



A snow rabbit (Harvey, perhaps?), built by two Silver Spring visitors, emerges on the Mall after one of the February snowstorms.

CFA Scientists Direct Team Investigations With Satellite

By James Cornell

Dr. Andrea Dupree, a solar physicist, and Dr. Herbert Gursky, associate director for optical and infrared astronomy, both at the Harvard-Smithsonian Center for Astrophysics, will head research teams directing the scientific investigations conducted by the International Ultraviolet Explorer (IUE) satellite.

The IUE satellite, launched in late January by the National Aeronautics and Space Administration in cooperation with the European Space Agency and the British Science Research Council, is a multifunctioned astronomical space observatory designed to conduct studies ranging from planets in our own solar system to some of the most distant objects in the universe, including quasars, pulsars, and black holes.

IUE will be examining the spectral region which lies in the ultraviolet (UV) between 1150 Angstroms and 3200 Angstroms, a region inaccessible from the ground. This region includes the fundamental emissions of many of the common elements in the universe (hydrogen, carbon, nitrogen, oxygen).

The satellite is unique in that it has no principal scientific investigators, rather experiments will be conducted by guest investigators working as "research teams." Dupree and Gursky will each be responsible for coordinating the investigations of such teams during the lifetime of the satellite.

With nearly 200 astronomers from 17 countries including the Soviet Union already selected to conduct observations with IUE, the spacecraft could become one of the most widely used satellites in NASA history.

Data returned by IUE are expected to shed more light on the nature of the different kinds of stars that populate our galaxy, on the material between the stars

from which stars are formed, on many of the objects that are emitting radio waves or X-rays, and on nearby galaxies such as the little-understood Seyfert galaxies.

In our own galaxy, the spacecraft will look at hot stars and the outer atmospheres of "cool" stars. Cool stars are stars similar to our own sun. They are relatively cool at their surfaces but have extremely rarefied outer atmospheres, or coronas, with temperatures of about 555,000 degrees Celsius (one million degrees Fahrenheit). Ground observatories can't study these coronas effectively, but IUE instrumentation will be able to examine them to determine their temperatures, density, and chemical composition. The workings of our own sun are expected to be better understood as a result of these investigations.

The IUE will also study Jupiter and other planets in the solar system. Jupiter's giant red spot is of special interest, along with the four larger Jovian moons, Io, Europa, Ganymede, and Callisto, and their atmospheres.

IUE complements and extends observations made by the two NASA Orbiting Astronomical Observatories, OAO-2 and Copernicus, and ESA's TD-1 satellite. The IUE will be followed by the 10-ton Space Telescope (ST) which will be launched by the Space Shuttle in 1983.

IUE will provide a rehearsal for one of the most important objectives of the ST—a system for observing by astronomers of all nations.

Ever wonder what a snake eats for lunch?

See story, page 3.



THE SMITHSONIAN TORCH

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March 1978

Congress Considers Bill to Add Museum of African Art to SI

At a joint press conference February 7 with Joan Mondale and Representative Lindy (Mrs. Hale) Boggs, Senator Wendell Anderson of Minnesota announced that he was introducing a bill to authorize the Smithsonian's acquisition of the Museum of African Art.

Senator Anderson said that he was honoring one of the last wishes of the late Senator Hubert Humphrey by introducing this legislation to the Senate and the House. Senator Humphrey had been a strong supporter of this bill and had prepared a statement about the Museum to be included in the official record. He chaired the first board of the Museum and continued to serve as chairman of its national council until his death in January.

Representative Boggs, cosponsor of the legislation, recently served on the Board of Regents subcommittee to investigate the possibility of acquiring the Capitol Hill Museum.

"The addition of this Museum to the Smithsonian will help fill a gap in the collections," said Boggs at the conference. "The Smithsonian has many collections of art from Europe, the Americas, and Asia but few from Africa."

Mondale, a frequent visitor to the Museum and longtime friend of Director

Frederick Douglass. The Museum now consists of nine row houses on the 300 block of A Street, NE., including the original Douglass home.

The collection includes artifacts, textiles, and objects of African sculpture and art; the Eliot Elisofon Archives of more than 150,000 slides, films, and photos, the largest such resource in the world; and a library of about 5,000 titles. In addition, the Museum has assembled an important collection of works by the principal 19th- and early 20th-century Afro-American artists, some 250 oils, drawings, and graphics by Henry O. Tanner, Edward Mitchell Bannister, and Robert Duncanson.

More than 12,000 groups of schoolchildren, college students, and others from churches and civic organizations have toured the Museum. Its department of higher education has offered courses in six local colleges and plans are under consideration to establish a consortium through which any university in the country could send students to study African art and culture.

The Museum also has conducted extension programs in local elementary and secondary schools and has sent exhibits of African art to colleges and museums in other parts of the country.



Richard Holmister

Joan Mondale plays the drums after press conference at Museum of African Art. Joining Mondale are (left to right) Rep. Lindy Boggs, Rep. Walter E. Fauntroy, Warren Robbins, and Sen. Wendell Anderson.

Warren Robbins, praised the extensive educational program of the Museum as well as its collection of more than 7,000 art objects.

The Museum's current operating budget is about \$700,000 per year. It is supported by private contributions and grants from the National Endowment for the Arts and the National Endowment for the Humanities. According to Senator Anderson, annual costs would be about \$1 million when the Museum becomes part of the Smithsonian. The additional costs would cover expanded protection services, repairs and maintenance, and artifact conservation.

The bill now before Congress also calls for the establishment of a Commission for the Museum of African Art to consist of 15 members appointed by the Smithsonian regents. Commission members will include "representatives of the communities of African descendants in the United States, collectors of African art, and scholars in the fields of African art and culture."

The Museum opened in 1964 in the first Washington residence of the great 19th-century black abolitionist, orator, publisher, and Government official,

HMSG Film Okayed for U.S. Showing

"Hirshhorn Museum and Sculpture Garden," a 10-minute, prize-winning color film produced in 1976 by the U.S. Information Agency for foreign audiences, is now available for showing within the United States.

Officially exempted from the USIA's domestic-use restriction by Act of Congress, the film will be sold by the National Archives, an agency of the General Services Administration. It will also be available for rental.

Produced for USIA by New York filmmaker Burt Rashby, it sensitively portrays the excitement of Museum visitors in encountering the art of the past hundred year. The film received the CINE Golden Eagle Award in 1976.

"We are delighted that this film can now be seen by Americans," said Museum Director Abram Lerner. "It goes far in dispelling the false notion that modern art is forbidding or obscure or the exclusive province of some special few."

Smithsonian Press Sets Goal of Twenty-five New Titles a Year

(Loaned to Ann Bay-3/16)

By Johnnie Douthis

"The SI Press is alive and doing well," said former Acting Director Edward Rivinus, who was appointed director in February.

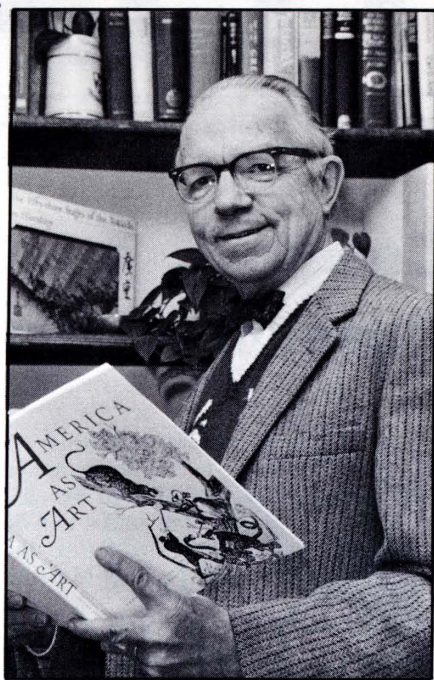
The major objective of the Smithsonian Institution Press has been to create a permanent record of Smithsonian collections, research, and other activities through the books, checklists, pamphlets, and monographs which it publishes. During Rivinus' three-year tenure as acting director, he has revamped the organization to accomplish these jobs effectively.

Under Rivinus' leadership, the Press has joined the Columbia University Press Consortium, which provides efficient distribution of the privately funded publications produced by the Press at moderate cost. According to Rivinus, for the next five years the goals of the Press are to increase annual output to 20-25 new titles annually and net sales of SI Press trade books to the half million dollar range.

The director cautioned, however, that this level of privately funded output would be difficult to accomplish with existing staff due to the increasing number of Federal publications being submitted to the Press. New publishing needs from SITES, the Office of Museum Programs, and Cooper-Hewitt are adding to the Press workload. Two new "Smithsonian Contributions" series have been added from the National Air and Space Museum and the Museum of Natural History. The Press also has taken on the publication of two new periodical journals for the National Portrait Gallery and the Smithsonian Archives. Of the 181 publications put out by the Press in FY 1977, only nine were published with non-Federal funds.

The most recent effort to economize and improve SI Press performance has been the negotiation of a more efficient and less expensive contract for warehousing and filling orders. The new contract is with the International Book Service which has moved the entire Press inventory from Beltsville to Carteret, N.J.

The Press produces the Institution's Annual Report, which has maintained its format and style for several years. It has, however, become larger with the steady increase in Smithsonian activities. Beginning



Press Director Edward Rivinus

with the 1977 edition the report will appear in two volumes—a short, lively annual report for general distribution and an archival operational report with detailed accounts from each office and bureau. This volume will be produced for limited distribution.

In staff developments, the Press expects to add an intern through the Smithsonian's Office of Equal Opportunity. The intern will receive three years of on-the-job training in the Press' Distribution Section at 1111 North Capitol Street. In return for OEO's funding of the internship, the Press assures a permanent position for the trained candidate.

Rivinus came to the Smithsonian in 1971, when he worked in the Office of the Assistant Secretary for Science. In 1973 he was appointed special assistant to the assistant secretary for public service.

He graduated from Princeton University and received an M.A. from George Washington University. After military service in World War II, he entered the U.S. Foreign Service and served in Turkey, Austria, Costa Rica, and Germany before his retirement in 1970.

Moon Crater Named For CFA Scientist

The International Astronomical Union Task Group on Lunar Nomenclature has proposed that a crater in the southeast portion of the moon's Sea of Tranquility be named for Dr. Donald Menzel, former director of the Harvard College Observatory and staff scientist of the Smithsonian Astrophysical Observatory, who died one year ago.

