institution 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.

The illustrations used here are from a free color poster, which you may order by writing to Ann Bay, A&I 1163, Smithsonian Institution, Washington, D.C., 20560.

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IS LEARNING

A museum visit can be enormous fun for kids, and educationally beneficial too. . . . [BUT NOT always, SAYS THIS STUDENT!] What you can do to make your next museum field trip an unqualified success is the subject of Museums: Where Fun Is Learning, a new seventeen-minute sound and color film for teachers and students, from the Smithsonian's Office of Elementary and Secondary Education. The film shows the kinds of educational experiences offered by museums and includes suggestions for pre-trip and post-trip activities. Order from: Reference Section, National Audiovisual Center, General Services Administration, Washington, D.C., 20409. Three-day rental fee: \$12.50. Purchase price: \$100.00.

PHOTO: ROBERT SULLIVAN



as a Bright Idea...



1 A film starts out as a bright idea --- which may be inspired by something you've read, a piece of music you've heard, or a scene that's caught your eye. What do I want to say? To whom do I want to say it? And will they be interested? . . . are neces sary questions to ask yourself at the very beginning of your filmmaking venture. In considering these questions, you'll want to think at the same time about what you want your film to do: Do you want it to explain how something works: . . . to record an event . . . to tell a story? Is it to be pure entertainment or will it try to teach something too?



2 Once you've settled on a theme for your film and determined its audience and purpose, you'll need to develop a written outline so as to get clear in your own mind the story line and approximate length of your film and who the characters will be. The main purpose of an outline is to show the planned action of the film as it will develop from one point to the next. (The outline shown here is for a film about four ducks, based on the story of Goldilocks and the Three Bears.) Now think hard about what you've written and discuss it with your classmates. How can the story line be made sharper and tighter? the characters more vivid?



3 Making and assembling any props you might need for your film and creating the titles and other art work should be your next consideration. If your film is to contain animation-using such things as puppets, molded clay figures, cutouts, or collagethis step will take time. Yvonne Anderson's book, Make Your Own Animated Movies, listed in the bibliography at the end of this article, has many good ideas on animation. / Titles, which begin and end a film, are very important. The beginning title carries the name of the film and the name of the filmmaker; the end title carries the words,



5 Now, at last, it's time to shoot your film, using your script as a guide. The important thing in shooting is to be free and active. Shoot from a variety of angles and zoom in and out with your camera so as to get as much information as you can about your subject. Use close-ups, medium shots, and long shots-and plan ahead. If you want the audience to see it big on the screen, shoot it in close-up



6 After you have finished shooting, and your film has been processed, you will be ready to edit the footage. The first step in editing is to look with a critical eye at everything you have shot. Screen the film for your classmates and get their opinions as to what parts of the film need to be shortened or otherwise changed. The mechanics of editingcutting and splicing-will require time, patience, and the help of your teacher. Bad scenes can be removed by cutting them out with scissors. The loose ends can then be glued together with a splicer. Scenes can also be shortened or rearranged. Several of the books listed in the bibliography at the end of this article contain easy-to-follow editing instructions.



All photography for this essay is by ANN BAY, except for "A film starts out," for which the illustrating photo is by ROBERT SULLIVAN.

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The Goat in the ok I reod The Goot in the Rug was o enjoyed. I liked it because it was informe tive and humarous. IT TOOK Some changing To Turn the Book into a movie. I did oll the planning and mode oll the motericle. IT took me a doy to film. And a holf a day to splice. The sound took a long time. I timed the different stoges in the movie and sold what I wonted to sey in that amount of time. I olso found the kind of music I wanted and retoped (t. My norrotion is on one tope and and the music on onother. Moking the movis was hard work: But fun! 8 Now that you and your classmates have finished

your films, it is time to celebrate! Plan a screening, when families, friends, and fellow students can come and see what you have done. And as a souvenir of the screening, publish a catalog in which each student explains why and how his film was made. Here is one entry from a "movie maker's catalog" published by students of the Summer Filmmaking Program of the Beauvoir School in Washington, D.C.



The End. The letters should be bold and easy to read. If your title is sloppy, your audience may assume that the rest of your film will be sloppy too.



