The Board of Regents and Secretary Ripley have unanimously approved the appointment of Michael Collins to be under secretary of the Institution. Collins, who had been director of the National Air and Space Museum since 1971, assumed his new responsibilities on April 24.

"I am pleased that Mr. Collins has accepted this appointment to join the senior executive staff of the Smithsonian," said Ripley. "He has been a valued member of the Smithsonian community for seven years and has gained wide respect for his administrative skills and interests. I am certain that Mr. Collins' special talents will be invaluable to the management of the Institution's diverse programs."

Collins succeeds the late Robert A. Brooks, who served as under secretary from 1973 until his death in April 1976.

Collins was born October 31, 1930, in Rome, Italy, to American parents. He graduated from St. Albans School in Washington, and received a Bachelor of Science degree from the United States Military Academy in 1952. He completed the Advanced Management Program of the Harvard Business School in 1974. Collins was one of the third group of astronauts named by the National Aeronautics and Space Administration in 1963. In 1966, he piloted the Gemini 10 spacecraft during a three-day mission.

Collins' second space mission was that of Command Module Pilot during the historic Apollo 11 flight launched July 16, 1969. He remained in orbit while Neil Armstrong took the first steps on the moon.

Michael Collins

Also effective on April 24 was the designation of NASM Deputy Director Melvin Zisfein as acting director of the Museum. Zisfein has held the deputy position since coming to the Smithsonian in 1973.

Prior to his arrival here, Zisfein had been associate director of the Franklin Institute Research Laboratories in Philadelphia since 1966. He holds bachelor's and master's degrees, conferred simultaneously, from the Massachusetts Institute of Technology. A search committee has been named to submit its recommendations for a new director of NASM to the Smithsonian Board of Regents.
How I Learned to Fly in One 10-Minute Lesson

By Linda St. Thomas

I knew I was in trouble when my flight instructor at the National Air and Space Museum explained the nine airplane instruments. The captain had turned the plane when he’d reached the ninth, I had forgotten the tenth. As I climbed into the General Aviation Trainer, which is identical to those used by student pilots, the “simulator aid” settled into his seat beside the cockpit and prep- pared for our takeoff. The GAT-1 trainer is one of three in NASM’s new General Aviation Gallery devoted to non-airline and non-military flying. Everyone, including children, can try the simulators with one restriction—the “pilot” must be tall enough to reach the controls.

I pushed in the throttle, planted my feet on the rudder, pushed the elevator, pushed the nose down, and aimed for the break in the mountains painted on the wall.

The altitude dropped when I ignored the altimeter, and I crashed twice over a Utah mountain scene. Actually, I crashed three times, but the last one didn’t count because the instructor made me nervous. Each of the disasters was announced by an ominous buzz.

Not everyone is nervous in the simulators. An aid told me that a 12-year-old boy has been coming to the Gallery every day after school. When he grows up, he wants to be a pilot and he’s practicing at NASM. After one ride is over, he just moves to the end of the line and waits for another turn. He has taken a real likin’ to this stuff.

Other exhibits in the Gallery prepared novices like me for the simulator. In a short movie, “You Can Fly,” which is shown continuously in the Hayden Planetarium, “Room 222” assures us that to fly you all need is “a little coordination and some training.”

I stopped next at the computer for a quick test of my general aviation knowledge. It corrected, explained, and graded my answers to multiple choice questions on navigation, aviation terminology, flight mechanics, and weather. When my first choice was wrong, the question flashed on the screen again and again until I finally hit the correct answer.

After watching the film and mastering the quizzes, I had a chance to operate a “plane” from one of the five stationary cockpits. Using the small model plane in front of the trainer, I practiced the standard maneuvers: diving, climbing, and turning. There was also a hand-controlled unit for the handicapped visitors.

At the next exhibit, an expert, I should have been ready for the flight, but before stepping into the simulator, I stopped to see a four-minute film on landing at Washington’s National Airport. The screen is set within a display of cockpit instruments, so I got a pilot’s-eye-view of the plane’s approach from the north.

Gone were the faked flat-topped types of privately owned planes sitting in the center of the gallery including the popular Piper J-3, often called the Model of general aviation aircraft. Thousands of pilots experienced their first dual and solo flights in the noisy, drab, and uncomfortable cockpit of the Cub. By the time the last J-3 was produced in 1947, more than 14,000 had been built. The Cessna 186 in which Jerrie Mock, a Columbus, Ohio, homemaker became the first woman to fly solo around the world, also hangs overhead. And nearly is a Learjet, the first jet aircraft designed specifically for business flights. This Learjet 23, known as “the fighting business jet,” flew on March 5, 1964, and logged 1,127 hours in its flight testing program before retirement in 1966.