The crater is 3.7 kilometers in diameter and on the standard lunar map represents the most significant feature in that immediate area.

Lunar craters traditionally have been named for men of science, particularly those associated with astronomy and astrophysics. For many years, Menzel was himself the chairman of the task group charged with naming newly discovered features. In 1970, after the manned landing on the moon and the extensive photographic surveys of its surface, the group named more than 500 newly discovered features.

Menzel joins several other Smithsonian names on the moon associated with science: Joseph Henry, first secretary; Samuel Pierpont Langley, third secretary and founder of SAO; Charles Greeley Abbot, fifth secretary and long-time director of SAO; Imre Izsak, an SAO geodesist; and Michael Collins, director of NASM.

Incidentally, Collins and 11 fellow Apollo astronauts are the only living persons whose names have been given to lunar features. The tradition that a person be deceased before becoming an addition to lunar geography was waived in their special case. The Smithsonian also figured in the only other exception to that rule. On the occasion of his 100th birthday, Abbot was given a place on the moon's far side.

A&I Repair Schedule

The North Hall of the Arts and Industries Building will be closed from March 1 through March 14 while the protective nets are being installed prior to the roof repair work. On or about March 15, the rotunda will be closed for net installation. The actual roof repair is scheduled to begin April 1. The exhibit halls will remain open during the work.

SI in the Media

By Johnnie Douthis

Honolulu newspapers were full of news about "Smithsonian Events" recently sponsored there by the National Associate Program. Coverage included Secretary Ripley's speech on ecology at the East-West Center, feature articles on him, and listings of the exhibitions, lectures, and concerts.

Reviews

"The Decorative Designs of Frank Lloyd Wright" at the Renwick was praised by the *Chicago Tribune* as a show that "will acquaint the public with his great eye for detail and concern for ornamentation." Another *Tribune* article noted that this is the first major show to explore a neglected side of Wright's work.

Ada Louise Huxtable, architectural critic for the *New York Times*, stated that everything about "Subways, An Underground Exhibition" at the Cooper-Hewitt Museum is good. Huxtable's list included "the idea and execution, the succinct and lively presentation, the quality of the pictures, the brevity and interest of the exhibition text supplemented by the greater range of the catalog . . . but above all, the place, and the proximity of the real thing."

Paul Goldberger of the *New York Times* wrote that the best feature of "Place, Product, Packaging" at the Cooper-Hewitt is that "it does not indulge in the shrill hyperbole that has marked some of its

predecessors in this infant field of low-brow architectural history."

NPG's self-portrait by John Singleton Copley was described by *Washington Post* art critic Paul Richard as a "first-rate picture of a first-rate painter."

Larry Kart, night life critic for the *Chicago Tribune*, wrote that the Smithsonian's American Musical Theater record series is off to an auspicious start. Kart liked the choice of shows for the albums, noting that one selection each was made from the teens, the twenties, and the thirties.

Smithsonian People

The *Fort Lauderdale News* noted that the appearance and participation of David Challinor, assistant secretary for science, at the English Speaking Union dinner there "added a lot of pizzazz" to the event. Challinor delivered a talk entitled, "From Gastropods to Galaxies."

Betty James' feature in the *Washington Star* on Takashi Sugiura, master restorer of Oriental art at the Freer, revealed that Sugiura uses techniques developed about 1,000 years ago. The article gave details of the restoration processes involved in making a work of art suitable for exhibition.

An in-depth feature in the *Washington Post* "Outlook" section on James Mead, MNH associate curator of mammals, said that most whales are not endangered as commonly thought. According to Mead "there are only two species of whales you can even make a case for as being endangered . . ." Mead noted that whales might be more endangered if more people knew how good they were to eat. According to Mead, "It's not the blubber that's the good stuff, it's the meat. I'd rather eat whale steak than anything. It's much better than beef . . ."

A United Press International feature on MHT Curator Edith Mayo appeared in the *Fayetteville (N.C.) Observer-Times*. The article told about Mayo's activities at the Women's National Conference and her thoughts about the women's movement.

An article on NCFA Director Joshua Taylor at home, which appeared in the *Washington Star's Home/Life* magazine, noted, "It doesn't take more than a glance at his curious assortment of books to tell you he is a scholar." The article said that Taylor has early editions of Palladio and Onsavio, a fair number of 18th-century plays, a Moliere set, and a reprint of a set of late 17th-century plays and music given by Italian players in Paris.

Kudos for Hirshhorn, Cooper-Hewitt

The *Washington Star* carried several photographs of HMSG in a recent issue and described the Museum as a place to "elevate the spirit in any season, to join in a tour of its art treasures with a knowledgeable guide, or to wander about alone in the private contemplation of one masterwork after another." The article said that the art treasures provide surprise and delight, "not only for the art scholar, but for the uninitiated who professes not to know anything about art . . ."

A *New York* magazine article credited the "near miracle" of Cooper-Hewitt's opening to its director, Lisa Taylor. Describing Taylor as an energetic, self-made museum dynamo, the article said that she "took a collection that everybody admired and nobody seemed to want, plus a building that was about to tumble down, and through sheer will and fundraising bravado put them together for a center that has become one of the major resources in America."

Exhibit Tells Story Of Matthew Perry

By Fred Voss

The story of Commodore Matthew C. Perry and how he opened isolationist Japan to trade with the West is told in a new exhibition at the National Portrait Gallery.

In 1638, fearful of the incursions on their civilization by Christian missionaries and resentful of European trade practices, the rulers of Japan closed their country to foreigners. For the next two centuries, with the exception of a small, carefully circumscribed Dutch trading colony off Nagasaki, the island nation remained inscrutable and secluded from the rest of the world.

By the late 1840's, as the advent of steam-powered ships encouraged merchants and whalers to broaden their fields of operation, western interest in breaking through Japan's walls of isolation waxed.

In 1852, after several failed attempts by the United States and other nations, President Millard Fillmore entrusted Commodore Perry with the delicate task of negotiating an agreement opening Japan to American ships.

An ambassador by instinct, the seasoned commodore was well fitted for his undertaking. His squadron of ships came to anchor in Edo Bay (now the Bay of Tokyo) in July 1853. Perry's bearlike presence, evident in three portraits on display, soon convinced his recalcitrant hosts that this was not a man to be put off with threats of force or Oriental circumlocution. After extended maneuvers on both sides, the Japanese yielded. On July 14, 1853, Perry disembarked with ceremonial flourish at a site on Edo Bay. Here he presented his letter from President Fillmore to two Japanese princes requesting negotiations through the Dutch at Nagasaki.

The following March, Perry and five Japanese commissioners concluded a treaty granting American ships fueling privileges and the right of refuge to shipwrecked sailors. Although the agreement did not include the right to trade, it opened the door for this last crucial concession which finally came five years later.

Fortunately for posterity, Perry felt keenly the momentous nature of his expedition. Along with keeping his own detailed journal and encouraging his officers to do likewise, he enlisted two artists to make a pictorial record of the mission. Included in the NPG exhibit are five handsome watercolors done by ship artist Peter Bernard William Heine.

The Japanese were equally anxious to record the visit of the exotic Americans. Next to the strange and forbidding "black ships" that had brought the Americans to their land, the most popular subject matter for Japanese artists was the commodore himself. The most striking Perry likeness is the Japanese woodblock engraving. The artist endowed Perry with an Oriental look and an unusually large nose that they associated with all Americans. Still, the print does resemble Perry.

Also included in the exhibit are two fans and several pieces of lacquer which were among the gifts presented by the Japanese. Though not of the highest quality in art and craftsmanship, the diplomatic presents have the distinction of being among the first objects ever acquired by the newly founded Smithsonian Institution.

Fred Voss is a research historian at the National Portrait Gallery.



Daguerreotype of Matthew Perry

SMITHSONIAN TORCH March 1978

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Zoo Commissary Prepares 2,600 Dishes a Day

By Linda St. Thomas

Working in the Zoo's commissary is like being a short order cook at a huge dinner. Everybody wants something different for dinner. The giant pandas are happy with their 15 pounds of bamboo and the sea lion with its 10 pounds of fish. But some elephants won't settle for anything but their daily allotment of 150 pounds of grain, hay, grass, and vegetables. And then there are the fussy eaters—the birds who eat only live insects and the baby lizards who nibble on one maggot a day.

"All the animals get the best food available—which sometimes means ordering from dealers across the country," said Moses Benson, commissary manager. "We order fresh produce from local commercial dealers, night crawlers from Canada, horse meat from Nebraska, meal worms from California, and crickets from Little Rock, Ark."

Just like anyone who does grocery shopping, Benson prepares a shopping list. For a one-year supply, the staples include 50,000 pounds of meat, 3,120 pounds of potatoes, 230 tons of hay, 330 tons of grain, and 6,500

Daily Menu for a Giant Panda

Breakfast is served at 9 a.m., dinner at 3 p.m. Each meal consists of:

- 4 or 5 carrots
- 5 or 6 apples
- 10-15 pounds of bamboo
- 2 cooked sweet potatoes
- 1 Milk-Bone Dog Biscuit
- 2 cups cooked rice mixed with milk, vitamins, and water

(For a special treat, the pandas receive a honey sandwich.)

one-pound loaves of bread. The produce list includes 520 bushels of carrots, 466 40-pound boxes of oranges, 936 boxes of apples, and 796 bushels of kale. Then he adds the "extras": 96,000 rats and mice, 114,400 live crickets, and 180,000 maggots.