4 Next comes the writing of a shooting script. This means presenting the action you have outlined as a series of scenes. Picture each scene in your mind's eye and carefully describe it on paper; then write a narration to go with it. Here is a page from the script for a new Smithsonian film, Museums: Where Fun Is Learning, by NELSON J. ADAMS. Notice that what the audience will see is described on the lefthand side of the page and what the audience will hear is described on the righthand side. In usual notation, V/O stands for VOICE OVER; CU stands for CLOSE-UP. Information about music, sound effects, and camera moves are included.

7 Sound-including music, effects, and narrationcan be added to your film in a number of ways. One way is to run through your film on the projector and time each of the different sections with a stopwatch; then with the projector turned off (so that you won't pick up projector noise) and again using a stopwatch, record the sound on a tape recorder to accompany each section, as this boy is doing in the illustration shown here. If your film is to have both music and narration, you will need two separate tapes, one for the music and one for the narration. The possibilities for sound are many. Playing musical scores on your own instruments, conducting interviews, using choral speech, and making your own effects are just a few of the ways you might experiment with sound.



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TEACHER'S NOTE: This article, which has been written to be read by your students, is one in a series of pieces on Smithsonian events and people to be included in Art to Zoo this school year. Through these articles, which you may feel free to reproduce in any quantity needed, we hope to give students some insight into what we do here at the Smithsonian—and why—in a format that can be worked into your curriculum in a variety of ways.



Karen Loveland on location filming airplanes at Old Rhinebeck, New York.

Lights! Camera! Action!

Helping museum exhibits come alive is the job of KAREN LOVELAND'S Smithsonian Institution OEC [Office of Exhibits Central] Motion Picture Unit. The Motion Picture Unit crew works at the Smithsonian and on location making films to go with museum exhibits on practically any subject you can think of, from airplanes to walruses.

Films give you sound and they give you action, which are often what you need to make an exhibition really come to life. Take, for example, an exhibition on maritime history that opened at the Smithsonian recently. In this exhibition, ship models and many other objects are used to tell the story of how Americans have explored and made a living from the water. "In planning the exhibition, one important thing the museum wanted to show was how very dangerous a trip on the ocean can be," explains Ms. Loveland. "Tidal waves, fire, icebergs, whales, and submarines all can spell disaster for a ship at sea. We could show this partly through objects, but it was clear right from the beginning that what we really needed to get our point across was a film. So we produced a ten-minute film made up mostly of parts of Hollywood movies pieced together to show many different kinds of maritime disasters and ending with live shots of the sea. The film is truly a show-stopper. Visitors love it."

Besides working closely with museum curators, who decide what a film will say in relation to exhibit content, Ms. Loveland also works with exhibit designers to plan the placement of her films within the exhibitions of which those films are a part. The film viewing area must be dark and quiet enough for people to see and hear the film and also out of the way of other visitors. At the same time, the film needs to be placed near the objects to which it relates. Sometimes a small theater is built into the exhibition so that visitors can sit down while looking at the film. KAREN LOVELAND likens her job of film producer to that of an orchestra leader who brings together in a pleasing way all the different elements of film: story, dialogue, music, characters, visuals, theme, and setting. And she feels that like an orchestra leader, a film producer must have a good ear and a sense of timing. She points out that there are a lot of things to think about in making a film-and an important one of these things is cost. Few people realize that even a short film can be very expensive. It takes time, costly equipment, and usually a whole team of highly skilled people who have to be paid. Often the size of your budget will help to determine such things as the length of your film, the kind of music you will have, and who your narrator will be. But Karen also points out that a good film doesn't necessarily have to be costly to make-or all that complicated. In fact, some of the best films ever produced have been simply and inexpensively made. The photo essay on page 3 of this issue of Art to Zoo shows you how you can, quite easily and inexpensively, make very good films of your own on practically any subject you get a bright idea about, from airplanes to walruses!

Make a Flip Book Movie Machine



A good way to begin to understand how motion pictures work is to make a flip book movie machine. Stack up twenty-five 3x5'' index cards on which you have drawn a series of pictures of something happening, step by step, as shown here. Tap the end of the stack on a table to even up the pieces and fasten the stack together with a rubberband. Then flip through the stack with your thumb and watch the action!

You can make longer movies this way too: for each second of running time, you will need to draw about fifteen pictures. (Movies shown in theaters require even more pictures per second— 24 pictures per second, which adds up to 43,200 pictures for a thirty-minute film.)

