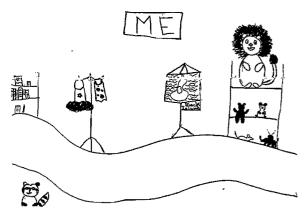
The Museum Idea

By DENNIS O'TOOLE Curator of Education National Portrait Gallery

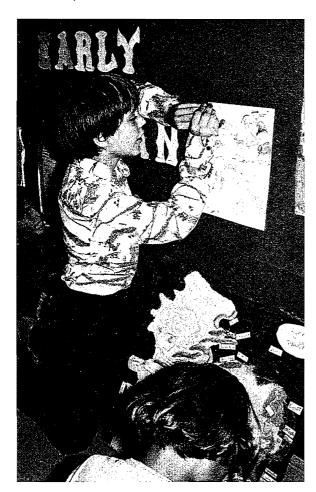
In the Centennial year 1876, the pupils of Public School No. 10 in Des Moines, Iowa, decided they wanted to send a message telling about themselves to their counterparts in 1976. The device they chose for this communication was a mahogany box with a silver plaque on the lid. Into the box went an assortment of the children's stories, essays, poems, and illustrations, accompanied by a beautifully handwritten preface explaining the project in the children's own words:

That the boys and girls of 1976 may have some tangible evidence that there were school teachers in 1876, and boys and girls lived and studied and suffered all the ills that school life is heir to, we have written this book, and it is to be sent to Philadelphia to the Centennial Exposition, and then presented to our worthy teacher to be carefully kept, and left to someone who will faithfully promise to send it to Des Moines in 1976 to be shown to the boys and girls of that time.*

The particular audience for whom all of this effort was expended won't see the mahogany time capsule—for School No. 10 was torn down fifty years ago. But the box was opened here at the Smithsonian this spring, and its contents proved a revelation. Young



A Washington, D.C., fourth-grader's version of the "Museum of Me."



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

people of a century ago, and the school that was so much a part of their lives, live again through the mahogany box and its messages from the past.

Wouldn't it be wonderful, I thought, if we all could receive such messages from the past? Then it occurred to me that most of us do have access to messages from other times and places because these messages are found in museums. For what are museums if not places within whose bounds all sorts of things, man-made and natural, living and nonliving, are collected, preserved, displayed, and interpreted for our instruction and delight? Whatever form a museum takes (such as an art gallery, nature preserve, science center, or historic house), it can in its way be as much of a revelation as the box out of the past.

Perhaps your class will be visiting your local museum soon. If you have such plans, or if there is no museum within reach but you still want to teach the nature and uses of museums, you might enjoy trying to convey the "museum idea" to your students:

- Make your own Bicentennial time capsule. Here the aim would be to create and bring together things to tell those who will open the capsule in 2076 what your students and their school were like. In addition to selecting and assembling the contents of their time capsule, students must decide how to preserve the objects they have chosen and also how to insure that the objects will be delivered into the hands of their intended audience in the next century.
- Plan your own personal "Museum of Me." After each child decides what to include in his "Museum of Me," he needs to draw up a plan to show how the items chosen should be displayed in order to communicate to visitors who have never met him all the essential information about himself—hobbies, pets, family, school, and friends. Some students may wish to carry this activity a step farther by creating drawings or three-dimensional models of their museums, as well as posters to attract visitors.
- Create a classroom mini-museum on a theme or subject relevant to your curriculum. The children might work as individuals, in groups, or together as a class to (1) decide what sorts of objects will be exhibited, (2) find, repair, and care for the things they have selected, (3) display the objects, and (4) interpret this collection for visitors. And then, of course, the children will want to devise ways of attracting visitors, through posters, pamphlets, and other means. "School Museums," in Molly Harrison's Changing Museums, listed in the suggested bibliography at the end of this article, has good advice on how to establish and maintain a classroom museum.
- Find out how your local museum works. Arrange for teams of students to meet with and interview the people in the museum who (1) decide what the museum will acquire and display, (2) research and take care of the collection, (3) build cases, arrange



Another view of the mini-museum at Oak View Elementary: "For what are museums if not places within whose bounds all sorts of things are collected, preserved, displayed, and interpreted for our instruction and delight?"

lighting, and see to other details of display, and (4) help visitors to learn from the exhibits. The teams can then report their findings to the class as a whole. A data retrieval sheet, such as shown here, win help students collect and organize their information efficiently.

