



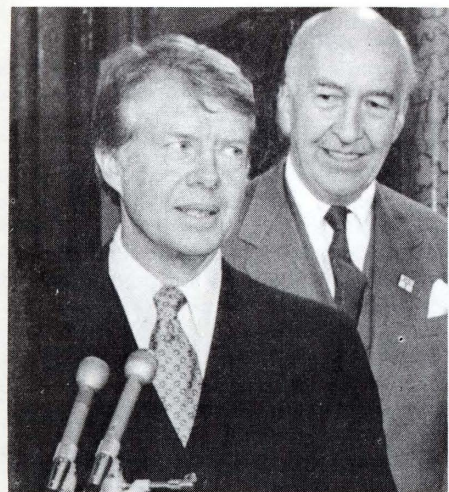
THE SMITHSONIAN TORCH

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February 1977

Carter Holds Foreign Policy Talks Here



President Carter and Secretary Ripley greet dignitaries in Castle's Great Hall.

By Gerald Lipson

The Smithsonian Castle was the scene last month of an unprecedented foreign policy conference that brought together President Carter, Vice President Mondale, principal Cabinet appointees in the area of foreign affairs, Congressional leaders, and members of the Senate Foreign Relations and House International Relations Committees.

More than 50 participants gathered for the daylong meeting that ran from 9 a.m. to 5 p.m. in the Commons on Wednesday, January 12. The Commons and the Great Hall were closed to the public on Tuesday, January 11, and Wednesday, for the event.

Secretary Ripley greeted Mr. Carter on his arrival at the North Portico and escorted him through the Great Hall to the Commons. Later, he gave Mr. Carter a presentation booklet describing the history and organization of the Institution.

Before entering the Commons, Mr. Carter paused at the entrance to admire a bust of Woodrow Wilson, and recalled that in 1973, while serving as Governor of Georgia, he had

participated in a conference at the Woodrow Wilson Center on "The New Federalism: Possibilities and Problems."

Planning for the event, which received extensive coverage in the news media, began several weeks before, when members of Mr. Carter's staff contacted the Smithsonian and requested use of facilities in the Castle for the meeting.

Arrangements were coordinated by Richard Ault, director of support activities, with the assistance of Robert Burke, director of the Office of Protection Services; Jay Chambers, chief of the protection division, OPS; and Jeanette Gladstone, director of the Office of Special Events.

The regular dining tables used in the Commons were replaced for the meeting by a series of conference tables set in a large rectangle.

Preparations included not only arrangements within the Commons, but also security requirements for participants and facilities for the news media.

Special platforms and power lines were brought in to accommodate television cameras and lights, along with tables and chairs for correspondents and technicians, and 30 special telephones that were installed for use by the news media during the day.

The protection division detailed 15 uniformed officers and five in civilian dress to assist the Secret Service in maintaining security, which was designed to permit regular office activities in the Castle to continue while the meeting was in progress.

Mr. Chambers praised as "outstanding" the cooperation of Smithsonian staff members in accepting the temporary inconvenience of not being able to use the secured area. "Staff members whose offices are in the Castle were most cooperative and abided cheerfully by the security measures that were established by the Secret Service and SI Protection Services," he said.

The Great Hall was closed to the public, and its east wing was cordoned off as a press area. However, the reception center con-

tinued its operations with the staff, under the direction of Mary Grace Potter assuming the added duties of taking incoming messages for news media and other staff personnel in the area.

Only conference participants and those cleared by the Secret Service were permitted beyond the Great Hall to the Associates Lounge and the Commons where Mrs. Gladstone arranged for refreshments and lunch to be served to those attending the meeting.

This was not the first time the Castle has been the scene of such major events with international implications.

In 1971, the Commons was used for a two-day international monetary conference which resulted in a major realignment of currency exchange rates and the United States going off the gold standard.

More recently, it was used in October,

1975, for a state dinner given by the Emperor and Empress of Japan in honor of President and Mrs. Ford; and last July, Queen Elizabeth II visited the Castle to view the crypt of James Smithson and a special exhibit of British silverwork in the Associates Lounge.

Many of the conference participants are no strangers to the Smithsonian. Senator Hubert H. Humphrey, for example, was Vice Chancellor during 1964-68, when he served as Vice President, and also was the first board chairman of the Woodrow Wilson Center.

Zbigniew Brzezinski, Mr. Carter's advisor for national security affairs, has spoken frequently at Wilson Center functions.

Cyrus Vance, Mr. Carter's choice to be Secretary of State, will also become a member of the Wilson Center's board of trustees.

1976 Annual Report Reviews Bicentennial, Praises SI Staff

By Herman Stein

The Smithsonian's "magnificent" Bicentennial exhibitions "reminded us of our national esprit and our special human qualities — innate curiosity, combined with memory, and the insatiable will to discover," Secretary S. Dillon Ripley said in his 1976 Annual Report.

The report focused on a review of "the year of the Bicentennial and our reasons for taking pride in our accomplishments after nearly ten years of preparation," in the words of Mr. Ripley.

Discussing the opening of the National Air and Space Museum and the 1876 Centennial Exhibition, he said, "Both of these great museum exhibits — the one celebrating the achievements of America's first hundred years, the other celebrating the triumphs of American technology in our second hundred years — create an atmosphere of excitement, of sheer pleasure and contagious enthusiasm."

The rest of the Smithsonian celebrated, too, the Secretary added: "Each museum or bureau with a triumphant series of exhibitions, the best Folklife Festival ever, and a marvelous array of portfolios, courses, lectures, and traveling exhibitions which brought some part of the Institution to Associates and others in every section of the country. Truly, the Bicentennial year was a triumph for our collections, the justification of all that has gone before."

"Every year the Institution is asked to start a satellite museum somewhere in the United

States," Mr. Ripley said, "but there are simply not enough objects of exhibit quality to go around." That, he added, is partly why the Smithsonian's Traveling Exhibition Service has "come into its own, as a source of surrogate exhibitions which can be shared with additional millions in the 50 States."

The "paramount need" of the Institution, the Secretary reported, is still a museum support center nearby in Suitland, Md., which will provide the Institution with the conservation and collections management areas that bring life to our treasured artifacts. "Without this facility, and without an appropriate library for our History of Science collections, the nagging dilemma will continue: whether to accept collections with inadequate facilities to house them and gradual deterioration as a result, or to reject needed materials and leave them to lie moldering and rusting somewhere else."

Recalling the original Smithson bequest and the evolution of the Institution, Mr. Ripley said, "The creation of the Smithsonian provided a vehicle through which the nation might be given things, and a way in which they might be accepted."

In his conclusion, the Secretary paid tribute to the Smithsonian family. "To all of those unsung heroes and heroines of the Smithsonian staff who have kept the wheels rolling, and who performed unstintingly and with unflinching politeness to keep this Institution's Bicentennial observance on a plane above any other equivalent ceremony that I know of, may I say how grateful America must and should be to you all!"

SI Festival Leaders Honored; Folklife Council, Unit Created

Smithsonian staff members James Morris and Ralph Rinzler have been recognized in *Washingtonian* magazine for their successful work over the past ten years in building the Festival of American Folklife "from a quiet three-day affair in 1967 to a twelve-week 1976 extravaganza with 5,000 participants, a \$6-million budget, and an audience of five million."

A citation, which was published in the magazine's January issue, went on to read, "They have combined a worldwide search for original folklife — a sort of scholarly detective work — with a lively presentation on the Mall each summer. And in the process they have won respectability for folk art, crafts, and traditions, some of which were being forgotten."

"For creating a popular festival, producing it expertly, and giving people a happy educational experience each summer, James Morris and Ralph Rinzler are Washingtonians of the Year."

With the success of the Bicentennial festival, the Smithsonian was faced with a perplexing question this year: "What do you do for an encore!"

To help decide this question, a Smithsonian Folklife Advisory Council has been established under the chairmanship of Wilcomb Washburn, director of the Office of American Studies.

Members of the Council are Richard Ahlborn and Scott Odell of the Department of Cultural History, Museum of History and Technology; Ralph Rinzler and Robert Byington of the newly-established Folklife Unit of the Office of American Studies; William Fitzhugh and Robert Laughlin of

the Department of Anthropology, Museum of Natural History; and James Morris, Martin Williams, and Bernice Reagon of the Division of Performing Arts.

Other council members include Roy Bryce-Laporte of the Smithsonian's Research Institute on Immigration and Ethnic Studies; Lloyd Herman of the Renwick Gallery; and Richard Dorson and Roger Abrahams of the Smithsonian Council. Dr. Dorson, who has written widely on folklore subjects, is director of the Folklore Institute at Indiana University. Dr. Abrahams is chairman of the English department at the University of Texas at Austin.

In its efforts to further understand and document American folklife traditions and popular culture, the Smithsonian has established a Folklife Unit of the Office of American Studies.

The unit, under the direction of Mr. Rinzler, is charged with developing scholarly documentation of the papers, films, tapes, and other material amassed during previous festivals, and will participate with the council and the Division of Performing Arts in the planning, development, and presentation of future festivals.

Besides Mr. Rinzler, the unit is staffed by Smithsonian employees Robert Byington and Sarah Lewis, and four specialists on term appointments: Thomas Vennum, an ethnomusicologist; Susan Kalcik, a folklorist specializing in ethnicity; Frank Proschan, an archivist; and Steven Zeitlin, a specialist in family folklore. Ms. Kalcik and Mr. Zeitlin are writing doctoral dissertations using data gathered at Smithsonian festivals over the past ten years.



Painting by Jean Paul Lemieux from Hirshhorn exhibition. (See story page 2)



BEAZLEY COLD ON THE MALL — Smithsonian photographer Richard Hofmeister was the first person on the Mall after a recent snowfall, when he met this charming Triceratops wandering across his path. The beast, who said his name was Uncle Beazley, asked to be photographed for *Torch*.

Seminar and Exhibit Explore Present-Day Canadian Culture

By Sidney Lawrence

A symposium on 20th-century Canadian culture is underway this month at the Hirshhorn with a full schedule of lectures, panel discussions, and films exploring the nature, diversity, and vitality of Canadian culture today.

More than 40 leading Canadian academics, publishers, poets, artists, and writers will participate in 16 free public programs to be held regularly through April 7.

Visiting lecturers and panelists will probe contemporary Canadian drama, art, poetry, and literature, as well as discuss such topics as the cultural renaissance of Quebec, the Americanization of Canadian culture, and the Canadian media as a cultural industry.

Among the distinguished participants will be Canadian Under Secretary of State Andre Fortier, who will speak March 22 on "The Role of Government in the Development of Culture and the Arts in Canada." Another lecturer, on April 5, will be novelist Robertson Davies.

The symposium will include screenings of films on Canadian painters and sculptors, and by Canadian filmmakers and animators.

The varied program will be presented in conjunction with HMSG's exhibition, "14 Canadians: A Critic's Choice," opening February 3, and "The Group of Seven," an exhibition of early 20th-century Canadian landscapes through February 20 at the Phillips Collection, where the first symposium events were held in late January.

The idea for the symposium arose from these two independently organized exhibitions. Several months ago, news of their simultaneous presentation early in 1977 reached the Association for Canadian Studies in the United States (ACSUS), a private, nonprofit organization of American scholars devoted to the study and research of Canadian affairs.

ACSUS saw the museum exhibitions as potential focal points for a widely-based symposium on all Canadian arts and humanities, and brought the proposal before the National Council of the National Endowment for the Humanities, which provided a sizable grant to fund the project.

