From the Bottom of Lake Superior...

from its original condition. This engine has survived in a good state of preservation in its original form. No one has ever seen a marine engine of this period in its original condition until now. The engine will yield important information about pre-Civil War propulsion systems and the evolution of such systems.

Other artifacts recovered from the 350-ton Indiana included the steering quadrant and rudder, hot water feed, throttle mechanism and Ericsson screw propeller. This propeller, the brainchild of the inventor who designed the Monitor (now the subject of other salvage efforts), pushed ships through the water rather than pulling, as the more common sidewheel paddle steamers did, and caused a technological revolution changing naval tactics and commercial maritime trade. The propeller, 10 feet in diameter and weighing about 2 tons, was recovered with three of its four blades intact and in good condition. "For me, the high point of the operation was finding the name of the manufacturer on the propeller," Stine said. "That was quite a sophisticated piece of equipment to make in those days, and we will now be able to trace the history of this manufacturer."

The operation began July 28 in a remote part of the upper peninsula of Michigan in Little Lake, a picturesque vacation village. The team of 40 researchers, technicians and divers from the Smithsonian and the Navy were lodged in rustic cabins. The Smithsonian group had no electricity or hot water. Baths were an invigorating experience in the chilly 55-degree waters of Lake Superior.

And Off to Silver Hill...

The Indiana's boiler emerges after 121 years under water (top), then begins its journey east.

Sault Ste. Marie, Mich.—The attempted salvage operation on the freigher Indiana was the biggest "sunken ship" story to hit the Midwest since the Edmund Fitzgerald sank in Lake Superior in 1975. But after 121 years under 118 feet of water in northeastern Lake Superior, the Indiana reluctantly yielded up its historic treasures to intense salvage efforts by the Smithsonian Institution, the U.S. Navy and the Army Corps of Engineers.

The Indiana's prize was its steam power plant, consisting of the 18-foot-tall, 3-ton boiler with the firebox still filled with wood, the engine, preheater and miscellaneous piping. The power plant is the earliest marine steam plant still in existence in North America which has an actual working history. It probably constitutes one of the most significant large pieces of machinery acquired by the Smithsonian in the 20th century, outside the artifacts owned by the Air and Space Museum.

This was the Smithsonian's first underwater salvage operation, according to John Stine, a museum specialist at History and Technology, who put together and coordinated the massive effort despite many obstacles. Lt. Cmdr. Robert Wells and Master Diver James Starcher directed the Navy divers and technicians. Les Lundin was the master of the Derrick Barge Colman, the salvage vessel operated by the Army Corps of Engineers.

"The power plant is an especially thrilling recovery," a tired but elated Stine said after the 12-day operation. "Usually, if you find one of these engines, it has been altered..."
An astrophysicist, an archaeologist and a biologist are the first three scientists to receive the newly established regents’ fellowships for distinguished scholars. Beginning in 1980, each of the regents’ fellows will conduct research at Smithsonian facilities on subjects of mutual interest to its institutions.

The appointments announced by Secretary of the Smithsonian Ripley Announce First Regents’ Fellows:

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At the National Air and Space Museum, even the most intricate exhibition begins as a blank paragraph. The concept of the exhibit, boiled down to a few sentences by the curator, is sometimes given to the designer a year or so before production actually begins.

What happens during that year will vary depending on the nature of the exhibit, the work habits and discipline of the designer and the museum’s financial restrictions. Basically, however, the work of Smithsonian designers follows a certain pattern from the gallery concept through full-size mock-ups and, finally, to the finishing touches on the exhibition just before the opening.

John Clendening, one of five designers at NASM, began work on the early flight hall in September 1978, and by June 1979 his design was in the hands of the production crew at Silver Hill. This section is a brief chronology of how this exhibit, one of some 30 scheduled to open at the Smithsonian next year, was designed.

Step 1: The Idea
The Smithsonian’s director, deputy director, assistant directors and curators all have a hand in deciding what new major exhibits are needed and what exhibits will be removed to make way for the new shows. In this case, the decision was located in Gallery 10 opposite the museum shop, was daunting for the upcoming early flight exhibit.

For this exhibit, curators Thomas Crouch, Richard Harrison and Claudia Oakes, all specialists in early aviation, wanted to show visitors what early 20th-century planes looked like and how they operated. It just so happened that NASM had 18 beautiful specimens, two of which had been carefully restored at Silver Hill in preparation for this display.

The idea in this gallery was to evoke the mood and excitement of an early indoor aviation show, circa 1913, by installing a display of planes manufactured by some of the big aviation companies of the day. Wright, Curtiss, Bleriot and others. The exhibit in period setting would include “talking mannequins narrating a silent movie, posters promoting the various planes, “talking heads” and slide shows—than any other Smithsonian museum. All A/V is controlled and monitored by a central computer in the basement where a print-out tells staff when a film breaks, a show is out of sync, a projector motor stops or the lights go out.