Learjets are popular with many corporations because they offer high speed and exceptional climb performance (about 35,000 feet in 10 minutes). Donald Lopez and Tim Wooldridge are the curators of NASM’s General Aviation Gallery.

Book Review

By Elizabeth McIntosh


The museum is worth its salt has wandered through the corridors of a mind-boggling exhibition at the Smithsonian and not bothered to meet the people behind the scenes who made it all possible? In her delightful "Museum Life" book, author Peggy Thompson has made those meet- ings possible. She opens Smithsonian doors marked "Official Personnel Only," so the reader can meet the people who research, collect, and create exhibits. All Smithsonian employees will relate in some way to Thompson’s book because it tells the people we the work they do, what they do, and how the giant museum complex evolved and where it is going.

Thomson conducted sharp, vivid inter- views with 22 Smithsonian people in art, history, and science as well as with mainte- nance staff, computer experts, conserv- ationists, festival entrepreneurs, and zookeepers.

"People think bones are hard and cold," says Lucille St. Hoyme, a physical anthro- pologist. And you proceed to find out how bones can be clues in the great game of physical anthropology sleuthing.

You also read about freez-drying bob- cats, analyzing Chinese bronze, laying out Victorian gardens, and carting beached whales to Washington.

And for an apt thumbnail sketch of man- aging the whole thing, Secretary Ripley ex- plains: "It’s like the old Hungarian horse act, where the man comes out jumping up and down on the rungs of eight or nine Percherons. You just have to keep jumping from ramp to ramp."

Ewers is the author of “On Reading Palms.” She is a Washington-based maga- zine writer with a special interest in educa- tion and the outdoors. Illustrator Joseph Low attended the Arts Students League and the University of Illinois. He is the author and illustrator of many children’s books.

Ewers Honored for Indian Study

With Show at Natural History

By Thomas Harvey

Dr. John Ewers, senior ethnologist on the Museum’s great ethnology staff, is being honored in an MNH exhibit opening the 29th of April after school. When he grows up, he wants to be a pilot and he’s practicing at NASM. After one ride is over, he just moves to the end of the line and waits for another turn. He has taken a real likin’ to this stuff.

Other exhibits in the Gallery prepared novices like me for the simulator. In a short movie, “You Can Fly,” which is shown continuously in the Hayden Planetarium, “Room 222” assures us that to fly you all need is “a little coordination and some training.”

I stopped next at the computer for a quick test of my general aviation knowledge. It corrected, explained, and graded my answers to multiple choice questions on navigation, aviation terminology, flight mechanics, and weather. When my first choice was wrong, the question flashed on the screen again and again until I finally hit the correct answer.

After watching the film and mastering the quizzes, I had a chance to operate a “plane” from one of the five stationary cockpits. Using the small model plane in front of the trainer, I practiced the standard maneuvers: diving, climbing, and turning. There was also a hand-controlled unit for the handicapped visitors.

At the next exhibit, an expert, I should have been ready for the flight, but before stepping into the simulator, I stopped to see a four-minute film on landing at Washington’s National Airport. The screen is set within a display of cockpit instruments, so I got a pilot’s-eye-view of the plane’s approach from the north.

Gone were the faked flat-topped types of privately owned planes sitting in the center of the gallery including the popular Piper J-3, often called the Model of general aviation aircraft. Thousands of pilots experienced their first dual and solo flights in the noisy, drab, and uncomfortable cockpit of the Cub. By the time the last J-3 was produced in 1947, more than 14,000 had been built. The Cessna 186 in which Jerrie Mock, a Columbus, Ohio, homemaker became the first woman to fly solo around the world, also hangs overhead. And nearly is a Learjet, the first jet aircraft designed specifically for business flights. This Learjet 23, known as “the fighting business jet,” flew on March 5, 1964, and logged 1,127 hours in its flight testing program before retirement in 1966.

Learjets are popular with many corporations because they offer high speed and exceptional climb performance (about 35,000 feet in 10 minutes). Donald Lopez and Tim Wooldridge are the curators of NASM’s General Aviation Gallery.

Book Review

By Elizabeth McIntosh


The museum is worth its salt has wandered through the corridors of a mind-boggling exhibition at the Smithsonian and not bothered to meet the people behind the scenes who made it all possible? In her delightful "Museum Life" book, author Peggy Thompson has made those meet- ings possible. She opens Smithsonian doors marked "Official Personnel Only," so the reader can meet the people who research, collect, and create exhibits. All Smithsonian employees will relate in some way to Thompson’s book because it tells the people we the work they do, what they do, and how the giant museum complex evolved and where it is going.