HMSG and the Phillips adjusted their exhibition schedules, and arranged to make facilities available for symposium events. Meanwhile, the Canadian Embassy, the Department of External Affairs of the Government of Canada, and the Canada Council joined the efforts of a specially appointed project director to set up programs and bring Canadian participants to the U.S.

It came as a pleasant surprise to all that the Toronto Symphony would be performing at the Kennedy Center during the symposium period, on March 18.

As a result of broad cooperation and a happy set of coincidences, "20th Century Canadian Culture: A Symposium" will give the public an unusual chance to share the culture of our northern neighbors.

A schedule of February events is listed in the "Smithsonian Calendar of Events," reprinted on pages 4-5 of the *Torch*.

SI In The Media

DPA Record Albums Praised

By Johnnie Douthis

Smithsonian Collection Label

"Dizzy Gillespie: The Development of An American Artist," an album on the Smithsonian Collection Label, is "the sort of scholarly project that the Smithsonian collection should be doing," according to *The New Yorker*.

While it praised the Division of Performing Arts concert programs, the *Washington Star* said that it "pales by comparison to the series of recordings issued on the Smithsonian Collection Label, a series unique in its historical and musicologist attention to the growth and development of American music."

Nat Hentoff's column in *The Nation* suggested two Smithsonian albums as gifts to collectors of diverse indigenous music: "The Smithsonian Collection of Classic Jazz" and "Louis Armstrong/Earl Hines/1928." Hentoff felt that the albums are indispensable for just about any jazz listener.

1976 Roundup from the Washington Star

Critic Benjamin Forgey described NCFA's "America as Art" as "a show that did more than most in attempting to tie together the diverse strands of political, intellectual, social, and artistic facts."

Forgey listed the Hans Hofmann retrospective at HMSG as one of the notable contemporary shows in Washington during 1976.

Rauschenberg Reviews

Miami Herald staff writer Ellen Edwards complimented the selection of works in NCFA's Rauschenberg retrospective. She called it a rich and fascinating show that "masterfully brings out the most inventive and influential Rauschenbergs."

Washington Star critic Benjamin Forgey felt that the exhibition was the most impressive and most important contemporary show in town during 1976.

Another NCFA Review

The *Washington Post* included the John White Alexander show at NCFA as "one of the gallery's celebrated and useful minor exhibits."

Artifacts May Be Stars of TV Series

By Paul Johnson

A new television series, designed to stir the curiosity and intellect of the American public, is being developed by the Smithsonian Office of Telecommunications for possible weekly airing on the Public Broadcasting Service.

The half-hour panel programs, tentatively titled "What in the World?," would be based upon objects drawn from the Institution's vast collections.

The series, which is coproduced by the Smithsonian and WETA-TV (Channel 26, Washington), is now "in its early development stage," according to Nazaret Cherkezian, director of OTC. As part of the development process, OTC and WETA will videotape three pilot programs in Baird Auditorium on Friday, February 4, and all Smithsonian employees are invited.

Stars of the show, in effect, will be Smithsonian artifacts, which will share the stage with two panels, each consisting of three people. Members of one panel will tell a story about each object. Only one of the stories will be true, and the other team will have to guess which one that is.

Then an "authenticator," representing the Smithsonian, will clear up the mystery and identify the object. He will also put the object into perspective, outlining its full background and explaining its particular role as a tangible record of the past.

Staff members of OTC have been conducting research for "What in the World?" for several months, meeting informally with curators and compiling lists of potential objects for the programs. Reaction to the idea by Smithsonian staff has been, in Mr. Cherkezian's words, "encouraging and helpful."

At press time, selection of panel members for the pilot tapings had not been completed. Under consideration were respected figures from literature, the arts, government, journalism, and academia.

The three tapings will take place in the afternoon and evening of February 4. For specific times and seat availability, contact OTC on ext. 4188.

Telecommunications Specialist Paul Johnson produces "Radio Smithsonian."

And from the New York Times

Times art critic Hilton Kramer included the major shows at NCFA and NPG when he called 1976 a great year for exhibitions of American art. He wrote, "In the NCFA especially we now have an institution... that takes all of American art as its scholarly province, and that acts in the most responsible and clear-minded way to enhance our understanding and appreciation of its many-sided accomplishments."

Kramer considered "America as Art" to be the most important American art survey of the Bicentennial.

Person-to-Person at MHT

A wire service story said two things were missing from the exhibition: a busy signal and wrong-number recording.

Egyptian Show at the Freer

Benjamin Forgey, lamenting over the fact that there is "almost no Egyptian art in the city," said that the Freer is responsible for that "almost," and that the Gallery's current exhibition of Egyptian objects is "beautiful."

CBCES Scientists Look at Environment Impact on Behavior

By Marjorie Beane

Experiments to be conducted in a new environmental education research program at the Chesapeake Bay Center for Environmental Studies are designed to investigate how people respond to and interact with various environments.

CBCES staff members John Balling, an educational psychologist, and John Falk, associate director for education, who are directing the project, want to determine how response to environmental variables may influence learning, attitudes toward people, and further interaction with one's surroundings.

As a first step, Drs. Balling and Falk want to find out what people see in various environments. Although some researchers have given subjects a camera and later asked them to explain why they took certain pictures, such a technique relies too heavily upon the verbal fluency of the people participating.

A more comprehensive sampling of such "looking" behavior is possible by using an instrument that takes pictures of the reflection off the subject's cornea while simultaneously recording the scene in front of the subject, and enabling the scientist to "see" everything the subject is observing.

Using the instrument, Drs. Balling and Falk want to study the differences in observational behavior between individuals walking on a wooded nature trail and people driving a car through a similar setting. The research should provide insight into how the structure of a person's experiences in the environment will affect what he or she learns about the setting.

The team also wants to determine the extent to which people try to recreate preferred environments around themselves and their dwellings. A basic hypothesis motivating the work is that since man evolved on a savanna, he tends to prefer such settings, and tries to reconstruct them wherever he lives. For their research, the scientists plan to ask subjects to rate slides of selected biotic communities such as deserts, tropical rain forests, tall grass prairies, savannas, coniferous forests, and temperate deciduous forests.

A related project focuses on how a person's surroundings influence his or her interpersonal judgment. Many people seem to develop friendships more readily in pleasant environments such as mountain resorts, and Dr. Balling will try to demonstrate this phenomenon experimentally. He is basing his research on a classic study by Maslow, a social psychologist who asked subjects to rate pictures of faces on several dimensions. The subjects were seated in one of three rooms of varying attractiveness and the frequency of their positive responses was directly related to the pleasantness of the room where they sat. Dr. Balling is devising experiments to see if a similar contextual effect exists with regard to variations in outdoor settings.

The CBCES studies are part of a general research program to help understand how learning occurs in the outdoor environment, and how school and community and outdoor education can be made more effective.

States Donate Native Plantings To Adorn Smithsonian Grounds

By Linda St. Thomas

Andrew Downing would be proud of the new landscape theme being developed for the Smithsonian gardens and grounds by the Office of Horticulture. In 1851, the Downing Plan called for native American plants to adorn the national Mall.

That plan was abandoned in 1901 in favor of another which established the rectangular forms of the Mall we see today. However, the new plan was not initiated until the early 1930's, when all the curved carriage trails, sidewalks, and Victorian plantings were removed from the Mall.

The current stands of American elms, *Ulmus Americana*, lining Jefferson and Madison Drives were installed several years later.

On the Smithsonian section of the Mall, the only remaining trees of the Downing era — American holly, horsechestnut, and three bald cypress trees — are found near the Museum of Natural History.

Other changes on the Mall during this period included the relocation of the U.S. Botanical Gardens, demolition of the U.S. Department of Agriculture greenhouses and display gardens on the Mall, and removal of the Smithsonian Park (north of the castle).

"To recall the feeling of the 19th-century Mall, the Office of Horticulture began a program to install native American plants on the grounds," said Horticulturist James Buckler. "Two years ago we began asking the States to donate three State trees and three official flowers to the Smithsonian."

The response has been overwhelming: 42 States and the District of Columbia as well as the Virgin Islands and American Samoa have shipped trees and flowers to the Smithsonian or have promised to do so in the spring when the plants will better survive the journey.

Before last year, the Virgin Islands had no official tree, but Governor Melvin Evans and the territory's Bicentennial Commission were so enthusiastic about the project that they selected the yellow cedar as the islands' official tree, and a specimen arrived at the Smithsonian greenhouse last October.

The trees and flowers will be placed on Smithsonian property near the buildings, in the Victorian Garden, or inside the museums, depending on the hardiness of the plant.

Labels will identify the home State, describe the plant, and explain how it came to be the official flower or tree. As an example, Mr. Buckler described why Delaware's official tree is the peach tree. The State was once known for its peaches, but many trees were killed by a virus early this century. Because the peach tree had already

become something of a tradition, it has remained the official State symbol.

When Governor John Williams of Arizona heard of the State tree landscaping project, he notified Senator Barry Goldwater's office in Washington. The Arizona tree, the palo verde, and the flower, sheuaro cactus blossom, arrived from Tucson via air freight in November, and Sen. Goldwater's aides were on hand to make the presentation to Mr. Buckler.

The plants, in the form of cuttings, shrubberies, trees and seeds, began arriving in September by trucks and planes. They were immediately taken to the Smithsonian greenhouse at the U.S. Soldiers' and Airmen's Home for proper care before transplanting to SI grounds.

"When this landscaping project is complete, we'll be able to display plants that mean something to our 20 million visitors every year," said Mr. Buckler. "They'll find a part of their native State right here on the national Mall."

One by-product of the project will be the accumulation of information on State trees and flowers. Information charts, which will be available in the horticulture office, will include the common name and scientific name of the plant, its bloom date, height, favorable climatic conditions, and hardiness.

Mr. Buckler said the Office of Horticulture expects to complete this project by late summer and will have maps available at museum information desks to denote the plants' locations along the Mall and in the museums.



Senator Goldwater staffers Caroline Hartman and Jack Murphy present the State tree of Arizona to James Buckler (right) of the horticulture office.

Photo by Richard Farrar

New Art Index Includes Works Of All Bureaus

"What happened to the painting of butterflies that my great grandmother donated to the Smithsonian in 1880?" is the kind of query which sometimes puzzles staff members of Smithsonian art museums.

At the National Collection of Fine Arts, the Freer, the Hirshhorn, and the National Portrait Gallery, artwork is cataloged by title and artist, and is easily located by an art researcher.

But when a piece of art is added to the collection of one of the science or history museums, it may be categorized differently, as a specimen or example, and indexed by subject matter alone. An art historian trying to locate such a piece could find this an impossible task.

In an effort to resolve the problem, Charles Blitzer, assistant secretary for history and art, and Joshua Taylor, director of NCFA, have devised a Smithsonian Art Index to inventory and catalog all Smithsonian art objects housed outside the art museums.

Bess Hormats, research coordinator for the project, said that it requires the help of the entire Institution, from administrative personnel to museum directors. When complete, the index will be developed into a research facility and located in the NCFA library.

"It is not yet possible to estimate how large the index will be, or how long it will take to compile," she said. "Many collections of scientific prints and drawings number in the thousands, and some in the tens of thousands."

"All must be evaluated within the vague definition of 'What is art?'" Ms. Hormats added. "Many beautiful drawings originally done for scientific purposes have since come to be regarded as fine art. Audubon's watercolors of birds and animals are well known examples of naturalist's illustrations, as are the outstanding paintings of Indians by George Catlin in the Museum of Natural History's anthropology department."

