

Spring at the Smithsonian: An Incipient Case of Puppetmania

Oscar the Grouch knows it and so do all his friends. Puppetry, that ancient art form, is appearing in many new places and growing ever more popular. For example, here at the Smithsonian this spring we've been aware of what seems to be an incipient case of puppetmania. A variety of events and exhibitions are being planned by the various Smithsonian museums to mark the upcoming World Puppet Conference-to be held in Washington, D.C., in June of 1980.* Meanwhile, kids have been flocking to our newly refurbished puppet theater for a series of sell-out performances by some of this country's leading puppeteers.

One important thing we've learned from this delightful form of madness is that puppets are educational as well as fun. This has tremendous implications for schools. In the school classroom, puppets can add spice and a new expressiveness to virtually any subject you can think of. Puppetry can also be a very effective means of integrating creative activities-writing, acting, crafts-with the traditional core of academic studies. Through puppetry, students of all ages can develop selfconfidence, psychomotor coordination, and a sense of timing, as well as improved reading skills andmay we hope!---an appreciation of literature.

So if you haven't done so already, why not try some ways of incorporating puppetry into your curriculum? This article is designed to get you started by presenting just a few ideas for making and using puppets in your classroom. But first, let's consider the question of what a puppet is.



imagination of the person supplying the voice and the animation.

There are four basic types of puppets: hand puppets, in which the puppeteer's fingers, hand, and forearm are inside the puppet, creating the skeleton and directly providing the puppet's movements . . . rod puppets, in which the puppeteer in one hand holds a central rod that supports the puppet's body and with the other hand manipulates rods attached to the puppet's arm (the legs of most rod puppets move in conjunction with the central body rod) . . . shadow puppets, in which rods are used to move a flat, jointed figure across a screen that is lit from behind . . . and string puppets (marionettes), in which control is achieved by a system of strings connecting the joints of the puppet to a central control board and the puppeteer works from above the puppet, pulling the strings to articulate movement.

Each one of these four types of puppets has special qualities that suit it to particular uses. For example, hand puppets often are better than string puppets at portraying emotion through facial expression and movement, while string puppets can perform extensive acrobatic routines that no hand puppet would ever dare attempt!

Rehearsal Puppets: Try Your Hand

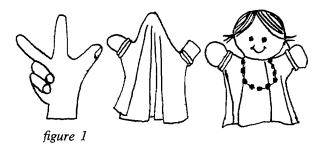
With all puppets, movement is the key to successful animation. For this reason, puppeteers in training often practice expressing character and mood by using special puppets called rehearsal puppets, which have no features, no color, and no costumes. In rehearsal sessions, several of these puppets together on stage have to distinguish themselves solely by their movements.

Instinctively we all use hand gestures to communicate. With a little practice, your students can translate such everyday gestures into "puppet language," using rehearsal puppets. First give each student a plain white glove or a white sock to use as a rehearsal puppet. Then have the children practice giving flair to their movements by exaggerating particular gestures and patterns of gestures (in front of a mirror, if possible) to express different moods and feelings. Now ask the children to show that their puppets are . . .

happy • tired • greedy • jealous • sleepy • frightened • sad • angry • silly • lonely • excited • clever • grateful • hurt and have them practice making their puppets . . . bounce • kick • slink • shimmy • sneak • recline • fall • cavort • hide • skate • dawdle • weep • retreat • leap • prance • skip • cough • gallop • waltz • shuffe • fly • (If you write these words on the chalkboard as they are introduced, this can be a very useful exercise in spelling and vocabulary development.) Once students have perfected their puppets' movements, they will be ready to work at developing the right voices to fit those movements. In doing so they should remember that sound is very important to the illusion of puppetry, and a puppet's voice-including noises like sighs, wheezes, chuckles, grunts, and roars, as well as words-can be every bit as much a creative invention as the puppet's movements. Now, with the addition of scrap materials, students can transform their rehearsal puppets into raving beauties, galloping animals, flying insects, or practically anything else they can think of. But whatever the end result, it is important to remember that puppets are not merely miniature replicas of the people or animals they represent. In movement, sound, and appearance, a puppet should always be an exaggeration and a simplification of its live counterpart.