Thomson conducted sharp, vivid inter- views with 22 Smithsonian people in art, history, and science as well as with mainte- nance staff, computer experts, conserv- ationists, festival entrepreneurs, and zookeepers.

"People think bones are hard and cold," says Lucille St. Hoyme, a physical anthro- pologist. And you proceed to find out how bones can be clues in the great game of physical anthropology sleuthing.

You also read about freez-drying bob- cats, analyzing Chinese bronze, laying out Victorian gardens, and carting beached whales to Washington.

And for an apt thumbnail sketch of man- aging the whole thing, Secretary Ripley ex- plains: "It’s like the old Hungarian horse act, where the man comes out jumping up and down on the rungs of eight or nine Percherons. You just have to keep jumping from ramp to ramp."

Ewers is the author of “On Reading Palms.” She is a Washington-based maga- zine writer with a special interest in educa- tion and the outdoors. Illustrator Joseph Low attended the Arts Students League and the University of Illinois. He is the author and illustrator of many children’s books.
Taylor Discusses Ten Years of NCFA Scholarship, Exhibitions

When the National Collection of Fine Arts celebrates its 10th anniversary in the old Patent Office Building this month, it will be marking a decade in what was one of the earliest homes of its collections. The story of the evolution of the Nation's oldest collection of art, which reaches back almost a century and a half—even before the founding of the Smithsonian Institution—will be told in a major exhibition, "Past and Present: A Century and a Half of a National Collection," opening June 1 and continuing through September 4. In a recent interview, Director Joshua Taylor talked about what NCFA has achieved and its contributions to the status of art in America.

By Susan Bliss

Assessing the decade since the National Collection of Fine Arts opened in the old Patent Office Building, Director Joshua Taylor said the Museum has emerged as an important center for the exhibition and study of American art.

Dr. Taylor admitted that his interest in coming to NCFA eight years ago was not just as an administrator, but as a scholar who saw the need for more institutions that could support serious research in the newly recognized field of American art.

"I wanted to see whether the museum could operate on the same level of scholarship as the best university art history department, and I believe we have shown that it can," Taylor said. "At the same time, we have carried on extensive exhibition programs and have organized and almost doubled the permanent collection.

The refinement of these standards and the development of scholarship at NCFA has been steady and will continue to be an important function of the museum, which annually sponsors about 10 postgraduate fellows and 15 student interns in training programs, weekly seminars, and individual research projects.

Facilities include a large area where scholars may work privately or discuss their findings with colleagues. In support of these activities are the research tools that have developed for their use. Taylor pointed to the Inventory of American Paintings Executed Before 1914, the Smithsonian Art Index, and a new cumulative index of exhibition catalogs to 1876.

In addition, the Archives of American Art, which shares space with the NCFA-NPG Library, is an immensely valuable depository of historical materials. Furthermore, the character of a work of art can be analyzed with greater accuracy through association with the conservation lab, where art is restored to optimum condition before going on display.

"The development of these tools reflects, in its way, the importance we attach to artists and trends that may not be considered glamorous right now, but which represent serious aspects of American art and as such deserve study," Taylor said. Some NCFA exhibitions have brought to light new works by long ignored artists, the director continued, including Lilly Martin Spencer, Romaine Brooks, and W.H. Johnson. Publications relating to some of these shows now are considered basic to the study of American art.

"On the other hand," Taylor continued, "we have looked back at the wonderful exuberance and creative strength of Robert Rauschenberg." NCFA's exhibition in 1976 was the largest museum retrospective to date of work by this well-known contemporary artist.

"We are also conscious of the word 'national' in our name. As a national collection, we are dedicated to the study and exhibition of work from all parts of the country," Taylor said, mentioning last year's show of contemporary California art and next month's exhibition of contemporary Alaskan works. Future shows will continue the examination of art from other areas of the United States.

Whether through exhibitions, tours, community outreach, or special facilities such as the Discover Graphics program where high school students learn about the museum by using NCFA facilities, Taylor sees teaching as the museum's major service to the public.

"We want to remove boredom and passivity from the museum experience," he said. "So we have taken advantage of the distinctiveness of our building's handsome architecture. For example, when I first came to NCFA, it struck me that the Granite Gallery was a perfect place to hang drawings and prints. The scale of the room and the variety of its spaces encourages people to stop and look at smaller works of art.

"In other areas, we have placed paintings so as to provoke unexpected comparisons. A Childe Hassam painting of Marblehead placed in a gallery across the corridor, but in view of a Japanese-influenced Whistler of a similar subject, may pique the visitor's curiosity and lead to his own investigation.