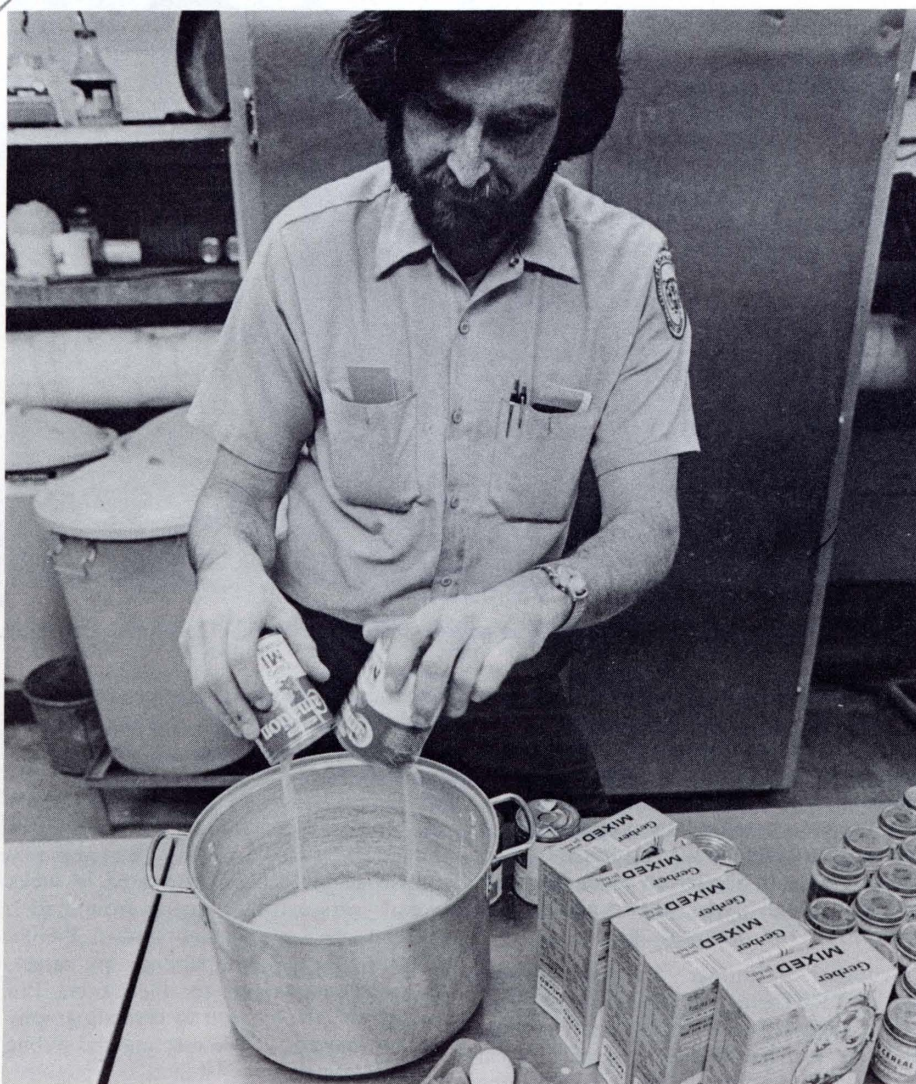
The grocery bill for the past fiscal year totalled \$250,000, not bad considering it feeds 2,600 animals every day.

Benson and his six staff members are always looking for ways to cut corners at the "supermarket." About 12 years ago, they began growing their own grass. It's grown hydroponically, in water rather than soil. In only eight days, the commissary can turn a few oat seeds into a 5-inch-tall carpet of green grass. Hydroponic grass saves the Zoo thousands of dollars per year on the cost of fresh greens. The grass-growing operation has recently been tripled in size and plans are now underway to expand it again, according to Benson.

Every morning, the commissary sends the daily shipment of food to the houses at the Zoo where keepers prepare the animals' meals: cooking, chopping, and slicing certain foods before feeding.

The menus, including exact serving amounts, are written by the curators who decide what dietary supplements and commercially prepared foods the animals require.

The daily commissary order for the Central Mammals Unit includes food for three gorillas, the largest of which tips the scales at 420 pounds. It's a hefty order when you consider that the big male gorilla eats 1 1/4 pounds of kale, 3 1/2 pounds of cooked horse meat, 2 scoops of monkey chow, 3 slices of bread, 1/4 pound of sweet potatoes,



Above, animal keeper Grayson Harding whips up a meal for the small mammal house residents, and Hsing Hsing munches on a mouthful of his 30 pound daily ration of bamboo. A local wholesaler's truck (right) delivers the weekly order of apples and produce to the commissary; part of that order is shown below. The groceries for a year at the Zoo include 50,000 pounds of meat, 3,120 pounds of potatoes, 230 tons of hay, 330 tons of grain, and 6,500 one-pound loaves of bread, and that doesn't count the rats, mice, crickets, and maggots. Appetites at the Zoo on a typical day range from an African elephant who can eat about 70 pounds of hay and 48 pounds of grass to the baby lizards who nibble on a maggot a day. Photographs by Max Hirshfeld.



4 apples, 4 bananas, 4 oranges, and 1 hard-cooked egg.

The crowd in the Monkey House sticks primarily to a vegetarian diet. The black spider monkey family, for example, begins the day with a breakfast of a chewable vitamin tablet, 3 1/2 pounds of marmoset diet, and 1 pound of monkey chow. Lunch is a light meal of 1 pound of kale, 1 pound of cabbage, 1/2 pound of string beans, and 1/2 pound of peas and carrots. For a change of pace twice a week, 1 pound of horse meat is shared by about 30 monkeys and sometimes crickets are let loose in the cages for the monkeys to catch and eat.

Associate Curator Charles Pickett has designed a bird-of-prey diet for the resident hawks, vultures, eagles, and owls. The bald eagles (there are two in the collection) dine on 2 large rats, 2 trout, and a commercially prepared bird-of-prey food, specially balanced to meet the needs of carnivorous birds. The owls' and hawks' diet is 6 to 10 mice and the vultures' is a simple repast of 2 large rats a day.

Pickett gives special attention to food for the Zoo's three species of flamingos because the bird's beautiful reddish color depends on its diet. In the wild, they eat algae and

crustaceans with an organic pigment. Since that is not available in the Zoo, they are fed carrot juice along with their dried shrimp and trout chow.

The polar bear's diet is more substantial. Every day he is given 3 1/2 pounds of apples, 2 2/3 pounds of carrots, 1/2 pound of cabbage, 4 ears of corn, and 1/3 bag of commercially prepared food, 5 pounds of horse meat, and 10-15 pounds of fish.

The African elephant's appetite is even bigger: a morning and afternoon feeding consists of 1 1/2 bales of timothy hay (a bale of timothy weighs about 40 pounds), 1 bucketful (about three gallons) of a prepared grain feed, 1/4 bale of alfalfa (about 20 pounds), and 4 mats of hydroponic grass (about 12 pounds per mat).

In the Reptile and Amphibian House, the natural diet of the animals is usually different from their Zoo meals because the commissary cannot provide the unusual plants, small mammals, or insects native to the animals' natural habitats.

For example, Clark's spiny lizard eats small invertebrates, leaves, and flowers in the wild, but dines on insects and newborn mice at the Zoo. And since the Burmese python can't kill a rabbit for dinner, it is fed one dead rabbit and several mice a week.

Mice are almost a staple in the Reptile House which receives about 130 per week from the commissary, along with 60 rats. The Zoo regularly buys frozen rats and mice from a supplier in Virginia. But when live rodents are purchased, they are killed at the commissary or in the houses before feeding them to the animals.

The menu might be somewhat bizarre,

but running the Zoo's commissary is much the same as operating a restaurant every day for 2,600 hungry customers.

Sunday Brunch at MHT

Employees who come to the Museum of History and Technology as Sunday tourists will be able to enjoy the new brunch offered in the Museum's cafeteria. Beginning Sunday, March 5, MHT will have a special all-you-can-eat brunch from 10 a.m. to 2 p.m. Ten different entrees at the buffet will include crepes with strawberry sauce, baked ham, scrambled eggs with creole sauce, quiche, spoon bread, and creamed chipped beef. The buffet is \$4.50 for adults and \$2.95 for children under 12. Employees with identification will be entitled to their regular discount of 20 percent.

The Sunday brunch will be served from a special buffet table set up in the cafeteria; and the Museum's regular food service will also be available.



The Naturalist Center: A Haven for Collectors

By Thomas Harney

Since its opening one year ago last December, the Museum of Natural History's Naturalist Center has been a stopping place for thousands of persons interested in collecting, identifying, and studying natural history objects.

With all of this activity, the Center's manager, Irene Magyar, would be overwhelmed if it were not for the efforts of 55 loyal volunteers.

"We couldn't function without them. Our volunteer staff virtually can handle the entire operation of the Center, except for the administrative aspects, providing the means to give each visitor individual help and attention, if necessary," Magyar said.

Often visitors bring with them some unidentified object that they are curious about such as a 25-million-year-old fossil shark tooth picked up on the beach, wildflowers found in the woods near their homes, an Indian arrowhead inherited from their grandfather, or shells they have discovered in Florida.

"We encourage them to use our facilities to study these materials and to work out the answers to their questions," said Magyar, "but if they get stumped, we have trained volunteers available in each of the Center's five major resource areas—rocks and minerals, invertebrate zoology, insects, plants, anthropology, and vertebrate zoology—who can lend them a hand. Backing us up in each area, of course, are our scientists—but quite often questions can be handled immediately right here."

Center volunteers, all but a few of whom have a college degree and some sort of biological training, spend an average of four to eight hours a week working at the Center, which is open 10:30 a.m. to 4 p.m. Wednesday through Saturday and from noon to 5 p.m. Sundays.

Nancy Goldstein handles the Center's botanical section one day a week: "When I was a child, I had a scrapbook of wildflowers and made my parents stop the car when we went on drives so that I could pick them. I majored in political science at college, but I've never lost my interest in flowers. One reason I like it here is that when we don't have visitors, we can do our own thing. I've been bringing in wildflowers that I've found growing in my yard and doing research on them. It's a way of increasing my knowledge."

MNH Botanist Stanwyn Shetler says that although they are not professional botanists, volunteers like Goldstein have the potential of developing into a cadre of learned amateurs. "You can't teach such people too much. The longer they work at the Center the more background they want. The study of local plants has languished in recent years because scientific imperatives have shifted to other parts of the world. I have hopes that knowledgeable amateurs such as Mrs. Goldstein can do much to revive the interest in our local flora."

Nikon Microscopes Donated to Center

Nikon Instruments, Inc., manufacturer of cameras and optical equipment, recently donated two microscopes to the Naturalist Center at the Museum of Natural History. Porter Kier, director of MNH, and Irene Magyar, manager of the Center, received the gifts—one compound and one petrographic microscope—from Lee Shuett, regional manager of Nikon, in a brief ceremony. Nikon is a division of Ehrenreich Photo-Optical Industries, Inc., of Long Island.

With the assistance of the Office of Membership and Development, the Naturalist Center has elicited contributions from other corporations including Sperry and Hutchinson which provided Bigelow carpeting; Bausch & Lomb which gave five stereozoom microscopes; Eberbach Corporation, a Kraus Jolly balance; and Ohaus Scale Corporation, two beam balances.