All of these exercises can help students understand what museums are and why they exist. These exercises can also help children learn about the different jobs done in museums. Most important, through activities such as these, students can find out for themselves that there is much to be learned from handling and examining real things that cannot be learned from television, radio, the printed word or, in fact, from any other medium.

And that is the "museum idea."

Suggested Readings for Teachers

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.

DATA RETRIEVAL SHEET ON MUSEUM CAREERS

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

^{*}As quoted by Edwards Park in "Around the Mall and Beyond," Smithsonian (May 1976), p. 33.

Have Exhibition, Will Travel

By ROBIN LYNN Program Coordinator Smithsonian Institution Traveling Exhibition Service

This quiz is contained in a brochure given to visitors to the Smithsonian traveling exhibition, The Inaugural Story, which highlights the inaugurations of the thirty-seven presidents of the United States. The exhibition consists of forty 30"x40" panels designed for easy installation. Exhibitors are encouraged to supplement the panels with artifacts-such as inaugural programs, badges, and buttons-borrowed from local collections. Rental of the show for a fourweek period costs \$200 plus outgoing shipping.

The division of the Smithsonian responsible for producing The Inaugural Story, as well as 200 other exhibitions ranging in subject matter from Roller Coasters to Whales, is the Smithsonian Institution Traveling Exhibition Service (SITES). Through SITES, exhibitions are rented for four-week periods to museums, universities, and schools throughout the United States. After an article was run in Art to Zoo last spring on the SITES exhibition, Blacks in the Westward Movement, many teachers asked that we publish information on the full range of SITES exhibitions available to elementary schools and how to gain access to them. This article is in response to those requests.

Free Catalog

The first thing to do in considering the rental of a SITES exhibition is to send for the free catalog, Update, which describes in words and pictures each exhibition currently offered through SITES. In using Update, you will want to keep in mind that unless your school has a gallery especially designed for the safeguard of objects, the exhibitions you may borrow will generally be confined to those listed under the category of limited security. These include panel exhibitions, such as The Inaugural Story, which contain no original materials or artifacts, and also a number of photography and children's art shows. Limited security exhibitions may be displayed in any open area, such as a lounge, providing the area is secure during closing hours. (The use of hallways as exhibit areas is discouraged.)

Your SITES exhibition may be booked as far as two years ahead of time, or with as little as two months' advance notice. You will be responsible for installing the show and for arranging its shipment to the next user.

To obtain your copy of Update, write to: Smithsonian Institution Traveling Exhibition Service, Washington, D.C. 20560.

Making Your Selection

In selecting your exhibition, you will want to consider the various options listed in the catalog, in light of both their curricular relevance and their size. After determining if a show will serve your curriculumby adding a visual dimension to a topic recently discussed, by supporting a current affairs issue or special event, by introducing a new unit of study, or by some other way-you will want to compare the size of the exhibition with the size of your exhibit area to see if the show will fit. In doing so, you will see that the total minimum space required to display a wall-hung exhibition is expressed in the catalog in running feet. This figure represents the sum of the widths of all hanging items, with a one-foot allowance between each item.

The following is a list of just some of the SITES exhibitions that might be of interest to your students. The starred listings have texts especially well suited to grades 3-6: American Agriculture. Panel exhibition on the history and technology of agriculture in American society. Includes workbook and pamphlets. You add farm implements. Running feet, 200. Rental fee, \$200. American Eagle: Symbol for Survival. Photographic exhibition about the bird chosen as our national emblem, and its present endangered status. Workbook and poster included. Running feet, 200. Rental fee, \$300. And the Band Played On. Panels tell the story of 200 years of American bands, including marching, jazz, rock, and dance. Workbooks, catalogs, and tape cassettes included. You add instruments and sheet music. Running feet, 160. Rental fee, \$250. Coast to Coast Coasters. The history of the American roller coaster, from its inception in Russia, through its peak of popularity in the 1920s, to its present "endangered" status, portrayed on panels. Poster, film, cassette program included.