"The education department's role is integral to our function. We recognize the difference between a response to factual information and a response to art. We have experimented with many ways to encourage the latter without ignoring the former. Our chief interest, however, is in a visitor's interaction with the work of art, not his memorization of facts about it," Taylor said.

There are special qualities to life at NCFA which have made possible its ambitious program and also a certain impact in the museum world, the director feels. He said the staff was continually teaching themselves about the museum profession and passing the information along to others through their museum intern program.

"We are also interested in our own internal life," said Taylor. "Organization is very important as is the sense each office has of its impact on other offices. We are fiercely independent, but we do not build internal empires. I think that each staff member shares a sense of what this museum is about. And all this makes it a very nice place to work."

For other Smithsonian people who would like to celebrate NCFA's anniversary, Taylor suggested the eight-lecture series on the history and collections of the museum, which began at the end of April. The lectures, which are free and open to the public, are held Wednesdays in the NCFA-NPG Lecture Hall at 12:30 p.m.

In 1962, the Lincoln Gallery housed offices of the Civil Service Commission (below). At right, the gallery as it looks today...
Five Generations of Potters Exhibit at Renwick

By Mary Comb

Showings of works drawn entirely from the Hirshhorn's permanent collection are an important part of its diverse exhibition program. Last year, for instance, the Museum mounted a show of works by Thos. Eakins was presented in a major show and catalog, providing a body of material that has given new insight into this 19th-century artist's life and work.

Exhibitions to other areas of strength or interest within the collection will be mounted at HMSG over the next several months, focusing on Henry Moore, Louis Eilshemius, George Grosz, and Philip Evergood. Ranging from intimate drawings to full-scale paintings, these exhibitions feature works by the most important American artists of the 20th century. The shows will be on view inside and outside the Museum are among the best-known attractions of the collection. Diana and Julian's development of the techniques of producing a matt black design on a polished surface was responsible for the popularity of their work which is so widely recognized today. Among the decorative designs he employed were marvelous birds, geometric forms, the lanceole feather, and the plumed water serpent or coral fish.

Many of the pots are displayed in free-standing cases so that they may be viewed from all sides. The exhibition is organized by a display of the tools used in creating the pot—raw materials from which clay and slip are made, sancers for supporting the base of the pot while the shape is built from coils of clay, tools used to scrape and smooth the surface of the pot, the smooth stones used to polish the pot, the high gloss before firing, and several pots in various stages of construction.

This important exhibition heightens one's appreciation of the artistry and skill required to create objects of timeless beauty.

By Sidney Lawrence

The 12 sculptures by Henry Moore on view inside and outside the Museum are among the best-known attractions of the permanent collection. More than 50 other works by Moore—including several drawings and a collection of smoking pipes—will be on view as a group for the first time. The exhibition will open on the artist's 80th birthday, July 30, and continue through August 22.

HMSG Plans One-Artist Shows

Helen Keller Show Marks Speech Month

By Susanne Roschwald

A small exhibit on Helen Keller and her teacher Anne Sullivan Macy will open at the National Portrait Gallery on May 30 in commemoration of Helen Keller's birthday, "Story of My Life," with a poem from the deaf-blind pupil to her teacher and several pieces of correspondence.

In the past, the exhibition from Sullivan to Michael Agnagno, director of Perkins School for the Blind, details Helen's program of three and a half months of Sullivan's tutelage.

In the realm of intellectual awakenedness, Keller quickly proceeded to master both the braille and raised print alphabats and gained ability in reading and writing.

Already famous at 10, she expressed a desire to learn how to speak. While she never quite gained the consummate ambi-

Helen Keller and artist Onorio Ruotola, from the NPG show

Helen Keller was born physically normal on June 27, 1880, in Tuscumbia, Ala., where her father, Captain Arthur Keller, edited a daily newspaper, The North Alabamian.

When she was 19 months old, she was struck with a raging fever that left her totally blind and deaf. Deafness at such an early age brought an added hardship—the inability to learn speech. Helen emerged from infancy a strong but wild and unctly child who had little understanding of the world around her.

Her real life began on a March day in 1887 when she was a few months short of seven years old. On that day, which she was to call "the most important day I can remember in my life," Anne Mansfield Sullivan, a 20-year-old graduate of the Perkins School for the Blind who had regained useful sight through a series of operations, came to Tuscumbia to be her teacher.

How Sullivan turned the near-savage child into a human being and succeeded against all odds in awakening her remark-

Santana Martinez paints a pot.

