



# THE SMITHSONIAN TORCH

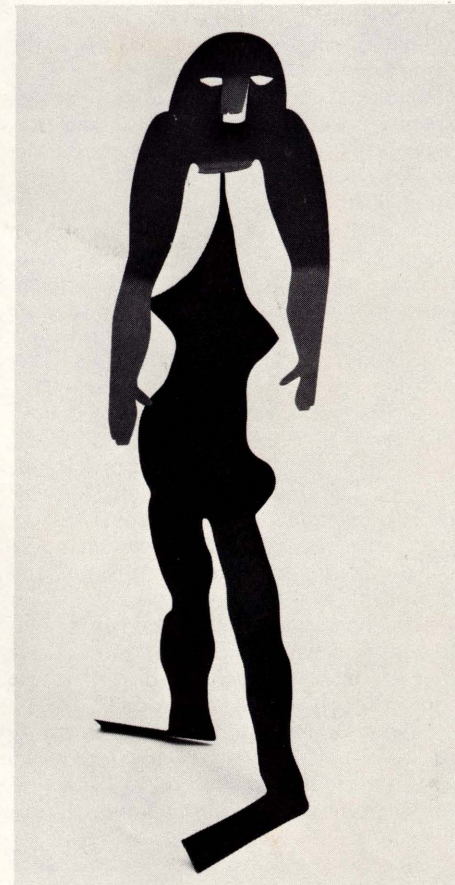
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Smithsonian Institution, Washington, D.C.

August 1979



**NEW ARRIVALS AT THE HIRSHHORN**... Raphael Soyer's "Portraits at a Party" (1973-74), in oil on canvas, and Alexander Calder's metal sculpture, "Critter with Mobile



Top," are two of 56 new works at the Hirshhorn Museum. The new pieces are a gift of the Joseph H. Hirshhorn Foundation, Inc. (See story, page 2)

Photos by John Tennant

## Gasoline Crunch Slowed Flow of Mall Visitors

Gas shortages and uncertainties had their evident impact on the flow of visitors to the Smithsonian Mall museums, as to tourist magnets around the country, in May, June and the first half of July.

The overall decline in attendance was a break in the tourist tradition on the Mall. Normally, while some museums experience a slight drop in May after the busy Easter vacation and cherry blossom season, figures go way up again with the beginning of the summer season in June.

In April this year there were no signs of a problem. In fact, attendance at the Mall

the Museum of History and Technology.

From July 1-15 last year, NASM had 751,393 visitors, while in the same period this year, attendance dropped to 490,919.

Even with the decrease in visitors, NASM remains the number-one tourist attraction in the city, according to figures released monthly by the Washington Area Convention and Visitors Association. During the peak season, a slow day at NASM means about 30,000 visitors while a busy day brings 80,000. This June, the average daily attendance was 30,164.

Across the Mall, the Museum of History and Technology showed an 8 percent decrease in May but a dramatic increase of 34 percent in June. The popularity of the "Ten Years of Sesame Street" exhibit, which opened June 1 in MHT's pendulum area, is most likely responsible for the June increase in visitors, according to Mary Grace Potter, director of the visitor information office. The Sesame Street show has been widely publicized in newspapers across the country and, she added, thousands of tourists who call the Smithsonian or stop at the information desks are asking about the exhibition.

The Museum of Natural History had fewer visitors in May (down 11 percent) and in June (down 12 percent). Attendance figures at the Hirshhorn Museum were also down slightly for both months.

Volunteers who staff the phones and information desks around the Mall museums report an increase in long-distance phone

(See "Visitors," Page 2.)



Big Bird counters gas shortage.

## Carter OKs Quad Plan

A bill authorizing the appropriation of \$500,000 for planning of the South Quadrangle project was signed by President Carter on Friday, July 20. The planning is the first stage in development of the area between the Castle and Independence Avenue to include an Oriental art gallery, a building for the

Museum of African Art and facilities for education and support activities. (See Torch, June 1979.)

The request for these funds was included in the Smithsonian's FY 1980 budget, presented to Congress this spring. As of this writing, final budget appropriation is awaiting congressional action.



**TEN YEARS LATER...** Apollo 11 astronauts (left to right) Michael Collins, Neil Armstrong and Edwin "Buzz" Aldrin marked the 10th anniversary of the first lunar landing July 20 by talking with more than 150 journalists in NASM's Space Hall, participating in a public ceremony and meeting President Carter in the White House Rose Garden. The Museum played host to more than 74,000 people that day and stayed open until 1:30 a.m. Saturday so that the landing could be re-lived in "real time" via TV footage showed on monitors scattered around NASM. Evening visitors were offered free doughnuts (they lasted no more than 30 minutes) and coffee.

Richard Holmeiser

## Cold Clock Triumphs Over Lost Seconds

By William Waller

Scientists at the Harvard-Smithsonian Center for Astrophysics have recently built and successfully tested what may become the world's most accurate timepiece. Their new clock, a very low temperature version of the more standard hydrogen "maser" clock, is so accurate that it loses only 1 second every 45 million years.

Contributing to the new clock's success were scientists Robert Vessot and Edward Mattison, engineer Eric Blomberg and technicians Cosmo Dovidio, William Brymer, Donald Graveline, Richard Nicoll and Peter Warren.

Development of the hydrogen maser has

been an ongoing project at the Smithsonian for about 10 years. Hydrogen maser clocks are based on the natural oscillations of hydrogen atoms. Typically, these clocks have been designed to operate at room temperature. In fact, Smithsonian is the sole supplier of room-temperature maser clocks for other experimenters, who use them for satellite tracking and radio astronomy applications.

The new very low temperature was achieved by cooling the standard clock down to 248 degrees below zero Celsius. The cold maser represents a six-fold improvement in stability over the room temperature version, thus paving the way for more rigorous applications. The most

exciting of these lie in the realm of gravitation, the most pervasive force throughout the universe.

A Smithsonian-designed and pioneering experiment in gravitational research was conducted on June 18, 1976, when a maser clock was launched into space to see how its frequency of oscillation, or time-keeping accuracy, would change as the Earth's gravity decreased. The resultant "gravitational redshift" observed in the rocket-borne clock's time agreed with that predicted by Einstein's Theory of General Relativity to within 0.02 percent.

The new clock's stability should be able to support gravity experiments requiring

(See "Clock," Page 6.)

museums zoomed to 3.3 million as against 2.5 million in April '78, with the number of visitors up 329,000 at Air and Space and 207,000 at Natural History.

Then came the gas lines. In May, some 2.5 million people came to the Mall museums, down from 2.7 million in 1978. Attendance at NASM was down 226,000 as compared with the same month last year.

In June, as news of the area gas problems spread, there was an overall decrease of about 11 per cent from 2.7 million in 1978 to 2.4 this year.

In the first half of July some 1.2 million people visited the seven museums on the Mall, compared to 1.7 million last year, a decrease of 29 percent. Every museum showed a drop in visitor counts, ranging from 35 percent at NASM to 3 percent at



## Commons' Super Souper Tells All . . .

At 6:45 a.m. when most of us are struggling out of bed, Ferdinand Coulon is at work and thinking about lunch. By 11:30 a.m., the first wave of about 200 Smithsonian staffers is arriving in the Commons dining room where Coulon has prepared a buffet of soup, salads, sandwiches, fruit and cold and hot entrees.

Chef Coulon, known to everyone simply as "Chef," spends his first hour or so in the Commons kitchen supervising the food preparation: chopping vegetables for soups, making stocks, preparing meats and checking in and storing new supplies. But he takes extra time with the soup, as any Commons diner knows.

"I think it's a shame soups have been neglected by many cooks," Coulon said. "There's so much you can do with them, and it's really an inexpensive way to serve some high-priced foods like lobster."

Nowadays he has to make extra batches of soup for the sandwich counter in the Castle basement, where take-out containers of that day's "Chef's soup" are sold for 50 cents. His most popular recipe is for spinach and mushroom cream, but the tomato vegetable is a close runner-up.

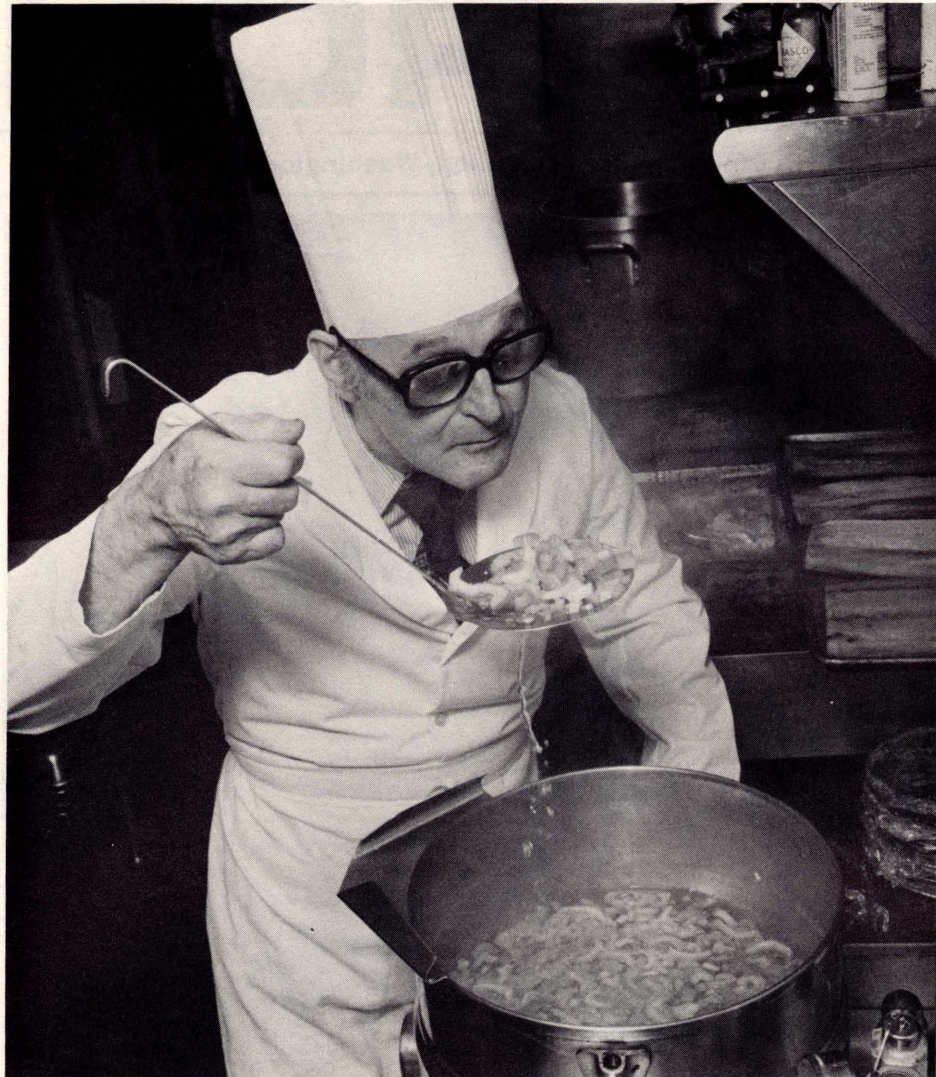
Coulon is considering writing a cookbook after his retirement this fall, and it probably will be about soup.