A Match Game for the Young at Heart (Watch the President with the correct statement) Women marched in an inaugural parade for the first time A GEORGE WASHINGTON at this President's second inauguration. The first President to ride to his inauguration in an FRANKLIN PIERCE His wife held the family Bible on which he repeated the LYNDON B. JOHNSON Was nicknamed "His JOHN F. KENNEDY Accidency"... Led out two cotillions and a stately minuet at the JOHN TYLER inaugural ball, held five days after he took oath. Said, "I always said it would be a cold day when I got GROVER CLEVELAND to be President of the United States". Was the only President to choose to affirm, rather than WILLIAM HOWARD TAFT swear, to the Constitutional oath of office . Said, "Ask not what your country can do for you: Ask WOODROW WILSON what you can do for your country" The only person ever inaugurated to serve two non-WARREN G. HARDING consecutive terms as President . . 16 D8 d7 69 B8 94 95 12 41 answer key

Running feet, 275. Rental fee, \$325. Extra! Extra! Men and Machines of American Journalism. Panels tell the story of news reporting in the United States. Running feet, 175. Rental fee, \$95. Hey! Look at Me! Film about inner-city school children from Washington, D.C.; accompanied by examples of art work and poetry. Poster included. Amount of space needed: 50 running feet plus film projection area. Rental fee, \$95. The Inaugural Story. Panel exhibition on the historic and timely pageantry of inaugural ceremonies, all the way from George Washington up to Gerald Ford. Workbook and handout included. You add inaugural souvenirs, photos. Running feet, 180. Rental fee, \$200. Our Only World. Color photographs documenting the American environment and our need to respect it. Poster included, Running feet, 300. Rental fee, \$125. Photographing the Frontier. Panels tell of the growth of the American frontier at the end of the 19th and the beginning of the 20th century. You add cameras, photographs, maps. Catalog and videotape included. Running feet, 175. Rental fee, \$250. Ride On. The evolution of the bicycle, portrayed on panels. Workbook and poster included. You add bicycles and bicycle accessories. Running feet, 135. Rental fee, \$175. There's a Sound in the Sea. Children's original artwork created in response to the plight of the whale in its struggle against extinction. Workbook and poster included. Running feet, 200. Rental fee, \$350. Population: The Problem Is Us. Explores the environmental implications of the world's explosive 2 percent growth rate, offering suggestions for alternatives to unrestricted growth. Workbook included. Running feet, 100. Rental fee, \$75.

Cooperative Arrangements

If the rental fee for the SITES exhibition of your choice turns out to be beyond the reach of your school's budget, you might consider various alternative means of assuring your students access to the show. You might try:



Children in Montgomery, Alabama, create a "wheels mural" for the SITES exhibition, "Ride On."

- Sharing the costs—and the exhibition—with neighboring schools.
- Persuading your school district to assume the expenses and to circulate the exhibition among several different schools within its jurisdiction. This was recently done by the Los Virgenes Unified School District of West Lake Village, California, which placed the exhibition And the Band Played On in four schools and one library during a four-week booking.
- Persuading your local university, historical society, museum, bank, or shopping mall to bring the Continued on page 4

Bands in Schools and Universities









What Do You Say To an Abstract Painting (After You've Said Hello)?

That depends largely on what the painting first says to you! Here, AMY FLOWERMAN, of The George Washington University's Department of Education, suggests some icebreakers you might use in introducing your students to an abstract painting. With photographs of paintings on exhibit in the Smithsonian's new Hirshhorn Museum and Scultpure Garden, Ms. Flowerman demonstrates the kinds of questions you and your students might ask of an abstract work of art in order to gain insight into ways an artist uses line, color, and shape—three basic elements of art—to communicate. Once students have become skilled in asking questions of abstract art, they may enjoy using the same approach for getting to know non-abstract works as well.

It may help your students to know that there are essentially two types of abstract paintings, both of which are featured in this article. These are (1) the abstraction, in which the artist is thinking of a real object and gives you a general idea of the form of that object, and (2) the purely abstract work, in which the artist uses line, color, and shape to create forms that in no way allude to recognizable objects.