Works of art which have come to the Institution through bequests often have ended up in divisions appropriate to their subject matter, such as cultural history or military history, where their most important function has been as valuable research tools.

In compiling the index, the objects will not be removed from their present locations, but simply listed for the use of scholars, historians, and students both in and beyond the Smithsonian staff.

Commenting on the index, Dr. Taylor said that there is no intention of taking away the artworks from their rightful guardians; the Smithsonian just wants to know what it has, and where, he explained.

SMITHSONIAN TORCH February 1977

Published for Smithsonian Institution personnel by the Smithsonian Office of Public Affairs, Susan Bliss, Editor; Kathryn Lindeman, Assistant.

Holiday Crowds Jam Mall NASM Hits 5 Million Mark

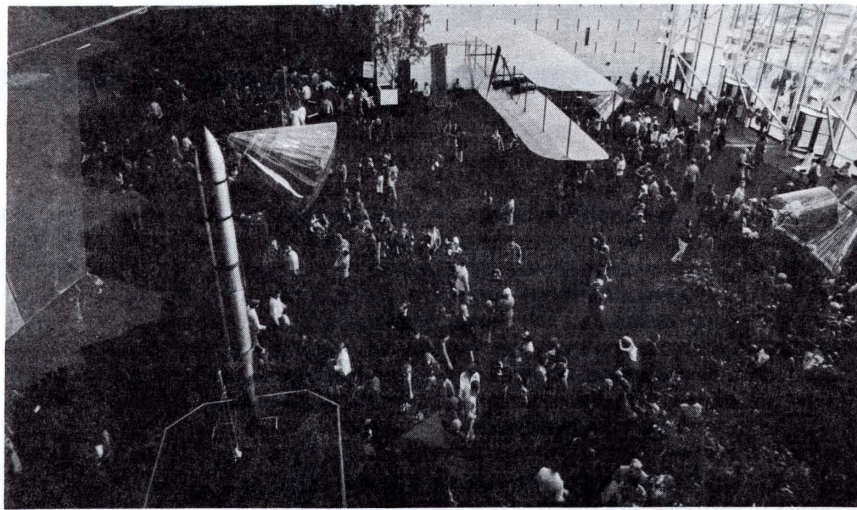


Photo by Richard Farrar

It's Washington's Grand Central Station — otherwise known as NASM's Milestones of Flight Gallery — photographed during the holiday week.

By Susan Bliss

Traffic jams on Jefferson Drive, long lines at the National Air and Space Museum, and crowds at museum cafeterias were as much a sign of the holidays in 1976 as the decorated tree in the Castle's Great Hall.

The day after Thanksgiving and the period between Christmas and New Year's Day saw huge attendance at the Smithsonian, capping a year in which 20,458,250 visitors came to the museums, and about 2,100,000 people visited the National Zoo.

On December 30, NASM, which had 275,623 visitors during the holiday week, greeted Theresa Davis of Hyattsville as its five millionth visitor since the Museum opened July 1.

Because of the huge crowds at NASM, guards had to close the doors for periods up to one hour, to make sure the building's 8,000 capacity was not exceeded. Jay Chambers, chief of the Protection Division, said this happened on an average of twice a day during the holiday period.

"It happens to us all the time around

the holidays when a conglomeration of different people from different places come to Washington," said Mr. Chambers. "The day after a big turkey dinner, the only place to go is the Smithsonian."

"Sometimes people had to wait almost an hour to get in," he said, "and we had to let them enter on a one-by-one basis. Because we had lines on both sides of the building, it was hard to keep the anxious crowds from getting impatient."

Officer Arthur Canadyan, who was posted at NASM's front door the day after Thanksgiving when the Museum closed three times, said that people had been making excuses to get in all day.

"They tell me their family's inside, and they just came back from parking the car, or that they are supposed to meet someone," said Mr. Canadyan. "Sometimes I'm hard on them and sometimes I'm not."

A public swine flu shot program administered in NASM the day after Thanksgiving gave some people an excuse to avoid the lines, but it's a matter of speculation how many actually got a flu shot.

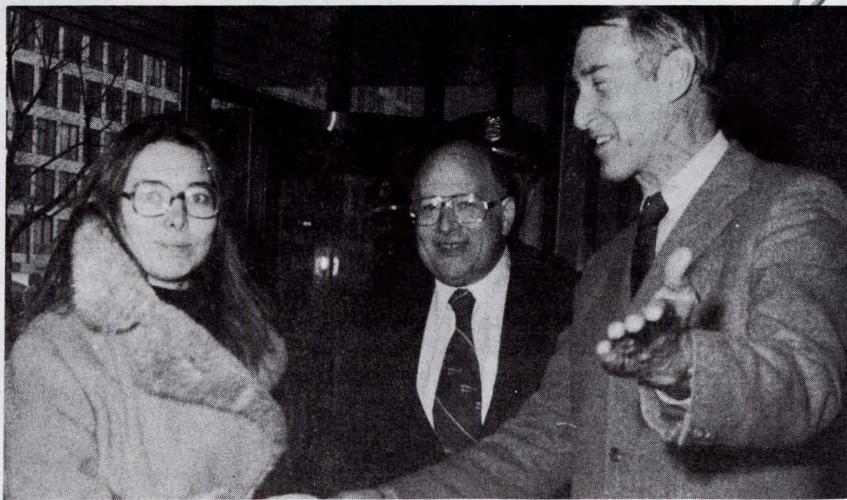


Photo by Richard Hoffmeister

Theresa Davis of Hyattsville, who said she visits NASM frequently, was the Museum's five millionth visitor since its July 1 opening. She was greeted by David Challinor, assistant secretary for science (right), and Melvin Zisfein, deputy director of NASM.

Archives Show Gives Personal View of Artists

By Emily Nathan

"Artists and Writers," an exhibition of documents and photographs from the collections of the Archives of American Art, opened at the Archives' Gallery in the National Portrait Gallery on January 31 and will remain on view through December 1977.

Letters and poems covering more than a century of American cultural history illustrate the close personal relationships between painters, sculptors, and authors and reflect sporadic efforts to spill over into each others' fields.

In an album belonging to the 19th-century sculptor Hiram Powers are manuscript verses written by his literary friends William Cullen Bryant and Elizabeth and Robert Browning. In an 1853 letter to Elizabeth Barrett Browning, Powers described his sculpture as a "poem composed in plaster."

Sherwood Anderson wrote his artist friend Jerome Blum, "I've got my watercolors hung in Chicago now and there is a good deal of discussion as to whether I am insane, decadent or a new note." Theodore Dreiser defended his dramatization of "An American Tragedy" in a letter to Mrs. Blum.

Henry Miller exhibited and sold water-

colors, and included in the exhibition is a small Miller watercolor which came to the Archives with the papers of the artist Abraham Rattner, Miller's friend. Another



Photo of William Cullen Bryant (seated) and Hiram Powers.

highlight of the exhibition is a note from Mark Twain to the wife of his artist friend Francis D. Millet, joyously accepting a dinner invitation.

Henry James bemoaned the tragic death of Millet and his wife Elizabeth, who went down with the Titanic. Cecelia Beaux recorded in her diary her 1911 portrait sketch of James as "a great event for me to meet and really know him. He will not forget me I am sure. But how impossible to present the delicacy and spirituality of his mind by his physical appearance."

Some of the other writers represented in the exhibition are Gertrude Stein, Marianne Moore, William Carlos Williams, Langston Hughes, H. L. Mencken, Christina Stead, John Dos Passos, William Dean Howell, Thornton Wilder, and Louis Untermeyer. Their letters came to the Archives with papers of Ben Shahn, Reginald Marsh, Rockwell Kent, and David Smith.

The exhibition is a part of the Archives' continuing effort to bring to public attention enlightening and informative documents from its collections of papers and records of American artists, dealers, critics, and art organizations.

Meeting Sparks Booklet About Working Women

By Kathryn Lindeman

"Space for Women: Perspectives on Careers in Science" is a new booklet published by the Harvard-Smithsonian Center for Astrophysics based on a two-day symposium on "The Earth in the Cosmos: Space for Women." It was held in Cambridge, Mass., in connection with International Women's Year in 1975.

The symposium was sponsored by the Center for Astrophysics, Harvard University, Radcliffe College, and the Smithsonian, and support from these organizations also made possible the publication of the booklet. Discussion dealt with careers for women in astronomy, astrophysics, and earth and planetary sciences.

The symposium brought together women working in science or science-related jobs to outline their backgrounds and careers for high school and college students rather than for other scientists.

"Space for Women" reports on topics raised at the symposium by the audience as well as participants including: career-versus-family, sex discrimination, educational needs, job opportunities, getting started, and many others.

The illustrated 46-page booklet is being distributed free to high school and college science advisors, guidance counselors, teachers, students, and parents.

Here are a few of the points brought up in the symposium and reflected in the booklet.

- *More than 40 percent of all working-age women in the United States are employed today; most seek jobs because they need to support themselves or dependents. In addition, women who work outside their homes generally do so for a large part of their lives — somewhere between 25 and 30 years.*

Participant Lilli Hornig, chairperson, National Academy of Sciences' Committee on Education and Employment of Women in Science and Engineering, said, "You are much better off thinking of your future in terms of a profession and a career rather than a series of jobs with which you'll make do in between your father and your husband, and maybe your second husband, supporting you . . ."

- *Working women face many issues that do not exist for men.*

Ms. Hornig: "The inner conflict you will experience when making a choice — not just between whether or not to have a career, but which career and how much of a time commitment it calls for — can be tremendous."

Tanya Atwater, deep-ocean geologist, Department of Earth and Planetary Sciences, Massachusetts Institute of Technology: "Most men assume they are going to work all their lives . . . it's simple compared to the kind of thing that faces us. Lots of work days are just plain drudgery, but for me, there's always a choice. At any time, it would be perfectly acceptable in our society if I just quit. So, why should I keep going? To make the same success as a man, women have to have a little more stick-to-itiveness just to get over the rough places."

- *The old attitudes are easing. No longer does a woman have to choose between a career and a family.*

Ursula Marvin, geologist, Smithsonian Astrophysical Observatory: "Having families can be and in the future will be increasingly easy to combine with careers. There are other life-styles, however. Some women decide not to marry or are divorced or widowed; others elect not to have children. . . . I just want to urge young women to make it a matter of choice."

To obtain a copy of the booklet, write Publications Office, Center for Astrophysics, 60 Garden Street, Cambridge, Mass. 02138, or call (617) 495-7461.

Council Plans Repeat

The Smithsonian Women's Council plans to repeat its successful rape discussion on the Mall and at the Zoo in late February. Council members are also interested in suggestions from all Smithsonian employees about program topics for the coming year. For specific dates of the February program, or to offer your ideas about future discussions, contact any Women's Council member listed in the December *Torch*, or attend a council meeting.

February at the Smi

1 NMHT FILM: *Hammerman in Williamsburg* — the story of the colonial blacksmith. 1 p.m. Carmichael Auditorium, History and Technology Building. FREE.

HIRSHHORN FILM: *Focus: Andy Warhol. Super-artist Andy Warhol; and Warhol's E.P.I.* — documentaries offering two perspectives of the artist. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.

HIRSHHORN EVENING FILM: *Two Filmmakers: Kent Hodgette and Mark Sadan. State of Health* — Hodgetts' Magritte-like fantasy; *Whispers* — Sadan's exploration of dance. 7 p.m. Hirshhorn Museum and Sculpture Garden. FREE.