By late spring, the audios and visuals for the new hall were set. There would be one mannequin giving a sales pitch for three mannequins playing instruments on the balcony and a couple chatting near the women in the aviation booth.

Step 4: Accuracy
The early Smithsonian style, the exhibit would be accurate right down to the finest detail. Clendening spent hours on research in the NASM and archives checking the architecture of the period and finding photographs and descriptions of the aero-industrial shows held in America between 1903 and 1913.

Occasionally, Clendening had to make compromises. For example, he would place wooden cutouts around the planes instead of using the attractive but floppy valen ropes popular in 1913 shows, which were up for only 2 months or so. This Smithsonian exhibition has to last a good 5 or 10 years. The ornamental iron bars Clendening chose for the tops of the railings were copied from old catalogs in the library, framed, tinted, used in the exhibit are all seapla, blue toned, and the wall text was written in a decorative style.

Meanwhile, curator Tom Crouch was in his element; a very robusst historical section on flight in nature. Crouch needed birds in flight but, as he soon found out, most taxidermists position birds on a perch. Freeze-dry specialist Rolland Hower at the Museum of Natural History agreed to take new specimens—often birds that had just died at the Zoo—and freeze-dry them in natural flying attitudes. He plans to send a few colorful birds, a flying insect or two and a bat over to NASM for the new hall.

Step 5: Going through Channels
Just about the time the exhibit was ready for production, NASM revised and streamlined its design approval procedure.

A preliminary notice is sent to the Office of Facilities Planning and Engineering Services, followed by eight sets of drawings and a complete explanatory memo from the curator and designer. OPES coordinates the review process, sending the specs to safety experts, engineers, building managers and Office of Protection Services staff for a review of handicapped accessibility and fire prevention equipment. This review period lasts 30 days.

OPES, Protection Services and others check the design for proper steps and landing lights, which do not obstruct the flow of air, smoke detectors (one for every 900 square feet and one for every slide or film projector), exit signs featuring the standard 6-inch red letters and fire resistant materials used in all construction and decoration.

Step 6: Going into Production
When Clendening is finished with his design work, it all ends up in thick houseleaf notebooks containing negatives, copies of specifications, liasion notes, specifications for lettering styles and graphic and structural drawings. Production Chief Nelms in Silver Hill reviewed the five notebooks on early flight in mid-June and began production immediately. By July 30, the exhibit is now scheduled to open early next year.

While the exhibit was in production, Clendening finished up odds and ends such as locating, finding, buying and the Horticulture Office about plants, buying draperies and contacting artists to do illustrations.

(Bamboo Given Name At Last)

The rare and long-awaited flowering of the umbrella bamboo, a beautiful and popular garden plant, recently resulted in a taxonomic coup for Dr. Thomas R. Soderstrom, Museum of Natural History researcher.

Dr. Soderstrom identified a new species of bamboo and raised it to species status. This is the first time in the 20th century that a new species has been found in the United States.

Early this year Soderstrom received in the mail branches from an umbrella bamboo that was flowering, and with this specimen he was at long last able to identify the plants correctly.

As a result, the protocol of plant taxonomy—the umbrella bamboo has been correctly classified by the botanist who originally named the species (spathacea). Soderstrom in his honor as the man who identified it. Adrien Franchet was the botanist who originally named the species (spathacea). Soderstrom determined the genus and species names of the new species.

The saga of the "Bambouling Thamnocalma" was related by Soderstrom in the July-August issue of Garden magazine.

SMITHSONIAN TORCH
Published by Smithsonian Institution personnel by the Office of Public Affairs, Allen Rosenfield Director, Susan Bliss, Editor. Kathryn Lindeman, Executive Assistant.
First Ladies Hall Adds Kennedy-Era Red Room

The White House Red Room as it appeared during the Kennedy years

When Margaret Klapthor, curator of political history, and other staff members planned a new home for the first ladies’ gowns in the Museum of History and Technology before it opened in 1964, they asked for space for expansion of the collection. “We wanted a built-in escape hatch for the ladies,” Klapthor said.

Klapthor’s “escape hatch” has now become the Red Room, opened Sept. 15, the ninth room in the First Ladies Hall. The gowns of Jacqueline Kennedy, Lady Bird Johnson, Patricia Nixon, Betty Ford and Rosalynn Carter, the newly restored Red Room case along with six others, will be seen in the Red Room after that date.