As to where you can find abstract paintings for your students to meet, original abstract works may be seen in many libraries, museums, universities, colleges, and galleries (both commercial and noncommercial); prints and slides of originals may be purchased—or sometimes borrowed—from your local art museum for use in your classroom. In addition, slides and postcards of two of the paintings discussed in this article, as well as slides and postcards of many other abstract paintings, are available from the Hirshhorn Museum and Sculpture Garden at a nominal fee. (To order, see instructions at the end of this article.)

• Orange and Black Composition. In this abstraction by Alexander Calder, a sun, a moon, a snail, butterflies, snail-like shapes and a space capsule seem to sail through space and to bounce off one another, leaving traces of their paths behind them. First you might ask students to name the feelings these images evoke. Are the images evil? funny? or something else? Then ask: do the images remind you of a circus... a carnival... a dream... a mobile—or what? How many times does Calder use the snail-curl form in this painting? And how does he use the form differently each time? Questions like these can help students assess their initial responses to a work of art.

Now, the children are ready to consider how Calder's use of the formal elements of line and color influenced their initial responses to his work. The delicate, circular *lines* of the painting create a spinning, careening motion. Could the same effect possibly be achieved with lines of another sort? Regarding color, the children could see from a slide or print of the painting that brown-black images are placed over an orange background melting into beige. What associations do these colors bring to mind—sunrise, sunset, earth?



Orange and Black Composition, by Alexander Calder.

• Palladio. In this purely abstract work by Franz Kline, a square, slightly offcenter, is pushing or being pushed into thick, black brushstrokes that seem to be squeezed together or propelled out of the painting with the force. No color is used in this painting—only black, white, and gray.

Students might first consider the artist's emphasis on form in this painting and how his placement of form creates a strong sense of power and motion. They might observe that the first two brushstrokes on the bottom are spaced far apart. The square appears to be bumping into the top brushstrokes, pushing them out of the painting. How would the sense of power communicated by this painting change if the



brushstrokes immediately on top of the square were placed far apart?

Before moving on to the third painting—Mizzar, by Victor Vasarely—students might reflect on the kinds of motion different shapes create. The curls and circles of Calder's Orange and Black Composition spin and twirl, while the squares and rectangles of Palladio are, in contrast, solidly rigid and static.

• Mizzar. What in the world is happening here? Victor Vasarely, creator of this painting, is a master of optical illusion. You might begin by asking your students to glance at the painting quickly. What part of it are their eyes first drawn to? Does their gaze start at the bottom and get pulled up into the black diamond by the series of v's? Or does it start at the black diamond and get led down through the arrowshaped lines in the middle of the horizontals? What kinds of lines and combinations of lines and forms does Vasarely use to create depth and movement in this painting? As the v-shaped lines recede on the top



Palladio, by Franz Kline.

and bottom, they get closer to one another. This is a simple technique for creating perspective. The asymmetry of the ν shapes is the somewhat jarring surprise.

Vasarely gives us two places to rest our eyes in this work. Ask your students if their eyes are drawn more to the white diamond in the middle of the painting or to the black diamond at the top. Diamond shapes always seem to totter on their ends. If the diamond in this painting were changed to a square, some of the tension would be gone.

As a follow-up exercise to the discussion on this painting, ask your students to find examples of other optical illusions—in art, science, puzzle books. In most optical illusions, certain forms are repeated. The amount of space left between the forms varies. It is this variation that makes you dizzy.

Before and After

Here are some activities to try in conjunction with a museum or gallery visit—either before you've said hello to an abstract painting or after you've said good-by.