By Mary Comb

As a young girl of the San Ildefonso Pueblo near Taos, N.M., Maria Martinez learned the art of pottery in a tradition that is eight centuries old. Now she is 96 and matriarch of five generations of potters whose work is often on view at the Renwick Gallery through August 13.

With her husband, Julian Martinez, whom she married in 1904, she has not only perpetuated an ancient art but has expanded and enriched its tradition. Like their ancestors, the potters of San Ildefonso build their pots from coils of clay, painstakingly shaping them to achieve a symmetry and organic abstraction from that produced by a potter's wheel.

The earliest works in the exhibit are decorative pieces—pots and designs. One especially charming piece is a covered jar in which a reclining figure, family groups, and organic abstraction are represented. The artist's work as reclining figures, family groups, and organic abstraction will be represented in the exhibition in a variety of media and sizes—from a small alabaster figure of an angel to a large-scale abstract bronze.
Bronze Age Tombs To Be Shown in New Hall

By Thomas Harney

The contents of two Early Bronze Age shaft tomb sites from the Tidal Basin plain near the Dead Sea have been brought to the Smithsonian for a new permanent exhibit hall about the rise of Western civilization opening June 8 at the Museum of Natural History.

MNH physical anthropologist Dr. Donald Ortner excavated 33 Jordanian tomb chambers in an expedition last summer, and in an unusual gesture the Jordanian Government has made SI a gift of a representative section of this grave material for the exhibit.

Two of the chambers, including a skeletal remains of eight Bronze Age individuals, and the artifacts buried with them, will be displayed in the hall just as they were discovered by Ortner after his crew had spent days carefully excavating the eight-foot-deep shafts leading to the chambers. SI exhibits staff have reconstructed exact duplicates of the chambers from wood and paper-mache.

“When the original bone, pottery vessels, and other artifacts that we found in the tombs are placed in the chambers we've re-produced, they will look much the same as they did when I first shined my flashlight in on them, feet deep, though I had rolled back 5,000 years of time,” Ortner said.

One of the tombs, the older by about 150 years, is associated with the period when the city developed at the site. In the later, relatively densely populated period, changes took place in burial practices, as illustrated in the later tomb. Thus the display gives insight into one of the exhibit's main themes—the emergence of cities that accompanied the development of Western civilization.

A late large graveyard where Ortner excavated the tomb is just to the southwest of the ruin of a large fortified town which some scholars have compared with the ancient Biblical city of Sodom. Today the area of the ruin and the cemetery is called Bab edh-Dhra. The site is under study by a team of scientists under the aegis of the American Schools of Oriental Research in Cambridge, Mass.

Ortner went to Jordan at the invitation of these scientists to recover a large group of skeletons for research at SI so he could attempt to clarify the relationship of the Early Bronze Age people at Bab edh-Dhra to other Near Eastern populations.

Bab edh-Dhra's earliest burials predate the town, going back to a time (3200-3000 B.C.) when the area was apparently populated by nomadic tribesmen, who used the site primarily as a ceremonial center.

Periodically the tribemen brought the bones of their dead back to Bab edh-Dhra and placed them in shaft tombs they had prepared earlier.

Most of the tomb shafts were dug to a depth of about six feet. Near the bottom, tomb makers used stone tools to carve domed chambers into the soft layers of clay and clay. The chambers are about six and a half feet in diameter and three feet high at the center. SI exhibit expert James Reuter has reproduced precise details of chamber interiors, even down to the bands of color in the clay and the marks made by scooping tools.

The excavation of the tomb was hard, dirty, and hot work. The Ortner party, including his wife Joyce, his son Don, Jr., and two daughters Allison and Karen, both dubbed Assistants for Bones and Tombstone, stayed in and around the ancient crusader castle at Kerak, about half an hour from Bab edh-Dhra. Daily they arose in time so that they could reach the site by sunrise and get in a day's work before the temperature became insufferable. By noon the thermometer often registered 120 degrees.

MNH motion picture photographer Kjell Sandved accompanied the party and, with the assistance of volunteer artist Jacqui Schale and the Office of Exhibits Control, will chronicle the expedition in a film to be shown in the exhibit.

“We hope that the tombs and the film will convey to visitors some of the wonder and mystery of a ceremony that took place 5,000 years ago,” Ortner said.
SIGN LANGUAGE CLASSES OFFERED AT MHT, MNH

Two Smithsonian museums are trying to improve communications with deaf visitors by offering classes in sign language for employees who may come in contact with deaf people.

Joe Buckley, special education specialist in the Museum of History and Technology, and Joan Madden, education officer coordinator for the Museum of Natural History, have arranged the classes in their buildings.