“Eleanor Roosevelt’s dress, which remains in the East Room, was the first one I put on display when I came to this position 35 years ago,” Klapthor said. “At that time, the first ladies’ dresses were in individual square glass boxes in the Art and Industries Building, but we had presidential and first ladies’ Accessories Archive in other collections and wanted to use them in rooms settings.” Thus, the initial modernization of the first ladies’ display was made in 1955. Some years after the exhibit’s move to the MHT hall, the East Room case began to show signs of over-crowding. “It was time to get the ladies out of their line-up and allow breathing space in the East Room,” Klapthor said. The curator, along with designer Deborah Betscherfeld, searched the White House for a suitable setting for the next first ladies’ room. The Red Room, traditionally the first ladies’ sitting room since the time of Dolley Madison, seemed particularly appropriate. The curator and designer discovered that the White House had all the curtains and a rug from the time Jacqueline Kennedy refurbished the room in 1962.

“It’s a spectacular area,” Klapthor said. “And I was sure the pastel colors would show up well against the vibrant color. We had a Red Room in the AK exhibit and knew it worked well.”

The walls of the 1955–1969 Empire Parlor are hung with gold-border ed celsisilk specially woven after a French sample. The whole house supplied a piece of the original fabric, made by the Scalamandre Company, for color and weave. From the original and their own records, Scalamandre produced the vibrant, solid red for the walls and the gold and gold-design border with a chair rail.

The whole fabric is stretched over muslin on a frame, then attached to a plywood backing. “This makes it easily removable, permitting breathing space and less wear and tear,” Betscherfeld said.

Curtains and much of the furniture are on loan from the White House. The curtains and red-and-beige Sarconette coverlet were used during the Kennedy administration, along with a French desk with curio cabinets, a pier table with two sides chairs, a convex mirror and a torchler, or candle stand.

The original rug became too fragile to handle traffic, so White House staff had a copy made for everyday use. The exhibition uses the original, behind protective half-inch glass. The American Empire sofa, made in the style of those used in the Kennedy Red Room, is from the MHT collection.

Restoration Specialist Charles Rowell, who has done about 80 period units and room settings during his 20 years at the Institute, made any number of trips to the White House, along with William Reed of the exhibits finishing department, while planning the new room.

Copies were made of the doors and wooden molding for the Museum’s 13- by 23-foot room. Since molding for a 1963 century room is not exactly a standard item at lumber yards, most of the molding had to be specially milled.

Red got the precise formula for the workroom paint, finished the mahogany, walnut and birch doors—true to the originals—and marbled the wood on the baseboard with paint, following the same pattern as the marble in the White House. “It would be much too expensive to try to get marble to match,” Rowell said.

The walls and wall accessories, including an oil painting of Mrs. Hoover on the south wall, are from the Museum’s collections.

—Kathryn Lindeman

SI in the Media

“Must it have been the only party in town? Or else Washingtonians have developed a sudden passion for 19th-century Russian art.” So Joy Billington of the Washington Times wrote the day after nearly a thousand people mobbed the Renwick Gallery for the opening of “The Art of Russia: 1800–1850.” As a line of expectants snaked around the corner of 17th and Pennsylvania Ave. NW, Joshua Taylor remarked apologetically to an astonished Washington Post, “It is a problem; you can only get so many people in the Gallery at one time.”

Apologies for the long line and uncounted throng, local and national reporters, the 10th anniversary celebration at NASM was a made-to-order media event. John Chedelor anchored an hour-long prime-time NBC newscast from NASM. The other two commercial networks and all local stations were on hand, not to mention conference and public assembly as well. WDMV-TV carried live coverage of the evening events on three different newscasts.

On ABC, the events were filmed for morning broadcast on “Good Morning America” and for the nightly news with science reporter Jules Bergman.

Skylab

The major networks, local stations, news services and local newspapers, plus some foreign journalists, either filmed or photographed at NASM in the weeks prior to Space Shuttle’s launch, were a story of the fallen piece from NASM’s Skylab model was picked up by the Associated Press, ABC-TV and all local TV stations. The July 27 visit of Stanley Thornton, the Australian who won $10,000 for being the first person to find a piece of the satellite, was used by the AP and two local TV stations.

Callers eager for up-to-the-minute information about the Space Telescope and “Dial-a-Satellite and SI’s Dial-a-Phenomenon recorded message during the satellite’s last week in orbit. CFA had provided information about Skylab passages since its launch in May 1973.

Art

The New Yorker magazine carried a piece in its “Talk of the Town” section on Museum Mile, a cooperative program sponsored by Cooper-Hewitt and other museums and cultural institutions and with the aid of New York’s upper Fifth Avenue. The opening event—a street festival—was part of C.H. Director Lisa Taylor’s idea to make New Yorkers aware of the city’s more remotely located cultural resources.

A detailed Baltimore Sun review of NPG’s “Return to Albion” said: “seldom in the general run of museum exhibitions does one see a gathering of objects as interesting, unusual and as well-chosen as the selections gathered here.”

Two New York City papers, the Soho Weekly News and the Village Voice, sent critics to review HMSG’s “Directions.” Considering the sometimes chaotically atti­tude of New Yorkers toward the Washing­ton art scene, John Perreault’s comment in the Soho paper was extraordi­nary.