2 FREE FILM THEATRE: *A World To Win* — The forces of empire, nationalism, industrialization, socialism and reform converge on Europe. Third in a BBC series on the *History of Europe from 1900 to the Present*, written by John Terraine and narrated by Peter Ustinov. 12:30 p.m. Carmichael Auditorium, History and Technology Building. Remaining programs in the series will continue weekly through March. FREE.

3 FREE FILM THEATRE: *A World To Win*. 12:30 p.m. Carmichael Auditorium, History and Technology Building. Repeat. See February 2 for program details. FREE.

HIRSHHORN FILMS: Patrick O'Neill: Selected Films. *Saugus Series; Downwind; Runs Good; and Easy Out*. Selected films by Patrick O'Neill, sculptor turned filmmaker and a leading member of the West Coast Kinetic group. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.

EXHIBITION: *14 Canadians: A Critic's Choice*. Forty-two recent works by 13 painters and one sculptor selected by critic Andrew Hudson to reflect the most vital work being produced in Canada today. Among the artists represented are Jack Bush, Charles Gagnon, K.M. Graham, Dorothy Knowles and Jean Paul Lemieux. Hirshhorn Museum and Sculpture Garden, through April 10. Scheduled in conjunction with a *Symposium on 20th Century Canadian Culture*. See February 4. FREE.

4 NATURAL HISTORY LECTURE: *The Earliest Americans: When Did They Arrive?* The controversial amino acid racemization technique for dating bone will be discussed — what it is, how it works and the answers it can, and cannot, provide. Speaker: David von Endt, Research Chemist, Department of Anthropology. 12 noon. Natural History Building. FREE.

††SYMPOSIUM ON 20TH CENTURY CANADIAN CULTURE: Sponsored by the Association for Canadian Studies in the United States and made possible by a grant from the National Endowment for the Humanities. Events will be held at the Hirshhorn Museum and Sculpture Garden and at the Phillips Collection, concurrent with exhibitions of Canadian art at each institution (see February 3). For related programs scheduled at the Smithsonian, see February 4, 8, 9, 10, 15, 16, 17, 22, 23, 24 and 28. FREE.

PANEL DISCUSSION: *Canadian Artists on Canadian Art*. Four artists from *14 Canadians* exhibition will comprise the panel — Jack Bush, Charles Gagnon, Dorothy Knowles and Daniel Solomon. Moderator: Terry Fenton, Director, Edmonton Art Gallery. 8 p.m. Hirshhorn Museum and Sculpture Garden. FREE.††

5 HIRSHHORN FILMS FOR CHILDREN: Cartoon Follies. Selected classics of animation by Norman McLaren. 12 noon. Hirshhorn Museum. FREE.

8 NMHT TUESDAY FILM: *Doorway to the Past* — archaeology in Williamsburg, Virginia. 1 p.m. History and Technology Building. FREE.

CREATIVE SCREEN: *Motion Painting #1*, by Oskar Fischinger; *Breathdeath*, by Stan Vanderbeek; *Life Times Nine*, by students ages 11 to 16; and *Allures*. Complete showings begin 11 a.m., 12 noon and 1 p.m. This program begins a four-month series of experimental films. The Renwick Gallery. FREE.

RECENTLY OPENED

HALL OF PRESIDENTS. A reinstallation of Presidential portraits, with added items associated with the Chief Executive's personal and official lives. Two newly acquired portraits are included — John Adams by John Trumbull and Zachary Taylor by James Reid Lambdin. National Portrait Gallery. Permanent.

HIRSHHORN FILMS: Insights: Myth and Mysticism in Canadian Painting. *Correliou* — painter Ozias Leduc seen through his environment, religious murals, visionary landscapes and still-life pictures; *Paul Emile Borduas* — the North American version of abstract Surrealism shown through the development of this Canadian painter's style and readings from his diaries and theories. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.††

HIRSHHORN EVENING FILMS: Selected works by Michael Snow and Al Razutis, two avant-garde Canadian filmmakers. 7 p.m. Hirshhorn Museum and Sculpture Garden. FREE.††

ORIENTAL ART LECTURE: The Image of the *Lan-t'ing Hsu* in the Yuan Dynasty. Speaker: Marilyn Wong Fu, Council on East Asian Studies, Yale University. 8:30 p.m. The Freer Gallery of Art. The exhibition areas reopen at 6:30 p.m. prior to the lecture. FREE.

9 FREE FILM THEATRE: *The Drums Begin to Roll*. 1904 — the trajectory of European history entered a decline and as planes and submarines began to be mass produced, malevolent forces squared off. 12:30 p.m. Carmichael Auditorium, History and Technology Building. See February 2 for series details. FREE.

AIR AND SPACE FORUM: *The Lodestone: Nature's Own Permanent Magnet*. Speaker: Dr. Peter Wasilewski, Goddard Space Flight Center. Explanations for the lodestone's magnetic behavior and how it becomes charged. 12:30 p.m. Air and Space Museum. FREE.

PANEL DISCUSSION: *The Canadian Art Scene Today*. Panelists: Avrom Isaacs, Suzanne LeMoyné, Guido Molinari, Jack Shadbolt, David Silcox and Harold Town. Moderator: Vincent Tovell, Canadian Broadcasting Corporation. 8 p.m. Hirshhorn Museum and Sculpture Garden. FREE.††

10 HIRSHHORN FILM: Insights: Myth and Mysticism in Canadian Painting. *Correliou*; and *Paul-Emile Borduas*. Repeat. See February 8 for program details. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.††

FREE FILM THEATRE: *The Drums Begin To Roll*. Repeat. See February 9 for program details. 12:30 p.m. History and Technology Building. FREE.

HIRSHHORN EVENING FILMS: Films by Joyce Wieland, including *Catfood* and *Rat Life and Diet in North America*. 7 p.m. Hirshhorn Museum. FREE. ††

Radio Smithsonian

Radio Smithsonian, a program of music and conversation growing out of the Institution's many activities, is broadcast every Sunday on WGMS-AM (570) and FM (103.56) from 9-9:30 p.m. The program schedule for February:

6th — *Classic Rags and Ragtime Songs*. Martin Williams, Smithsonian Jazz Program, spotlights a popular Smithsonian record album.

13th — *Max Ernst, Close-Up*. Jimmy Ernst, son of the famous founder of Surrealist art, gives a personal view of his father's work. *Folklore at Home*. Steve Zeitlin and Amy Kotkin, Smithsonian's Family Folklore Program, discuss family traditions and how to document them.

20th — *Person to Person*. A look back at the first hundred years of the telephone, seen through a new multi-media exhibit, Museum of History and Technology.

27th — *Folk Concert*. From western North Carolina, Peter Gott, Cass Wallin, Dellie Norton, and Ernest Franklin present old-time fiddling, banjo playing and singing.

The Smithsonian monthly CALENDAR OF EVENTS is prepared by the Office of Public Affairs. Editor: Lilas Wiltshire. Deadline for March calendar entries: February 4.

11 EXHIBITION: *Daniel Chester French: An American Sculptor*. The first major retrospective of the work of French — one of America's most prolific sculptors of public monuments — whose work includes the famous seated statue of Abraham Lincoln in the Lincoln Memorial. Fifty-five objects, ranging from plaster studies to bronzes, are shown along with photographs of massive public monuments unable to be moved, renderings by his associate Henry Bacon, architect; and a film surveying French's life and principal works. Sponsored by the National Trust for Historic Preservation through grants from the National Endowments for the Humanities and the Arts. National Collection of Fine Arts, through April 17. FREE.

NATURAL HISTORY FILM: *Crab Nebula*. Centuries of discoveries about the Crab Nebula that have helped to form our present knowledge about the origins of the universe. A NOVA film. 12 noon. Baird Auditorium, Natural History Building. FREE.

12 HIRSHHORN FILMS: Award-winning works in animation by Norman McLaren. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.

13 JAZZ CONNOISSEUR CONCERT: *The Swing Trombones*. Vic Dickenson and Benny Morton, each an outstanding representative of the 1920's and 1930's, along with a rhythm section, will present a program of insight into American music. 6 p.m. Hirshhorn Museum and Sculpture Garden. \$4.50 general, with discounts for students, senior citizens and Resident Associates. For reservations call 381-5395.

EXHIBITION: *Flags of Famous Black Military Units*. Reproductions of seven flags represent the participation of blacks in the military forces from the American Revolution through World War II. Displayed in conjunction with Black History Month. Anacostia Neighborhood Museum, through February.

15 NMHT TUESDAY FILM: *Calder's Circus* — a preview of Alexander Calder's mobiles. 1 p.m. Carmichael Auditorium, History and Technology Building. FREE.

HIRSHHORN FILM: Insights: Myth and Mysticism in Canadian Painting. *About Pellán* — an exploration of the artist's surrealist works. *The Paradox of Norval Morrisseau* — produced, directed and scored by members of the Ojibway tribe of the artist. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.††

HIRSHHORN EVENING FILM: Words in film by Canadian filmmaker David Rimmer, including the films *Variations on a Cellophane Wrapper* and *Surfacing on the Thames*. 7 p.m. Hirshhorn Museum. FREE.

16 FREE FILM THEATRE: *This Generation Has No Future*. August 1914: the Great War has begun. Russia falls, Lenin seizes power, America enters the war, Germany falls. 12:30 p.m. Carmichael Auditorium, History and Technology Building. See Feb. 2 for details. FREE.

CONCERT: *The Canorus Consort*, wind ensemble, presents music by American composers Elliot Carter, Vincent Persichetti, Irving Fine and Bernard Heiden. Performers are Richard Kleinfeldt, saxophone; Wendell Dobbs, flute; David Pohl, clarinet; Ernest Caluori, French horn; David James, oboe, and Ann Romer, Bassoon. 12:30 p.m. National Collection of Fine Arts. FREE.

PANEL DISCUSSION: *Living in the Shadow: The Americanization of Canadian Culture*. Panelists: Robert Fulford, Allan King, Michel Roy, Rufus Z. Smith. Moderator, William Metcalfe, Chairman, Music Department, University of Vermont. 8 p.m. Hirshhorn Museum and Sculpture Garden. FREE.††

FILM SERIES: *China: The Enduring Heritage*. *China: The Beginnings; The Making of a Civilization; Hundred Schools to One*. First in a four-week series of films produced by Wan-go Weng and presented by the China Institute in America. The full range of China's history through the 19th century is shown. Remaining programs are scheduled February 23, March 2 and 9. Each program is introduced by Dr. Franz H. Michael, Professor of East Asian History and Government, Institute for Sino-Soviet Studies, George Washington University. 8 p.m. Baird Auditorium, Natural History Building. Series \$14.*

CALENDAR REQUESTS AND CHANGES OF ADDRESS — Write Central Information, Smithsonian Institution, Wash., D.C. 20560. Please include old label when applicable.

Smithsonian Institution

17 FREE FILM THEATRE: *This Generation Has No Future*. Repeat. See February 16 for program details. THU 12:30 p.m. History and Technology Building. FREE.

HIRSHHORN FILM: Insights: Myth and Mysticism in Canadian Painting. *About Pelland*, and *The Paradox of Norval Morrisseau*. Repeat. See February 15 for program details. 12 noon. Hirshhorn Museum. FREE. ††

LECTURE: *Locks from Iran*. Speaker: John Wertime, co-author of the catalogue on the current exhibition. The film, *The Locks of Iran*, will be shown. Sponsored by the Traveling Exhibition Service and the Iran-America Society of Washington. 8 p.m. Baird Auditorium, Natural History Building. FREE.