Like most chefs, he believes that the best dishes are often the easiest to prepare. He uses few frozen or prepared dishes because "something is lost in the process."

"I don't know if the customers are aware of this or not, but I try to serve lean meats and to avoid high cholesterol foods such as heavy cream sauces," the chef, himself on a low-cholesterol diet, said.

Salad dressings are made in the kitchen (the house dressing is oil, vinegar, mustard and garlic thickened with a little egg). The hot entrees and vegetable dishes range from fettucine-and-spinach through crabmeat quiche to roast beef carved at the buffet table.

About the only entree that didn't "go

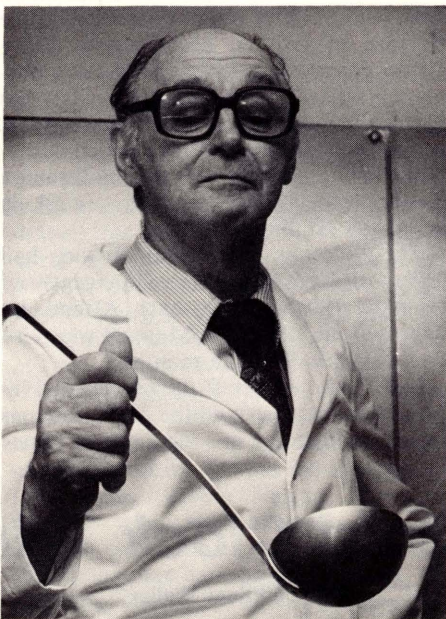


over" was ravioli, so Coulon never served it again. He thinks the dish was a flop partly because of the steam trays, a necessary evil at any buffet, but, in his view, a device which overcooks the food eventually and causes pasta dishes to get mushy and sticky.

Just about the only complaint he has heard recently concerns the occasional wait for the hot entree trays to be replenished. Coulon could cut the waiting time (usually only a few minutes) by mass producing the hot dishes and letting them sit in warmers, but he insists on preparing the food as he goes, sacrificing speed for quality.

When the lunch crowd leaves at about 1:30 p.m., the chef goes over the day's events and looks at the receipts with Commons maitre d' David Holt and cashier Rosa Cook. Then it's time to start planning menus, ordering staples, supervising the clean-up and maybe even dreaming up a new soup recipe.

Coulon is a native of New York, where his father was a hotel chef. Coulon worked with him after school. Then he taught cooking in the Merchant Marines and worked at the Waldorf. In Washington, he's worked at Hogates and at other Marriott food facilities since 1947, spending the past 5 years at the Smithsonian Associate West Court dining room and the Commons. Despite his 40-odd years of working in kitchens, he says he still loves food.—Linda St. Thomas.



### Nominations Open

The Smithsonian Women's Council will be accepting self-nomination petitions from mid-August through early September. Members will be announced later in September, with new officers chosen in November. Membership terms of 2 years are open to all Smithsonian employees. Open meetings are held the first Tuesday of each month. For more information call Rosemary DeRosa, ext. 6772.

## A Hirshhorn Gift: 56 New Art Works

By Sidney Lawrence

A major gift of 56 works of art, presented last month to the Hirshhorn Museum by the Joseph H. Hirshhorn Foundation, Inc., is the largest single donation initiated by Hirshhorn through the foundation since his gifts to the nation in 1966, 1972 and 1974, the more than 6,000 works of art which constitute the nucleus of the Museum's collection.

"The new gift," Director Abram Lerner said, "reflects Mr. Hirshhorn's continuing interest in the Museum, helping to build on the strengths of the collection, rounding out its representations of modern styles and media and adding new examples of art of the past decade." Hirshhorn, he added, will celebrate his 80th birthday this month.

Among contemporary works in the gift are geometric abstractions by the late Burgoyne Diller, painted between 1958 and 1963, a large oil collage created in 1955 by French artist Jean Dubuffet and a 1973 group portrait of art world personalities by Raphael Soyer, depicting the artist himself and his brother, Moses, among others.

Complementing the Museum's important holdings of works by Kenneth Noland and the late Alexander Calder are Noland's "Via Breeze," a 1968 color abstraction with horizontal stripes extending across a 20-foot canvas, and Calder's "Critter with Mobile Top," a life-sized figurative sculpture of 1974 that is a playful combination of stable and mobile forms cut from sheet metal.

The gift includes small-scale contemporary sculpture works in various media by Ernest Trova, Jack Zajac, the late Saul Baizerman and Canadian artist Sorel Etrog, as well as a terra-cotta bust by J. A. Houdon, the foremost portrait sculptor of late 18th-century France.

André Masson and Louise Nevelson are also represented, each by an unusual collage. Six polaroid prints by Lucas Samaras and an optical color abstraction by Richard Anuskiewicz are some of the other works.

In total, the gift includes 12 paintings, eight sculptures, three collas and 30 works on paper by 19 artists, mostly American, and three African sculptures. In common with other works in the Museum's permanent collection, these will eventually be displayed on a rotating basis in various galleries throughout the Museum.

### 'Visitors'

(Continued from Page 1)

calls in June and early July. The callers invariably wanted to know the gasoline situation in Washington (If we drive to the city will we be able to get gas to go home?) or asked for the names of nearby motels convenient to public transportation.

However, in an informal study conducted in late June by the Public Affairs Office, museum visitors reported that they came to Washington by car. Of the 95 families interviewed, 63 had driven to the city, but many of them were avoiding driving in town during their visit and rarely drove on Sundays.

One Connecticut visitor to the Sesame Street exhibit said he had trouble getting gas en route to Washington and was spending much of his late June vacation time in our gas lines. "I'm worried about getting home this weekend," he said.

Despite all of this, visitors seemed to be buying more in the museum shops, according to Business Manager Richard Griesel. Shop sales were up 12 percent in May and 16 percent in June over the corresponding months last year.

But the public dining facilities at MHT, NASM and MNH served about 10 percent fewer customers in June, James Pinkney, assistance business manager, said. At the West Court dining room in MNH, approximately 22 percent fewer Associates and guests were served this June.

At the National Zoo, parking dropped 30 percent in June compared to 1978, and the NASM underground lot, the only commercial facility on the Mall, had about 17 percent fewer cars parked in June.—Linda St. Thomas.

(Also contributing to this story were OPA interns Jane Barber and Donna Murtha.)

### Two Recipes from Chef Coulon

#### Cream of Spinach and Mushroom Soup

(makes about 2 quarts)

3/8 cup butter  
3/8 cup flour  
1 quart chicken broth (fresh or use two 10 3/4-ounce cans plus one can water)  
1/2 cup onion, chopped fine  
1/2 cup celery, chopped fine  
2 large cloves garlic, chopped very fine  
salt and pepper  
spinach (2 pounds fresh spinach, washed, or two frozen 14-ounce packages, chopped)  
1 pound fresh mushrooms, chopped coarse  
1 cup Chablis  
2 cups milk  
1/2 cup heavy cream  
several drops Tabasco sauce

To chicken broth simmering in a large saucepan, add onion, celery, garlic. Bring to boil, then lower heat and simmer slowly for about 10 minutes. Season with salt and pepper. In a separate saucepan, make a roux by melting butter and adding flour. Stir until smooth and cook slowly 10 minutes over very low fire. Stir frequently and do not allow this to brown.

Stirring constantly, slowly add wine, milk, cream and Tabasco to the roux. Mix with a wire whisk until smooth.

Stir the above wine-and-roux mixture into the hot chicken broth and bring all to a boil. Add spinach (if using the frozen packages) and mushrooms to soup and bring to another boil. Simmer for about 5 minutes. Serve.

(Note: If using fresh spinach, add to broth in the beginning. Spinach should be washed and chopped.)

#### Chicken Gumbo

(makes about 2 quarts)

1/4 cup onions, diced  
1/2 cup celery, diced  
1/4 cup green pepper, diced  
2 large cloves garlic, chopped fine  
1 cup long grain rice  
1 1/2 quarts chicken broth (fresh or use two 10 3/4-ounce cans plus one can water)  
1/4 cup melted butter  
1/4 cup all-purpose flour  
1 tablespoon Worcestershire sauce  
1/2 cup white wine (Chablis)  
salt and pepper  
dash of sugar  
2 cups diced chicken  
3 cups whole tomatoes, crushed  
1/4 cup pimento

In a large saucepan, add the onions, celery, peppers, garlic and rice to 1 1/2 quarts of simmering chicken broth. Stir and simmer together for about 15 minutes. In a separate saucepan, make a roux by combining the melted butter with the flour and stirring to a smooth consistency over low heat for about 10 minutes. To the roux, add salt, pepper and sugar. Then blend the roux mixture into the chicken broth. Simmer. Add the chicken, tomatoes, pimento, Worcestershire sauce and wine. Simmer and correct seasonings to taste.



# How to Design Shows of Bugs, Gems, Bones

By Linda St. Thomas

Over the course of a year, a designer in the Museum of Natural History may be asked to design a case for a forest setting, including ponds, real trees and live insects; to light a diorama of Neanderthal figures so that they almost look alive; to display a 15-foot-high skeleton which can be viewed from all sides, or to show a single cell.

The Museum of Natural History is unlike other Smithsonian museums for a range of objects is shown. Natural history specimens comprise gems, butterflies, moon rocks and shells, as well as man-made objects such as canoes, tools, sculpture and even live specimens like the creatures in the Insect Zoo.

This range of artifacts makes the designer's job anything but dull and routine.

"Our working days may be complicated," Eugene Behlen, chief of MNH exhibits, said, "by Dr. Leakey's latest discovery, the shifting attitudes toward the natural sciences or the acquisition of a wonderful new collection, such as the recently purchased Mexican dance masks."

For the "Splendors of Nature" exhibition, designers Beth Miles and Riddick Vann worked with curators from each department to put together a collection of specimens with one thing in common—beauty. (Curators, in fact, dubbed it the hall of beautiful things for a while). "Most of our exhibits need labels because the objects do not speak for themselves," Behlen said. "A primitive tool in a case doesn't mean much to visitors until we tell them who used it and when and why it was so important in that culture."