The classes are designed to help employees improve their understanding of sign language and to recognize elements of sign language in their daily work.

In the class, students learn the basics of American Sign Language (ASL) and practice communicating in sign language to improve their communication skills in deaf communities.

Two classes are offered: one at the Museum of History and Technology and another at the Museum of Natural History.

The classes are conducted by certified sign language interpreters and are available to all employees who interact with deaf visitors.

Participants will learn the fundamentals of ASL, including basic signs for common words and phrases, as well as more advanced concepts and strategies for effective communication.

For more information, please contact Joe Buckley at (202) 357-2867 or Joan Madden at (202) 357-2866.

“**Family Pack**

*Words and music from the opening ceremony of the Smithsonian symposium on the "American Dream".*

A $5.00 gift certificate for food and drink will be included in the package. The price of $7.50 is available through the museum shop employees and the National Audubon Society.

The package includes:

- A "Dream" symposium program
- A "Dream" symposium poster
- A "Dream" symposium gift certificate

For more information, please contact the National Audubon Society at (202) 357-2860.
Newsmakers

By Johnnie Douthit

Martin Okons in a direction, jazz programs at DPA, and Bill Blackboard, editors of "The Smithsonian Collection of Newspaper Comics," appeared on NBC's "To­day" show to discuss this recent Smithso­nian Institution Press publication. Williams was also interviewed on Washington's WJLA-TV about the book.

Clandise Oakes, assistant curator in the Department of Aeronautics at NASM, re­cently spoke to the Arlington Optimist Club about her work and participated in the Holton-Arms School's "Potential of Women Day."

Lisa Taylor, director of the Cooper-Hewitt, and James Goode, curator of the Smithsonian Institution Building, served on a panel for the administration of grants to be given by the National Endowment for the Arts.

Manuel Melendez, public information officer, DPA, gave a live performance of operatic and concert repertoire on WTOP radio in April.

Walter Boyne, curator in NASM's De­partment of Aeronautics, delivered a lecture on the Silver Hill Museum to the Society of Logistics Engineers. The talk was followed by a tour of the facility.

Smithsonian photographer Dane Pen­land won first place in the professional di­vision of the Seventeenth Annual exhibition of the Joint Atlantic Seminar of Historians to present papers, usually their first, ago to provide a forum for graduate stu­dents. During the meeting of the Joint Atlantic Seminar of Historians, the talk was given in Washington's National Museum of History and Technology.

Silver Bedini, deputy director of MHT, recently delivered a lecture on "Research the Variances," to the Friends of the Catholic University of America Library. Catherine Scott, librarian at NASM, is the president of the Executive Council of the Friends.

Francis Wright, astronaut at CFA, taught her popular course on Celestial Navigation at the Boston Museum of Sci­ence. Again this spring the class will be sponsored by the Mineralogical Record.

The award-winning photograph is of the Kendall Taylor, predoctoral fellow at HMSG, presented a paper at the Univer­sity of Pennsylvania. Taylor's subject was "Philip Evergood and the Influence of European and American Realism on Canadian Art."

Dorothy Jacobs, assistant treasurer, was elected president of the Recreation Association who invite your suggestions. Membership information and cards may be obtained from any executive committee member. The Association continues to seek interested employees who would like to serve on committees.

Officers: Michael Alin, president; Vin­cent Turner, first vice president; Ann Gilsip, second vice president; Thelma Davis, secretary; Cora Shores, treasurer; Dorothy Jacobs, assistant treasurer. Com­mittee Chairpersons: Anne Blake George Ford, Kathy James, Francine Free, Edgar Graven, Sandra Gilstrap, Virginia Turner, Willie Dillard, Leroy Jefferson, Marvin Joy, Benjamin Howard.

Credit Union

The Smithsonian Credit Union now has available one-year, 7 percent promis­sory certificates in multiples of $500. Members must maintain a share balance of $2,000 in order to be eligible to pur­chase these certificates. Information is available about savings accounts and how to join the Credit Union, call Lolo Wu on ext. 6411. Office hours are Monday, Wed­nesday, and Friday, 10 a.m. to 2 p.m. The office is closed on Tuesday and Thursday.

By Karen Ruckman

On March 23, Carmichael Auditorium was filled with the spirit and determination associated with the women's movement as major artifacts from "Call to Con­gress," the Nineteenth Amendment Women's Conference in Houston were added to the Museum of History and Tech­nology's women's history collection.

The artifacts, presented by former Con­gresswoman Bella Abzug, offered tangible evidence of the spirit generated in Houston. Among the objects given were: the torch carried by relay teams from Seneca Fall, N.Y., where the first women's rights con­vention was held in 1848, and the large "women" banner which served as a stage backdrop; the gavels, buttons, badges, original programs, works of art, booklets, conference programs, and tape recordings.