HIRSHHORN EVENING FILM: Selected short works in film by avant-garde Canadian filmmakers Charles Gagnon, Kim Cross, Andrew Leduc, and Michael Asti-Rose. 7 p.m. Hirshhorn Museum. FREE. ††

18 EXHIBITION: *China Revisited: Ink Paintings by Thomas George*. Sixty-two works executed in 1976 during a month-long visit to the People's Republic of China, show George's interpretation of the mountains, cliffs and valleys of Kwangsi, Kweilin, Yang-shuo, Yang-ti, Shao-shan and Ch'ang-sha. National Collection of Fine Arts, through April 10. FRI

NATURAL HISTORY FILMS: *Masai of Tanzania*; and *The Cows of Dolo Kem Paye; Resolving Conflict among the Kpelle*. Two films on cattle, one of the most important possessions of the traditional African. 12 noon. Baird Auditorium, Natural History Bldg. FREE.

19 MUSIC FROM MARLBORO: Eight musicians from the Marlboro Festival present a program that includes music by Mozart, Franz Schubert, and Hummel. 5:30 p.m. Baird Auditorium, Natural History Building. \$5.50 general with discounts for students, senior citizens and Resident Associates. For reservations call 381-5395. SAT

HIRSHHORN FILMS: Award-winning animated films by Norman McLaren. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.

ALL DAY SEMINAR: *Volcanoes and Earthquakes*. Three noted scientists discuss current activity in volcanic and quake activity, make future predictions, and examine the relationship between the two events. Dr. William Melson, Chairman, and Dr. Richard Fiske, Curator, Dept. of Mineral Sciences; and Dr. Robert L. Wesson, Office of Earthquake Studies, U.S. Geological Survey. 10 a.m. Natural History Building. \$20.*

20 SCI-FI FESTIVAL: *The Day the Earth Stood Still*. Film by Robert Wise of an outer-space emissary's visit to Earth. 5 p.m. Carmichael Auditorium, History and Technology Building. First in a series of major science fiction films. Ronald Miller, National Air and Space Museum, will introduce each program and will discuss the state of technology at the time of the production and the film's relation to the science fiction literature of the period. \$3. Series \$12.* SUN

BRUNCH CONCERT: *Beethoven, Schubert and Dohnanyi*. The Chautauqua Trio includes Mary Price on violin; Melissa Graybeal, viola; and Brigitta Gruenther, cello. Pastries and beverages are served before or after the concert. Concert 11 a.m.; Brunch 10 a.m. or 12 noon. History and Technology Building. \$7 adults, \$5 children.*

21 CHAMBER MUSIC: *The Kuyken Quartet of Brussels* presents an evening of music by Couperin, Buxtehude, J.S. Bach, Telemann and Muthel, using their own 18th century instruments and the Stehlin harpsichord (1760) from the Smithsonian collection. 8:30 p.m. Hall of Musical Instruments, History and Technology Building. \$4 general, with discounts for students, senior citizens and Resident Associates. For reservations call 381-5395. Sponsored by the Division of Performing Arts. MON

22 NMHT TUESDAY FILM: *Last Wheel Works* — documentary on wooden wheels and the last company to produce them using 19th century methods and machinery. 1 p.m. Carmichael Auditorium, History and Technology Building. FREE. TUE

CREATIVE SCREEN: *Motion Painting #1; Breath-death; Life Times Nine; Allures*. 11 a.m., 12 noon and 1 p.m. Repeat. See February 8 for program details. The Renwick Gallery. FREE.

HIRSHHORN FILMS: Impressions: Documents of the Spirit of Times and Places. *The Jolifou Inn* — the pioneer spirit of the Canadian countryside 100 years ago shown through paintings by Cornelius Kriegshoff; *Paul Kane Goes West* — impressions of the artist during the 1950's; *Quebec in Silence* — the environment and work of Jean-Paul Lemieux. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.††

HIRSHHORN EVENING FILMS: Works by avant-garde filmmaker Arthur Lipsett, including *Very Nice*, *Very Nice*, and *N-Zone*. 7 p.m. Hirshhorn Museum and Sculpture Garden. FREE.††

SEMINAR: *Composition and Structure of Vitified Stone in Iron Age Fortifications and Impact and Other Instant Glasses*. Speakers: Dr. Kurt Fredriksson, Smithsonian Department of Mineral Sciences; Dr. Bevan French, NASA Office of Space Sciences; Dr. Hatter S. Yoder, Director, Geophysical Laboratory. Co-sponsored by the Smithsonian and the National Bureau of Standards. Lecture Room B, Natural History Building. 3 p.m. FREE.

23 FREE FILM THEATRE: *Are We Making a Good Peace?* The time is marked by the Conference of Versailles and the Russian Civil War. 12:30 p.m. Carmichael Auditorium, History and Technology Building. See February 2 for series details. FREE. WED

AIR AND SPACE FORUM: *Space Suits*. Speaker: Lou Purnell, Curator, Department of Astronautics. 12:30 p.m. Air and Space Museum. FREE.

PANEL DISCUSSION: *Canadian Writers Forum: Is There a Distinctive Canadian Prose?* Panelists: Robert Choquette; William H. New; Antoine Sirois; and Phil C. Stratford. Moderator: Victor M. Howard, Chairman, Committee for Canadian-American Studies, Michigan State University. 8 p.m. Hirshhorn Museum and Sculpture Garden. FREE.††

24 FREE FILM THEATRE: *Are We Making a Good Peace?* Repeat. See February 23 for program details. 12:30 p.m. Carmichael Auditorium, History and Technology Building. FREE. THU

HIRSHHORN FILMS: Impressions: Documents of the Spirit of Times and Places. Repeat. See February 22 for program details. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.††

HIRSHHORN EVENING FILMS: Short films by avant-garde Canadian filmmakers Lois Siegel, John Straiton and Keith Rodan. 7 p.m. Hirshhorn Museum and Sculpture Garden. FREE.††

NATIONAL CAPITAL SHELL CLUB: Monthly meeting and illustrated lecture. Dr. Richard J. Houbbrick, Smithsonian Oceanographic Sorting Center, will speak on form and function in cerithium. 8 p.m. North Foyer Lecture Room, Natural History Building. Open to the public. FREE.

25 EXHIBITION: *Paint on Wood: Decorated American Furniture Since the 17th Century*. Objects that rely on paint for the principal decorative effect using the techniques of graining, stenciling, freehand painting, japanning, gilding and painted imitation marquetry. A variety of objects represent the diverse style of Chippendale, Art Deco and Empire; the ethnic influences brought to America by German, Norwegian and Spanish settlers, and furniture by contemporary craftsmen. The Renwick Gallery, through November 13. FREE. FRI

ILLUSTRATED LECTURE: The history of painted surfaces and the techniques used to create them. Speaker: Mrs. Ina Brosseau Marx, expert on decorative painted finishes for furniture. Scheduled in conjunction with the exhibition opening today, *Paint on Wood*. 8 p.m. The Renwick Gallery. FREE.

NATURAL HISTORY FILM: *The Renewable Tree*. The conflict of the forest conservation problem and the economic and social demand for wood, with a description of research being done on *super trees*. A NOVA film. 12 noon. Baird Auditorium, Natural History Building. FREE.

LECTURE: *Underwater Research Using Strobe Lights, Cameras and Sonar*. Speaker: Dr. Harold E. Edgerton, Institute Professor, M.I.T. Edgerton, developer of the original concept and equipment for high speed strobe photography, will discuss the newest techniques and results in the field including his recent work locating the civil war *Monitor* and exploring Loch Ness in Scotland. 8 p.m. National Air and Space Museum. FREE.

26 HIRSHHORN FILM: Award-winning animated films by Canadian filmmaker Norman McLaren. 12 noon. SAT Hirshhorn Museum and Sculpture Garden. FREE.

27 COUNTRY GUITAR CONCERT: *Lester Flatt and Josh Graves* — both stars in their own right, join to perform SUN the songs that made them household names. 8 p.m. Baird Auditorium, Natural History Building. \$6 general with discounts for students, senior citizens and Resident Associates. For reservations call 381-5395. Sponsored by the Division of Performing Arts.

SCI-FI FESTIVAL: *Beast from 20,000 Fathoms, 1953*. Film by Eugene Lourie and Ray Harryhausen, based on the screenplay by Ray Bradbury. 5 p.m. Carmichael Auditorium, History and Technology Building. See February 20 for series details. \$3.*

28 CHAMBER MUSIC: *Oberling Baroque Ensemble*. James Caldwell, oboist and Catharina Meints, violist, MON are joined by other artists from the Oberlin Conservatory of Music in a performance of music by Couperin, Boismortier, J. S. Bach and Marin Marais. 8:30 p.m. Hall of Musical Instruments, History and Technology Building. \$4 general with discounts for students, senior citizens and Resident Associates. For reservations call 381-5395. Sponsored by the Division of Performing Arts.

LECTURE/FILM: *Human Possibility*. The growing pattern of converging, rather than diverging cultures. Speaker: E. Richard Sorenson, Director of the Smithsonian's National Anthropological Film Center. A film on the Fore people of Papua, New Guinea will be shown. 8 p.m. Hirshhorn Museum. \$4.*

POET/CRAFTSMAN DIALOGUE: Metalsmith Roger Armstrong and poet Daniel Lusk recapture, through slides and poetry reading, their collaboration on a hammered copper sculpture that is included in *The Object As Poet* exhibition. 8 p.m. The Renwick Gallery. FREE.

LECTURE: *14 Canadians: A Critic's Choice*. Speaker: Andrew Hudson, Guest Curator for the current Hirshhorn exhibition. 12 noon. Hirshhorn Museum and Sculpture Garden. FREE.††

DIAL-A-MUSEUM — 737-8811 for daily announcements on new exhibits and special events.

DIAL-A-PHENOMENON — 737-8855 for weekly announcements on stars, planets and worldwide occurrences of short-lived natural phenomena.

FREE SMITHSONIAN SHUTTLE — A red double-decker runs between the National Portrait Gallery and the History and Technology Building daily between 10:30 a.m. and 5 p.m., for the convenience of Smithsonian visitors.

*Sponsored by the Resident Associate Program of the Smithsonian. Discounts are available for members. For attendance or other information call 381-5157. Unless otherwise indicated, tickets should be purchased in advance, and will be sold at the door only if available.

Puppet Theatre

The Nicolo Marionettes

Beauty and the Beast. Brilliant stage effects, settings of medieval splendor and a large cast of elaborately costumed marionettes accompanied by a musical score by French composer Jules Massenet. Wednesday through Friday — 10:30 a.m. and 12:30 p.m. Saturday and Sunday — 11:30 a.m., 2 and 3:30 p.m. \$2 adults; \$1.50 children under 12. For reservations call 381-5395. Presented by the Division of Performing Arts. Arts and Industries Building. Through February.

NCFA's 'American Etchings' Exhibits 43 Modern Works

"Recent American Etchings" opened on January 21 at the National Collection of Fine Arts as evidence of what guest curator Richard Field called an "American etching revival." Mr. Field is curator at the Davison Art Center of Wesleyan University in Middletown, Conn.

First exhibited at the Davison Art Center, the show was organized for possible travel abroad by NCFA's Office for Exhibitions Abroad. It was also shown at New York University's Gray Art Gallery and Study Center from January 13 - February 5, 1976.