“Directions is a show that should have been done in New York.” The Voice called the exhibition curator Howard Fox “astute and diligent, but markedly original, even revolutionary, in his overview.”

The Voice also liked “Art from Chicago” at NFCF, calling it “a fascinating demonstration of the actual variety offered by ‘artistic’ art centers.”

Natural History

“The Dynamics of Evolution,” at MNH, made cover of Science News magazine on July 7 with a photograph of the now-famous display of freeze-dried roaches. The article inside included four other illustrations.

FMM’s Derestesid beetles were featured in an article in the Nevada State Journal. Douglas John, who is in charge of the beetle colonies, admitted that the beetles’ place of origin actually is not known, even in the HSMC curator’s office.

Searching the Heavens

The Christian Science Monitor wrote that X-ray-observing Einstein satellites “has catapulted astronomy into a new era of cosmic exploration.” CFA’s Records, Giacconi, principal investigator for the project, noted that the satellite’s vastly increased sensitivity “is the reason that astronomers are jumping up and down.”

The orbiter observations, among other accomplishments, has provided evidence suggesting the universe probably will expand forever. Harvey Tananbaum, head of CFA’s quasar team, is elated because of the recent sightings of X-ray images of galaxies. Science magazine also ran an article on the early results of the observatory.

The Baltimore Sun, Science News, the New York Times and the Boston Globe reported that the sun is shrinking as determined in studies done by Jack Eddy, a solar astronomer who is visiting at CFA. Jack Eddy reached this conclusion after searching records at the Greenwich Royal Observatory in England and the U.S. Naval Observatory, which indicate a shrinkage of 0.1 percent a century.

—Johnnie Douthis

Comings and Goings

Bill Green, a museum technician at NASM’s Silver Hill facility, retired in July after 10 years with the organization. A 1968 graduate of Yale University, he joined the NASM Library staff as a museum technician responsible for the librarianship program.

Susan L. Owen has assumed duties as clerk-cüstomier at NASM’s Aeronautics Department. She formerly worked for the Secret Service.

John Brennen, a recent graduate of California State College at Chico, has joined the NASM Library staff as a museum technician responsible for the librarianship program.

Dan Ehrlich has been appointed director of the Smithsonian Museum of Natural History.

—Bill Sackett

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Bill Sackett

Radio Smithsonian

Broadcast on WGMS-AM (570) and WGMS-FM (101.5) Sundays at 5 p.m.

Sept. 2 “Life in a Coral Reef,” and “Before Broadway,” as reflected in exhibition at NFCF.

Sept. 9 “Japan Today”—Highlights of the recent symposium at NFCF.

Sept. 16 “Cattin’s Indian Gallery”—The life and work of painter George Catlin in Imperial Russia.

Sept. 23 “Time’s Entertainment”—Magazine covers over the last decades, and “Lords of the Jungle”—Survival struggle of the great cats.


Giving Blood

An American Red Cross Bloodmobile will visit the Smithsonian at Labor Day and offer blood donation service. CFA has been a consistent donor, and recently provided a nightklub for the American Red Cross.

Consent (consistent with the donor’s wishes and with an informed consent) is an eligible blood donor. Anyone who is in good health, between the ages of 18 and 66 (with parental consent) is eligible to donate blood.
team consisted of Martin Burke, an MHT preservation expert; Larry Jones, an MHT specialist in art; historian Robert Post; Nadia Makoveny, who will be doing the exhibit on the artifacts of photographer

- "Salvage"
  (Continued from Page 1)

- Artistic Judy Chicago Attracts Full House
  
  Feminist artist Judy Chicago drew a capacity audience to Baird Auditorium for a discussion last month on her controversial multi-media construction, "The Dinner Party."

  - Janet Solinger, whose Resident Associate Program sponsored the slide-illustrated lecture, explained in her introduction that more than 150 requests for tickets had to be turned away.

  - "The Dinner Party" consists of a huge, triangular tabletop with 39 ceramic dinner plates and fabric mats individually designed to reflect the personalities of women who have made a social, political or cultural impact. The work was created as a survey, from variety to the best of Broadway.

  The art work was a collaborative effort of more than 200 individuals who worked under Chicago's direction over a period of 5 years. They studied obscure embroidery, made a social, political or cultural impact to reflect the personae of women who have made a social, political or cultural impact. The work was created as a survey, from variety to the best of Broadway.

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  : Cinematographer Foster Wylie focuses on NCFR Director Joshua C. Taylor as Dr. Taylor and a group of interest consider a 19th-century painting for a sequence in a half-century film being produced by Paul Johnson and Jean Quinnette of the Office of Telecommunication. The film will explore the role of the national museum of American art. Taylor's philosophy that visitors should be encouraged to make their own discoveries about art, and the Museum's standing as a center for the study and encouragement of American art. Showings is scheduled for completion this month, with release projected for early next year.