In accepting the artifacts, MHT Director Brooke Hindle cited the historical theme currently being developed in the women's history collection.

"The objects," Hindle said, "are represen­tative of that theme. Particularly the torch which symbolizes the continuity of women's movement. They will join Susan Anthony's gal." The Smithsonian collection traces the women's struggle and the achievements of women in this country. It includes the table on which the Declaration of Sentiments written for the women's rights conven­tion at Seneca Falls, banners used by suf­fragettes to picket the House of Representatives even one of Bella Abzug's hats.

Joining Abzug in the presentation were Olympic swimmer and torch-rusher Donna DeVarona and Judy Carter, the President's daughter-in-law who will attend the beginning of the 3,000-mile relay and in Houston.

A concern of each speaker was the ulti­mate passage of the Equal Rights Amend­ment. The vehicle they cited as necessary to achieve full and complete equality for women. A slide show of the conference, "Decla­ration of American Women," acquainted the first press in Houston with the goals of that conference: to assess the state of women's rights in the United States, identify the roadblocks, and make recommendations for rem­oval of those barriers.

Tribute to Radio City

A special tribute to Radio City Music City, prompted by the current interest in commem­orating landmark status on the Music City's elegant interior, is part of the Cooper-Hewitt's exhibition's "Listen, will inform Americans about the future through music."

The decoration of the Radio City Music Hall interior was done under the direction of the "The objects," Hindle said, "are rep­resentative of that theme. Particularly the torch which symbolizes the continuity of women's movement. They will join Susan Anthony's gal."

A concern of each speaker was the ulti­mate passage of the Equal Rights Amend­ment. The vehicle they cited as necessary to achieve full and complete equality for women. A slide show of the conference, "Decla­ration of American Women," acquainted the first press in Houston with the goals of that conference: to assess the state of women's rights in the United States, identify the roadblocks, and make recommendations for rem­oval of those barriers.

Tribute to Radio City

A special tribute to Radio City Music City, prompted by the current interest in commem­orating landmark status on the Music City's elegant interior, is part of the Cooper-Hewitt's exhibition's "Listen, will inform Americans about the future through music."

The decoration of the Radio City Music Hall interior was done under the direction of the "The objects," Hindle said, "are rep­resentative of that theme. Particularly the torch which symbolizes the continuity of women's movement. They will join Susan Anthony's gal."

A concern of each speaker was the ulti­mate passage of the Equal Rights Amend­ment. The vehicle they cited as necessary to achieve full and complete equality for women. A slide show of the conference, "Decla­ration of American Women," acquainted the first press in Houston with the goals of that conference: to assess the state of women's rights in the United States, identify the roadblocks, and make recommendations for rem­oval of those barriers.

Tribute to Radio City

A special tribute to Radio City Music City, prompted by the current interest in commem­orating landmark status on the Music City's elegant interior, is part of the Cooper-Hewitt's exhibition's "Listen, will inform Americans about the future through music."

The decoration of the Radio City Music Hall interior was done under the direction of the "The objects," Hindle said, "are rep­resentative of that theme. Particularly the torch which symbolizes the continuity of women's movement. They will join Susan Anthony's gal."

A concern of each speaker was the ulti­mate passage of the Equal Rights Amend­ment. The vehicle they cited as necessary to achieve full and complete equality for women. A slide show of the conference, "Decla­ration of American Women," acquainted the first press in Houston with the goals of that conference: to assess the state of women's rights in the United States, identify the roadblocks, and make recommendations for rem­oval of those barriers.
By James Buckler

The genus *Tulipa* refers to a group of hardy bulbs which provide Washington with some of its most colorful and brilliant flowers during the spring and early summer. Native to various parts of Europe, western Asia, and northern Africa, tulips derive their name from the Turkish word *tulband*, meaning turban. Tulips belong in the lily family, *Liliaceae*.

In the early 1930s, the Smithsonian's Office of Horticulture installed its first tulip beds using approximately 75,000 bulbs and plans to add enough to cover the 8 inches of snow. With the design stage already completed for the following year, we can relax and enjoy the springtime display, evaluate the performance of the bulbs, and determine if next year’s bulb order should be smaller or larger.

With the thousands of varieties of tulips available in different heights, colors, and blooming seasons, we never need to use the same variety twice. Since the late 17th and early 18th centuries, tulips have been breeding tulips for larger and more colorful flowers. Hopefully, you will not only have enjoyed the variety of tulip beds here at the Smithsonian, but also jotted notes from your visit and selected bulbs you might want to purchase next fall for your own garden.