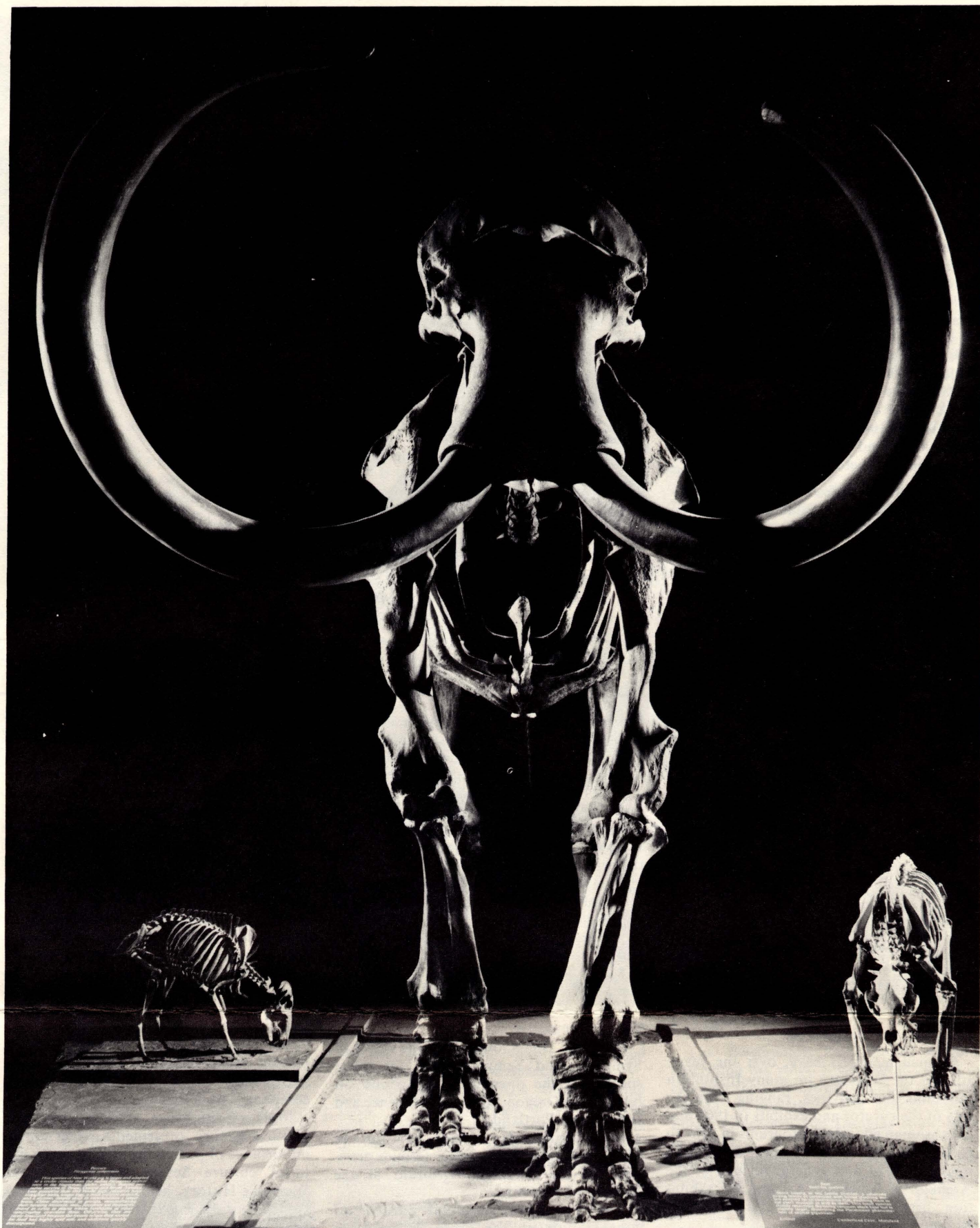
But "Splendors" specimens, shown in simple cases in a sunlit room, required only brief identification labels. In this case, the objects spoke for themselves. As the introductory panel states: "The staff of the Museum of Natural History has the great fortune to work with one of the best collections of scientific specimens in the world. . . . Usually these specimens are exhibited as valuable pieces of evidence relating to the natural sciences and anthropology. But, like all things in nature, these objects possess their own individual beauty."

"Western Civilization: Origins and Traditions," on the other hand, offers an array of artifacts that are important, not for their beauty, but as cultural objects. "Our mission was to let them tell the story of changing types of culture in the Near East, North Africa and Europe."

The most recent major exhibition, "Dynamics of Evolution," uses many of the design techniques developed at MNH and other Smithsonian museums.

The introductory area of the hall is a stylized version of an old exhibit style which called for crowded cases so as to show as many artifacts as possible. "In this hall we display many formaldehyde jars of organisms and trays of butterflies and other specimens to recall the era of attic look that people came to expect at this Museum," Behlen noted.

Designers took full advantage of the building's 45-foot ceilings, using the space to hang birds and a huge whale skull and lighting the skylights. A woods setting was created with a painted mural, trees, foliage, rocks, a simulated pond made of plexiglass, and the sounds of birds, crickets and tree



The skeleton of a Woolly Mammoth, exhibited in the newly designed ice age mammals hall, is one of a wide variety of oddly shaped artifacts that present daily challenges to the Museum of Natural History design team.

frogs may be heard elsewhere in the exhibition. The audiovisuals consist of a film, two small slide shows and a video camera aimed at butterflies' wings and equipped with a special filter enabling visitors to see what a female butterfly sees when she's looking at a male butterfly.

It hasn't always been easy to convince MNH scientists and museum administrators that color, subdued lights and silkscreened labels were appropriate in Smithsonian exhibitions, as Rolland Hower, former exhibits worker, recalls.

In 1953, exhibits chief John Anglim had finished a new case for MNH's Latin American archeology hall, the first to be revamped as part of an exhibits moderniza-

tion program. The back panel of one case, with ancient Mexican sculptures, had been painted tomato red.

Museum Director Remington Kellogg came by to check the exhibit and was appalled by the color. Hower, who later became the Museum's freeze-dry specialist, remembered Dr. Kellogg's exact words: "Now goddammit, this is the Smithsonian and you just can't use that color."

Some time later, Dr. Leonard Carmichael, the new Smithsonian Secretary, stopped in to review the hall. Kellogg, still embarrassed by the red case, waited with Anglim and Hower to hear the Secretary's opinion. Said Carmichael enthusiastically, "Now that's the way the Smithsonian exhibits should look!"

That was the beginning of color in exhibits design at the Museum of Natural History, Hower recalled. It was not too many years later that Kellogg himself selected lemon yellow for the whale hall, and Hower chose desert earth tones and bright sky blues for Plains Indians dioramas.

Today, whether working on a major hall, such as "Western Civilization" or "Evolution," or on a small one-case display on MNH research, Behlen, assistant chief William Haase, staff designers Steve Makovenyi, David Meyersburg, Beth Niles, Richard Molinaroli, Gail Singer, Riddick Vann and writer-editor Susan Willis begin work by talking things over with the curator.

The design process, from this first meeting with the exhibit curator to the first day of production, can take anywhere from 6 months to a year. Currently, there are four MNH halls being redesigned, including the dinosaur hall, which will reopen

in late 1980 with balconies from which visitors will look down on the huge skeletons and with a completely new arrangement of artifacts and labels giving highlights of dinosaurs' evolution and gradual extinction.

To go with the new halls, designer Richard Molinaroli worked on the colorful banners now hanging in the exhibit hall doorways, visible from the rotunda. It did no good, Molinaroli pointed out, to redesign an exhibit if a visitor couldn't find the hall. The rotunda was the perfect orientation area; visitors just look around, see the banners and head for the exhibit in which they are interested.

(Next Month: Watching an exhibit take shape at NASM.)

## SITES Posters Win Graphics Awards

Six Smithsonian publications and posters were exhibited in this summer's 30th annual Exhibition of the Art Directors Club of Metropolitan Washington held at the Pension Building. More than 1,600 pieces were submitted for consideration with only 10 percent chosen to represent the best of Washington's graphic design.

The winners included two SITES posters: "America's Architectural Heritage,"

designed by Jim Morrison, and "Graficas: Contemporary Latin American Prints," designed by Bill Caldwell.

The 124-page 1978-79 SITES program guide, "Update," was one of six publications chosen in the catalogs section. The color cover designed by Beveridge and Associates shows a detail of a 17th-century Japanese folding screen from the Freer.

Other award-winning graphics were the December 1978 cover of Smithsonian magazine showing a detail of "May Sartoris," a painting by Frederic Leighton; "Galileo Galilei: Operations of the Geometric and Military Compass," a translation published by the Smithsonian Institution Press and created by Natalie E. Bigelow, of the Press; the album cover for DPA's "Six Partitas for Solo Harpsichord" by Johann Sebastian Bach. The cover photograph was taken by SI's Dane Penland.

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August 1979

Published for Smithsonian Institution personnel by the Office of Public Affairs: *Alvin Rosenfeld*, Director; *Susan Bliss*, Editor; *Kathryn Lindeman*, Editorial Assistant.

## The Heat's On

Temperatures are going up in all areas of Smithsonian buildings where increased temperatures will not adversely affect the conservation of the collections, Assistant Secretary for Administration John F. Jameson announced. This action is the result of the fuel shortage and President Carter's appeal to raise thermostat settings to no lower than 78 degrees during the cooling season.

Jameson said that it will not be possible for the Office of Plant Services to achieve a uniform temperature in all offices because of the variety of Smithsonian air-conditioning and ventilating systems, but urged that heads of units adopt a lenient dress policy whenever possible and that employees wear cooler clothing.



## SI Council Gets Six New Members

By Kathryn Lindeman

Secretary Ripley has appointed six new members to the Smithsonian Council, an advisory group of distinguished representatives from fields of interest to the Institution. The appointments bring the Council, once again, to its full membership of 25.

The new additions are: Dore Ashton, professor of art history at the Cooper Union in New York City; Ada Louise Huxtable, architecture critic for the New York Times; Peter Marler, director of Rockefeller University's Center for Field Research in Ecology and Ethology; David Pilbeam, professor of anthropology, geology and geophysics at Yale University; Vera Rubin, staff member of the Carnegie Institution of Washington's Terrestrial Magnetism Department and Gunther Schuller, composer and conductor.

The Council was founded in 1966 to advise the Secretary on broad programmatic activities and to offer guidance on Smithsonian contributions to research and public understanding in science, history and art. The Council has met in Washington for 1½ days twice a year since that time. Beginning this year, the group will meet annually for 2½ days in the fall. At other times during the year members are also available for individual consultation on appropriate subjects as their time and interest permit.

Mike Young, of the Office of the Assistant Secretary for Administration, has coordinated the Council's agenda and activities since 1975.

During the weekend meetings, which open on a Friday, two to four topics are discussed, with Council members serving as moderators for each subject, Young explained. A Sunday morning executive session is devoted to preparation of Council comments and recommendations. The Council chairman, Gordon N. Ray, president of the John Simon Guggenheim Memorial Foundation, summarizes the Council's views, topic by topic, in a subsequent letter to the Secretary. A reply by the Secretary completes the exchange, forming a record for each meeting.