- Thank You from AFGE

Three Smithsonian women were honored recently by the American Federation of Government Employees, District 14 and Smithsonian Local 2463 in recognition of their generous and effective contributions of time and effort in advancing the objectives of AFGE and for their dedication and service to the Union. Awardees were: Inez D. Buck, assistant business manager, both of St. Libraries, and Dianne G. Walker, Office of Computer Services.

- Mall Attendance Drops in July

Attendance at the Mall museums declined again in July as compared with the same period last year. The seven museums greeted 2.57 million visitors in July compared with 3.23 million in the same month last year, a 20-percent decline. All the museums showed a decrease, ranging from 3 percent at the Freer Gallery to 25 percent at the Air and Space Museum.

As noted in last month's Torch, attendance figures boomed in April but fell sharply in May and June. The development of the gasoline shortage in May, the decline continued in June. While the actual number of visitors was greater in July than in June, that fact was in keeping with traditional tourist patterns; attendance normally increases each month during the summer and drops off only after the Labor Day weekend.

The increase in July over June was not substantial—2.57 million in July as against 2 million in June. The Museum of Natural History received 600,353 visitors in July compared with 586,493 in June, while at NASM the total was just under one million. As against 909,138 the previous month. Although lines at gas stations in the Washington area began to disappear in the latter part of July, attendance continued to increase for shortages, high gas prices and perhaps general inflation deterred many tourists from traveling hundreds of miles to visit the national Mall.

- Musical Theater

Smithsonian Performing Arts will present an expanded series of American Musical Theater programs this season. Four original productions will explore the development of our musical theater traditions, from variety to the best of Broadway. Because of the series' popularity last year, an extra evening of performance has been added to each production. Each show will be performed on Friday, Saturday and Sunday nights at 8 p.m. in Baird Auditorium. The series will open Oct. 5 with a survey of the songs and dances of the best musicals from 1900-1920. Max Morath, long-time champion of American cultural life in the early 20th century, an era marked by the budding talents of such composers as Irving Berlin and Jerome Kern, will be featured. Dance numbers will be choreographed by Lee Theodore, best known for his direction of The American Dance Machine.

The second production will open Nov. 30 with a concert version of "Show Boat," Jerome Kern's 1927 landmark musical. The Smithsonian production will include all the selections Kern wrote for the show's stage and film versions, including songs not as familiar as "Old Man River" and "Make Believe.

Vaudville II, the third production in the series, will begin where last year's popular show left off. The new bill—comedy, music and a few surprises—will open Feb. 1.

Details on the final production, scheduled for May 24, will be announced later in the season.

In the Smithsonian Auditorium, all performances are in Baird Auditorium, on 8 p.m. The shows are nearly sold out, but for ticket prices and information, call ext. 5395—Pilar Markley

Photo: Paul Johnson, Jean Quinnette of the Office of Telecommunications.

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The second production will open Nov. 30 with a concert version of "Show Boat," Jerome Kern's 1927 landmark musical. The Smithsonian production will include all the selections Kern wrote for the show's stage and film versions, including songs not as familiar as "Old Man River" and "Make Believe.

Vaudville II, the third production in the series, will begin where last year's popular show left off. The new bill—comedy, music and a few surprises—will open Feb. 1.

Details on the final production, scheduled for May 24, will be announced later in the season.

In the Smithsonian Auditorium, all performances are in Baird Auditorium, on 8 p.m. The shows are nearly sold out, but for ticket prices and information, call ext. 5395—Pilar Markley

Photo: Paul Johnson, Jean Quinnette of the Office of Telecommunications.
Lillian Kebozick, a secretary in NASM's Department of Science and Technology, represented the Smithsonian's Women's Council and NASM at the 10th Annual Training Conference of Federally Employed Women in September. John Kinard, director of the Anacostia Neighborhood Museum, chaired a committee to select artists who will reside in a transformed Lansburgh's Department Store. The new facility, called the Washington Humanities and Arts Center, is being developed by the National Archives.

Farook El-Baz, research director of NASM's Center for Earth and Planetary Studies, went to the Johnson Space Center in Texas where he gave a lecture on deserts of North America at a recent international conference of Federal Agencies.

Edward S. Ayensu, director of the Office of Biological Conservation, has been appointed to serve on the Scientific Panel of the International Commission on the Ombrochorial Control Program in West Africa. Ombrochoria, a parasitic disease transmitted by flies, is a serious public health problem in tropical Africa.

Walter J. Boyle, NASM's executive officer, Donald S. Lopez, assistant director of the Aeronautics Department, and Gen. Benjamin Kelsey, Lindbergh professor of aerospace history, recently attended a reunion of former McCook Field personnel in Dayton, Ohio. Boyle and Lopez gathered information for a forthcoming book on the history of McCook Field. Kelsey obtained information to be included in a book he is writing on a related subject.

