THE SMITHSONIAN



SMITHSONIAN INSTITUTION, WASHINGTON, D. C.

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ARMED FORCES HISTORY HALL OPENED

Armed Forces History Hall opened in MHT on July 3, featuring a 55-foot gunboat, *Philadelphia*, recovered from the waters of Lake Champlain almost intact and with all her armament. The ship was built in 1776 and is a veteran of our war for independence. It is the oldest and most complete artifact associated with the naval history of the Revolution.

Among the outstanding exhibits relating to the Army are General Washington's headquarters tent and General Sheridan's famous horse, Winchester. This section on the Army was set up under the supervision of Edgar Howell, curator of military history.

NAM HISTORIAN RELEASES TENTH EDITION

Paul E. Garber, NAM historian and head curator, relates some interesting and colorful facts in the tenth edition of his book, *The National Aeronautical Collections*, recently released by the Smithsonian Press. The book is a paperbound publication, containing about 150 pages and many photographs, and covers subjects ranging from kites obtained from the Chinese Imperial Commission at the close of the Centennial Exposition in Philadelphia in 1876 to air pioneers, U. S. Air Force, and jets. Single copies of *The National Aeronautical Collections*, at \$2.00 each, may be obtained from the Smithsonian Press, Room 100, A & I Bldg.

SI JOINS IN NEW OCEANOGRAPHY PROGRAM

Oceanography may be known as the "science for survival." With the world's population exploding, with food shortage an ultimate byproduct of this growth, new sources of protein food will come from the unlocked, untold resources of the sea—the last planetary frontier for man's use.



The *Phykos* (Greek, meaning "seaweed"), part of the Smithsonian's oceanographic mechanical staff, is painted a bright blue. It was formerly a small freighter and has been modified to do oceanographic work.

Only 1 percent of the world's food supply now comes from the sea. The seas comprise more than 71 percent of this planet's surface, but less than 5 percent has been mapped. Only 9 percent has been partially explored by man.

The Smithsonian has 39 scientists and 33 technicians involved in the oceanog-

raphy program, located in MNH. The latest service is the Oceanographic Sorting Center at the Navy Yard. During the past years the Smithsonian has provided 14 staff members to the International Indian Ocean Expedition. Others have worked on U.S. and foreign exchange programs of the National Science Foundation, the NSF Antarctic Research Program, the International Cooperative Investigations of the Tropical Atlantic, and special expeditions of other federal and private agencies.

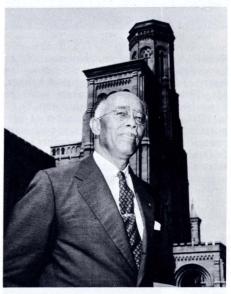
Dr. I. E. Wallen, Assistant Director of MNH for Oceanography, notes that the Smithsonian has participated in hundreds of expeditions to many areas of the world. "In 1838-42 oceanographic collections were received from scientists engaged in the round-the-world U. S. Exploring Expedition under Capt. Charles Wilkes. Since 1857, SI scientists have received, stored, and carried out scientific research on oceanographic collections and published the results." And Dr. Wallen also mentioned that the Smithsonian recently received 60 tons of whale bones from the Tokyo Whale Research Institute. The bones will be reassembled to offer visitors an inside look at the very rare Pacific white whale.

"With a charge to insure that the national biological and geological collections are studied and maintained," explains Dr. Wallen, "the Institution keeps close liaison with many oceanographic research organizations, including universities and private agencies, as well as other governmental agencies." Some of the most recent contributions include Dr. Donald F. Squires's theory concerning the origin of

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ALPHONSO JONES'S CAREER SPANS FIVE SI SECRETARIES

Alphonso L. Jones's 41 years with SI are as varied as they have been interesting and exciting. He was 27 years old when he first came here in 1924, serving as chauffeurmechanic for Dr. Walcott, the Institution's fourth secretary, a geologist and paleontologist. During this time Mr. Jones became well acquainted with Mrs. Walcott, who was fully sympathetic to her husband's scientific interests, and a wellknown collector and painter of wild flowers. The Secretary and Mrs. Walcott traveled and studied the West together. Mr. Jones accompanied them on many of these excursions, making a total of 18 trips across the continent.