The exhibition contains 43 works, most of which were done by well-known contemporary painters such as Jim Dine, Helen Frankenthaler, Jasper Johns, Robert Motherwell, and Robert Cottingham. Paintings by these artists are found in major collections of contemporary art, but their etchings are less well known.

"I think the reason most of these painters have turned to etching," said Janet Flint, NCFA curator of prints and drawings who has organized the installation of the show, "is because they have genuine interest in the etching medium. The range of line and variety of subtle tones which can be produced by etching are unlike those of any other."

A good example of this subtlety is Robert Cottingham's "F.W.," his first published etching done in 1975. Cottingham achieved many gradations of gray by using aquatint, a form of etching which requires extreme control and a lot of skill from the printmaker. It is remarkable that Cottingham's first venture into the medium could have produced a print of such richness.

"Originally we approached Richard Field to do an exhibition on mixed media prints," said Margaret Cogswell, deputy chief of OEA. "After considering our subject, Mr. Field said he felt a more timely show would be about the revival of the fine, slow etching process, as a contrast to silkscreen and lithography, the most popular printmaking techniques of the sixties."

"We were able to be flexible, and after consideration of his proposal, told him to go ahead. I think the exhibition is successful in showing what Mr. Field called a 'strong revival and direct expression of the hand,'" Ms. Cogswell said.

"Recent American Etchings" will be on display at NCFA through March 20.



"F.W." by Robert Cottingham

Carmichael Portrait Bust Donated to SI



Photo by Eugene Manie

A bronze portrait bust of former Secretary Leonard Carmichael, pictured above, was presented to the Smithsonian on January 24 at the winter meeting of the Board of Regents in the Museum of History and Technology.

Dr. Carmichael, who died in 1973, served from 1953 to 1964 as the seventh Secretary of the Smithsonian, and was a primary force behind the development and construction of MHT.

The bust, which shows him holding two baby primates in his arms, will be displayed in the Carmichael Auditorium in MHT. A renowned research scientist with wide-ranging interests, Dr. Carmichael was keenly interested in primates.

The portrait was executed by sculptor Una Hanbury, a former Washington resident who now lives in Santa Fe, N. Mex. Three of her other works, busts of author Rachel Carson, artist Georgia O'Keeffe, and atomic scientist J. Robert Oppenheimer, are in the National Portrait Gallery.

Mrs. Boggs Donates Gavel

United States Representative Lindy Boggs, who presided at last summer's Democratic Convention, has donated her gavel and associated items to the Smithsonian. Mrs. Boggs said that the gavel is made of wood from Monticello, the estate of the Democratic Party founder Thomas Jefferson. The gavel will be added to the material collected at both Bicentennial political conventions by Herbert Collins, associate curator in MHT's Division of Political History.

Appointments

Frederic Sharf has been elected a trustee of the Archives of American Art to act as chairman of the Archives' New England Committee. A collector of American art, Mr. Sharf is vice president and manager of a sports equipment manufacturing and distributing firm, M. Sharf, Inc.

Louise Hull has been appointed as the special events assistant for NASM.

Host Families Wanted

Host families are needed for the Office of Elementary and Secondary Education program "Intern '77," which will bring talented high school seniors to Washington for eight weeks next summer to take part in educational service projects at the Smithsonian.

Those interested in opening their home to one of these carefully selected young people are asked to call David Estabrook, extension 5697, for details.

Newsmakers

Taylor Gets Bronze Apple, Bid As 'Woman of the Year'

By Johnnie Douthis

Lisa Taylor, director of the Cooper-Hewitt Museum, received the Bronze Apple Award for significant contribution to industrial design from the Industrial Designers Society of America. She has been nominated by a panel of authorities and editors of the *Ladies' Home Journal* as a "Woman of the Year."

Grace Rogers Cooper, former MHT curator, is the author of "The Sewing Machine: Its Invention and Development," which is based on the Smithsonian's collection. Mrs. Cooper, who is now a museum consultant, acquired the sewing collection, dating from 1948 to 1976, for MHT.

Wilcomb Washburn, director of the Office of American Studies, spent the month of January as regents' lecturer at the University of California, Berkeley.

Fred Voss, research historian at NPG, appeared on WAMU-FM's January 14 "Home" show to discuss "Not the Model Boy," an exhibition he produced to commemorate the 100th anniversary of the publication "The Adventures of Tom Sawyer."

MHT Director Brooke Hindle and other Smithsonian staffers attended the recent joint meeting of the Society for the History of Technology and the History of Science Society held in Philadelphia. Robert Muthauf, MHT senior scientific scholar and former Museum director, was elected vice president of the society.

Also attending the meeting: MHT Curators Audrey Davis, Jon Eklund, Uta Merzbach, Robert Vogel, and Deborah Warner. Also, Nathan Reingold and Arthur Molella, editor and assistant editor of the *Joseph Henry Papers*; Robert Friedel, archivist in the office of MHT's deputy director, and Robert Post, historian, office of MHT's director.

NASM Director Michael Collins presented service awards to John Brown, 25 years, and Robert Meyer, 20 years.

Edith Mayo, MHT museum specialist, attended a training course at the National Archives titled "Going to the Source."

Edwards Park, member of the Board of Editors of *Smithsonian* magazine was interviewed by the Voice of America on the phenomenal growth of the magazine and on the background of his monthly column, "Around the Mall and Beyond." The interview will be aired worldwide by VOA.

Priscilla Griffiths was recognized for her outstanding services in establishing a shipping and receiving office at the Fine Arts and Portrait Gallery Building. The award was presented by Robert Dean, FAPG building manager, acting for the Office of the Secretary. The shipping needs of all bureaus housed in the FAPG Building have been served exclusively by this shipping office since 1974 when it was established under Mrs. Griffiths.

Harry Jackson, NPG education specialist, was in charge of the fundraising for a gala

evening benefit for the Adult Education Association of Metropolitan Washington. The benefit was held at the Garland Dinner Theater and featured the comedy "Boeing-Boeing."

Monroe Fabian, NPG associate curator, recently addressed Washington Bicentennial Semester students about the conventions of 18th-century portrait paintings.

Janet Flint, NCFA curator of prints and drawings, and Peter Bermingham, NCFA curator of education, lectured on print collecting and Washington museums at an American University course, "Washington, D.C.—A Place to Learn."

William Walker, NCFA/NPG librarian, served on a six-month Arts Advisory Committee for the Library of Congress which, in December, submitted its reports to the Library. The 11-member national committee was chaired by Patrick Hayes, managing director of the Washington Performing Arts Society.

Linda Hartigan, of NCFA's Department of 20th Century Painting and Sculpture, was guest curator for "The Throne of the Third Heaven..." exhibition at the Boston Museum of Fine Arts.

Bess Hormats, research coordinator for the Smithsonian Art Index, presented a paper, "War Art Collection," at a symposium in London.

Lloyd Herman, director of the Renwick Gallery, was one of the judges for the Organization of American States Pan American Day Poster Contest, which was open to students of advanced graphic arts for all member countries of the OAS.

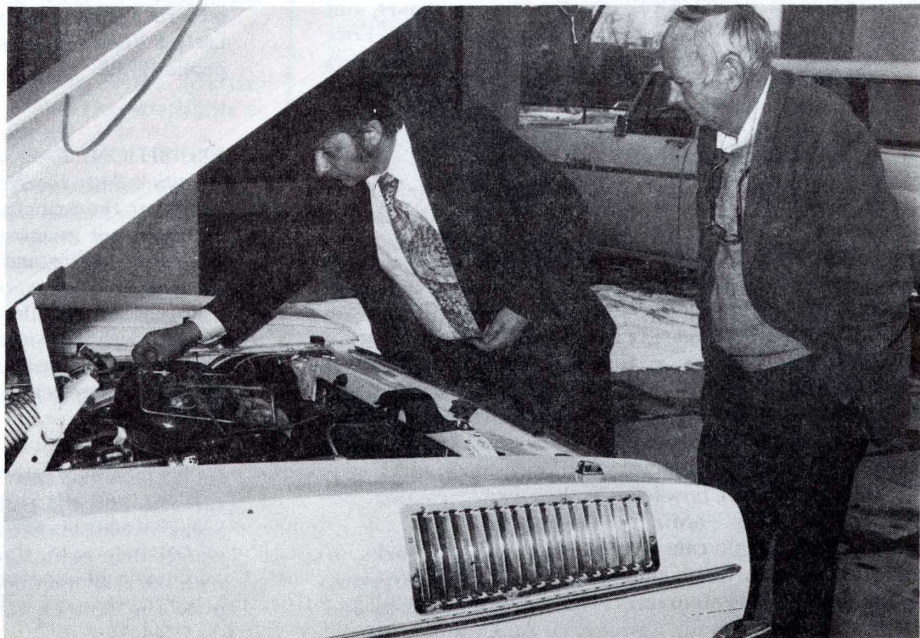
Carolyn Margolis, program specialist at the Anacostia Neighborhood Museum, recently delivered a lecture on Martin Luther King, Jr., at Leland Junior High School to commemorate King's birthday.

Louise Hutchinson, Anacostia Neighborhood Museum supervisor of research, participated in the fourth annual conference on "Washington, D.C., Historical Studies" sponsored by the Georgetown University and the Columbia Historical Society. In a session on neighborhood studies, Mrs. Hutchinson discussed the Anacostia community.

Janet Solinger, director of the Smithsonian Resident Associate Program, delivered a lecture at the New School for Social Research on "Arts at the Smithsonian." Also at the New School she conducted a January 20 workshop on "Supportive Systems" as part of a course on "Art and the Community," and participated in a panel discussion titled "Community Resources and Responsibility—The Museums, the Moveable Feast."

The Smithsonian film, "Celebrating a Century" has won its third award, the Special Juried Gold Medal of the Virgin Islands International Film Festival for documentaries. Written by Ben Lawless, assistant director for exhibits at MHT, the film was directed by Karen Loveland, chief of the exhibits central film unit.

'Cars of the Future' Join Parade



CARS OF THE FUTURE—Edwards Park (right), a member of the Board of Editors of *Smithsonian* magazine, and George Thur, turbo-engineer for the Energy Research and Development Administration, inspect the turbo-drive Plymouth, one of four ERDA "cars of the future" which were driven in President Carter's Inaugural Parade. Use of the environment-sparing cars was suggested by the Smithsonian, which for many years has been concerned with the scientific aspects of energy and the environment.

Volunteers Receive Special '76 Awards

About 325 information volunteers were honored at a seventh anniversary celebration for the Information Volunteer Program, begun through the efforts of SI staffers Susan Hamilton, then with the Resident Associate Program; William Grayson, then special assistant with the Office of Public Affairs; and Joan Madden, education officer, now with the Museum of Natural History.

Mrs. Hamilton presented certificates and pins to the 12 seven-year veterans and commended the group for their Bicentennial year service which greatly exceeded their initial three-hours-per-week commitment.

Mary Grace Potter, director of the Visitor Information and Associates Reception Center, said "Desks were staffed 10 a.m. to 7 p.m. April 1 through Labor Day with 90 percent coverage for Renwick and all the Mall museums except Freer."

Josephine Olker was recognized for eight years of volunteer service. All information volunteers working under the program received the Bicentennial certificate of service. Service pins were also awarded to 13 six-year volunteers, four five-year volunteers, 20 four-year volunteers, and 29 three-year volunteers.

Custodians Finish Training Sessions

By Johnnie Douthis

More than 50 new and longterm members of the Smithsonian's custodial staff recently attended a two-day training program of lectures and practical training given at the Museum of History and Technology.