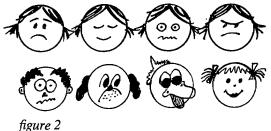
More Puppets to Make

The rehearsal puppets described above represent one simple type of hand puppet. Another simple hand puppet can be made from a square foot of cloth and a styrofoam ball, as shown in figure 1.



The cloth is draped over the puppeteer's hand and attached to the thumb and forefinger with rubber bands to form the puppet's arms and body. The styrofoam ball, which represents the head of the puppet, is carved out to fit the puppeteer's index finger. As you can see in figure 2, it is easy to make interchangeable heads for this puppet with different facial expressions for one character or different

features for a whole set of different characters. The books listed in the bibliography at the end of this article contain many good suggestions for making all kinds of puppets from fly swatters, wooden spoons, bleach bottles, paper bags, gourds, dish mops, old socks, and a host of other everyday items. You might also consider that: two egg cartons can be hinged together to make a mouth for a hippo or an alligator . . . an old wig can be stitched together to make a gopher, a muskrat, or a hedgehog . . . discarded stuffed animals can be gutted to make wonderfully floppy puppets . . . and a curly metal scrubbing pad will make a magnificent lion's mane or prima donna's hairdo.



Oscar the Grouch and other members of the Sesame Street gang will be coming to the Smithsonian's National Museum of History and Technology this summer to take part in a special exhibition marking the tenth anniversary of Sesame Street. Photograph credit: Children's Television Workshop

A Puppet Is . . .

In The Art of the Puppet, Bil Baird defines a puppet as "an inanimate figure that is made to move by human effort before an audience." This means that almost anything-be it a paper bag, a frying pan, or an umbrella-can be brought to life as a puppet. The effectiveness of the transformation from object to puppet depends on the

*Write to Puppeteers of America (address printed at the end of this article) for information about any regional guilds or workshops that may be planned for your community in celebration of the World Puppet Conference.

No doubt you will find that the attics and cellars of your community contain a wealth of puppetmaking materials---like ribbons and lace, evening gowns and felt hats to cut up, gift wrappings, and more. Factory discards are also a valuable source of useful things like spools, yarns, and fabrics. Before using these treasures to make puppets, you may want to examine and discuss the collection with your class for clues as to what your community manufactures and what kinds of things the people living in your neighborhood save.

The Eyes Have It

In designing a puppet—any puppet—it helps students to know that eyes are extremely important in determining facial expression. As a way of exploring this concept, you might have the children glue (or sew or staple) two small pieces of velcro to an unadorned rehearsal puppet where they want the Continued on page 2

Continued from page 1

eyes to be. Then have them make an assortment of different types of eyes out of heavy paper or posterboard, *as shown in figure 3*, attaching a piece of velcro to the back of each eye. Now have the children experiment to find out how the facial expressions of their puppets can be changed with simply a quick switch of the eyes.



Weather Puppets for a Sunny Day

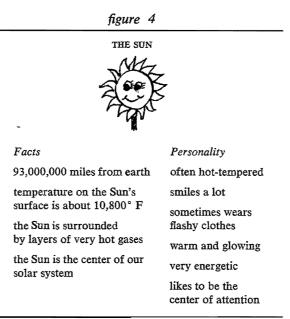
FORECAST:

The weather for Washington, D.C., and vicinity will continue to be hot and sunny today with clouds gathering in the early afternoon and a chance of late afternoon thundershowers. Winds will be from the south at ten to twenty miles per hour, becoming southeasterly by late afternoon. The high today will be 91 degrees F, 27 degrees C; the low tonight will be 80 degrees F, 22 degrees C. The barometer reads 30.17 inches and is falling.

As an aid to teaching science, puppets can be very useful in helping you to explain natural phenomena —like weather. One idea is to have your students act out weather forecasts from their local newspaper so as to gain a clearer understanding of how the different elements combine to make weather. Stick puppets—made from 18" dowels and posterboard shapes that have been painted or crayoned —work well for this activity.