Carolina Biological Supply Company has given a variety of botanical and other equipment and specimens; American Optical Company, three stereozoom microscopes; and Unitron Instruments, Inc., three widefield microscopes and accessories.

The St. Joe Minerals Corporation has donated \$8,000 for the mineral science section.



Naturalist Center manager Irene Magyar helps volunteer Tracy Siani (left) measure skull.

As a result of her volunteer work during the last school year, high school senior Helen Bartlett published a pamphlet about the spring wildflowers of Greenway, Va., where she was a student at Madeira School. The project started as an assignment, but serving as a docent in the Naturalist Center, she worked with Shetler to expand her list, include a fall list, and organize the pamphlet for general use.

Another volunteer, Virginia Jeffers, works in the Center's anthropology section. "My daughter is majoring in anthropology at Duke and has worked at archeological excavations. I've become interested in the subject through her."

Peg Carpenter is one of the Center's shell people. "My husband and I got 'shell bitten' after a picnic on a Florida beach 27 years ago. There had just been a hurricane, and it had washed up rows and rows of shells. We're active in the National Capital Shell Club, and we're trying to help the

Center expand and organize its collection."

One of the volunteers in the rocks and mineralogy section—the Center's most popular area—has been Chris Cunningham. Though he is only in his third year at Parkmont Junior High School in McLean, Va., he is extremely knowledgeable. "I got interested in rocks several years ago by hanging around rock and gem sales stores in Georgetown. I'd like to eventually make mineralogy my career. As a research project for the Center, I'm writing an introduction to crystallography for our visitors. I like meeting the public and offering them assistance."

Irene Magyar sums it all up: "Much of the appeal for the volunteers who work here comes not only from the joy of working with specimens which you love, but also from meeting the incredibly diverse people who share your interests. We have a tremendous pool of talent and enthusiasm here that is just waiting to be shared with whomever comes to the door."

Regents Approve Deferred Giving

The Board of Regents recently approved the establishment of a new program for deferred giving to the Smithsonian. Known as a Pooled Income Fund, this is the same as other such funds which have been adopted by many universities and nonprofit organizations as a significant part of their development programs.

"The chief advantage of this Fund is simply that it allows less affluent people to support the Smithsonian in this way," said James Symington, director of the Office of Membership and Development. "Other similar deferred giving programs, such as Unitrusts or Annuity Trusts, require at least \$50,000."

"The Smithsonian Pooled Income Fund, on the other hand, enables individuals to participate with a donation of \$5,000 which provides the donor with quarterly income for his or her life and an income tax deduction for the year of the gift," Symington said.

Upon the death of the donor, or of a designated beneficiary, the principal is transferred from the Fund to the Smithsonian's unrestricted endowment.

The dividend and interest income from the Fund is distributed quarterly to the participants in amounts based upon the original investment of each participant.

Increasing the Smithsonian's unrestricted endowment over the next 10 or 15 years to provide a reserve against unforeseeable circumstance is a major objective of the Board of Regents. The Pooled Income Fund is viewed as making a positive contribution toward this goal.

The fund will be managed for the Smithsonian by United Virginia Bank.

MHT Displays Stoneware

American pottery from the 18th to mid-19th century is on display in MHT near the pendulum. The collection of jars, jugs, pitchers, and other stoneware items is considered to contain the rarest and best examples of the "folk art" of the stoneware potter. The 17 items displayed are part of the John Paul Remensnyder collection.

"Europe in the Seventies" Comes to the Hirshhorn

By Sidney Lawrence

For museum-goers acquainted primarily with contemporary art created on this side of the Atlantic, an exhibition opening March 16 at the Hirshhorn Museum and Sculpture Garden will offer many surprises. "Europe in the Seventies: Aspects of Recent Art" will be the first full-scale exhibition in the United States devoted entirely to avant-garde European art of this decade.

Organized and first presented by the Art Institute of Chicago, and scheduled for national tour after the HMSG showing, it will include paintings, sculpture, photographs, and drawings by a new generation of European artists.

Twenty-three artists from seven European countries will be represented in the exhibition. While the ideas underlying their work are related to those of such American artists as Carl Andre, Sol LeWitt, and Bruce Nauman, they share a distinctly European character.

These artists, like their American counterparts, have expanded the context and definition of art to encompass new media and levels of communication. Motivated by ideas, narratives, or procedures rather than by formmaking *per se*, each artist has developed alternatives to images and forms on canvas, or single sculptures on pedestals. Their work ranges from written or photographic records to dispersions of interrelated objects.

"This is my show; this is my experience," said one critic after visiting the first showing in Chicago last fall. The exhibition asks that viewers shed their traditional patterns of viewing and bring instead their literary, social, and historical backgrounds to each work to complete it and make it meaningful.

For example, a series of photographs by the German artists Berndt and Hilla Becker exist as both records of, and commentaries on, physical fact. Each work of the series is composed of nine prints within one frame. They show different views of "Preparation Plants," industrial structures which process such minerals as coal, salt, and iron ore.

The viewer may begin to build associations about these structures: who works inside, what goes on there, how such plants contribute to an economy, or where they are located. Without verbal comment, the artists allow the structures to exist open-endedly within the viewer's thoughts.

"Igloo," by the Italian artist Mario Merz, is enigmatic when first encountered. The dome shape is constructed of steel tubing and sheets of jagged glass. The French words "objet cache toi" (object, hide thyself) are emblazoned in neon across the frame.

Strangely insubstantial as an object (and thus perhaps "hidden"), the structure is rich in inconsistencies. While neon, steel, and glass might evoke the energy of a modern cityscape (with imagery recalling

an earlier Italian art, futurism), this energy can be both attractive and repellent.

On another level, while taking a basic human dwelling as its shape, the structure is too jagged and precarious to be entered, too transparent and artificial to provide the shelter and comfort associated with family and home.

Among several other works in the exhibition will be a projector piece by the Italian artist Anselmo; "Study for Monet's Dream (Waterstructure)," a series of color photographs by Jan Dibbets of the Netherlands; and "California Wood Circle," an installation of driftwood by Richard Long of England.

After closing in Washington May 7, the exhibition will travel to San Francisco, Fort Worth, and Cincinnati.



"Igloo," a mixed media sculpture by Mario Merz, shown in "Europe in the Seventies."

Comings & Goings

Melvin Jackson, curator of maritime transportation at MHT, has been appointed director/head curator of the United States Merchant Marine Academy Museum at Kings Point, N.Y. Jackson came to the Smithsonian in 1961 as associate curator of naval history. He later transferred to the Division of Transportation and succeeded the late Howard Chapelle as marine transportation curator. Jackson began the project to fund and remodel MHT's Maritime Hall which is currently underway.

Jim Novak has joined the RAP staff as an associate program coordinator for lectures, seminars, symposia, and special events. He came from the University of Michigan where he was director of noncredit courses for their extension service and, before that, a teaching fellow in psychology. Novak has an M.A. in educational psychology and is currently a Ph.D. candidate in adult education.

Management Analyst **Richard Bursch** recently joined the staff of the Management Analysis Office. A graduate of Lehigh University, Bursch came to SI from the General Accounting Office.

NASM's Executive Officer **Jack Whitelaw** has accepted the position of deputy chairman for management at the National Endowment for the Humanities.

SITES has three administrative interns, **Betty Teller**, a graduate student in Musicology (American Studies) at George Washington University; **Barbara Bernstein** and **Hedy Ehrlich**, both graduate student interns in the George Washington Museum Education Program.

Carol Cutler, public information officer for NPG, has resigned from that position to devote more time to writing. Cutler is the author of several bestselling cookbooks.

Personnel Conducts Second Labor Talk

What is the collective bargaining process all about? This was the theme of the Labor Relations Seminar for Smithsonian Executives, including the Executive Committee and the Council of Bureau Directors, held January 24 at the Museum of History and Technology. Sponsored by the Office of Personnel Administration, this was the second such seminar held to acquaint Smithsonian managers with an increasingly important factor in the day-to-day administration of the Institution.

Dr. Raymond McKay, associate director of the Labor Relations Training Center, provided an informative overview of the rights and responsibilities of labor, management, and employees in a unionized setting. This resulted in a stimulating discussion by the participants.

The practical "real world" side of the process was provided by Kenneth Moffett, deputy director of the Federal Mediation and Conciliation Service, and Frederick Reel, noted arbitrator and umpire for the Labor Relations Program at the Library of Congress. Moffett and Reel stressed the need for both management and labor to recognize the legitimacy of the other's duties and concerns, and to foster and develop a mature relationship.

Howard Toy, director of the Office of Personnel Administration, concluded the program by reviewing the status of the Smithsonian's labor relations program, highlighting current developments at the Institution.

OPPS Offers Slide Sets

Slide sets on "The Battle of the Little Bighorn," "The Ghost Dance Tragedy at Wounded Knee," and other anthropological topics are now available from the photo services department.

Produced by MNH's Department of Anthropology and the Office of Printing and Photographic Services, the sets contain 60 to 80 slides, maps, and a written script with background information on the subject.

Sets sell for \$25 with a written script and \$30 with a taped script.

Presentations on the subjects of postal rarities, baroque and early classical musical instruments, the "Suiting Everyone" exhibition, Presidential portraits, First Ladies' gowns, and North American animals are currently available at photo services.

SI Carries Torch for 23 Years

By Elissa Free

In March 1955, editors Paul Oesher, Tom Clark, and Jack Newman fashioned the first issue of *Torch* as a five-page mimeographed newsletter. The result of a merger between an informal employee news sheet and the *Credit Union Letter*, the paper has enjoyed great diversity in form, content, and style over the past 23 years.

In addition to news about the Credit Union, it contained short items on SI employees. Here are a few from the first issue: Ben Lawless, now in the Office of Exhibits, won a sports car in a model contest sponsored by the Hecht Co.; Frank Setzler of the anthropology department was heading into his seventh straight month of jury duty, with no end in sight; and Secretary Leonard Carmichael had been on hand at the National Zoo to witness the birth of Amelia, fifth baby of the giraffe Kitty, who came to the Zoo in 1937.