Alphonso Lorenzo Jones

After Dr. Walcott's death in 1927, Mr. Jones spent four years as a trainee in the SI photographic lab. He attributes a large part of his present success to the help and encouragement he received from personnel in the Photo Lab at that time and later from Mr. Floyd Kestner.

In 1940 Mr. Jones went to work part time in the duplicating office and in 1943 became its first full-time employee. His equipment consisted of a single mimeograph machine. Now the duplicating service contains six full-time employees—two in the Xerox room and four in the multilith office which he now heads. In addition to the old mimeograph machine, the office

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THE SMITHSONIAN



AN EMPLOYEES' NEWSPAPER, PUBLISHED MONTHLY
EDITORIAL BOARD: JAMES BRADLEY, PAUL H. OEHSER, WILLIAM WARNER
EDITOR: ELIZABETH BEVERLEY
PHOTOS: ALBERT J. ROBINSON

SMITHSONIAN REGENT



Robert Vedder Fleming

Robert V. Fleming is Chairman of the Executive Committee of the Smithsonian Board of Regents. A distinguished banker, Mr. Fleming began his career with the Riggs National Bank in Washington, D.C. in 1907. He is trustee of a number of corporations and has served on the advisory council to the Board of Governors of the Federal Reserve System. A man of broad interests, Mr. Fleming has served many organizations including the Corcoran Gallery of Art, George Washington University, American National Red Cross, Inaugural Committee, and the National Geographic Society, as well as the Smithsonian.

Mr. Fleming was first appointed to the Board of Regents in 1947.



SMITHSONIAN TORCHLIGHTERS HOLD CHARTER PARTY

Toastmasters International presented the Smithsonian Chapter with its official charter as the "Torchlighters" at a gala dinner party held on July 14.

Assistant Secretary James Bradley was present to receive the charter on behalf of the Secretary. The presentation was made by the District Governor of Toastmasters International, L. Watson Andrews.

William M. Clark of Exhibits is president of the Smithsonian Torchlighters. Other officers are: Anthony W. Wilding (SD), first vice-president; Edward H. Kohn (SIE), second vice-president; Ernest Berger (FD), treasurer; James Jones (MNH), secretary; and Harold Cohea (BMD), sergeant-at-arms. The club meets biweekly during the lunch period. Its aim is to improve oral expression, to provide instruction and experience in chairmanship, and to develop the habit of analytical listening. Male employees interested in joining may call Ed Kohn on 5700. A few of the ladies have already expressed interest in forming a Toastmistress club. Call Joe Eberly on 5620.

GRIEVANCE APPEALS PANEL CANDIDATES ELECTED

The election of employee representatives to the Grievance Appeals Panel of the Smithsonian was marked with unprecedented interest this year—over 600 people voted for Joseph Bowen, William Widman, Everett Jackson, Joseph Miller, Clayton Graham, and Albert Robinson. This vote was well over twice the number cast in last year's election and is attributed to the increased awareness of the purpose and importance of the Grievance Appeals Committee.



LETTERS OF APPRECIATION TO SI AND FRIENDS

From Mr. and Mrs. Wayne H. Waughtel, Arlington, Calif.; through Dr. Switzer: "The warm hospitality demonstated by you, and others at the Smithsonian, served to increase my admiration of this great American institution. It was a glowing example of the appreciation toward the public's interest in both the work done and the treasures collected. . . . Everyone from Guards to Scientists seemed to extend a welcome hand to all who desire to learn."

From Ed Roy, former head of the Fiscal Division, SI: "I received so many cards from my Smithsonian friends that if possible . . . (could) a note be placed in the TORCH explaining that I am now on the road to recovery and expressing my gratitude to the many well wishers for their thoughtfulness."

TWO RESTORED HARPSICHORDS USED TO EMPHASIZE RESEARCH

Members of the Society of Acoustical Engineers were introduced in June to MHT's collection of restored musical instruments by Mrs. Cynthia A. Hoover, associate curator. She emphasized both the present and future research activities of the Division of Cultural History in this field.

Two instruments were used in a performance for the 150 members of the society attending. The "Concerto in C major for two harpsichords" by J. S. Bach was played on a harpsichord made by Johannes Dulcken of Antwerp in 1745, and another by Kurkat Shudi of London, ca. 1750. Helen Hollis, museum technician, and Richard Roecklein, director of music, All Saints Episcopal Church, played the instruments.