Council members have, over the years, advised the Secretary on many Institution programs and activities, ranging from the role of the curator and exhibits in 1966 and Smithsonian education programs in 1967 to collections management and acquisition policy in 1974 and general reviews of the Archives of American Art and the exhibition programs of the Natural History Museum in 1978.

The Council has served as an independent forum to address broader issues and to stimulate new ideas. More than 90 topics have been discussed and a majority of the Council's recommendations have been acted upon. The Council's views were instrumental in establishment of the SI fellowship program. Council discussions helped to bring about the return of exhibit resources and responsibilities to museum directors.

New members are selected annually by Secretary Ripley, who receives nominations from the staff and the Council. Members serve for 3 years. They are eligible for succeeding terms or may become honorary members as a part of the annual membership rotation process. Honorary members are available for consultation but do not attend meetings. Members serve without compensation but are reimbursed for travel expenses.

### Radio Smithsonian

- Aug. 5 "Ten Years Since Tranquillity Base" and "American Art—New Directions."
- Aug. 12 "Diving for Gold"—Mendel Peterson explores sunken treasure ships, and "Before Broadway"—the first century of American theater.
- Aug. 19 "Sounds of the 'Duke'"—Martin Williams highlights a new Smithsonian album.
- Aug. 26 "Who Came Before Columbus?" and "Pioneer in Metal"—American sculptor David Smith.
- Sept. 2 "Art in Imperial Russia," and "Saving His Culture" on Micronesian Matt Maradol.



**VISITORS WITH VISAS...** These portraits of Empress Aleksandra Fedorovna and Ivan Andreevich Krylov are featured in the Renwick show opening Aug. 3, "The Art of Russia: 1800-1859." Covering a period of abrupt artistic and intellectual change, the show features 145 paintings and 21 examples of decorative art, all from Soviet museums and in most cases never before shown in the United States.

## Newsmakers

By Johnnie Douthis

**Jack Hoopes**, a pathology resident at NZP, ran the 26.2-mile Boston Marathon in 2 hours and 47 minutes. He finished within the top 25 percent of the official entrants in the race, setting his own record-breaking time.

**Robert Mikesh**, curator of aircraft at NASM, made presentations on aircraft restoration to the Maxcutters Club at College Park Airport, Md., and to delegates at the annual meeting of the Naval Air Test and Evaluation Museum Association held at the Patuxent River Naval Air Station, Md.

MNH Registrar **Margaret A. Santiago** has been elected by the AAM Registrar's Committee to serve on the 1980 Nominating Committee.

**Wilton S. Dillon**, director of the Office of Symposia and Seminars, was the guest speaker at the opening of an exhibit on birth at the Oregon Museum of Science and Industry in Portland.

**Sami Hamarneh**, curator emeritus at MHT, was elected to a 2-year term as president of the American Institute of the History of Pharmacy.

**Ann Yonemura**, assistant curator of Japanese art at the Freer, lectured on "Maki-e Lacquerware" at Stanford University.

**Eudora Travers**, secretary, and **Janet Ferrell**, program assistant, received awards for their outstanding service with the National Museum Act Program in the Office of Museum Programs.

**Farouk El-Baz**, research director for the Center for Earth and Planetary Studies at NASM, lectured at Brown University before a gathering of Planetary Geology Principal Investigators. El-Baz, in the talk, compared the desert features of Earth and Mars.

**John Harris**, an editor at the Smithsonian Institution Press, reviewed Flannery O'Connor's "The Habit of Being" in the June Washington Book Review.

NCFA Director **Joshua C. Taylor** presented a lecture on "Art for a Decade of Change: 1925-35" at the Instituto Mexicano Norteamericano in Mexico City.

**Patricia Merchant**, of the Collections Management Division at NASM's Silver Hill facility, reviewed the University of Pittsburgh's plans to restore NASM's Langley Aerodrome No. 6, which is on loan to the University. Merchant restored the Langley Aerodrome No. 5, which now hangs in the Milestones of Flight gallery.

An article by **John White**, MHT's curator of transportation, will appear in the fall issue of Railroad History magazine.

**Noel W. Hinners**, director of NASM, addressed a group of students attending the National Youth Science Camp in Bartow, W.Va., on careers in science and engineering, and the role of the modern museum. Two top science and engineering students from each state are selected to spend 3 weeks at the camp. This year's highlight is a 3-day trip to Washington, including a tour of NASM.

**Secretary Ripley** was re-elected honorary vice president of the Audubon Naturalist

Society at a recent meeting. **Porter M. Kier**, senior geologist at MNH, and **Stanwyn G. Shetler**, MNH botanist, were elected as members of the Society's Board of Directors. The nominating committee appointed to select candidates for the board included **Edward F. Rivinus**, director of the Smithsonian Institution Press.

MHT Education Specialist **Betty Sharpe** conducted a workshop on "Legislation for the Handicapped: Complying with the Feds" for the annual meeting of the Cooperstown Graduate Association.

**Bretton Morse**, exhibits specialist at NCFA, had a painting, "Henderson Road," included in the Fifth Anniversary Exhibit at Washington's Gallery 10. The Show, which ran through June 30, was accompanied by a catalog.

MHT's **Edith Mayo**, assistant curator of political history, presented a paper on the importance of preserving and studying material culture before the Institute of Women's History, held at Sarah Lawrence College in July. The Institute, sponsored by the Women's Action Alliance, was presented in cooperation with the Smithsonian.



Joan Madden

MNH Acting Director **James Mello** received the Director's Award for Outstanding Service for his contributions during 5½ years as MNH's assistant director.

Another MNH Director's Award went to Education Chief **Joan Madden** for developing the Museum's education programs.

**J. F. Gates Clarke**, research associate in MNH's Department of Entomology, has received the Karl Jordan Medal for outstanding work in the field of lepidoptera. The award was given by the Lepidopterists' Society at its annual meeting held at the University of Alaska, Fairbanks. Clarke, whose career as an entomologist at the Department of Agriculture and MNH spans more than 40 years, was given the Silver Medal for his publication of a massive 4,000-page "Catalogue of the Type Specimens of Microlepidoptera in the British Museum (Natural History)" Described by Edward Meyrick. It has become a classic taxonomic reference for all who study the microlepidoptera.

**Dr. Wolfgang Kalkofen**, a theoretical astrophysicist at CFA, will spend next year abroad as a visiting scientist at the Institute for Theoretical Astrophysics of the University of Heidelberg under the sponsorship of the Humboldt Foundation. He will be studying radiative transfer, hydrodynamics and heating in stellar chromospheres.

MHT Education Coordinator **Alice Reno Malone** gave a talk on "Publications for and about the Disabled" for delegates to the AAM meeting in Cleveland. (See July Torch.) She also co-chaired an information desk set up by the AAM Ad Hoc Committee on the Disabled.

**Von Del Chamberlain**, chief of NASM's Presentations Division, delivered a paper, "Pawnee Stars," at the Archaeoastronomy in the Americas conference held in Santa Fe, N.M.

**Ramunas Kondratas**, assistant curator in MHT's Medical Sciences Division, recently visited Japan where he inspected MHT's exhibit on "American Pharmacy and Medicine" at the Naito Museum. The exhibit, which he researched from MHT's collections, has been shown at nine Japanese museums in six cities.

**Adelyn Breeskin**, NCFA consultant for 20th-century painting and sculpture, lectured on "Mary Cassatt—Her Life and Her Art" at the Portland Museum of Art in Maine.

**Jeffrey L. Meikle**, National Historic Publications and Records Commission fellow at the Charles Willson Peale Papers at NPG, lectured on "Norman Bel Geddes and the Population of Streamlining" at a symposium sponsored by the University of Texas Department of Fine Arts, Austin.

NASM Librarian **Catherine D. Scott** was elected to chair the Aerospace Division of the Special Libraries Association.

MHT designer **Nadya Makovenyi** will be honored later this year when her design for MHT's Hall of American Maritime Enterprise is included in Print Casebooks. The yearly publication is produced by Print Magazine, a widely read publication for graphic artists. Makovenyi also will receive a certificate of design excellence for her work on the hall.

**Herbert R. Collins**, curator of political history at MHT, was elected president of the Arlington Historical Society. He previously served as vice president of the organization and has been a member of the board of directors for the past 2 years.

**Gary Kulik**, an assistant curator of textiles at MHT, wrote "Patterns of Resistance to Industrial Capitalism, Pawtucket Village and the Strike of 1824," in the book, "American Workingclass Culture," which was published in June by Greenwood Press.

### Calendar

The Smithsonian Calendar will appear in the Washington Star on Sunday, Aug. 26, and in the Washington Post on Friday, Aug. 31.



## Secessionists at Portrait Gallery

By Frederick Voss

"There is no doubt that Jefferson Davis and other leaders of the South have made an army; they are making, it appears, a navy, and they have made what is more than either—they have made a nation."

This pronouncement of Oct. 7, 1862, by Britain's Chancellor of the Exchequer, William Gladstone, for a moment then, seemed to presage British recognition of Southern independence. Gladstone's words set the theme for the National Portrait Gallery's current exhibition, "They Have Made A Nation," on view through Oct. 7.

The Gallery's assemblage of portraits, documents and memorabilia points up the fact that the dour future prime minister had struck a chord deeper than he perhaps realized. The exhibit, which covers the period beginning with South Carolina's secession to the first battle of the Civil War at Manassas, focuses on the profound sense of nationhood that set Southerners on their course of separation and war.

The South, after more than 30 years of political turmoil with the North, nurtured a belief in the purity of its way of life and an unrelenting disdain for "Yankeeism." By 1861 and the inauguration of Abraham Lincoln, these attitudes ripened into immutable creed. The NPG installation displays many of the symbols that bear witness to this deep-rooted faith. Among the more majestic evidences is a wax impression of the Great Confederate Seal bearing the equestrian image of George Washington, to whose virtues the South proclaimed itself the rightful heir.

Confederate nationalism expressed itself in more mundane objects as well. While the several examples of rebel currency on view carry proud images of the region's heroes and idyllic portrayals of its slave-based economy, two wartime school primers recall the South's efforts to eliminate the baneful influence of Northern textbooks in classrooms. "If one Confederate soldier can whip 7 Yankees," ran one revised problem in math, "how many can whip 49 Yankees?" The answer was elementary.

The choice of secession and independence, measured against the staggering material and human resources of the Union, seems foolishly quixotic in retrospect. There were some in 1861 who joined their fortunes with the Confederacy even though they understood fully the bleak prospects that lay ahead. The resolve of most Southern patriots, however, was bolstered by expectations that primacy in

cotton would forge alliances with England and France. The chance of failure seemed remote and well worth the gamble. "Thank God!" declared one orator in the spring of 1861. "We have a country at last . . . to live for, to pray for, and . . . to die for." "Yes," rejoined a listener, "I am willing to die for it a hundred times over."