It also carried funny stories. The January 1957 issue published this one:

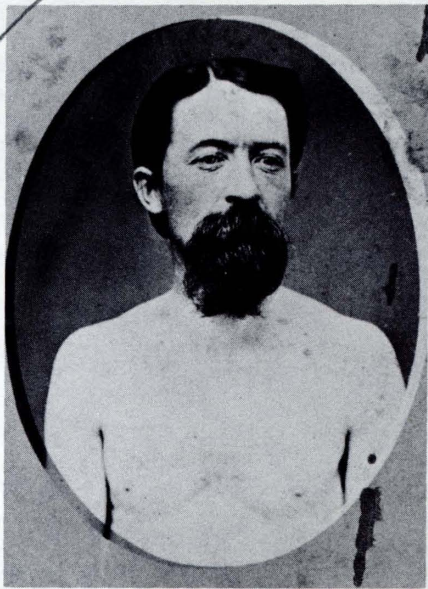
"Once upon a time there was an official of the SI who planned a honeymoon. Thinking to impress the manager of the resort hotel to which he planned to take his bride, this official used Smithsonian stationery in writing his request for the reservation and enclosing a deposit.

"In due time the groom-to-be received a polite reply thanking him for selecting that particular hostelry and agreeing it would have provided a most beautiful place for a honeymoon. The check was returned, however, with the explanation that policies of that hotel were based upon providing rest and relaxation for their guests and, therefore, they did not accept persons from institutions."

A change of *Torch* editors in 1966 brought with it a change in form. Under George J. Berkclacy, now public affairs director of the National Capital Park Service, *Torch* looked much as it does today—a four- to eight-page, illustrated, tabloid-size newspaper.

Mary Krug, managing editor from 1966-68, recalls some *Torch* highlights of those days. Now assistant public affairs director of National Capital Parks, Krug vividly remembers doing a story about a janitor who worked in the nude during the early days of the Arts and Industries Building.

"Not many people saw him as he worked after hours. When individual staff photos were taken, he posed naked," Krug said.



Joseph Herron, the naked janitor, as he posed for a staff photo.

"What to do?" The answer was easy. "They photographed him from the chest up."

Krug also remembers the article on the Smithsonian's request to the Federal Bureau of Investigation to locate and identify the owner of the so-called "Minnesota Iceman." A look at the April 1969 *Torch* explains that the "Minnesota Iceman" was a strange, hairy creature encased in a block of ice shown at carnivals and fairs for 35 cents a peak.

ANM Expands Center

The Anacostia Neighborhood Museum has expanded its Learning Activities Center to encourage young people from pre-school through sixth grade to explore on their own. Young museum-goers can make filmstrips, Indian jewelry, or pottery with help from a staff member who will be on hand.

SI interest was aroused in 1968 when Museum of Natural History primatologist Dr. John Napier reported on an article by Dr. Bernard Heuvelmans in a Belgian scientific journal. Heuvelmans maintained that this "iceman" could be "an actual specimen of what appears to be a previously unknown life form."

The FBI wasn't needed after all. Berkclacy, then *Torch* editor, through an investigative hunt that attracted worldwide attention, solved the mystery. The creature turned out to be a latex rubber fake, according to the *Torch*, made "by a group of exhibits specialists on the West Coast."

That same issue contained a story about a 31-year-old man who broke into two MNH's reptile exhibits and decapitated most of the snakes with a butcher knife. The man said he wanted revenge on a snake that had robbed him of \$20,000. How sweet was his revenge no one knows for the snakes—including a King Cobra—were only plaster models of the real thing.

Torch's name was selected from a competition among the newsletter's 15-member editorial committee. It was submitted by Tom Clark, former SI treasurer, now retired. Other founding editors were Paul Oesher, who formerly headed the Editorial and Publications Division of the SI Press and public relations office and now works in the Research and Exploration Department of the National Geographic Society. He is author of "Sons of the Smithsonian, the Story of Its Leaders" and "The Smithsonian Institution." Jack Newman is now with the National Aeronautics and Space Administration.

Elissa Free served as an intern in the Office of Public Affairs during January.

OPS Division to Monitor SI Safety

The Occupational Safety and Health Act of 1970 requires that all employers in the United States provide safe and healthful working conditions for their employees. At the Smithsonian, the Safety Management Division of the Office of Protection Services has a program to work with supervisors in assuring that the law is observed.

If you believe that you are working in unsafe or unhealthy conditions, you should discuss the problem with your supervisor. If the situation cannot be resolved informally, put your request in writing and ask your supervisor to bring it to the attention of the safety division.

If you and your supervisor don't agree that there is a problem, and you still believe the situation is hazardous, or if you wish to file an anonymous report, you may write your complaint directly to the safety division. If you do not want your name to be associated with the report, it will not be released, except to certain authorized representatives of the Department of Labor, which administers the Act.

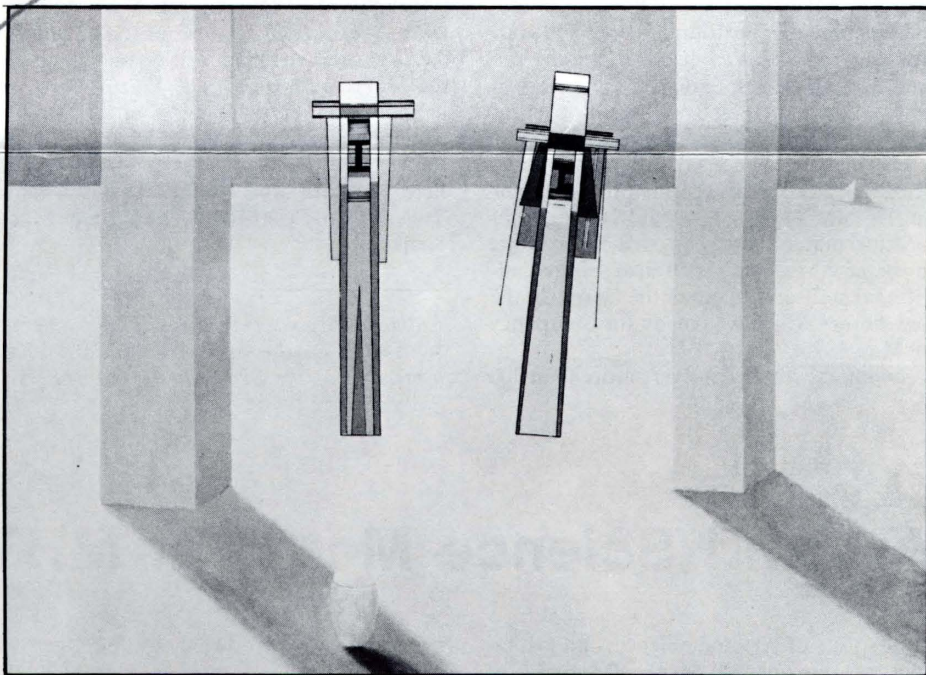
In the case of an emergency which you feel could cause immediate injury or death, you may call the safety division directly at ext. 6232.

Corrections

- In February *Torch*, the booklet "Walk Around Needlework" was incorrectly attributed. The actual authors were Norma Papish and Robert Harding, an education specialist at MHT.

- Also in February, the photograph of the National Associates staff was reversed. The identifications, therefore, read exactly backwards.

NCFA Shows Dream Landscapes



"Nostalgia of Purity" by Attilio Salemmme (1944)

By Karen Ruckman

Dream landscapes with vibrant colors, stick-like figures, and distant horizons fill the canvases of Attilio Salemmme (1911-1955) whose intellectual work will be on display at the National Collection of Fine Arts March 3 through May 7. Titled "Inhabitant of a Dream," the show includes 50 oils by this American who painted for little over a dozen years.

Attilio Salemmme discovered art at a time when introspection was an important theme, and he became interested in early cultures. Searching for a visual statement, "he shared with others," according to Adelyn Breeskin, NCFA consultant for 20th-century painting and sculpture and organizer of this show, "the desire to belong to a society with deep, mythical roots, quite different from the urban commercial culture in which he lived."

While his work is often compared to Mondrian, Klee, and de Chirico, Salemmme was influenced more by writers than by other painters. According to Breeskin, there is a similarity between his work and the writings of Franz Kafka. Both give a feeling of estrangement as well as a combination of the recognizable and the mysterious.

Obsessed with the threat of human isolation, Salemmme painted nonobjective, rigid

shapes that emit a human desire to communicate. According to Breeskin, "He gives us human activity in nonhuman circumstances."

Titles were very important for Salemmme, and if the paintings puzzle the viewer, the titles give direction for thought. "Atavistic Premonitions" presents precariously balanced upright forms that seem drawn to the one solid volume in the painting, the pyramid. Through this association the tension in space is transformed into a parable of time.

Salemmme was a friend of artists Alexander Calder and Marcel Duchamp, and his work is represented in many major museums. If his name does not bring the instant recognition that is accorded his peers, it is due to his untimely death at the age of 43.

Yet Salemmme attained just what he set out for. Breeskin writes in the exhibition catalog that in a visit shortly before his death with Andrew Ritchie, then director of the Museum of Modern Art, Salemmme said that "he did feel that he had resolved most of the particular spatial and color problems he had been working on for so long and that his paintings had now achieved the balance and clarity he had been seeking." Ritchie concluded that "certainly, for me, the evidence was there before my eyes in painting after painting."

Scott Directed Library Switch

By Kathleen Brooks

It's hard to believe today that the vast collection now housed in the gleaming National Air and Space Museum Library was gathering dust under the eaves of the Arts and Industries Building just a few years ago.

When Catherine Scott joined NASM as the librarian in 1972, there was no formally organized library. What did exist was the Historical Research Center, a collection of uncataloged books and journals donated by the Institute of Aeronautical Sciences, much of which was housed in a dark, dusty area of A&I's second floor.

Scott's job was to organize the scattered collection, plan the new library, and maintain it as an integral part of NASM. For her effort, Secretary Ripley awarded her the Superior Service Award in 1976.

Scott came to the Smithsonian from Bellcomm, Inc. where she had organized the library for scientists and engineers on the Apollo Project. With her she brought selected works on space flight and related subjects from the Bellcomm Collection which the National Aeronautics and Space Administration had released to NASM.

Scott's job started with the consolidation of material at A&I and material stored in two warehouses. "We rediscovered some of the rarest books in the NASM collection, some dating back to the 18th and 19th centuries, on a back balcony of A&I," she said. These included the Burden Collection of early ballooning books and scarce aeronautica. Among a collection of children's books was "Hike and the Aeroplane," a rare 1912 Sinclair Lewis book written under a pseudonym.