The performers were requested to repeat the last movement of the concerto to compare and analyze tone production of the two instruments used. A short tour of the restoration laboratory was also included in the program.

SMALL WORLD WHEN SI TRAVELS

Smithsonian employees were visiting the U. S. A. last week. Out in Altamont, Ill., at a gas station opposite Stuckey's Candy Shop, Bob Wood, NAM, pulled up and found a car with a Smithsonian parking sticker in front of him, driven by Dr. Waldo Wedel, SOA. Dr. Wedel was heading West and Bob was heading East.



Scenes inaugurating Music-on-the-Mall by the Smithsonian on the south terrace of the Museum of History and Technology on Memorial Day. Left to right: Frank A. Taylor, director of U. S. National Museum, congratulates Andre Watts on his performance of the Saint-Saens Concerto No. 2 in G Minor for Piano and Orchestra. The young pianist's mother is standing at his left. Part of the crowd of 12,000 who enjoyed the concert is seen here. Howard Mitchell, who conducted the National Symphony Orchestra, and the late Ambassador Adlai Stevenson, who narrated Aaron Copland's "Lincoln Portrait." (Memorial Day, 1965)





Father Pedro Porras

Silvia Maranca

LATIN AMERICAN ARCHEOLOGISTS VISIT SI

Drs. Clifford and Betty Meggers Evans, of the Division of Cultural Anthropology, SOA, are playing host this summer to 2 archeologists from the Hemisphere Republics, Father Pedro Porras of Ecuador and Miss Silvia Maranca of Brazil.

In Ecuador Father Porras heads a mission in the remote Province of Napo, which runs from the Eastern slope of the Andes to the headwaters of the Amazon.

His arduous mission has not kept him from an intensive study of the archeology of Ecuador's Amazonian region. He has spent 15 years exploring archeological sites in the mountains and jungle, looking especially for the passes which served as routes of commerce for the areas earliest inhabitants.

Father Porras is the grateful recipient of a Guggenheim Fellowship. Before coming to the Smithsonian, he spent 7 months with Professor Robert Bell of the University of Oklahoma. Here he has been especially interested in study classification systems for Amazonian cultures and has described his work as "a rare privilege, since the Evanses are the pioneers of modern Latin American archeology."

Miss Maranca, an attractive and outgoing brunette, is a recent graduate in geography of the Catholic University of Sao Paulo. She is writing her doctoral thesis on the pre-historic littoral cultures of Brazil and their relationship to physical environments. Miss Maranca first met the Evanses in Brazil, when the latter were conducting a training seminar for archeologists at the invitation of the Brazilian Fulbright Commission; she is now particularly interested in studying archeological mapping and the organization and classification of collections.

After her Smithsonian visit, Miss Maranca will continue her studies at the Bellevue Quartenary Geomorphological Laboratory in Paris on a scholarship provided by the French government. This is her first visit to the United States, a fact that would be hard to guess from her excellent English.

Asked by the TORCH for both favorable and unfavorable impressions of the United States, Miss Maranca showed herself a true patriot and diplomat. "Everything is fine," she said, "except the coffee!"

NAM DIRECTOR'S ARTICLE PRINTED IN AEROSPACE

"The National Air and Space Museum" by S. Paul Johnston, director, NAM, appears in the Spring issue of Aerospace, an official publication of the Aerospace Industries Association. The article is well illustrated with models for the new National Air and Space Museum, which hopefully will open in 1969. Mr. Johnston follows completely Secretary Ripley's concept of a museum as a "great educational asset . . . the new Air and Space Museum is conceived as a dynamic instrument educational as well as inspirational—one which points toward the future as well as presenting a rear-view image of the past."
The entire history and inspiration for the new museum are covered in this article by NAM's director.

SUMMER PICNIC AT BELMONT,

The Smithsonian's beautiful Belmont Estate will be the site for the annual family picnic sponsored by the Employee Welfare and Recreation Association. Mr. Ripley has graciously invited all employees and their families to visit historic Belmont on Sunday, August 21. The house and grounds will be open from 12 noon to 7 p.m.

An employee art and hobby show will also be featured. Ralf Nelsen of MHT Exhibits (Ext. 5181) is coordinating the art show—please call him to arrange for your own exhibit.