Organized by Rodney Evans, director of the training branch of the Office of Personnel Administration, and Donna Hill, course director, the program's objective was to improve the quality of work by helping to reduce the turnover rate among custodians; providing more qualified candidates for future leadership and supervisory vacancies; widening job skills; and giving refresher training for supervisors.

Lectures by Smithsonian personnel outlined career opportunities for participants and discussed the role of the building manager in training. A panel of former custodial employees who have advanced to other positions discussed their experiences.

The practical sessions were conducted by the industrial cleaning supply firm of National Laboratories, which sent representatives to demonstrate proper cleaning methods, material, and equipment for Smithsonian building maintenance.

After the session, Charles Holman, an MHT custodial supervisor, said, "After 13 years on the job, I found there was still more to learn at these classes. My staff will attend the second session, and I hope they will find it as worthwhile as I did."

The first session concluded with John Jameson, assistant secretary for administration, presenting certificates to program participants, with two special awards going to the people who had achieved the highest scores on a written examination.

Scientist Neil Judd Dies at 89 After Distinguished SI Career

Smithsonian archeologist Neil Judd was a meticulous man who insisted on getting data down accurately. Accordingly, to make sure that his obituary was written the way he wanted it, he composed it himself, and the Torch is reprinting it without alteration. Some of Mr. Judd's reminiscences of early days at the Smithsonian can be found in his book, "Men Met Along the Trail: Adventures in Archeology," University of Oklahoma Press, 1968.

Neil Merton Judd, former curator of archeology at the National Museum, died December 19 at age 89. He lived at the Georgian Towers, Silver Spring.

From an apprenticeship in archeology at the University of Utah and the School of American Research, Santa Fe, Mr. Judd arrived in Washington June 20, 1911, as the youngest member of the Smithsonian staff. Being the youngest, he was promptly assigned the task no one else wanted—unpacking dusty collections that had been in storage since the Philadelphia Centennial of 1876.

In 1911 the New National Museum, not yet complete, was ready for the public. It was here, on the unfinished cement floors of the building, among antiquities from around the world, that Mr. Judd began what proved to be his lifelong vocation: the identification and preservation of archeological materials. During the years that followed, between Museum activities, he led 14 field expeditions for the Smithsonian Institution and a comparable number for the National Geographic Society and others.

For the California-Pacific Exposition of 1915, Mr. Judd supervised reproduction of stone monuments at an ancient Maya religious site in Guatemala and two years later the Interior Department requested his services for the excavation and restoration of Betatakin, a terraced cliff dwelling in what is now Navaho National Monument, northeastern Arizona. In 1923 he directed an aerial survey of aboriginal irrigation canals in southern Arizona for the Bureau of Indian Affairs.

Early in his professional career, Mr. Judd was elected to Life Membership in the National Geographic Society and twice thereafter received its Franklin L. Burr Award. He was a member of the Anthropological Society of Washington, founded in 1879, the Washington Academy of Sciences, and various other organizations. He was a member of the Cosmos Club more than 50 years. He represented the Smithsonian Institution at the 7th American Scientific Congress in Mexico City and the 2nd Assembly, Pan-American Institute of Geography and History, Washington, D.C., in 1936.

Before and after World War I, in which he enlisted in the Aviation Section, Mr. Judd conducted extensive studies of prehistoric farming communities in western Utah where, lacking stone for building purposes, house walls were made of mud. But what many consider Mr. Judd's major archeological contribution, was the excavation and architectural analysis of Pueblo Bonito, a

four-story, 500-room prehistoric ruin in northwestern New Mexico. Remains of earlier dwellings lay 12 feet below court level.

On December 31, 1949, Neil Judd retired from Government service but continued on Smithsonian roles as archeologist emeritus. Shortly before retirement, he received from President Truman a letter recognizing his long public service, including participation in the discovery of Rainbow Bridge in 1909. He leaves an older brother, two nieces and three nephews. His wife, Anne McKay Judd, a registered nurse who enlisted for Army duty in France during World War I, died in 1975 aged 84.

Colleagues in the archeological profession consider Mr. Judd as one of its great pioneers.

"Not only was his field work in the southwestern United States of great significance, but his curatorial role in the Museum was monumental," said Museum of Natural History's Clifford Evans, curator of anthropology.

He and MNH's Betty Meggers, anthropology research associate, were both encouraged by Mr. Judd early in their careers. Dr. Meggers recalls that as a high school junior volunteering in his lab, she struggled for weeks with Mr. Judd's assignment of reassembling broken artifacts.

The task, she said, defied her best efforts, but "it was a good test of my sincerity, and we continue to apply the 'Judd test' to eager kids who express the desire to be archeologists."

"Many have changed their minds as a consequence," she commented, "but those with the stamina have made good."

Staffers To Attend Managers' Seminar

The Smithsonian Executive Manpower Resources Board has selected five employees to attend the Seminar for Advancing Managers given by the Civil Service Commission at Wilmington, Del., during 1977.

For the first time, EMRB asked eligible employees, GS-13 or IS-13 and above, to nominate themselves for executive training courses. Five candidates and two alternates were chosen as a result.

The two-week seminar provides intensive managerial training in organizational skills, productivity, efficiency, and responsiveness.

Later in this fiscal year, a similar course will be offered in Washington for GS-11 or IS-11 and above. Since no women nominated themselves for the first seminar, EMRB decided to establish the new program geared to employees who have managerial potential, as well as those who already are managers.

Tailored to Smithsonian needs, the seminar will be open to all employees, but women and minorities will be particularly encouraged to submit their names for the session.

Winter Plants Brighten Mall



By Susanne Roschwalb

Classic children's stories remind us that fairies and elves were born under cabbages, which must have been a lot like those the Office of Horticulture has planted around the Arts and Industries Building and in the Victorian Garden.

This is the second year that the purple and white ornamental cabbage and kale have been planted. As an experiment, they were grown last winter around the Museum of History and Technology, and they brought such enthusiastic comments that Horticulturist James Buckler decided to use them more liberally this year.

The cabbage plants, or *Brassica oleracea acephala*, are remarkably hardy, remaining fresh from November through February, and withstanding everything from frost to pigeons. Red Crown and White Ripple are the two varieties thriving this winter, along with *Brassica oleracea acephala crispa*, the ornamental kale plants.

They are grown from seed at the Smithsonian's North Capitol Street greenhouses, where volunteers help SI horticulturists care for many exotic trees, flowers, and shrubs. Seeds for the ornamental cabbage and kale came from the Parke Seed Company in Greenwood, S.C. 29646.

Plants and seeds for other interesting species are available in the Museum of Natural History and the A&I Building museum shops. Each comes with its English and Latin names and instructions for care and feeding.

Mt. Hopkins Offers Lectures

The Smithsonian Astrophysical Observatory is presenting its seventh series of free public lectures on astronomy and astrophysics in a community recreation center near the Mt. Hopkins Observatory in Amado, Ariz. The 10 lectures, which began in January and will run through March 11, are all to be delivered by resident staff members of the Mt. Hopkins Observatory.

Inaugural Concerts Held in Museums

Highlighting its regular music-at-the-museums format, the Smithsonian Division of Performing Arts gave an unprecedented five-day celebration for President Carter's Inaugural during the city-wide festivities January 18 through 22.

The programs, which were financed by the Inaugural Committee through a grant from Mobil, included more than 80 varieties of music from electronic to baroque. The free public concerts were held in seven Smithsonian museums.

Artists were drawn from the extraordinary resource of talent that lives and works in the greater Washington area: Bill Harris, Shirley Horn, Bull Moose Jackson, the Seldom Scene, the Country Gentlemen, James Weaver, John Eaton, Sweet Honey in the Rock, Theater Chamber Players among others.

Performances from noon until nine were held at the Grand Salon of the Renwick Gallery, Hirshhorn Auditorium, rotunda of the National Museum of Natural History, around the pendulum of the Museum of History and Technology, main floor of the Air and Space Museum, second floor of the National Collection of Fine Arts, and the Grand Hall of the National Portrait Gallery.

In addition to the local performing artists, jazz, popular, and country musical units of the Army, Navy, Air Force, Coast Guard, and Marine Corps gave music programs at the museums.

From Bell to Picturephones Installed at MHT

By Linda St. Thomas

Visitors to "Person-to-Person," a new exhibition at the Museum of History and Technology, can do more than look at artifacts in display cases.

They can speak over the same wire that Alexander Graham Bell used in his telephone experiments, watch film clips of a memorable telephone scene from an old Laurel and Hardy movie, activate a telegraph call-box switch, or read books about the evolution of telephones.

"In this exhibition, we try to show the impact of technology on person-to-person communications," said Bernard Finn, curator in the Division of Electricity and Nuclear Energy. "As visitors move through the exhibition, they follow the development of the phone from the pre-electricity era to the picturephones of the future."

Inventors can learn how to make their own telephones using ordinary household materials, such as tin cans, wires and plastic cups. Examples of these simple devices are displayed and do-it-yourself instruction sheets are available.

Among the artifacts are the original phones demonstrated by Bell at the 1876 exposition, a "lovers telephone" from the 1870's that used no electricity, a 1922 panel switchboard, and modern phone components including electronic circuit packs.

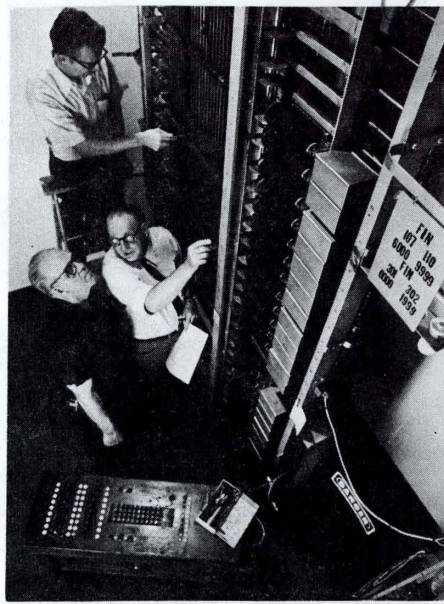
In an area called "Can You Top This?" former operators are invited to contribute their favorite anecdotes. The best of these are mounted in the exhibition and will be changed periodically. Current stories include one about an operator who closed her switchboard for an afternoon after spilling grape juice on the equipment and another about a man who could not make calls for about two weeks because the local operators were mad at him.

Visitors are also asked to contribute drawings or essays envisioning phone communications of the future. These are also displayed in the exhibition.

"Person-to-Person" was organized by Mr. Finn, who also wrote the accompanying catalog. G. David Ellis of Designer's Consortium in Silver Spring designed the exhibition and Mary Jourdon, consultant, designed the catalog.

Many artifacts in the exhibition were donated by telephone companies in the United States and Canada. The 1922 panel switchboard from Pittsburgh was restored to working order by employees of the Chesapeake & Potomac Telephone Company.