*Frederick Voss, who is a research historian in NPG's exhibits office, organized "They Have Made A Nation."*

## 'Good Time Coming'

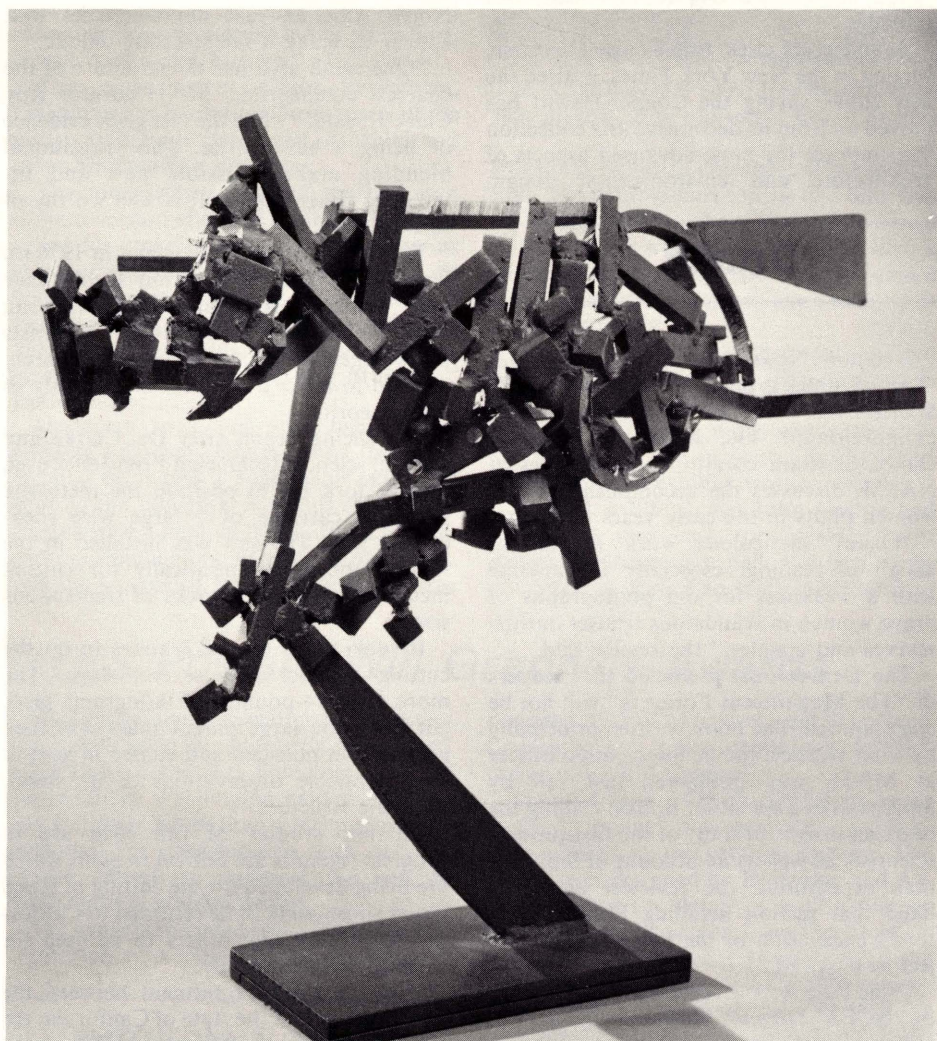
The ever-growing blend of recordings on the Division of Performing Arts' Smithsonian Collection label now includes three new albums: Cole Porter songs of the 1930s and '40s, Victor Herbert music from the late 1800s and protest songs of the Hutchinson Family, also popular in the 19th century.

Favorite selections from the hit Cole Porter shows "Let's Face It" (with Danny Kaye), "Red, Hot and Blue" (Ethel Merman) and "Leave It To Me" (Mary Martin) are reconstructed from original cast recordings and archival material. A selection of Porter favorites, including "Everything I Love" and "My Heart Belongs to Daddy," are also highlighted.

The Porter album, along with "Music of Victor Herbert," bring the American Musical Theater Series to a total of eight. The three-record Herbert set displays the man's talent as a cellist, conductor and composer of operettas. The four selections included from "The Fortune Teller" were recorded in 1898 by Emile Berliner, the father of disc recording.

Another new album features songs of the Hutchinson Family Singers in "There's a Good Time Coming." Lucy Shelton, Patricia Deckert, Jeffrey Fall, Frank Hoffmeister and David Evitts sing 16 songs of the Hutchinsons, whose work reflects every major social cause of their day. The accompanying instruments were chosen from the Smithsonian's Musical Instruments' collections because of their similarity to those used by the Hutchinson Family. Marilyn McDonald plays violin, Kenneth Slowik, cello, Howard Bass, guitar, and DPA's James Weaver, piano and melodeon.

All the albums in the Smithsonian Collection of Recordings are available in the museum shops.



"RAVEN IV" . . . "I would like to make sculpture that would rise from water and tower in the air—that carried conviction and vision that had not existed before . . ." So wrote David Smith (1906-65), whose career was marked by endless exploration, discovery and innovation. Smith's accomplishments can now be seen in an exhibition at the Hirshhorn. The 26 sculptures, three paintings and three drawings on view are from the Museum's permanent collection, constituting the largest public holding of his work. They exemplify the range of styles, subjects and media which Smith boldly pursued.

## SI in the Media

Local newspapers credited the Smithsonian's Fourth of July celebration for helping to brighten a gloomy holiday. The Washington Post, noting the heavy museum population on the rainy Fourth, said that museum delights kept visitors in good spirits.

A lengthy illustrated article in the Washington Post by Sarah Booth Conroy focused on the book "Capital Losses," by Castle curator James Goode, and the exhibition of the same title currently on view at the American Institute of Architects' Octagon House. Conroy, calling the book "monumental," detailed Goode's 6½ years of research on the project. She expressed the view that the book is worth twice its price of \$37.50 because, for one thing, it will settle arguments about what used to be where.

### Pandas and the Zoo

The Harrisburg (Pa.) News and the Washington Star reported that the Zoo may try artificial insemination toward the goal of producing the first baby panda born outside of China. The Jackson (Miss.) News

Star, summed up his enthusiasm for the show with, "All in all, the exhibition is a fresh breeze that blew into town from the west."

A Washington Post article on Children's Day credited NCFA with doing more for children and public schools than other museums.

The Hirshhorn's "Directions" show got a rave from Post critic Richard. HMSG curator Howard Fox "is on to something," Richard wrote. "He sees that after many years of minimizing—of careful, cautious cleansing—the art made in America is filling up again."

Post writer Sarah Booth Conroy saluted MHT's Daum glassworks exhibit for the assistance the show will give in establishing Nancy (the French home of Daum glassware) in its rightful place in the history of Art Nouveau.

### Science

The Annapolis Capital ran a report on CBCES giving readers a detailed picture of the facility's watershed, upland and estuarine ecology studies.



Meetingtime for pandas

and the Chicago Sun-Times used detailed articles on NZP's new Beaver Valley.

The premiere of NBC's "Sunday Prime Time" included footage of Hsing-Hsing and Ling-Ling and interviews with Public Information Officer Mike Morgan and William Xanten, curator of mammals, on the panda mating efforts.

### Sports at MHT

More than 20 representatives of local and national print and electronic media covered "Sportsmen and Sportswomen of the Years 1954-79" and the presentation of sports equipment by star athletes to MHT's sports collection.

Washington Post writer Dave Kindred wrote of his hero worship of baseball great Stan Musial. "How do you interview your childhood dreams?" Kindred asked. Kathleen Maxa, in the Washington Star, discussed the rationale for expanding MHT's sports collections.

### Art and Design

Both the New York Times and Newsweek gave considerable space to Cooper-Hewitt's Alva Aalto exhibit. The Times' Paul Goldberger described the show as superb, "varied in its scope, attractive in its presentation and focused in its concepts." Architectural writer Ada Louise Huxtable of the same paper called the show a substantial retrospective. Newsweek covered the show with a color-illustrated, 2-page spread.

Paul Richard, art critic for the Washington Post, found "The First Western States Biennial" at NCFA easy to like. Benjamin Forgey, of the Washington

The Washington Post carried a story describing the work of dermestid beetles in cleaning the skeletons of animals to be exhibited in museums. The article quoted Frank Greenwell and Douglas John, both of MNH.

The Washington Post reported on the observation of thermonuclear explosion on a star as photographed by the HEAO-2 satellite. The article quoted Dr. Jonathan Grindlay, CFA: "This is the first time we have been able to photograph what astronomers call an X-ray burster and identify the star that is bursting with X-rays."

A New York Times story on a conference of archaeoastronomy in the Americas told of the measurements of preserved earthworks by John A. Eddy of the Harvard-Smithsonian Center for Astrophysics.

### People

Smithsonian staff drawing press attention included Ed Sniechoski, chief of security systems, quoted in a New York Times article about the AAM conference; Phyllis Rosenzweig, HMSG assistant curator of painting and sculpture, with an article in Arts Magazine; Dorothy Globus, head of exhibitions at Cooper-Hewitt, with an article in Good Living.

### Music

The New York Times carried an AP story reporting that DPA's new Bach album has sold 25,000 copies. In another story, the Times praised the performance of James Weaver, director of chamber music programs for DPA, who played original instruments for the recording.—*Johnnie Douthis*

## Academic Seminar Draws Students

"The Planet Earth," first of three special academic seminars for 45 gifted rural high school students from North Carolina, was conducted in the spring by the Smithsonian Office of Symposia and Seminars. Coordinators Carla Borden, OSS, and consultant Paul Boertlein also plan "The Quest for Beauty" in the fall and "Monkeys, Apes and Humans" for next spring.

The pilot program, presented with the encouragement of Smithsonian Regent Sen.

Robert B. Morgan (D-N.C.), draws on a variety of Smithsonian disciplines and facilities as well as those of other institutions around Washington. Students do advance reading to prepare for the 3 full days of lectures, demonstrations, tours and discussions.

The educational outreach program is made possible by support from the Z. Smith Reynolds Foundation and the North Carolina Association of Electric Cooperatives.



## Comings and Goings

**Walter J. Boyne**, a NASM staffer since 1974, has been appointed executive officer of the Museum. His first assignment at NASM was as curator for the Air Transportation gallery. Subsequently, he supervised the assembly, installation and suspension of all the Museum's artifacts. Boyne



Dale Hrabak

retired as a colonel in the U.S. Air Force in 1974, after serving for 23 years. An associate editor for *Wings* and *Airpower* magazine, he has published more than 160 articles on aviation subjects.

**SITES** Director **Dennis Gould** and **Quinton Hallett**, exhibition coordinator, have resigned to become director and assistant director of the Armand Hammer Foundation in Los Angeles. Both had been with SITES for 8 years. Also leaving SITES are **Regina Lipsky Oldak**, exhibition coordinator, and **Matou Goodwin**, receptionist/secretary.