The cast of characters for the forecast quoted above would include Sun, Rain, Lightning, Cumulus and Cumulonimbus Clouds,† Thermometer, Barometer, and Wind. But before beginning to make their puppets for this or any other weather forecast production, your students should find out all they can about the characteristics of the elements the puppets are to represent, for it is these characteristics that will determine the puppets' personalities. In addition to consulting science books for this information, the children might read some of the myths and fairy tales listed in the bibliography (printed at the end of this article) for ideas. For each element, a chart listing both basic facts and "personality traits," as shown in figure 4, should be drawn up. Then using their charts to guide them, the children should make their puppets

 \dagger Cumulus clouds often form on hot summer afternoons, and are usually 4,000 to 5,000 feet above the earth. It is possible to forecast summer weather for a few hours ahead by looking at the cumulus clouds and noticing whether they develop towers on top, an almost certain sign of rain. Cumulonimbus clouds, which represent the final outgrowth of towering cumulus clouds, are popularly known as "thunderheads."



and write a script showing how their production is to be staged. For the weather report above, they might come up with the following scenario:

- Enter old MR. SUN, acting HOT. He slowly rises in the east and throughout the performance moves in an arc toward the west, to show the time of day.
- In the early afternoon (shown by where MR. SUN is), the WINDS blow in the CLOUDS.
- Throughout the afternoon, the CLOUDS dance around the SUN, singing a song.
- In the late afternoon, the performance reaches a peak, when the RAINS come, the WINDS blow, and the LIGHTNING flashes—
- While the poor old BAROMETER continues to fall.

: The End

More Ways to Use Puppets in Your Classroom

Almost any scientific process can be made more understandable when acted out with puppets. For example, Puppets for Dreaming and Scheming, listed in the bibliography at the end of this article, includes step-by-step directions for a stick puppet production on the water cycle. Puppets can also be used to reenact historic events or to act out current events or to illustrate poems, plays, and stories that the children are reading or have written themselves. And much is to be learned from puppets about the diversity of world cultures. By studying puppets from around the world, students can see how the crafts and entertainment of any given culture can provide important insights into that culture as a whole. The photoessay on page 3 of this issue of Art to Zoo features Smithsonian puppets from a number of different countries.

Places to Write to for More Information on Puppets

The Kids on The Block, Inc. Suite 1040 The Washington Building Washington, D.C. 20005

offers for sale a teaching kit designed to aid in the process of integrating handicapped children into regular classrooms. In addition to puppets, the kit contains props, a teacher's guide, and cassette recordings of scripts for ten different puppet performances.

Puppeteers of America, Inc. 2311 Connecticut Avenue Apartment 501 Washington, D.C. 20008 provides information about the World Puppet Conference and regional puppetry guilds and workshops.

The Puppetry In Education News 164 27th Street San Francisco, California 94110 is a periodical with ideas for using puppets in the classroom.

The Puppetry Store 3500 Tyler North East Minneapolis, Minnesota 55418 offers mail-order books and materials for sale as well as a free annotated book list; operated by Puppeteers of America, Inc.

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This article was based on materials by BETH KENT, OESE intern.



Photograph credit: Lis Glassco

We Zoodles work quite hard you know. It's not an easy job to do To help protect the animals All the summer through. But certainly if *anybody* can protect the animals at the National Zoo, a Zoodle can. Bespectacled, kind, and wise, this furry hand puppet speaks to Zoo visitors about not teasing or feeding the animals, in a way that makes even the most incorrigible peanut pusher want to sit up and listen. "Introducing Atlas the Lion and the Zoodle . . ." along with two young puppeteers who help give a special orientation show designed to teach Zoo etiquette to the thousands of people who visit the National Zoo each summer.

The Art of the Zoodle: Puppets That Teach

Although the Zoodle and its fellow cast of characters are all original creations, the National Zoo is by no means the first place to hit upon the idea of using puppets to deliver an important message. Indeed, the Zoodle belongs to a very old tradition of *puppets that teach*. Throughout its long history, puppetry has been an important enculturating influence—which means that puppets have been amusing and instructing people and influencing their behavior for many hundreds of years. Although nobody knows for certain exactly where or when puppetry began, we do know that puppets were used in ancient times in China, India, and the Mediterranean and that by the thirteenth century, puppetry was well established throughout Europe. The first puppeteers in the New World were the American Indians, and as is the case with many traditional societies, the puppets they used were probably a development of the mask. In the nineteenth century, the European puppet show was brought to America by emigrants from a number of different countries whose various national traditions provided the foundation for the great variety of styles in puppetry that exist here today.