"The Lamont Street and Alexandria Torpedo Factory warehouses were a gold mine," said Scott, describing the Bella Landauer Collection of aeronautical sheet music, and the autographed books, photos, and documents she found there. She told how exciting it was to discover, among the James Mean correspondence, the 1896 letter from Rudyard Kipling describing a kite skimming over the water.

Throughout the consolidation and move, Scott and her staff responded to public inquiries and assisted curatorial staff in locating materials they needed for exhibits in the new Museum. Scott also selected additional staff and planned the layout of the new library which was ready for occupancy in May 1975.

Today the library answers more than 700



Catherine Scott

public inquiries each month. The staff provides reading lists they have compiled, pamphlets prepared by curatorial staff at Scott's request, and standard response packages for the most common questions.

Computerizing research information is one of the library's major projects. Currently underway is the development and entry of a periodic index to aerospace literature which is not already covered in major indexes. In conjunction with the computerization, microfilmed historical material eventually will be entered into the computer.

"These two projects represent a major step in the direction of information retrieval systems and preservation of historic materials," said Scott.

The motion picture collection has been inventoried since the move; the audiovisual collection will also be inventoried. Recently, Scott and her staff compiled and edited the "International Handbook of Aerospace Awards" in response to public requests for information on this subject. With support from the Special Libraries Association, Aerospace Division, it will be published by the SI Press in 1978.

Staff members who work with Scott include Mimi Scharf, Dom Pisano, Diane Palmer, Phil Edwards, Bob van der Linden, Pete Suthard, and volunteers Col. John Tucker, Charles Morris, and Jean MacKenzie.

Kathleen Brooks, a research assistant in NASM's Department of Aeronautics, is also a member of the SI Women's Council.

Station in MHT Communicates With Ham Operators From All Over the World

By Kathryn Lindeman

"Hello CQ. Calling CQ CQ CQ. This is NN3SI, November November 3 Sierra India, standing by for a call." Walt Lawrence, a volunteer in the Museum of History and Technology's "A Nation of Nations" exhibit, began his amateur radio demonstration by issuing this invitation to anyone who wanted to talk.

"This is like trying to get your kids to perform when they have an audience," he quipped, attempting to raise a reply from the complicated looking equipment.

Lawrence, who has worked in the exhibit for three months, used to own and operate his own equipment in Indonesia. He is one of 14 volunteers who operate the Museum station located in the section devoted to mass production, mass consumption, and mass communication.

Other volunteers who operate the exhibit are Dexter Anderson, Victor Clark, Will Dubyak, Bob Ertman, Joe Fincutter, Neil Friedman, Manny Gochin, Jeff Hartley, Pete Kurtz, Bob Mallonee, Ed Redington, John Swafford, and John Wojcik.

November November 3 Sierra India stands for the station's call letters assigned by the Federal Communications Commission: NN (for "A Nation of Nations"), 3 (for the area encompassing Maryland, Delaware, the District of Columbia, and Pennsylvania), and SI (for Smithsonian Institution). These call letters now represent the only amateur radio station in the United States still operating with a special events license.

When the exhibit opened more than a year and a half ago, special events call letters were being issued for events lasting only a few days or a few weeks. Since then, this type of license has been discontinued. But because MHT gets about 5 million visitors a year and the exhibit serves a public service function, the FCC has authorized the station to continue through June 1981 when the exhibit is expected to close.

The station, with nine antennas on the roof of the Museum building, is run by the SI Amateur Radio Club and volunteers in the Institution's Independent Placement Program. Staff members who supervise operations are Elliot Sivowitch and Ray Hutt from the Division of Electricity and Modern Physics and Warren Danzenbaker from the deputy director's office.

With the current popularity of citizen's band radios, many people confuse the local, short distance communication of the CB with ham radio, which can transmit all over the world. The logbook in the ham exhibit show numerous faraway places the operators "work," or communicate with, every day: Russia, Poland, England, Sweden, and many more. The log even shows such surprising entries as "near the North Pole" and "in a plane over Chile."

Ham radio operators are licensed by pas-

sing a technical exam. Amateur license classes in the United States are novice, technician, general, advanced, and extra. Operators must pass tests progressing in difficulty for each advancement in class. All operators at NN3SI are general class or above so they can more easily give demonstrations for the visitors.

Electronics Technician Hutt did not have a license until he found out he would be assembling the station for the exhibit. "I wasn't going to do all that work on something I wouldn't get to operate," he said. As a result, he got his novice license and has since worked up to the extra class license.

A guest program at the exhibit enables novices and technicians to take part as well as those in the other license classes. A guest arranges an appointment time and brings his license along.

"Amateur radio is very democratic. You see, everything is on a first-name basis on the air so we don't know if the operator on the other end is a taxi driver or a king," said Museum Specialist Sivowitch. "Although King Hussein is an amateur radio buff, as far as we know, we haven't talked to him. But one celebrity, Barry Goldwater, did identify himself."

Operating ham radio is a widespread activity with more than 600,000 amateurs worldwide. Collecting QSL cards has become a popular sideline among operators. QSL means "verification" and is part of a code used in ham radio operation. As a courtesy, operators exchange QSL cards through the mail if they want written confirmation of the radio contact.

"The NN3SI cards are especially sought after because of the unique nature of this station," said Sivowitch. "We have just finished sending out the 5,000 cards we had printed when the exhibit opened."

The station has equipment for radio teletype and slow scan television as well as voice. Slow scan TV transmits a picture of a motionless person or object, a photo, or a slide every 8.5 seconds.

"Our station has used the slow scan TV on a limited basis," Sivowitch commented. "One day I heard an operator from Naples. I thought he must be transmitting from Naples, Fla., until I saw a map of the Italian peninsula on the screen and a sign which read 'Napoli'."

Amusing incidents are part of the SI station operation, too. Volunteer Fincutter recounted one in a recent article he wrote for *Ham Radio Horizons* magazine. He and another operator were listening so intently to transmissions that some children visiting the exhibit thought the men were mannequins. When Fincutter stood up, one little girl "almost jumped out of her shoes... It wasn't until that little incident occurred that we realized NN3SI was the only exhibit that had live people in it."

Art and Science Merge at MHT

"Aspects of Art and Science," an exhibition which opened at the Museum of History and Technology in February, is devoted to the idea that beauty is more than surface deep.

A successful work of art depends on the artist's understanding of the colors, textures, and capabilities of his materials. Often, sensitivity to their properties comes after long years of using them, rather than knowledge of their physical or chemical composition.

Still, the scientific aspects of fine porcelain or Chinese lacquerware are important to a museum visitor seeking to understand how certain works were created. Organized to show the insights of scientists about a variety of works of art, the MHT exhibition reflects the theories of Cyril Stanley Smith, historian and metallurgist from the Massachusetts Institute of Technology.

"We hope that the visitors will enjoy looking at the interesting and often beautiful objects assembled here," said Jon Eklund, chemistry curator and organizer of the exhibition. "But more than that, we hope they will take time to look closely at the forms and surfaces of these objects to get a sense of the ways in which the physical and chemical properties of these materials have been used at the hands of the artists."

One section of the exhibit traces the influence of Oriental ceramics on European science. Seventeenth-century Europeans tried several techniques, using various combinations of materials to imitate the true hard paste porcelain of the Orient.

The first successful imitation of Chinese

porcelain was produced by Boettger at Meissen, Germany, in 1717. One of Boettger's teapots from the MHT collection is displayed in this section.

Artists and craftsmen were experimenting with etching acids centuries before the "chemical revolution" of the 1700's. Decorative etchings go back as far as 2000 B.C. when craftsmen coated sections of beads with alkali and then heated them to encourage corrosion. The uncoated areas retained a smoother surface while the coated parts were eaten into designs.

Centuries later, when armor with etched decorations became fashionable, chemicals were used on the metals to achieve certain artistic effects. Later the vogue inspired two important discoveries in the science of metals, according to Professor Smith. These discoveries, one chemical and one structural, underlie most of the modern science of materials, which is basically the understanding of the relationship between structure and property.

All the objects in this exhibit—from ancient glassware to decorated armor—illustrate the relationship between the artist's intuitive understanding and the later insights of scientists into the property of matter.

The opening of "Aspects of Art and Science" coincided with the annual meeting of the American Association for the Advancement of Science in Washington. The exhibition is a joint project of the Museum and the AAAS. Designed by contractor Barbara Charles, the exhibition is sponsored by PPG Industries, Inc.



Volunteer John Swafford demonstrates ham radio station NN3SI to visitors to the MHT exhibition "A Nation of Nations."

SI Newsmakers

By Johnnie Douthis

"The Smithsonian Experience" has won the Mead Paper Company's 1977 Award of Excellence. The book will be included in "The Top Sixty/77" exhibit which will be shown during the year to thousands of persons throughout the country.

Roger Bilstein, research fellow at NASM, has won the 1977 Goddard Historical Essay Award given by the National Space Club.

Marc Pachter, NPG historian, delivered a talk recently to the New York Historical Society. Pachter spoke on the impact and reactions of early foreign visitors to the United States.

Janet Solinger, director of RAP, was recently in Mexico consulting with government representatives about programs and speakers for the upcoming symposium, "Mexico Today." The symposium, to be jointly sponsored by RAP and Meridian House International with funding from the National Endowment for the Humanities, will take place September 29 through mid-November.

Audrey Davis, curator in the Division of Medical Science at MHT, will present a paper at the annual meeting of the Association for the Advancement of Medical Instruments to be held in March in Washington, D.C. The paper is entitled "The Use of Instruments to Establish Life Insurance Eligibility."

LaVerne Love, women's program coordinator in the Office of Equal Opportunity, was awarded a certificate for outstanding service rendered in the furtherance of equal employment opportunity goals. The award was given by the Minority Women's Task Force of the U.S. Civil Service Commission.

"Reflections on the 'Exactly Repeatable' Visual Statement," an article by **David Haberstick** of MHT's Division of Photographic History, appeared in the book, "The White House News Photographers' Best," published by the White House News Photographers' Association.

Katharine Ratzenberger, assistant librarian at the NCFA/NPG Library, attended the annual conference of the Art Libraries Society of North America held in New York City in January. Ratzenberger was elected national chairman of the Society for 1978.

Wendy Wick, NPG curator of prints, has just returned from a three-week working trip to London. Wick was at the British Museum and the British Library continuing research on her thesis "18th-Century American Portrait Prints."