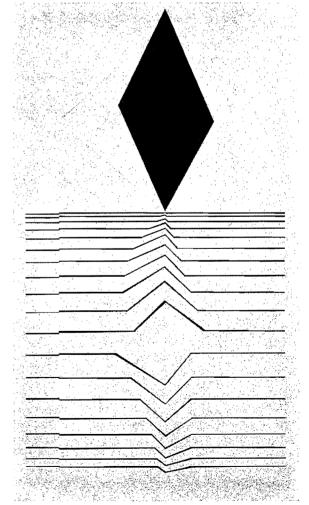
• Texture is an important element in painting. Texture cannot, for obvious reasons, be explored physically with an original work of art. It always helps, therefore, to provide a firsthand experience with textures and materials before a museum visit. For students,

On their tour of the Smithsonian's Hirshhorn Museum and Sculpture Garden, these students will see a celebrated collection of 19th and 20th century painting and sculpture, including works by Rodin, Moore, Eakins, Giacometti, Calder, and many others. We wish to thank the Education Department at the Hirshhorn—which offers many such tours to young people—for help in preparing this article.

making paintings of their own with oil, acrylic, and watercolor ahead of time will enable them to get a feel for different kinds of paint. Or you might ask someone who paints to make small touchable samples of oil, acrylic, and watercolor on canvas or paper for the children to examine in the classroom and take with them to the museum.

- To help students understand the concept of imagery in abstractions, ask them to list various adjectives—joyous, evil, quiet, active—on the board and then have each child choose one adjective or image and illustrate it in a painting a drawing, or a collage. Now have the students exchange papers and try to "read" each other's work by guessing the adjective portrayed.
- Have students look at two different abstract paintings (or reproductions). Ask them to draw some of the lines and shapes from each work. How does the use of line and shape differ in each painting? How does it contribute to the total meaning of each work?

Ask a student to pick the most important color in a particular painting and list the images or feelings he associates with that color. Which of these images are actually conveyed by the painting?



Mizzar, by Victor Vasarely.

To order slides or postcards, write to:
Museum Shop, Hirshnorn Museum and Sculpture
Garden, Smithsonian Institution, Washington,
D.C. 20560. Slides cost 75¢ apiece or \$4.00 for
a set of twelve. Postcards cost 15¢ for the small
4" x 6" size and 25¢ for the larger 6" x 8" size.
Price lists are available on request at no charge.



ART-ZO is a new publication, 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 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 numbers—

and you can find these objects close at hand, by drawing on the resources of your own community.

Our idea than, in producing ART ZO, 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 second of four pilot issues to be published in October, December, February, and April of this school year. Beginning in the fall of 1977, ART will be made available on a wider basis to teachers nationally.

You are one of approximately seven hundred teachers across the United States who have agreed to respond critically to the four pilot issues. With this issue, a form on which to evaluate both this issue and the October issue has been sent to you. To make it easier for you to know who we are, we have listed—in the masthead to the right—the Smithsonian museums and divisions whose education staff members will be contributing regularly. Please read the articles carefully and be absolutely frank in stating your opinions on the evaluation form. We're counting on your help.

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THE ANACOSTIA NEIGHBORHOOD MUSEUM
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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

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HAVE EXHIBITION, WILL TRAVEL Continued

show to your community. (In York, Pennsylvania, such a cooperative arrangement between a school system and an exhibiting institution made it possible for students at York College, the exhibitor of *The Inaugural Story*, to give tours of the show to the city's grade-school classes.)

Planning Your Presentation

Once you have made arrangements for your students to see the SITES exhibition of your choosing, you

will want to explore ways of helping them make the most of the experience. It is important to realize that because the audience for SITES includes adults as well as children, the explanatory text and captions for some of the exhibitions may be too advanced for grade-school students. If a show is to be seen at your school or at a community institution where special guided tours for children are not offered, you will need to act as interpreter and guide to your students.

To help you plan the best way to exhibit and interpret your exhibition, the SITES education staff

has developed project workbooks for most limitedsecurity shows. These workbooks contain teachers' guides and installation, publicity, and program suggestions, as well as information on where to find supplementary objects, films, and speakers. SITES urges you to add *objects* to the panel exhibitions whenever possible. The addition of objects completes an exhibition as it was originally conceived, that is, with that all-important "third dimension."

Have exhibition, will travel . . . to in-school "SITES."



Teachers' Note: This article, based on an interview with Paul E. Garber, Historian Emeritus of Aeronautics in the National Air and Space Museum, has been written to be read by your students. It is the second in a series of interviews with Smithsonian staff members to be printed in Art to Zoo this school year. Through these interviews, 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.