The photoessay that follows features a very special assortment of puppets from this country and abroad. These puppets for one reason or another have ended up here at the Smithsonian Institution in Washington, D.C. Together these puppets represent some of the major traditions in world puppetry today.

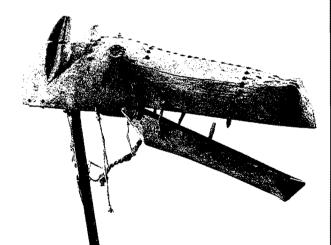
World Puppetry: Treasures and Traditions

In the West African republic of Mali, there exists a vital puppetry tradition that in a number of ways is unique. The carved wooden puppets (two examples are shown here, from the Smithsonian's Museum of African Art) have as a working mechanism a complex system of strings, pulleys, and



Photograph by Eliot Elisofon. Museum of African Art, Eliot Elisofon Archives

rods, which are manipulated from underneath. The puppets appear through holes in the back of a horizontal, mobile stage made of a wooden framework covered with cloth. The stage is supported on the backs of several men, who dance around during the performance, moving the entire show back and forth and up and down while the puppeteers stay hidden away inside the construction, out of the





Wayung kulit is the Javanese name for these colorful shadow puppets, which are on exhibit in the Smithsonian's National Museum of Natural History. The Javanese use this type of puppet to enact a centuries-old Hindu drama given in a specially built theater. A master of puppets (or Dulang), seated on a lighted stage, works the puppets and assumes the speaking roles. The audience sees the puppets' shadows, which are cast on a thin muslin curtain drawn across the front of the stage.

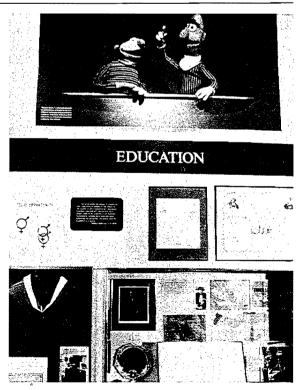
The puppets are made of semitransparent buffalo skin, which has been chiseled into intricate patterns and then painted or gilded. The rigid bodies and jointed arms of the figures are supported by rods made of buffalo horn. Each figure, when it appears on the stage, bears in its coloration, posture, facial expression, and dress many indications of its character and status. For example, the colors



Gray Harlequin ("Harlequin Gris") is one of a cast of marionettes created in the 1920s by Russian stage designer and constructivist sculptor Alexandra Exter, for an experimental French film. Although the film was never produced, the puppets have survived as works of art and three of them, including this one, now belong to the Smithsonian's Hirshhorn Museum and Sculpture Garden. Made of tin, painted wood, fabric, plastic, yarn, and ribbon, Gray Harlequin reflects Exter's interest, as a constructivist sculptor, in creating works of art red, white, and black have a symbolical significance when applied to the face and body of a puppet. Red implies physical strength; white signifies a fiery, passionate nature; and black shows a welldisciplined character whose passions are all under control.

The theme of these puppet plays is always the struggle between good and evil, with good winning out in the end—and the *Dulang* regards himself not only as a showman but also as something of a priest, who acts as an intermediary between the spirits represented by the shadows and the audience. In many ways the Javanese puppet theater is typical of the Asian puppet theater in general, in that it has close connections with human dance and drama and draws upon religious sources for its themes.

Japan, another Asian country, has had a tradition of rod, string, and hand puppets dating back to early feudal times. One very important aspect of this tradition is represented in this eighteenthcentury painting by Tsukioka Settei, which you can see today in the Smithsonian's Freer Gallery of Art. / During the Edo Period (1615-1868), puppetry was an extremely popular form of entertainment in Japan. Puppeteers, in full view of the audience, operated the large, realistic hand puppets of the Joruri theater, with such skill that the presence of the puppeteers on the stage was quickly forgotten by the audience. The puppets used were similar to, although bigger than, the puppet shown in this painting. / The narration for these shows was provided by a chorus of reciters, to the accompaniment of a three-stringed instrument called the samisen. The reciters would describe the settings and costumes, explain the emotions and motives of the characters as the play progressed, and read the dialogue in a range of subtle voices, changing their tone with the mood of the characters. The Bunraku puppet theater prominent in Japan today is a direct outgrowth of the Joruri tradition.