By Johnie Doubis

Hoopl and fanfare usually are not part of the day-to-day happenings in basic research, so it was not surprising that scientists at the Radiation Biology Laboratory continued working quietly away as the 50th anniversary of their laboratory came and went earlier this year. That’s the way the group at this little-known bureau of the Smithsonian likes it, as they pursue their studies on the effects of solar radiation on living things and quantity of solar radiation reaching the Earth.

In this way, they are continuing a tradition established by two well-known Smithsonian pioneers in solar research. The RBL traces its beginnings to the first of these, Samuel Priest Lapley, the Smithsonian’s third Secretary. Lapley, considered something of a visionary in his day, had recognized the sun’s importance in the overall scheme of life. His first step was establishing the Smithsonian Astrophysical Observatory in 1890. Scientists at SAO in those early days concentrated on measurements of the sun and other objects in the solar system.

His young SAO assistant, Charles Greetey Abbot, was also inspired by the sun and tried to convince Langley that solar study, as it related to biology, had a place at the Smithsonian. Surprisingly, Langley turned him down. In a letter dated Nov. 2, 1899, Langley wrote Abbot, “... concerning the proposed new line of investigation in the relation of radiant energy to vegetable life ... I am in sympathy with you about the need to take up this investigation, but I remember that it is one so large that my own life even years may never see the end of this research once begun.”

Abbot had to wait until he himself became Secretary to see his dream realized. On May 1, 1929, he established the Division of Solar Radiation and Organisms, as part of SAO, to study the effect of solar energy on the Earth’s flora and fauna.

The first laboratories, staffed by four people, were installed in the basement of the office on the Mall and eventually in a greenhouse on the grounds. The problems of photosynthesis, factors influencing plant growth and the measurement of solar radiation itself preoccupied those early scientists.

As the staff immersed itself in measurements of the sun for nearly 30 years, it set up field stations in some of the world’s most remote and inhospitable places to make measurements of the solar constant, or the rate of energy received by the Earth. Station sites were established in the deserts of Kenya, Montereau, Chile, Mt. Birkos in South West Africa, and Mt. St. Katherine (Mt. Sinai) in the Sinai Peninsula. Its basic data is still being used and re-evaluated by scientists as a way of learning about solar radiation and the environment as a whole.

The work of the Division of Radiation on the Sun is not limited to performing quick research. The laboratory has been working quietly away as the 50th anniversary of its founding was celebrated last year.

For further information, contact Nat Gramatik at ext. 5831.
**Cooper-Hewitt Searches Mall For Objects to Show New York**

*By Mary Combs*

Deep in the bowels of the Natural History Building, the Smithsonian Museological Association Staff Gallery has a new look this spring. The idea is to get you thinking about how photography works through mid-May.

An exhibition of 30 color and black-and-white photographs and color silkscreens by MHN artist Linda Tadlock will be on view through mid-May. The show is titled "A Zoo for All Seasons" and features photographs and color silkscreens by MHN artist Linda Tadlock.

A & I Victorian Gates Turn Up In Tennessee, Returned to SI

By Mary Combs

A pair of Victorian gates, one of the most important objects from the Smithsonian’s 75 million possibilities to show New York City and its visitors the “incredible range and diversity of the zoo from a human perspective” was on display for a week at the Smithsonian Institution.

The exhibition was organized around broad themes to give it structure and to allow visitors to see parts of the exhibition that were in the full exhibit. The categories are based on human needs, among them: ritual and ritualistic activities, scientific research, conservation, and protection and defense (medical as well as military devices). Transportation—a 1934 Ford Roadster will be shown; toys and games; nature (birds, shells, flowers, fossils, gems and minerals); measurement and record (portraits as well as instruments). Objects have been selected for their design characteristics, historic value and interest to the public. “We will not be showing the most important objects from the collections,” Taylor said, “but ones that do have beauty and that appeal to the public.”

A necklace, for example, given to Nancy Kissinger by Carl Goode, who received the gates from the Smithsonian under the Foreign Gifts Act, solved a major problem “since we obviously couldn’t have the Hope Diamond.”

The show also will be packed with “funny juxtapositions”—precious objects, common ones, funny ones: lunar soil, a Spito Agnew watch, baskets, hoes, a bicycle and a Caroline Kennedy coloring book are interesting, though, Taylor noted, “that the original Mickey Mouse watch on the Shirley Temple doll are not in the collection.”

Highlights planned for the Cooper-Hewitt show include a model of the castle; drawings designed in 1848 by Castle architect James Renwick for the Regents Room, and drawings of the building by Saul Steinberg. Other items will be displayed because of their Cooper-Hewitt connection: the Tom Thumb steam engine, for one, because it was invented by Peter Cooper, founder of the Cooper-Union for the Advancement of Science and Art. It was at this institution that the Museum originated.