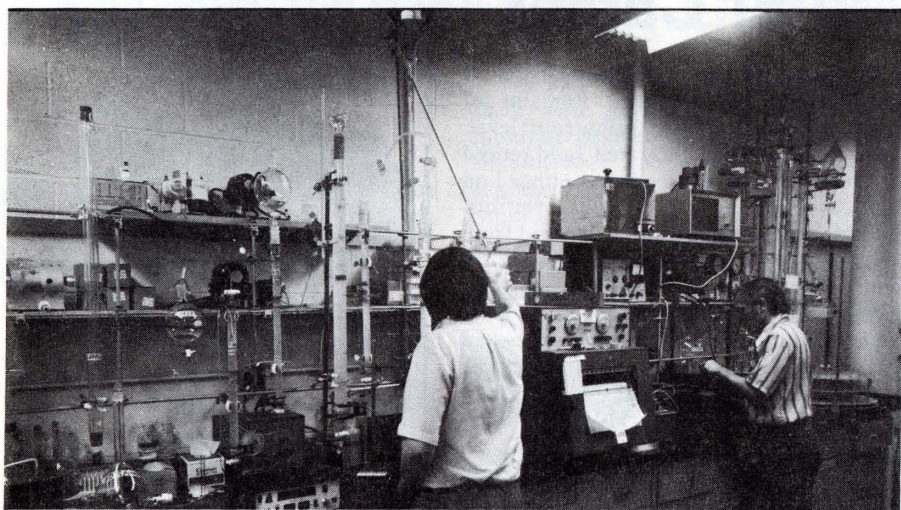
The exhibit, which will remain on display indefinitely, was made possible through grants and technical assistance from AT&T, Bell Labs, AT&T Long Lines, C&P



C&P Telephone employees working on 1922 panel switchboard which they restored to working order for the exhibit.

Telephone Company, Central Telephone Company, General Telephone Directory Company, U.S. Independent Telephone Association, and United Telecommunications, Inc.

RBL Staff Studies Effects of Light on Plants



Plant physiologists Bill Smith and John Edwards (right) work with phytochrome, a pigment believed to be responsible for plant perception of light.

By Linda St. Thomas

To an uninformed bystander, the name Radiation Biology Laboratory could bring to mind vague thoughts of cosmic rays or atomic radiation.

But the Smithsonian Radiation Biology Laboratory in Rockville, Md., is neither mysterious nor dangerous. In these labs, researchers study the effects of light on living things.

Why do plants bend toward the sunlight? How do plants "know" that winter is approaching? What tells a plant to flower? How does a single-cell organism "see" a wall and bend away from it?

These are a few questions being studied in various projects at the lab, where 13 fulltime scientists record and analyze the behavior of all types of plants.

The Radiation Biology Laboratory dates back to 1929 when the late Secretary Charles Greeley Abbot founded a Division of Radiation and Organisms within the Smithsonian Astrophysical Observatory.

Secretary Abbot's own research focused on solar radiation and long before solar heat became a possibility, he believed that the sun could be harnessed to provide energy with no polluting effects.

The data of basic research obtained many years ago suddenly becomes useful and valuable in new and unexpected ways, according to William Klein, RBL director, who explained, "We are sure that many interesting natural processes are controlled by sunlight in ways we can only suspect at present."

Walter Shropshire, assistant director at RBL, has long been interested in the way a plant bends toward its source of light, a phenomenon known as phototropism.

To explain one experiment, Mr. Shropshire brought out a large tray of instant mashed potatoes covered with rapidly growing fungi, each with a hairlike stem topped by a sphere encasing about a million spores.

"This fungus, *Phycomyces blakesleeana*, is a great laboratory subject because it's so easy to see and work with. Most single-celled organisms must be viewed under a microscope, but this one grows as tall as five inches," he said.

Alternately using beams of blue and near-ultraviolet light, the only ones this plant senses, he examined the plant's behavior by watching it respond. Bending toward the light, just like an ordinary house plant to sunlight, its response is, however, much faster.

"The *Phycomyces* is sensitive to light in the same way as the human eye, namely, when it is exposed to bright light followed by dim light, it takes time to respond just as our eyes do when we enter a dark movie theater," he said.

"If this tiny fungus is so much like the human eye, we thought it would be interesting to see what would happen if it wore 'eyeglasses,'" Mr. Shropshire reasoned.

To approximate a corrective lens, a thin glass rod was placed next to the stem, and a beam of blue light was sent through the glass. Refracted and reversed by the lens, the light "tricked" the plant into bending toward the image instead of the true light source.

Mr. Shropshire commented, "We're trying to discover how a single cell with no brain or nervous system receives these messages and transmits them to the organism which makes basic sensory responses. When we have that information, we may be able to fully understand how the complex human eye and brain work together."

In another lab, packed with plant houses that look like large refrigerators, Rusty Cleland is trying to discover a flower essence or hormone by studying blooming patterns under various light conditions. The existence of such a hormone would help explain the mechanism which tells a plant when to flower.

"If we can ever isolate and identify such a substance, we may be able to artificially induce flowering. This would, in turn, mean more seeds and, of course, more grains," said Mr. Cleland.

Upstairs, the solar radiation lab includes a unique telescoping hydraulic lift, which rises automatically 100 feet above the roof, to measure the quality and intensity of sunlight. The data is used by RBL scientists and other researchers as well as by people constructing solar heated buildings, who must know the amount of solar energy available in a given location.

Last year the first instrument to measure ultraviolet light in the "sunburn" wavelengths was put into operation at the Lab. The instrument was developed by Dr. Klein and Physicist Bernard Goldberg. Much attention has been given to this type of measurement because of the direct relation to skin cancer studies and the correlation between changes in the atmospheric ozone layer and penetration of ultraviolet.

The equipment has also been installed at four other RBL monitoring stations: in Panama at the Smithsonian Tropical Research Institute; in Barrow, Alaska, the northernmost spot in the Western Hemisphere; and in Jerusalem at Hebrew University.

Also at the Rockville lab, William Smith works with phytochrome, the protein pigment found in rye seedlings. This pigment, first extracted in 1959, is believed to be responsible for a plant's perception of the quality and intensity of light.

Phytochrome allows many plants to sense the length of days and nights so that they flower during the longer days of spring and summer, and shed their leaves during the shorter days of fall.

In Elisabeth Gantt's laboratory stands a great black electron microscope. She sits at the console bench, looking into its vacuum chamber to examine algae specimen. Some algae, a possible future food source, contain accessory pigments that confer a survival advantage on the organisms.

In another lab, tomato and lettuce are grown, not for salads, but to measure the effects of pulsing light on the plant growth. Around the clock, they are treated with lights, pulsing at varying speeds to determine which rate stimulates greatest growth. When the best rates are determined, greenhouse owners will be able to conserve energy, save money, and increase productivity with their

own pulsing lights. This research is being conducted by John Sager and his assistants.

Not all RBL research has clear-cut or practical application. Mr. Shropshire explained, "The function of this lab is to study the effects of sunlight on plants and animals. Basically we are finding out how nature works."

One lab which has a somewhat different function is the carbon-14 dating section, under the direction of Robert Stuckenrath. Ages of archeological and biological materials are measured by burning the substance and converting the carbon dioxide produced with its radioactive carbon, to methane gas. Inside a counter insulated by 12 tons of steel, the gas is measured and the age of the substance is determined.

Samples to be dated range from mummy wrappings (170 B.C.) to the hide of a now-extinct 25,000-year-old woolly rhinoceros. Of the approximately 160 samples dated each year, about one-half come from Smithsonian curators. The carbon dioxide section also serves RBL scientists conducting original research.

To keep RBL operating smoothly, an instrumentation shop, with seven staff members, continually adapts and modifies all lab equipment, including computers.



Claudia Lipshultz, lab technician, checks marine and fresh water algae, a possible future food source.

Menzel of SAO Dead at Age 75

Donald H. Menzel, a research associate of the Smithsonian Astrophysical Observatory, Paine Professor of Practical Astronomy, professor emeritus of astrophysics at Harvard University, and former director of the Harvard College Observatory (1954-1966), died on December 14 after a long illness.

A noted authority on the sun, in particular the glowing halo called the corona, that comes into view when the sun's face is hidden during an eclipse, Dr. Menzel viewed 16 total solar eclipses during his lifetime. Several of his eclipse expeditions, including one he organized in October 1976, were sponsored in part by the Smithsonian.

Dr. Menzel was honored in October by the Minor Planet Center of the International Astronomical Union, which renamed minor planet 1905 RY "Asteroid Menzel" in recognition of his contributions to astrophysics. (See *Torch*, "Newsmakers," January 1977.)

Joining the Harvard staff as assistant professor of astronomy in 1932, Dr. Menzel became professor of astrophysics in 1939 and Paine Professor of Practical Astronomy in 1956. In 1966, he was named research scientist at the Smithsonian Astrophysical Observatory in Cambridge.

Born in Florence, Colo., in 1901, he graduated from the University of Denver in 1920, and received his Ph. D. in astrophysics in 1924 from Princeton University. He retired from his posts at Harvard and the Smithsonian in 1971, but continued his research affiliation with the Smithsonian until his death.

"He was a great scientist and a great man," said Fred Whipple, Phillips Professor of Astronomy at Harvard and former SAO director. A colleague and friend of Dr. Menzel for 49 years, Mr. Whipple studied under him while a graduate student at the University of California at Berkeley.

"A large fraction of the best known astronomers in the country were taught by him," Mr. Whipple said. Dr. Menzel was also instrumental in encouraging the transfer of SAO headquarters from Washington to Cambridge in 1955.

Contributions in memory of Dr. Menzel may be given to the D.H. Menzel Fellowship Fund, in care of Schuyler Hollingsworth, recording secretary of Harvard University, 70 Federal Street, Boston, Mass. 02110.

OTC Film Examines Smithsonian History, Future

By Susan Bliss

A half-hour film about the Smithsonian—its history, its mission, and its future—is being produced by the Office of Telecommunications, with completion expected by summer.

"The film will fill a need we have long known about," said William Grayson, special coordinator in OTC and producer of the film. "Letters to our office have indicated that a lot of people would like to see such a film. It is not a parade through the Smithsonian," he continued, "but a rich slice of life here."

Scriptwriter for the film is Michael de Guzman, whose work has reached large audiences on network television.

With the film theme centering on the continuity and individuality brought to the Smithsonian by each of its secretaries, Mr. de Guzman based his script on conversations with Secretary Ripley.

"We wanted this film to be a Smithsonian effort as much as possible," said Nazaret Cherkezian, OTC director and the film's executive producer. "So we used our staff to the fullest." Along with Mr. Cherkezian and Mr. Grayson of OTC, Jean Quinnette was production assistant, and John Hiller from the Motion Picture Unit of the Office of Exhibits Central was head cameraman.

In addition, independents David Vassar, who directed the 1975 folklife festival film and worked on "Celebrating a Century," is director, and Andy Finley is production manager.

"We tried to give the feeling of an eavesdropping camera," said Mr. Grayson. "The movie begins with some typical answers

by the public to the question 'What is the Smithsonian?' and continues to move around the Institution, from the Freer, where a conservator is repairing a Japanese screen, to the Museum of History and Technology, where curators are preparing for the opening of 'Nation of Nations,' to the Mt. Hopkins observatory in Arizona.

"Sometimes we were very lucky in our timing," he continued. "The day we filmed the locomotives at MHT, we had hoped to find a tourist who knew something about the trains to talk for us on camera. Believe it or not, that day a man who had been engineer on one of MHT's engines was there telling his

grandson about it. Of course he was delighted to participate in the movie."

Mr. Grayson pointed out that while this film is an overall look at the Smithsonian, he hoped it would lead to more films about specific departments, museums, and research.

When it is completed the film will be distributed internally and externally, said Mr. Cherkezian. It will be useful for staff members as well as for Smithsonian visitors, and will also be available for use outside the Smithsonian by civic groups and educational institutions.



Cameraman John Hiller comes in for a closeup of the engineer and his grandchildren in MHT during the shooting of OTC's film on the Smithsonian.