Photograph by Eliot Elisofon. Museum of African Art, Eliot Elisofon Archives

audience's view. / The puppets are made-by village carvers-to represent social stereotypes as well as figures from traditional anecdotes and stories, The facial features and hairstyles of the female figures and the hat types of the male figures serve to identify the characters' ethnic origins, while details of the puppets' costumes show attributes like age, occupation, and social standing in the community. For example, leadership figures generally wear beards (indicating old age) and often hold fly whisks as emblems of their office. Musicians are usually shown with their instruments. Farmers are shown with their hoes. Mothers are shown with their children. The puppet shows are sponsored by the village kamalen-ton, or young men's association, as part of a long-standing theatrical tradition that includes also masks and plays performed by human actors.

from traditionally "non-art" materials.

... And we also have muppets. Up there, in the top center of this photograph, presiding over a National Museum of History and Technology exhibit on important influences in American Education, are Bert and Ernie of Sesame Street and Muppet Show fame. Later on this year, Bert and Ernie will be joined by Big Bird and Oscar the Grouch, who will take part in a special exhibition celebrating the tenth anniversary of Sesame Street. 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.

Three cheers for the man on the bicycle! He is ALBERT EINSTEIN—a very great scientist—and this year the world is celebrating the 100th anniversary of his birth.

Back in the 1880s, when Albert Einstein was a little boy in his native country of Germany, few people would have guessed that he would one day grow up to be a famous scientist. He was a very poor student at first, and some people even thought he was stupid! Legend has it that when his father, Hermann Einstein, asked the headmaster of Einstein's school what profession his son should enter, the headmaster replied: "It doesn't matter. He'll never make a success of anything."

But then the forecast began to change for Albert Einstein, and by the time he reached the age of twelve or thirteen, it was plain to all who knew him that he was a genius. He was immensely gifted at math and science—and because he was so gifted, he was always asking questions. Never would he take a piece of information or a scientific theory at face value just because a teacher or a textbook said it was so. No matter what was said or who said it, he always felt he had to prove that thing *for himself*. And it was this habit of asking probing questions that enabled Albert Einstein, in 1905—when he was just twenty-six years old—to come up with a brand new idea that was to completely change man's way of looking at the universe. He called his new idea the Special Theory of Relativity.



Since the Special Theory of Relativity was hard to understand, it frightened many people in the beginning. But later on, as people began to see that it made sense, they were no longer afraid of it; and eventually the whole world came to see its great importance.

In 1933, when Adolf Hitler became Chancellor of Germany, Albert Einstein gave up his German citizenship. For the rest of his life, he lived in the United States, and eventually became an American citizen. Einstein had many sides to his character—and people loved him for his warmth, simplicity, and sense of humor. He actively supported the political causes he believed in, especially the cause of world peace. He died in 1955, at age seventysix, in Princeton, New Jersey.

A number of good books that you may want to read have been written about Albert Einstein. (See the book list at the end of this article.) And this year the Smithsonian Institution has mounted a special exhibition commemorating Einstein's contributions to science and mankind.

Three cheers for the man on the bicycle! Three cheers for Albert Einstein! By asking probing questions and working for the causes you believe in, you can help us celebrate the 100th anniversary of Einstein's birth.*

is a publication of the Office of Elementary and Secondary Education Smithsonian Institution Washington, D.C. 20560 Editor: Ann Bay (202) 381-5351 Regular contributors include: THE ANACOSTIA NEIGHBORHOOD MUSEUM 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 Smithsonian Institution Press Designer: Carol Hare Associate Editor: Ruth W. Spiegel $\mathbf{A}\mathbf{R}\mathbf{T}\mathbf{Z}\mathbf{O}\mathbf{O}$ 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 "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 numbersand you can find objects close at hand, by drawing on the resources of your own community. Our idea, then, in producing ARTZOO 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 third of three pilot issues published in Dec./Jan., Feb./Mar., and April/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 three issues. With this April/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. SPECIAL OFFER The American Experience **Portfolio Series**

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Portfolio Titles are:



Book List

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The photograph of Albert Einstein on a bicycle was taken in 1933 at the Hope Ranch near Santa Barbara, California. Photograph courtesy of California Institute of Technology Archives

*You and your classmates might also stage a classroom exhibition on Einstein or write a song or put on a play or puppet show about his life.

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