**Charles Dunn**, general foreman with South Group Buildings Management, has accepted a position with the D.C. Public School System as facilities manager for the 25 buildings located west of Rock Creek Park.

**Nancy Harris** has joined the NASM staff as secretary to the executive officer. She was formerly secretary to the chief of the real estate management branch at NASA.

**Michael Hemming** has assumed duties as clerk/typist for the Office of Public Affairs. Hemming has been at the Smithsonian, working out of the secretarial pool, for more than a year.

**Natalia Krawec** has joined the Resident Associate Program as associate coordinator for tours. Krawec, who is working toward an M.A. in urban planning at the University of Virginia, was formerly historian/international specialist with the President's Advisory Council on Historic Preservation.

**Jon Freshour**, collections manager for the 1876 exhibit, has resigned that position to become registrar for the Library of Congress. He came to the Smithsonian in 1978 to work for NPG and later transferred to MHT.

**Carmen Smythe**, formerly with HEW, is now working in NASM's Building Management Division as a building service assistant.

**Jan O'Hara**, secretary in NASM's education division, has resigned.

**Francis B. Sayre**, associate director of the Woodrow Wilson Center, is retiring to Martha's Vineyard. The former dean of Washington Cathedral and grandson of Woodrow Wilson came to the center in 1978 and has worked to develop new funding strategies, to better congressional relations. He also conducted studies of a new site called for in the Center's 1968 authorizing legislation.

**Robert R. Harris** has joined the Wilson Quarterly as associate editor for books. He is a member of the board of directors of the National Book Critics Circle and a long-time associate of the *Library Journal*.

Three people have joined the curatorial staff of the Freer Gallery of Art.

**Shen C. Y. Fu**, most recently the Walter Cahn professor of art at Yale University, has been named associate curator of Chinese art. Dr. Fu, a native of Shanghai, received his Ph.D. in Chinese art from Princeton University.

**Yoshiaki Shimizu**, associate curator of Japanese art, comes to the Freer from the University of California at Berkeley, where he was an associate professor. Dr. Shimizu, a native of Japan who did undergraduate work at Harvard, received an M.F.A. and a Ph.D. from Princeton.

**Julia K. Murray** joins the Freer staff after 2 years in the Far Eastern Department at New York City's Metropolitan Museum of Art. At the Freer, Murray will be translating technical materials and arranging exhibitions. She is completing doctoral studies in Chinese art and archeology at Princeton.

## Cooper-Hewitt Takes to Streets

By David Maxfield

This summer the Cooper-Hewitt Museum in New York City is stretching blocks beyond its own boundaries at Fifth Avenue and 91st Street.

For its new exhibition of "Immovable Objects," the Museum is taking to the streets—as well as to parks, playgrounds, plazas and other urban sites—to demonstrate and celebrate the importance of outdoor open spaces in urban design.

The Museum has planned a dozen exhibits around Manhattan through September to show off a variety of city spaces often taken for granted in the shadow of public interest in new buildings and other urban architecture.

The use, design, history, size and shape of streets, for example, is illustrated by photographs and text mounted on a series of panels located on the street side of the Cooper-Hewitt fence along Fifth Avenue. Downtown, at Chase Manhattan Plaza, another exhibit shows the evolution of pedestrian malls, from ancient bazaars to American streets redesigned for pedestrian use. At a third location, a photography show captures the vistas available to city residents when large buildings are demolished to make way for new construction.

Besides these and other exhibits—all are tied into actual places that cannot be collected or moved into a museum—"Immovable Objects" includes lectures, films, walking tours, outdoor performances and a 64-page catalog offering a feast of essays on urban space. (In one section, Buckminster Fuller nominates the universe as his favorite open space, while Art Buchwald chooses the South Bronx because "it's got the most open space since Berlin after the Second World War.")

In the catalog's introduction, Cooper-Hewitt Director Lisa Taylor explained the need for the show: "This seems an appropriate moment to analyze such spaces—to show the immense variety available, the problems concerning their management and use and the possibilities for improving them . . . Our challenge is to provide accessible and well-balanced facilities to meet the special needs of all segments of the population . . . and to provide space for various purposes."

This is not the first Cooper-Hewitt exhibition to reach beyond the gallery walls. In 1975, the Museum sponsored "Immovable Objects I," focusing on the buildings of Lower Manhattan, and last year, "Immovable Objects II" dealt with subways.

Architecture critic Ada Louise Huxtable, writing in the *New York Times*, praised the new show, saying the Cooper-Hewitt has moved on from its decorative arts collection "to embrace the most advanced aspects of architecture and environmental design."

## Books

Aviation News, in a review, describes "United States Women in Aviation through World War I" as "entertaining and enlightening." The book, by Claudia Oakes, assistant curator of aeronautics at NASM, discusses the accomplishments of women pilots in the early years of flight.

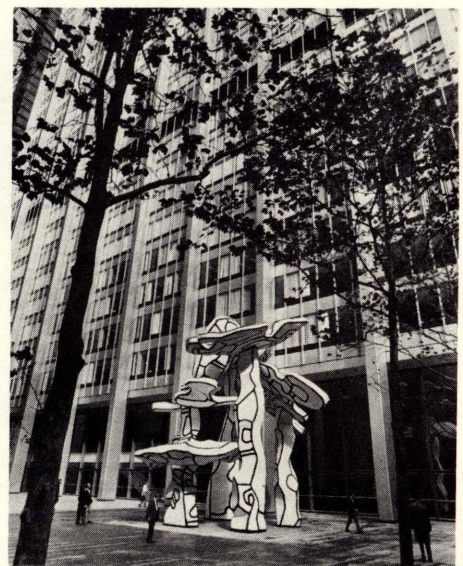
"Oakes' meticulous work makes for delightful reading, especially for anyone with a weakness for old photographs of brave women in scandalous trouser outfits, scarves and goggles," the review said.

The *Denver Post* predicted that readers of "The Magnificent Foragers" will not be disappointed. The book, written principally by Tom Harney, public information officer at MNH, was published last fall by Smithsonian Exposition Books. Calling the book an insightful study of the Institution's scientists as well as an account of Smithsonian expeditions, the reviewer especially liked that section detailing Dennis Stanford's excavation of the Paleo-Indian project in Colorado.

"The Fine Arts in America," a new book by NCFD Director Joshua Taylor, will enhance his reputation as an art historian, according to *Washingtonian* magazine.

New books from Smithsonian Press:

- "Directions," by Howard Fox, HMSG
- "Freeze-Drying Biological Specimens: A Laboratory Manual," by Rolland O. Hower, Exhibits Central
- "Graceanna Lewis," by Deborah J. Warner, MHT.



A. Lavine, Chase Manhattan Bank, N.Y.

Jean DuBuffet's "Group of Four Trees" on New York's Chase Manhattan Plaza

Through its exhibition policies, the Museum has also taken on a special role in the city . . . of educator, catalyst and conscience when the arts of design become a matter of public concern."

Components of the open show, in addition to those mentioned above, may be seen by visitors to New York this summer at these locations:

- Playgrounds—90th Street at the East River
- Conceptual Open Spaces—466 Grant Street
- Parks—26 Wall Street
- New Towns' Open Spaces—Good Shepherd Plaza, Roosevelt Island
- Waterfronts—John Street at the East River
- Made Landscapes—Fifth Avenue at 64th Street
- Plazas—Avenue of the Americas at 49th Street.

## Meteorite Slice Proves Unique

Researchers at the Museum of Natural History, having taken a small slice from the Old Woman Meteorite in a delicate operation, have determined that the internal structure of the 2 3/4-ton iron mass—the second largest meteorite ever found in North America—has characteristics that appear to make it scientifically unique.

"One small area has the structure of the coarsest octahedrite," MNH curator Roy Clark Jr. said, "while the rest gives evidence of being a hexahedrite. This transitional blending makes possible new and interesting observations. It is well worthy of further study."

The meteorite was discovered in 1976 on federally owned land within California's Old Woman Mountains. The Museum, after consulting with outside scientists knowledgeable in iron meteorite research, decided to make a comprehensive study of the meteorite.

The slicing began after Dr. Clarke and mineral sciences technician Fred Jones used a large fork lift to position the meteorite onto the carriage of a large wire rock-cutting saw. The saw was installed in the MNH laboratory specifically for cutting meteorites and other rocks of tremendous size.

It took the wire saw 8 hours to do the cutting—spread over several days. The more than 14-pound (6.5 kilogram) piece cut from the large parent mass was then ground and polished and etched in acid to make possible observations of its metallographic structure.

Further studies of the slice are in progress. Results are critical to plans which are being developed for the cutting of much larger slices—one to be returned to California for exhibit and others to be used for detailed scientific study.

Under a recent agreement between the Smithsonian and the state of California, the meteorite will be placed on exhibit at the Bureau of Land Management's offices at Barstow or at other BLM facilities in the California Desert Conservation Area beginning 1 year after the meteorite has been prepared for scientific study. After that, it may be loaned for periods of up to 1 year to other museums within the state for public display.—Thomas Harney



Stan Turck

New at the Freer (left to right): Yoshiaki Shimizu, Julia Murray, Shen Fu

## 'Clock'

(Continued from Page 1)

ever greater sensitivity. For example, it has been proposed to launch a space probe which would freely fall into the sun. By using masers both on the ground and on the probe, experimenters would be able to track precisely the instantaneous location of the freely falling probe and the gravitational redshift of the signals transmitted from it. These two signs of gravity at work will provide vital clues to understanding the sun's distribution of mass and angular momentum, thus revealing much about the sun's invisible interior.

Another program requiring the accuracy of the cryogenic masers is the search for gravity waves in space. Just as the presence of a permanent gravitational field can affect an electromagnetic signal, so too can an oscillating gravitational field, namely a gravity wave, periodically change a signal's frequency.

Gravity waves are expected to result from massive celestial objects undergoing violent

collapse, such as supernovas, active galactic nuclei and quasars.

The solar probe experiment should be able to detect these strong, but low-frequency, waves if they exist. Whenever a gravity wave crosses the path between Earth and the probe, it would alter the frequency of any signal traveling along that path. The tracking of the masers could detect these changes as short-lived shifts in the signals' frequency. If the discovery of gravity waves is achieved, another new window on the universe will have been opened.

## Reward for Quality

The MNH Staff Cafeteria and Associates' Court received a Certificate of Merit from the District of Columbia for outstanding food sanitation practices and consumer protection efforts. Marriott manager Anne Keener accepted the award from City Councilmember Polly Shackleton in a Kennedy Center ceremony.



# The 6,000-Mile Train Ride

By Susan Bliss

Most office workers probably wouldn't want to use 2 weeks of annual leave for a 6,000-mile train ride across Siberia, but it was an opportunity transportation curator John White couldn't pass up.