Early one morning in the spring of 1927, a tall young man in helmet and goggles stepped into the cockpit of a silver-painted airplane about twice the size of an automobile. The young man's name was Charles A. Lindbergh. His mission was to fly his airplane—the *Spirit of St. Louis*—across the Atlantic Ocean, from New York to Paris, without stopping.

Airplanes is those days were fairly new inventions and not usually flown long distances. Most people thought that the only sensible way to cross the Atlantic, or any ocean for that matter, was by ship. They thought that Charles A. Lindbergh would never make it from New York to Paris.

But thirty-three and a half hours after taking off from New York, Lindbergh landed in Le Bourget Airfield outside Paris. Cheering crowds ran to meet him. He and the *Spirit of St. Louis* had made it! The two of them had become famous almost overnight.

One of the few people who was not surprised by Lindbergh's sucess was Paul Garber here at the Smithsonian Institution in Washington, D.C. Mr. Garber had been interested in aeronautics since boyhood. Now that he was a young man, an important part of his job at the Smithsonian was to take care of a growing collection of objects relating to man's increasingly successful attempts at flight. These objects included gliders, balloons—and airplanes.

Mr. Garber had felt all along that Charles Lindbergh would make it from New York to Paris. And Mr. Garber knew that this would mean that the Spirit of St. Louis would be the first plane in the world to fly all the way across an ocean, from mainland to mainland, without stopping. Because of its importance to the history of flight, Mr. Garber wanted the Spirit of St. Louis for the Smithsonian, where it would always be properly cared for and where it could be placed on exhibit for future generations to see.

And so it was that one of the first things Lindbergh received after waking up in Paris from the long sleep that followed his historic flight was a cablegram from the Smithsonian in Washington. The cablegram read:

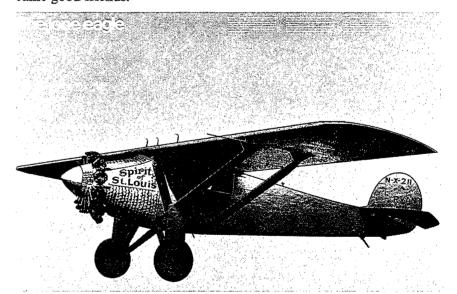
Smithsonian Institution congratulates you on glorious achievement. Hope Spirit of St. Louis will eventually join Langley's machines, the "Army Wright" (first plane ever owned by any government), the NC4, "Chicago," and other historic American planes in our United States National Museum.

C. G. Abbot, Acting Secretary, Smithsonian Institution

In a recent interview, Mr. Garber, who still works at the Smithsonian, told us the rest of the story. "The Spirit was brought back to the United States aboard a U.S. Navy cruiser," he said. "Lindbergh toured the United States and Latin America in it; and then, on April 30, 1928, he telephoned me and asked me to meet him at Bolling Field [outside Washington]. He was flying it in and would deliver it into the Smithsonian's custody that very day!

"The plane was in perfect condition. We drained the gasoline from the tanks and the oil from the oil sump, and cleaned it. Then we took it apart and brought it to the Smithsonian's Arts and Industries Building, towing the body on its own wheels and carrying the wing and tail group in the truck. Once inside the museum, we put it back together and hung it from the ceiling on steel cables for visitors to see."

After that, Lindbergh often came to the museum to see the Spirit of St. Louis, and in the course of these visits, he and Mr. Garber became good friends.



The Spirit of St. Louis, from a museum poster.*

In 1975, the Spirit of St. Louis was moved from the Arts and Industries Building to the Smithsonian's new National Air and Space Museum, where it has been given a place of honor in a gallery celebrating the "Milestones of Flight." From the museum balcony, you can look inside the cockpit and imagine how Lindbergh must have felt on that day fifty years ago when he and the Spirit of St. Louis set out on the grand adventure that proved once and for all the practicality of across-the-ocean flight.

^{*}The illustration of the Spirit of St. Louis shown here is a reproduction of a red and silver 2' x 3' poster soon to be available from the National Air and Space Museum. For information, write to: National Air and Space Museum, Miho Posters, Smithsonian Institution, Washington, D.C. 20560.