Wilcomb Washburn, director, Office of American Studies, was recently elected president of the American Studies Association, the national organization of scholars and students in the field of American studies. Washburn succeeds Leo Marx of MIT as president of the organization.

Washburn has participated in other

professional activities including addressing the World Business Council at its annual meeting in January and in several seminars at the Amerika-Institut at the University of Munich in Germany.

NASM Director **Michael Collins** presented Service Awards to the following NASM employees: **Fred Durant**, 20 years; **Reid Ferguson**, 25 years; **Harold Pippin**, 25 years; **Tyrone Taylor**, 10 years; and **Harold Wolko**, 15 years.

HMSG Historian **Judith Zilczer** and **Barbara Wolanin**, predoctoral fellow at HMSG, presented papers at the 66th annual meeting of the Collage Art Association held in New York during January. The papers were given during the session "The Interaction of European and American Art, 1910-1925." Zilczer's topic was "Made in America: The Sculpture of Raymond Duchamp-Villon," and Wolanin discussed "Arthur B. Carles, A Bridge Between Paris and Philadelphia."

Howard Fox, HMSG curatorial staff member, selected and wrote an introduction to "Eight American Collages" by Angelo Ippolito in issue No. 4 of *Sun and Moon: A Journal of Literature and Art*, which Fox copublishes with Douglas Messerli. Fox also wrote an article, "Through the Golden Door: America's Immigrant Artists" that appeared in the Spring 1977 issue of the *Jewish Arts Quarterly*.

Harry Rand, associate curator of 20th-century painting and sculpture at NCFA, gave a talk entitled "Stuart Davis: The Last Colonial" at the Brooklyn Museum on January 28.

Susan Hobbs, assistant curator of 18th- and 19th-century painting and sculpture at NCFA, gave a lecture at the Boston Museum of Fine Arts on January 15 entitled "Whistler and His Models." The lecture was given in conjunction with the exhibition "Whistler and New England Collections."

Daniel Appleman is the new chairman of MNH's Department of Mineral Sciences, effective March 1. He succeeded **William Melson** in the five-year rotating chairman's post. Appleman received his bachelor's degree from Cal Tech and his Ph.D. in geology from Johns Hopkins. His research interests are crystal structure and crystal chemistry of minerals, especially silicates. He was a research mineralogist with the U.S. Geological Survey in Washington, D.C., for 18 years before joining the Smithsonian in 1974. A principal investigator in the Apollo program to study the returned lunar rocks, he was scientist-in-charge of MNH's moon rock exhibit. Currently, he is chairman of MNH's Professional Activities Evaluation Committee and secretary of the Senate of Scientists. He will relinquish both these positions when he becomes chairman of the mineral sciences department. He is also a member of the Academic Steering Committee for Earth Sciences and a member of the working group which is planning MNH's new paleontology halls.

Felix Lowe, deputy director of the Smithsonian Institution Press, has been selected to serve on the subvention review panel of the National Historical Publications and Records Commission. Members of the panel consider applications received from university and other nonprofit presses for the subvention of part of the cost of printing and manufacturing volumes that have been endorsed by the Commission.

A. G. W. Cameron, associate director for planetary sciences at CFA, was one of 20 nationally known authorities in the fields of Federal policy, science, education, and economics who gathered in Washington in January for a special symposium sponsored by NASA to discuss and consider the proper role for the space agency during the 1980's.

Jeffery Hoffman, a former graduate student at CFA and now an X-ray astronomer at MIT, has been selected by NASA as a scientist-astronaut for an upcoming Space Shuttle flight.

James Moran, a CFA radio astronomer has been awarded the 1978 Newton Lacy Pierce Prize by the Council of the American Astronomical Society. The award, which carries a cash prize of \$1,000, is given annually to "a promising, young (under 35) astronomer" engaged in the development and use of instrumentation for observational research. Moran's work includes the study of interstellar masers with the VLBI technique.



ALICE PIKE BARNEY COMES BACK—An exhibition of works by the unconventional artist, playwright, and collector Alice Pike Barney has opened at the National Collection of Fine Arts. After living in Paris for 15 years, Alice returned to this country and opened a fashionable salon at Washington's Sheridan Circle where she entertained presidents, artists, and poets. "Where Shadows Live: Alice Pike Barney and Her Friends" will continue through May 21.

Sports

By Susan Foster

The SI basketball team remained undefeated in the first half of the season with a 112-53 thrashing of the U.S. Patent Office February 2 at Coolidge High School. The games are sponsored by the District of Columbia Department of Recreation.

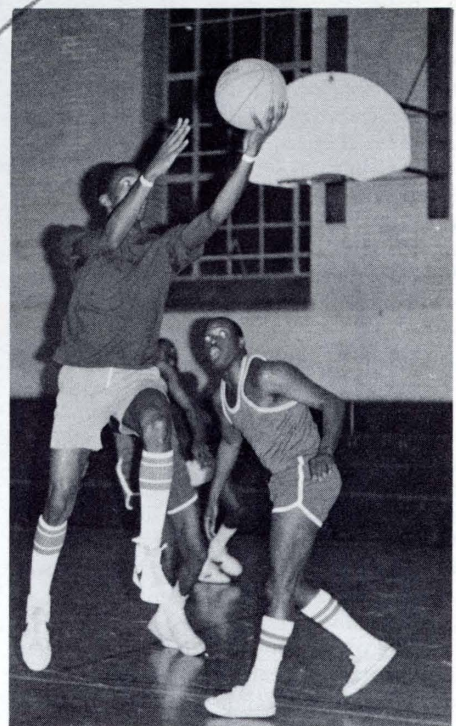
The victory, which was their sixth straight win over league opponents, puts the team in first place and clears the way for postseason competition that could ultimately head to a citywide championship for the SI team.

Oscar Waters, a special policeman at NASM and SI team coach, is confident the team can keep its momentum going through the remainder of the regular season. "Everybody is motivated to do even better in the second half," Waters said. "We'd really like to win and get the automatic entry into the citywide playoffs."

If their 112-53 victory is a true indication of what can be expected in the way of playing skill, the SI team should have no problems. "The main thing is playing together," Waters explained, which is exactly what they did.

Executing sharp passes and on-target shots, the SI team amassed a 54-24 halftime lead over the Patent Office. Center Anthony Addison, a laborer at NASM, was high scorer with 41 points followed by Walt Cromer, with 26 points. DeCarlo Wiley, a special policeman at NASM, contributed 25 points.

Wiley, who averages nearly 16 points a game, led the defensive attack that netted the SI team a number of inbounds steals which were easily converted into quick



DeCarlo Wiley, guard for the SI basketball team, finds an opening and drives to the hoop for an easy layup which helped defeat the Patent Office, 112-53. The SI team won the first half of the season with six straight victories.

layups. Wiley supports Waters wholeheartedly in the quest for the citywide championship.

"Our team is small," Wiley said of the team's height disadvantage, "but we're quick. The whole team can score which makes us hard for the other teams to handle. We normally go with a pressing defense both full and half court," he added, "forcing the other team into a fast pace."

So far the Smithsonian team has applied strategy that works. However, the second half remains to be played and Waters recognizes the target his undefeated team represents to league opponents. "Our goal is to make the citywide playoffs," Waters said. "If we don't have any setbacks, we should make it all the way and bring Smithsonian the trophy."

Books by SI People

Smithsonian staff members who have authored, edited, or illustrated books may notify SI Press Deputy Director Felix Lowe, so that their work can be publicized in *Torch*.

This month's books:

"Charles A. Lindbergh: An American Life," edited by **Tom Crouch**, associate curator of astronautics at NASM, published by NASM and distributed by the Smithsonian Institution Press, 1977. Available in paperback, \$2.95, and hardcover, \$7.95, in museum shops.

"The Book of Luellen," by **Saul Riesenberger**, senior ethnologist, MNH. Australian National University Press, 1977. An accompanying volume of annotations is also available from the publisher.

"Whitney's Star Finder," revised edition, by **Charles Whitney**, CFA, Knopf, \$5.95 (paper).

USDA Classes

In-person registration for the Department of Agriculture graduate school will be held March 20-25. Spring classes begin March 27 and end June 5. For more information or a catalog of course listings, call 447-4419.

Scoreboard

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Q & A

Ann Carroll is the voice of Radio Smithsonian. Every week, listeners of more than 20 stations across the country hear her lively interviews with experts in everything from telescopes to family folklore. Radio Smithsonian is aired in the Washington area Sunday evenings at 9 on WGMS-AM (570) and FM (103.5). Carroll was interviewed by Torch staff writer Linda St. Thomas.

Q. You tape two or three program segments a week for Radio Smithsonian. How do you constantly come up with new ideas and people?

A. Paul Johnson and I search through all the Smithsonian publications, like newsletters, *Torch*, and the monthly calendars, and I check with the Associates to see if any interesting people will be in town for lectures that week. We also get lots of help from the public information officers in the museums.

Q. With so little time between interviews, how do you finish your research? How do you feel when faced with the world's greatest expert in a subject you know hardly anything about?

A. I usually start with the basics—if the person has written a book, I'll read that. If there are articles in popular magazines or journals, I check those before the interview. And sometimes I talk to a Smithsonian curator or expert who is familiar with the subject's work. The oddest interview I did recently was one with the inventor of the first radio telescope, which he built in his



Ann Carroll

backyard. That's not a subject I know a whole lot about so I called a NASM curator for some quick background information.

Q. How can you cram so many questions about a person into one 10-minute interview?

A. By today's standards, 10 minutes is a long, leisurely interview. I have my notes with me in the studio, but I rarely refer to them. Instead, I just guide the conversation—subtly, I hope—from one subject to another. Ten or 12 minutes gives me enough time to get into some depth. On TV, a four-minute interview is often considered excessively long, but that's barely enough time to introduce a person.

Q. Do you have any idea how your subject will respond to a question or do you play it by ear?

A. Usually, I follow the old interviewer's adage: always know the answer to the question you ask. I can relax and enjoy an interview if the research has been thorough. But once in a while I throw in a ringer, like the time I asked the telescope inventor what his neighbors thought of his building this contraption in his backyard.

Q. What was the most exciting interview you've done in your year at Radio Smithsonian? The funniest?

A. One of the most exciting was the interview with Alex Haley and Margaret Mead during last year's "Kin and Communities" symposium. Apparently, Haley had admired Mead's work for years but never met her. So I interviewed them together, supposedly to talk about "Roots," but within a few minutes, the conversation wandered to other subjects, and it was just a fascinating program.