White admits to a special interest in railroads, nurtured since his boyhood in Cin-



Richard Holmeister

White in MHT's Railroad Hall

cinnati. He recently completed his fifth book on railroads, the prize-winning "The American Passenger Railroad Car," an exhaustive 700-page study and the product of 10 years of research.

Evidently, some 30 Smithsonian National Associates share his enthusiasm. Drawn by the sheer length of the trip and the mystery of Siberia, they accompanied him on the full run of the Trans-Siberian Express earlier this summer.

"I don't know what others expected of the scenery," White said, "but we found rolling countryside that was not too different from Northern Virginia. Throw in a few swamps and clumps of birch trees, and there you have it."

The scene inside the train was less familiar, however. "We were four to a compartment, and at least two of our groups were sharing with Russians whose destinations were different from ours. This became

something of a disruption when we pulled into a station in the middle of the night. There would be great commotion as the Russians got out of bed, packed their belongings and left the train, only to be replaced by a new set of travelers, usually carrying aromatic smoked fish, homemade vodka and bread."

Carrying provisions was usual among the Russian passengers; dining car prices were beyond their budgets.

"The dining car meals were attractively presented in a lot of courses. We would start with a little plate of cold cuts, then go to cucumbers, cabbage soup and steak and rice, and finish with cookies, ice cream and tea."

"Once, for a special treat, we were served a breakfast of a thick slice of fried bologna over fried macaroni. Meat is scarce in the Soviet Union, so the Russians thought this was very good."

Besides the scheduled meals, passengers could have hot coffee, tea or soup made with water from the charcoal-fired samovars placed at the end of every car.

In a sense, the trip was an extension of White's research into American railroading. He pointed out that the trans-Siberian railway, begun in 1892, was modeled upon the U.S. railway of its day. Fifty years earlier, the Russians hired American manufacturers and civil engineers, among them George Washington Whistler, father of the painter, to design and build the first trunkline in Russia.

White's journey was never dull, he said, praising the spirit of adventure and the sense of humor of his fellow travelers. One elderly woman, whose father has been a missionary, had ridden the Trans-Siberian Express in 1915 when her family left China.

Like her, White wants to repeat the trip, this time going straight through on the 7-day run, instead of stopping in cities along the way.

And he'd like to travel in winter, instead of during the 3-month temperate season. "At 50 below, I'd expect to get more of the true flavor of Siberia."



Eugene Mantie

JENNY JEROME CHURCHILL... Lee Probasco, of the Special Events Office, recaptured the spunky Anglo-American lady in a performance at NPG linked to the "Return to Albion" exhibit. That graceful gown was made at home with the help of family and friends.

## Reform Act Implementation Begins

Action is under way to implement for Smithsonian Institution civil service employees the pertinent provisions of the Civil Service Reform Act and to establish, where appropriate, similar new personnel procedures for the Institution's trust fund employees.

The Reform Act authorizes each agency to develop and phase in its own performance appraisal system to be fully effective by October 1981. The system will provide for employees to be advised on the critical elements of their jobs and for the establishment of performance standards that will permit accurate evaluation of job performance on the basis of pre-established, objective, job-related criteria. Performance appraisals will provide a basis for employees to be rewarded, assigned, promoted, demoted or removed as performance warrants.

As a first step in extending this new system to all Institution employees, a draft performance appraisal plan for Smithsonian's top executives has been prepared by the Office of Personnel Administration and is now being reviewed for implementation in fiscal year 1980.

The new law provides a merit pay system

in which the pay increases of managers and supervisors in grades GS-13 through GS-15 will be linked directly to their performance, rather than to their length of service.

Employees covered under this system will no longer receive automatic within-grade increases and will receive a minimum of one-half of the annual comparability pay increases. They will, however, be eligible each year for merit pay increases based on the results of the formal appraisal system. All managers and supervisors in these grades will be brought into the merit pay system by October 1981. These positions are now being identified by the Office of Personnel Administration.

A new procedure, which becomes effective in August, establishes a probationary period for newly appointed managers and supervisors in both the General Schedule and Wage Board classifications. Under provisions of the new law, first-time supervisors and managers will be required to serve a trial period before their appointments become final. Those who do not satisfactorily complete the trial will be returned to positions of no lower pay than those they occupied before assuming their managerial or supervisory assignments.

## Arctic Museum Workshop

A group of Eskimos (Inuit), Indians and other northerners from Greenland to Alaska were given an introduction to small museum operations at a recent 10-day conference sponsored by the Museum of Natural History.

The Arctic Museum Training Workshop—the first ever held—was attended by officials of national museums in Canada and Greenland and by individuals representing a number of groups and local communities where museums and culture centers have been discussed or are in actual operation.

Smithsonian participants:

William Fitzhugh, chairman of MNH's Anthropology Department, who organized the conference, spoke about policies and ethics of collecting, general museum organization, administration and staffing and use of local resources.

Jim Hanson, of the Smithsonian's Native American Museum Training Program, talked about various problems that small museums are likely to face, citing examples from Native American tribal museums. He also introduced the visitors to SI's Museum Reference Center, an extensive collection of books and periodicals, located in the Office of Museum Programs, covering all aspects of museum operations.

Concepts of collection management, storage, security, documentation and recordkeeping, were discussed by Vincent Wilcox, anthropology collections manager, who conducted a tour of the ethnographic and archeological storage areas. Carolyn Rose, director of SI's Anthropology Conservation Laboratory, presented an overview of common artifact deterioration problems and how they can be avoided or solved. Herman Viola and James Glenn introduced the Smithsonian National Anthropological Archives and its collections of documents, field notes, maps and photographs from anthropology expeditions throughout the world. Eugene Behlen, director of exhibits at MNH, outlined the steps necessary in planning and setting up an exhibition and gave a tour of the exhibit workshops.

Ruth Selig and Ann Bay, specialists in

education, presented examples of how museums can pass cultural information on to school-age children through such means as loan programs, cultural education kits and publications.

Ralph Rinzler and Peter Seitel, of SI's Folklife Program, discussed how a festival can be used by an important resource in preserving knowledge of traditional ways of life in the community.—Thomas Harney

## 2 Divisions Merge, Network to Move

The Geoastronomy and Radio Astronomy divisions of the Harvard-Smithsonian Center for Astrophysics have been combined as a single, new division under the leadership of Dr. A. Edward Lilley. Lilley was formerly associate director for Radio Astronomy alone. John Gregory has served as acting associate director of Geoastronomy since 1976.

The coordination of resources and facilities in the two divisions is expected to enhance at least three major areas of investigation that have somewhat overlapped in the past: very long baseline interferometry (precise radio mapping of celestial objects), atmospheric research and the development of maser clocks.

Coincidental with the recent divisional consolidations, Geoastronomy's laser satellite tracking network at Mt. Hopkins will be shifted to a new location, most likely in central India, this fall.

Network headquarters in Cambridge will also see some new faces. Michael Pearlman, head of Operations and Analytical Geophysics, will be on sabbatical leave for the next year. In his absence, Mark Malec will serve as program manager for the Laser Network and Analytical Geophysics Department; Hays Penfield will serve as technical manager for network operations, and Richard Taylor will assume program management responsibility for special projects.—James Cornell

## Sports

By Louise Hull

**Softball:** The Smithsonian's slow-pitch softball team finished a winning season last month, 11-0, to draw a bye on the first round of tournament play. They took the last game, 15-9, against the Federal Home Loan Bank Board behind John Houser (Accounting), who was 3-3, Tom Brown (OPS), with a home run and a triple, and George Meyer's (OCS) great defensive play.

**Running:** The first annual Smithsonian co-ed fun run will be held in August. Teams to compete in the 2-mile race are being organized in each Museum. For more information, call Eleanor Crow on ext. 6551.

**Tennis:** Sixteen players competed in the First Annual Chesapeake Bay Center Mixed Doubles "Super Star" Tournament in June.

Doubles partners Mark Fly and Liz Ley defeated Ed Balinsky and Megan Wood, 9-5, in one semi-final match. In another, Andy Hicks and Katie Kenyon defeated Steve Vail and Martha Fly, 9-2.

Fly and Ley were the victors, 9-6, over

Hicks and Kenyon in the finals. The tournament was organized by Debbie Banning and Jim Lynch, both of CBCES.

**Bowling:** The Smithsonian's Mixed Fives Bowling League recently wrapped up its 1978-1979 season with Tom Wilding and Inez Buchanan (SI Libraries) holding high averages. High series awards went to Tom Wilding and Ann Thomas (MNH). Tim Bridges (SI Libraries) and Inez Buchanan had the highest game of the season among the SI employees, with Ray Scoggins (OPlantS) and Vernetta Williams (MNH) taking the honor as high series handicapped winners. Tim Bridges and Melanie Bryant (Museum Shops) had the high game handicap.

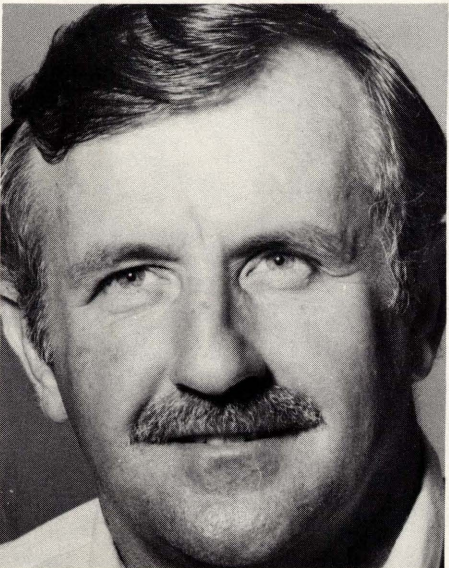
Thunderstrokers, captained by Ray Scoggins, stood the highest of the four SI teams in the league. SI Libraries' No Names was second.

League bowling will resume in September. For information call James Lawson (ext. 5463).



## Q & A

More than 7 years ago, Thomas R. Borges, now facilities manager for the Smithsonian Tropical Research Institute, ended up in Panama after a year-and-a-half sailboat cruise with his wife: from Hawaii to San Francisco, then on down the coast to Panama. Borges had left his own business in Hawaii—packaging aerosol cans—to embark on the lengthy cruise. After 18 months, however, it was time to work, and Borges, with a degree in chemistry, became a research assistant to STRI Director Ira Rubinoff, studying yellow-bellied sea snakes. After a year, he became station manager for



the Naos Marine Lab at STRI and, in 1975, facilities manager for all of STRI, including two marine laboratories, Naos and Galeta, and Barro Colorado Island, the biological preserve in the middle of Gatun Lake. Borges, searching for a boat in New Hampshire, was tracked down recently for a telephone interview with Torch staff writer Kathryn Lindeman.