“Good luck is precisely how a set of the Gates turned up,” Taylor said, stopping at a photograph of one item in the Smithsonian collection. “An old dealer in the south coast cut back some of the gates to make a fence. He called me up. ‘I got these gates. Can you sell them?’ I said. ‘Yes, we’ll sell them.’”

A new look. It’s been painted a rich moss green to coordinate with cork paneling and light oak trim. New lighting design sets off the undamaged set in the driveway of the Tennessee State Museum, asking about the gates as one of four pairs created in the 1900s. Mrs. Joseph Caldwell, the current owner, thought the gates had been constructed for the Capitol of the Confederacy.

But Goode had done research in preparation for the exhibition. The gates were created in 1879 to adorn the four entrances of A&I. They were probably designed by the building’s architect, Adolphus Collin Goode, said.

When he talked with Caldwell, Goode learned that two pairs of gates had been purchased by her father for his 365-acre estate in Arlington, Virginia. The gates had fallen victim to a “modernization” of A&I and were sold by auction in 1910. The remaining two pairs cannot be traced.

The estate was sold during the Depression, but Caldwell took the gates to her Tennessee home in 1940. One pair had been crushed by a horse in Arlington, but Mrs. Caldwell put aside the pieces and the undamaged set in the driveway of the late 18th-century house she has since acquired.

After the gates were reassembled, they received several coats of paint to preserve them and were installed in the west doorway of A&I, facing the Victorian Garden.

**A Zoo For All Seasons Published**

By Johnnie Duhahtis

"A Zoo for All Seasons," the fourth publication by Smithsonian Exposition Books, takes the general reader behind-the-scenes at the National Zoological Park. Illustrated essays and picture stories explain the new use in zoo research and exotic animal husbandry and set forth the fascinating relationship among the zoo’s animals, staff and visitors. An initial print run of 100,000 was decided upon after a highly successful test mailing in July, which gave promise of 75,000 mail-order purchases in addition to bookstore sales.

The dust jacket of the 192-page book shows one of NZP’s pandas frolicking in the snow. The contents features chapters by Director Theodore H. Reed and Associate Director John Eisenberg, plus Thomas Crosby (a Washington Star reporter who knows NZP well), science writer Janet Hudson and the SEB staff.

In his essay, the calls the Zoo a special city within the capital city. He discusses recent changes in Zoo philosophy, which he says have been partially shaped by the presence of a dwindling worldwide animal population.

A historical chapter discusses the evolution of NZP’s unusual relationship with the federal government and how the Zoo grew from a small menagerie on the Mall to one of the world’s leading animal kingdoms. Other essays focus on new trends in Zoo construction, the work of Zoo veterinarians and pathologists and the care and concern which keepers and curators lavish on their charges.

And for those who think the Zoo exists only in Rock Creek Park, SEB editor Amy Donovan details the exotic animal husbandry research carried out at the Zoo’s 3,150-acre Conservation and Research Center in Front Royal, Virginia. Janet Hudson describes the Zoo’s education program, and John Driver, Executive Director of Children in American Art, 100,000 copies of "A Zoo for All Seasons" and $19.95 for "The American Land." He is the publisher of Flying, which he describes as a "special presentation of special pre-publication prices. Theretofore, they will be available in bookstores and Smithsonian museum shops at $16.95 for "A Zoo for All Seasons" and $19.95 for "The American Land."

Both books will be offered to Smithsonian Associates at special pre-publication prices. Theretofore, they will be available in bookstores and Smithsonian museum shops at $16.95 for "A Zoo for All Seasons" and $19.95 for "The American Land."

**Calendar**

The Washington Star’s Sunday calendar section is moving to Friday and so are we. The Smithsonian Calendar for October will appear in the Star and in the Washington Post on Friday, Sept. 28.

"I'll see, . . . William H. Johnson’s paintings of 1944 are featured in NCPA's "Chilpoteles: Children in American Art," until Sept. 16.

**Staff Gallery Shows Photos**

**Deep in the bowels of the Natural History Building, the Smithsonian Museological Association Staff Gallery has a new look this spring. The idea is to get you thinking about how photography works through mid-May. An exhibition of 30 color and black-and-white photographs and color silkscreens by MHN artist Linda Tadlock will be on view through mid-September. Coming up later will be color photography from Africa by Mignon Davis of the Entomology Department, through mid-November. Next, members of the Audubon Naturalist Society will show their photographs in an exhibit set to run through mid-January, and Carl Goodpasture will show his black-and-white landscape photography through mid-March. The SMA Staff Gallery, now in its third year, is located outside the MHN staff cafeteria. For more information about exhibitions, call Mignon Davis at ext. 5129.**
If you ever feel bearish, consider the situation: Emily Rudin, editor-at-large at the National Zoo. Rudin does such extensive research for writing her interpretive labels that once, after thoroughly researching bears, she felt certain she knew what it was like to be one.