Unlike the long-lived daffodils and hyacinths, tulips should be treated as annuals in the Washington metropolitan area. If bulb sizes (13 cm +) are purchased, they provide exhibition size flowers the first year; however, the vigor of the bulb, its flower size, and often even its color will change the second spring and disappoint you with its quality. Therefore, it is best to remove all tulip bulbs following flowering and replace them each fall. With the heavy clay soil in our area, the bulbs frequently rot in the ground before the end of summer.

If you decide to save the bulbs from year to year, they should be allowed to remain in the ground until late spring, approximately late June. They should then be dug, placed in a wire rack to dry, and then stored in a cool, dry, and dark place until early October when they should be planted once again: a great deal of work and storage problem for most urban residents.

You should devote some time to planning your tulip bed early in the spring. Visit various public parks and botanical gardens that have properly labeled tulip display beds to discover which varieties you might like to try the following year. Then plan your border with the short, single early tulip varieties such as 'General de Wit' or 'Pink Perfection' in the front (± six inches tall), followed by the Double Early, 9-16 inches, 'Mystique' or 'Giant Purple' in the middle, and the Hohe, Mendel and Triumph tulips, each approximately 16-26 inches; Cottage tulips, including lily-flowered types, such as 'Queen of Sheba'; Darwin tulips such as 'Pride of Kennedy' and 'Red Riding Hood'. Tulips should be planted approximately 6 inches deep in a well-drained soil with lots of humus or organic matter, with the addition of ground bone meal at a rate of 5-6 pounds to 100 square feet. The bone meal, rich in phosphorus, will help the plants develop a solid root system.

When visitors follow the trails through the National Zoo to see their favorite animals, the path they follow is marked by how complicated it is to keep track of the 2,294 inhabitants. This is the job of Judith Block, a Zoo employee, who keeps tabs on each Zoo animal by means of a record system which includes any information available on new animals as well as what happens to them at the Zoo. Block, a Zoo employee, also arranges for shipping the animals and keeps up to date affecting animal management. She was interviewed by Torch staff writer Kathryn Lindeman.

Q. What information about each animal is filed?
A. Our records show when we get the animal, how it was housed and cared for, its descendants and antecedents, and birthing or hatching history. Since we must be able to tell each individual from every other one in a herd or similar group, our records must also show an animal's leg band, ear tag, stripe pattern, horn shape, or other identifying characteristics. The hardest part is knowing what information to keep—10 years from now, an unexpected aspect may become critical. A good example of how critical it can be is shown by records we kept on the housing of some of the monkey keys. We were puzzled and very much concerned by a number of monkey deaths. After they had an autopsy and evidence of lead poisoning, we needed to track which animals had been housed in enclosures with lead-based paint. This is a young monkey that chewed on the bars just as small children do.

Q. For what purposes is the information used at the Zoo?
A. It is used to learn from the animals and keep them well so they live long and reproduce and may be managed as captive populations.

Q&A

**Judy Block**

Q: How do people outside the Zoo use the information?
A: We often get requests for information on a particular animal or group from the general public. Teachers who bring schoolchildren for a lesson on monkeys, for example, may call in advance and ask for the sex and age structure of the group.

Keeping complete records also aids our programs with other zoos. Very few animals are replaced from the wild these days; most of them are captive bred here or in other zoos. We supply each other and the records provide complete genealogies and make population management possible. With more than 100 animals on loan from other zoos and the same number loaned out, we are able to actively manage the groups on an interzoo basis.

The information is also used to complete annual questionnaires for use in studbooks, which are international population studies. On the rhinoceros, for example, it might show which young elephant came from Sri Lanka as a Bicentennial gift involved tons of paperwork with a lot of different agencies. After all that work, we determined to see that animal get off the track and it came to the Zoo in the middle of the night to watch the arrival.

In another instance, some monkeys were being shipped to the Zoo, but there was a delay because the animals were housed with other non-human species which could not be brought into the country. After many phone conversations, we settled the problem: the U.S. dispatch agent in Miami spent an hour and a half carefully scraping the food out of the crates and avoiding the ship's inspection.

Q. How does the registrational system operate?
A. When the Zoo was begun in the 1890's, the Smithsonian's practice of assigning animals a number to assign a number to each. Under that system, we have used more than 46,000 numbers. Even though most of these animals are dead, we still have information about them which may prove helpful in present studies.

**Correction**

Professor Charles Harvard Gibbs-Smith is the first occupant of the Lindbergh Chair of Aerospace History at NASM, not Lambert.