**Q.** Is boat hunting in New England a recurring aspect of your job?

**A.** It seems that, because of my recreational interest in boats, decisions about STRI vessels have fallen to me.

I brought down from Miami one of STRI's first research vessels, the Stenella, when I was station manager for Naos. U.S. Customs had seized the boat with 2 tons of marijuana aboard. We were a little worried on the trip back to Panama because of the smell of grass and the pieces of pot trapped in all the boat's nooks and crannies.

**Q.** STRI has been upgrading its facilities and making a lot of improvements over the last few years. What are some projects you've worked on as facilities manager?

**A.** One of the most complex ventures was the tramway construction at Barro Colorado Island for moving people and materials to the top of a 100-foot-high hill. The 230 steps going almost straight up make the climb the equivalent of walking up the stairs of a 10-story building. We just had to make it more accessible for visitors and staff. But the isolation of the area restricts us to using small, portable equipment that can be moved in by boat. Laying concrete on the side of a hill is a real challenge when you're doing all the work by hand. We poured close to 100 cubic yards of cement, all mixed with shovels.

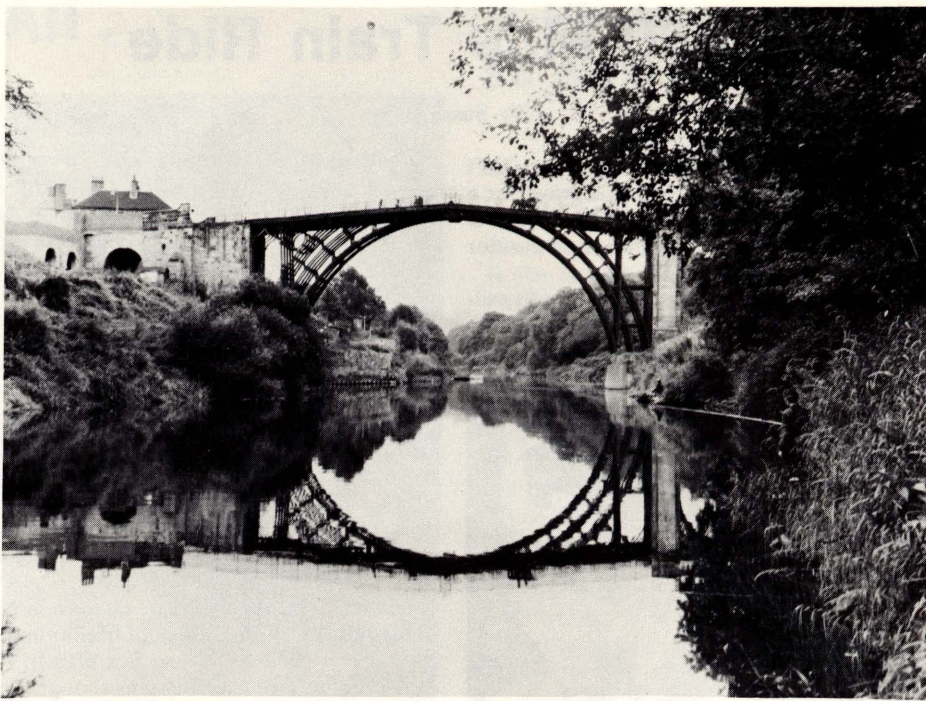
We investigated ski lifts first, but the overhead cable wouldn't do for us because of the animals—monkeys would love to hang from the wires. Instead, we have a cable-drawn cart running on a concrete structure with a center rail, something like a monorail.

**Q.** What are some of your other projects?

**A.** We've renovated the old Tivoli Hotel as part of our headquarters in the city of Panama, even using the baker's oven and kitchen for office space, and we're planning a six-unit dorm to replace an old wooden structure now used by visiting scientists. But the most complex project so far is the Naos sea water system which brings in water from the Pacific for scientific studies. Tides fluctuate as much as 20 feet each day, making it mechanically difficult for pumps to pull water up into the aquariums, tanks and experimental troughs. In one building now in use, two tanks hold 35,000 gallons each and one holds 70,000 gallons, and there will be more when the system is complete.

**Q.** How does the tropical climate affect planning for new construction?

**A.** If you stand too long in one spot, you get the feeling your feet will grow roots. The humidity, mildew, dry rot and termites make wood a poor construction material for us. You need to use insecticides with wood, and insecticides would go through the food chain and destroy some of the flora and fauna we are trying to study. We've been using concrete for all new building projects. We also use metals with known success, such as stainless steel, rather than copper and chromium which are generally toxic to plants and animals.



"WISH YOU WERE HERE . . . England sure looks great in the summer, especially tranquil scenes like this one in Shropshire. The iron bridge, built 200 years ago, is the oldest one of its kind. You needn't miss it though, just because you're in Washington. In honor of the bridge's bicentennial, there's an exhibit down at the Museum of History and Technology. It's on the first floor and runs through August."

## FLORA SMITHIANA



Drawing by Warren R. Abbott Jr.

By James Buckler

They may come last in an alphabetical listing of summer annuals, but zinnias, with their bright colors and various sizes and shapes, are first in the minds of many summer gardeners.

Zinnias became popular in the mid-19th century for annual borders, summer bouquets and winter dried arrangements. Their colorful flowers, combined with larkspur, delphinium and roses, make beautiful bouquets, either fresh or dried.

The plant, named for an 18th-century German botanist, Johann G. Zinn, was introduced into cultivation late in that century. Native to North and South America, especially Mexico, zinnias fall into two major species. *Zinnia elegans*, the more familiar type, may be one- or many-colored, while *Zinnia linearis*, or narrow-leaf zinnia, has dark-bordered petals.

Zinnias are the easiest summer annual to grow. Sow the seeds in a greenhouse, on the window sill or directly into the garden after the last frost. Transplant the indoor seedlings outside in full sun. Once the plants begin to bloom, the flowers should be picked or pinched back often to encourage more blooms.

If you use the zinnias in fresh bouquets, cut them in late morning, after the dew has dried, and plunge the stems into cool water for several hours before using. Then arrange them into formal or informal displays.

For dried flowers, cut as indicated above and place the flowers—petals down—into sand or silica gel and carefully sift com-

pound over until the flowers are completely covered. Leave them in a warm, dry place for several weeks. Then remove the flowers carefully and use them alone or in combination with other dried flowers to create a striking winter bouquet. Keep all dried flower arrangements out of direct sun to prevent fading.

The Office of Horticulture has planted several varieties of zinnias around the Smithsonian buildings. Look for the flowers at the Museum of Natural History, the Museum of History and Technology, the Freer Gallery and, mixed with other annuals, in the urns in the Victorian Garden.

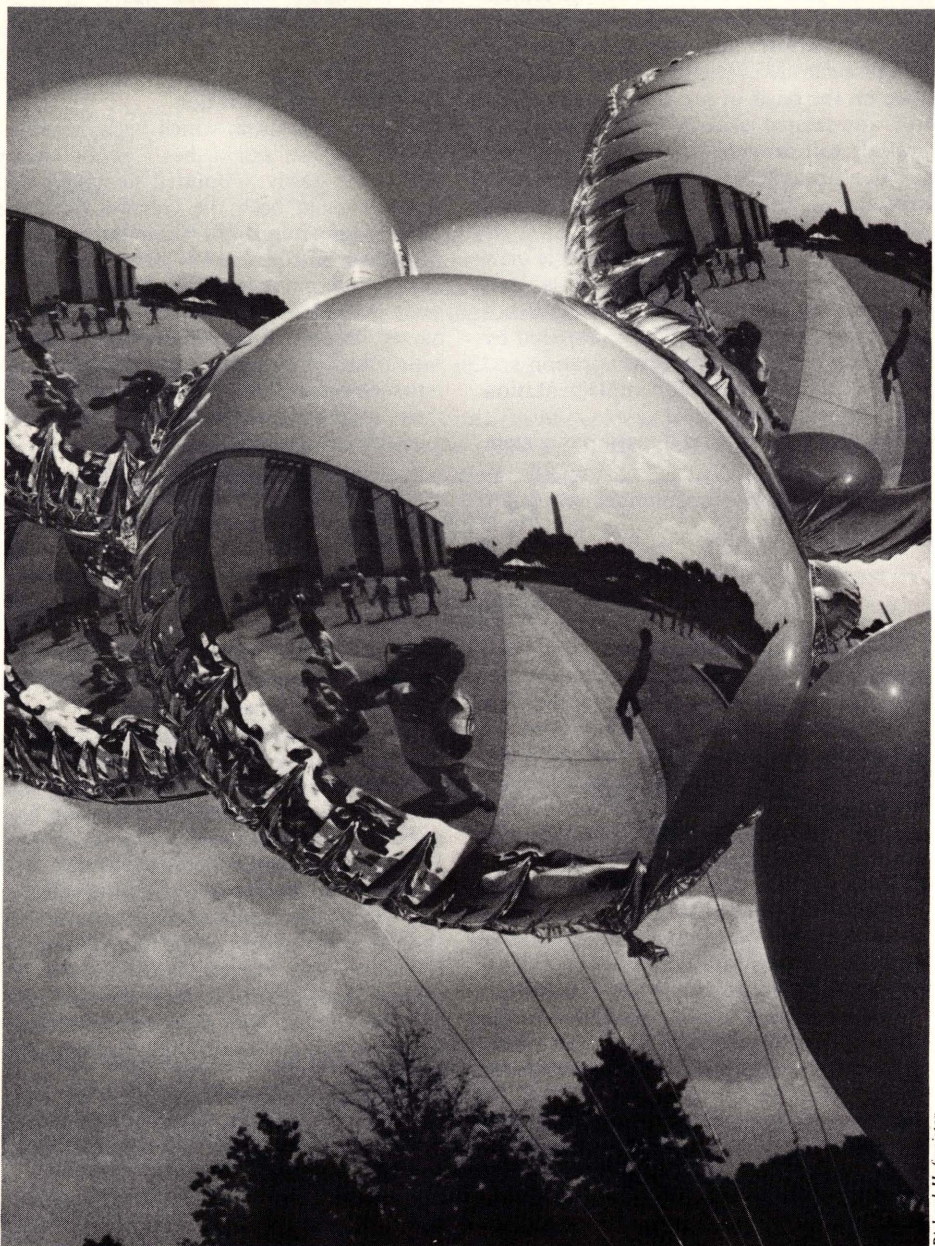
### Ruffled Feathers

The Washington Post recently sought the opinion of George Watson, MNH curator of birds, on the relegation of Maryland's State Bird, the Baltimore oriole, to a subspecies.

It seems that Sen. Charles McC. Mathias, (R-Md.) had just made a tongue-in-cheek protest in the Congressional Record on the bird's lowered station.

Watson, who confirmed that the change came as a result of the oriole's promiscuous meetings and breedings with the Bullock oriole, called Mathias' complaint "old news."

"Mathias," the Post said, "feigning anger at such a snotty attitude, shot back, 'At the Smithsonian, at least, I had expected more sympathy.'"



Silver balloons reflect summer's heat on the MHT terrace.

Richard Holmquist