The funniest interview was a program with Ted Park of *Smithsonian* magazine. We discussed his new book about his love affair with a World War II plane named Nanette. Ted also uses his magazine column, "Around the Mall and Beyond," for short features which we often include on the radio program.

Q. What do you think about the future of radio talk shows? Do they have a chance against television?

A. Many people are turned off by television now, and some are turning back to radio. Public radio stations around the country are reporting an increase in listeners this year, and I think that's encouraging. I've done both radio and TV interviews, and I find people on radio are just more relaxed and more apt to let go without the constant distractions of cameras and bright lights.

'Once is Not Enough,' Say NASM Visitors

By Lynne Murphy

A year and a half after its opening, the popularity of the National Air and Space Museum is already legendary. To find out more about why the Museum has continued to attract crowds and to learn more about their preferences, NASM commissioned a national opinion and marketing research organization to study visitors' reactions.

The study was designed to provide information about NASM's visitors, what attracts them to the Museum, how their expectations compare to their actual visit, and how they feel about individual exhibits in the Museum.

Findings from 4,000 interviews over a 10-month period indicate that it is the reputation rather than the newness of the Museum which generates its large audience. Eight out of 10 visitors come to the Mall especially to visit NASM. An equal number have heard complimentary things about the Museum before they arrive.

Among visitors interviewed, 35 percent came from the metropolitan area, 65 percent from all over the country and abroad. Of the local visitors, 53 percent had already visited NASM more than once. As could be expected, the Museum has a special appeal for people interested in the sciences, space, history, and travel.

The study uncovered one limitation in NASM's reputation—people planning a visit are not aware of its appeal for children. Only 26 percent of the visitors mentioned "good for children" as one of the things they had heard before they came; only 17 percent came with children. However, as visitors left, 70 percent of those accompanied by youngsters selected "good for children" in describing the Museum.

The study showed that over half of NASM's visitors plan to spend more than two hours in the Museum. Only one out of 10 actually spends less than an hour in the building.

Eight galleries were selected for study: Sea-Air Operations, Apollo to the Moon, Rocketry and Space Flight, General Aviation, Flight and the Arts, Flight Technology, Benefits from Flight, and Balloons and Airships.

Although the study showed that all eight satisfied their viewers, Apollo to the Moon was rated the most outstanding, followed by Sea-Air Operations, Balloons and Airships, Rocketry and Space Flight, and Flight and the Arts.

Interestingly, in correlating the intent of the gallery as defined by staff with the actual message the gallery communicated to the visitor, the most effective display was Balloons, followed by Rocketry, and then Apollo.

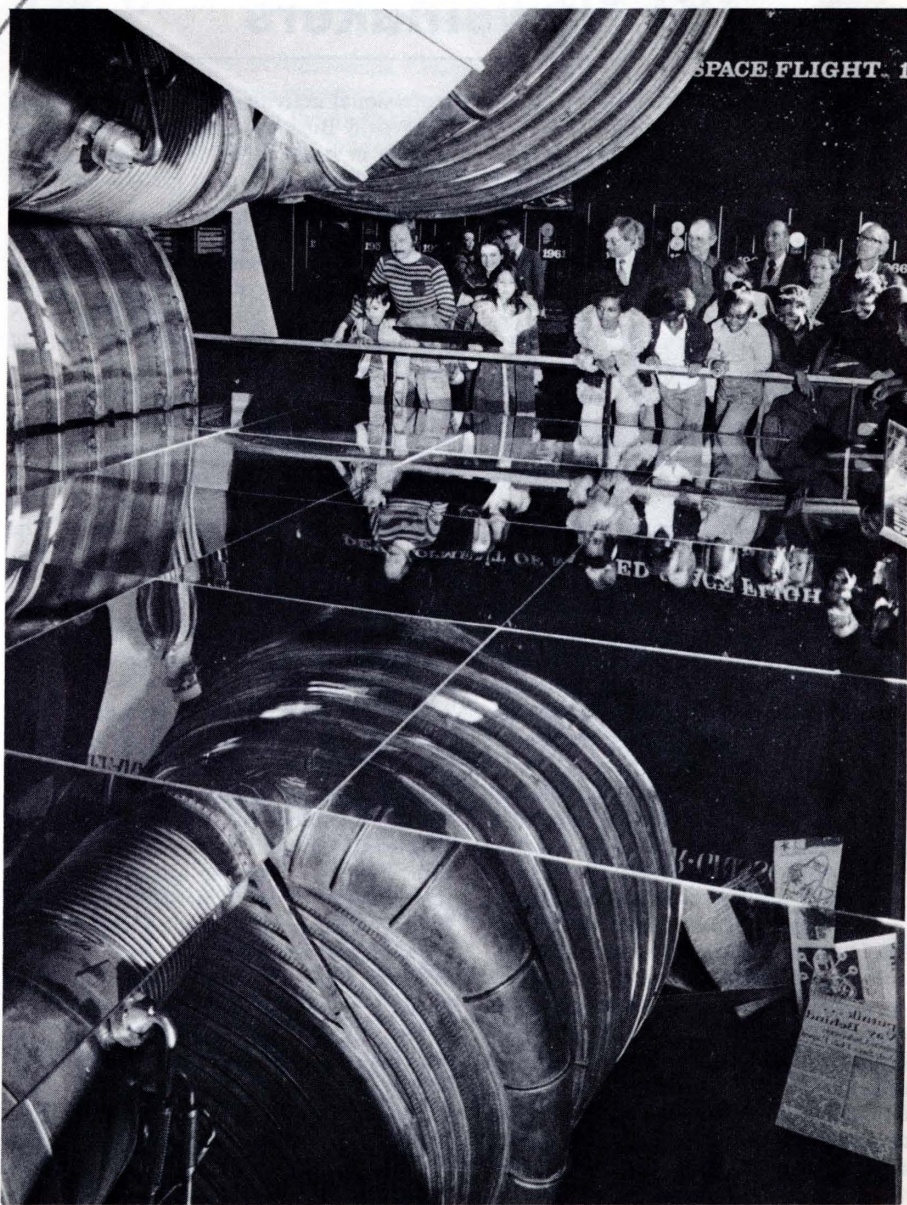
About half the visitors wanted to include one or more particular exhibit in their stay. The three mentioned most often were the movie "To Fly," Apollo to the Moon, and World War II Aviation.

"We had planned to make some changes in the World War II gallery after the building opened," said Director Michael Collins. "But now we wouldn't change a thing. People really like it."

The report revealed a surprisingly strong desire of most visitors to learn more about the subjects of the exhibits. Deputy Director Melvin Zisfein said that as a result, plans are being made to supplement the educational content of NASM galleries.

In opinion research, people can explain why they like what they like. "When visitors don't like something, they usually can't tell you what would be better," Zisfein said. "But it's not their business to figure that out, it's ours."

NASM staff will be going over the specifics contained in the report to extract as much general knowledge of visitor preference as possible.



Richard Hofmeister

Visitors gaze at the Saturn V F-1 engine in Apollo to the Moon Gallery, rated by NASM visitors as the most outstanding gallery. Other popular halls were Sea-Air Operations, Balloons and Airships, Rocketry and Space Flight, and Flight and the Arts.

FLORA SMITHIANA

By James R. Buckler

In 1882, an early-flowering deciduous azalea—technically a rhododendron—was introduced into America from the Orient. Today, offspring of this Korean rhododendron, *Rhododendron mucronulatum*, delights our visitors and employees each year in early to mid-March at the north entrance of the Museum of Natural History.

The Office of Horticulture receives hundreds of inquiries about this very early and beautiful flowering shrub. Even before its leaves come out, it bursts into hundreds of pale rosy-purple, magenta, or pink flowers.

Because it blooms early, the Korean rhododendron often gets caught by a sudden drop in temperature or frozen precipitation. Consequently, it should be planted on a northern slope or in a shady spot, as we have done at the Museum of Natural History, where warm sun does not force the flowers to open prematurely. It requires a well-drained, moist, and acid soil with a pH of approximately 6.0. It is advisable to add some peat moss if you are not able to check the pH. The shrub may be propagated by seeds or cuttings.

The Korean rhododendron reaches a height of approximately 6 feet and will turn a yellow to bronzy crimson in early fall. Native to north China, Manchuria, Korea, and Japan, it is hardy to Zone 4 (-20° F to -10° F). Seedlings of the Korean azalea vary from pink to magenta, so many gardeners pass it over for plants of more certain coloring; however, I find it a superb, easy-to-grow shrub with little or no insect or disease problem in the Washington, D.C., area. If you do not like magenta, I would recommend that you select your plants only when they are in flower or request the cultivar (cultivated variety) 'Cornell Pink' from your garden center.

'Cornell Pink' was selected from seedling lots at Cornell University about 1940 and is valued for its soft pink flowers. It does not

contain any of the rosy-purple color of the species frequently found to be objectionable. 'Cornell Pink' must be propagated asexually, by cuttings, in order to guarantee the retention of the pink flowers. I recommend that you combine 'Cornell Pink' with yellow crocus; *Narcissus* 'Peeping Tom' or other daffodils; the spring flower *Corylopsis* (fragrant winter-hazel); and border the bed with *Liriope muscari* 'Silvery Sunproof' (variegated lilyturf).

Korean azaleas should be pruned soon after they flower or no later than the end of June since they set their flower buds by mid-summer for early spring blooming.

Plants may be obtained from local garden centers or rooted cuttings may be ordered from the Office of Horticulture, Room 2401, A&I Building, ext. 5007. Grown by volunteers, these rooted cuttings will be available in 3-inch pots at \$1.25 each. Orders must be received no later than May 1, 1978, with delivery in late July. Proceeds will benefit the Education Division of the Office of Horticulture.

Missing—requested from Studio. If recd., will return to Horticulture.



Rhododendron mucronulatum

Drawing by Warren Abbott

Photo Contest

To insure fairness for all participants in the *Torch* photo contest, which was mentioned in the February issue, the following guidelines have been added to the ones previously mentioned:

- Employees who are professional photographers for the Institution will be judged in a separate category from amateurs. Recognition for winners in this group will be a certificate of merit from the Office of Public Affairs.

- No more than three photographs may be submitted by any one person.