Rudin, a 4-year Zoo employee, now with the Office of Graphics and Exhibits, edits the Zoo's annual report and writes other publications, as well as labels for Zoo exhibits. With a bachelor's degree in English and pre-med studies and experience as editor of two school newspapers, she combines her interests in science, English, journalism and music in work and leisure-time activities. Rudin was interviewed by Torch staff writer Kathryn Lindeman.

Q. Which has been your favorite animal to research and write about?
A. The bears, especially polar bears. I developed a complete preoccupation with the animals—sometimes I even dream about them. I know I'm far gone when I start to like people to the animal I'm studying. I thoroughly enjoyed doing Beaver Valley, too. Seal and sea lion behavior is fascinating to read about. You become humble when writing about animals for people.

Q. How do you translate highly technical information into layman's language?
A. It's a constant refining process. First, I have to do a lot of research on the technical side. Medical journals, Ph.D. theses, publications translated from other languages and others must all be read, understood and absorbed. I talk to the keepers and general zoo people about things I'm writing. I must limit the content so that it's not too esoteric to attract visitors' interest.

Q. How do you judge whether the labels are good and clear?
A. By going out in the park as much as possible to listen to visitors' comments and opinions. Joe Q. Taxpayer is the important one. If he reads our sign, it's a success. Knowing the visitors' feelings keeps us in touch, and people love the contact with staff. They readily come up and ask questions.

Q. Do most of the labels have accompanying illustrations?
A. Almost all. In Beaver Valley, there are a few three-dimensional exhibits discussing such topics as beaver dentition and dam building and communication among gray seals. We don't want the signs to scream in competition with the live animals, but try whenever possible to tie the labels with the animals on exhibit. We used a shocking picture of a seal stomach, filled with shiny coins, and a strongly worded sign to help deter people from throwing objects into the pools at Beaver Valley.

Q. What age group do you aim toward when writing interpretive signs?
A. I try to use language that can be understood by those 12 years of age and older. A private research firm once did a year-long survey of zoo visitors. From that survey we know that most of our visitors are family groups, those with over 12 assumed to be reading signs for their younger companions. But we also learned that Zoo visitors tend to have above-average reading ability, are well-read and often arrive with considerable knowledge about animals. So I don't want the signs to become too elementary and talk down to visitors. I try to make them conversational, but in good English form.

Q. What are your creative interests outside work?
A. I've taught classical and folk guitar for almost 11 years, and I sing and play piano professionally in the Washington area. I also write songs and that takes a lot of research. I like to sing old Appalachian and English ballads, especially about animals. They can be hauntingly beautiful and give animals ethereal qualities. I would like to write a fight song or anthem for the Zoo someday, but I'd have to wait until I was leaving in case people didn't like it. I might compare the staff to different kinds of animals.

Folk Life Festival Returns Oct. 3-8

The Caribbean carnival, complete with steel bands and calypso music, will be hard to miss on the Washington Monument grounds when the Smithsonian holds its 13th annual Festival of American Folklife from Wednesday, Oct. 3, through Monday, Oct. 8. More than 200 carnival participants, descendants of West Indian families, will invite visitors to join in their traditional dance, the "jump up." A calypso music competition and parades headed by bands of crowned performers and musicians also are planned for the festival.

The foods, crafts and music of Vietnamese Americans will highlight this year's festival. Plans for the Papal Mass on the Mall, being formulated as Torch goes to press, may affect festival programming on either Saturday or Sunday. Prior to the festival, a related program will be held in the Museum of History and Technology's medical science exhibit on Thursday, Sept. 27, through Sunday, Sept. 30. The event, "The Folklife in the Museum," will include traditional herbalists demonstrating the use of salves, teas, ointments and herbs. Local gospel singers, street hawkers and mimes will interact with the usual fair of baseball players, stone carvers and CB operators will help keep the festival grounds jumping.

In the Children's Area, youngsters will be able to learn about traditional dance and music from Lumbee Indian children from southeastern North Carolina. Three Native American tribal groups will send members to the festival to demonstrate the construction of traditional energy-efficient dwellings such as the Seminole's "chicken houses" made of tough cypress poles and roofed with palmetto leaves.

In another area of the festival site, the corner of 14th Street and Constitution Avenue, there will be a medicine show with pitchmen, musicians and dancers who traveled across America in the 1940s selling patent medicine and herbs. Plans for a Papal Mass on the Mall, being formulated as Torch goes to press, may affect festival programming on either Saturday or Sunday.

By James Buckler

Flora Smithiantha

Flora Smithiantha

Happy Birthday Joseph Hirshhorn... Some 1,000 friends, family, cultural luminaries and members of the Smithsonian community turned out in full force to celebrate Hirshhorn's 80th birthday gala on Aug. 11. The party featured jitterbugging in the first-floor lobby, lots of people-watching and a profusion of yellow balloons.

By Linda St. Thomas