Fun and games will be available for all. There is ample parking at Belmont. EWRA will supply the athletic equipment—bats, softballs, volleyballs, horseshoes, etc. While food will not be available on the grounds, you are welcome to bring your own prepared picnic. A charcoal fire will be available, however, to barbecue your meat. You may also bring your own portable barbecue. Since picnic tables will not be available, you should plan to bring an old tablecloth, portable table, or other ground cover.

Refreshments (beer, soft drinks, etc.) will be served free to members with cards in hand. Employees without membership cards will be asked to pay a nominal charge for refreshments. If you haven't bought your annual EWRA membership card, do so now.

Early in August directional maps and other details will be posted on bulletin boards and distributed to all employees.



From left to right are Frederick C. Durant, Assistant Director, Astronautics, NAM; Dr. Abe Zarem, President, Electro-Optical Systems, Inc., Pasadena, Calif., S. Paul Johnston, Director, NAM; Joe C. Jones, Deputy for Development, Office of Assistant Secretary of the Air Force (R&D). To the left of Mr. Jones is the ion rocket engine, presented to NAM by Electro-Optical Systems, Inc., a subsidiary of Xerox Corporation. Mr. Durant gave an introductory address on Dr. Robert H. Goddard's early experiments on ion propulsion dating back to 1916-1917. Ion engines, in certain space-flight missions, offer significant advantages over conventional combustion rocket engines.

MALE VOICES NEEDED BY SMITHSONIAN SINGERS

The Smithsonian Singers (whose official name has not yet been decided) met on June 25 at the MNH auditorium at 12 noon. Crane Miller has been appointed as their director for the present and Walter Piper as the manager. Karen Loveland is the accompanist. They plan to meet every Monday at 12 noon and hope to have a singing group or small groups soon, appearing at functions of the Institution. Their biggest problem at the moment is the need for more men's voices in the group. If you know of anyone who may be interested, please notify one of the three mentioned above.

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the Southern Ocean corals; Dr. David L. Pawson's discovery that in studies of echinoderms around the Antarctic, populations of sea-cucumbers have been discovered that are apparently identical in species to those occurring more than 300 million years ago; ornithologists Dr. George E. Watson's and Robert H. Gibbs's production of field guides to the birds of the Indian Ocean and to tunas of the same area; Dr. Leonard P. Schultz's detailed file of approximately 1,400 shark attacks.

Under the supervision of Dr. H. Adair Fehlmann, the Oceanographic Sorting Center has already received, processed, and shipped over 4 million specimens from collections both federal and private. The specimens netted on oceanic expeditions are preserved, properly labeled, given identifications, packaged, and sent to more than 250 scientists around the world for research on marine organisms.

SI has obtained a small freighter and modified it for oceanographic work. Plans call for the construction of a modern biological oceanographic vessel to serve as a national facility for expeditionary efforts in biological oceanography.

NEW INFORMATION MUSEUM AIDES

Meredith Johnson of Museum Service has announced that twenty Girl Scouts have recently earned their pins as information museum aides and will soon be giving tours throughout MHT. This program, new to the Smithsonian, is being sponsored by the Institution and the National Council of Girl Scouts. The girls will work daily during the summer and on weekends during the winter. They have been given special orientation classes for $2\frac{1}{2}$ months by Mr. Johnson.

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contains two 1250 multilith machines, two collators (one manual, one electric), a folding machine, an electric paper cutter, and a processing box for photographic plates. Mr. Jones and his crew do a tremendous volume of work of exceptional quality. They handle the duplicating of all SI press releases, interoffice memoranda, and many illustrative and informative leaflets.

In his 41 years with the Smithsonian, Mr. Jones has witnessed its growth from a quiet, sedate place with a family-type atmosphere to the great complex it is today.

FOCUS: Samuel Pierpont Langley, Smithsonian's Secretary, 1887-1906

LANGLEY AND AVIATION

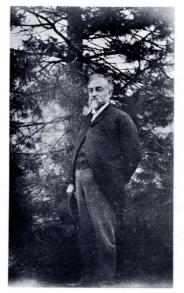
Sixty-two years ago, on October 7, 1903, from a flat-topped houseboat on the Potomac River, Professor Langley attempted to put a man-carrying plane into the air under its own power. This followed his remarkable successes with unmanned "aerodromes," as he called them, which in 1896 had flown for distances of 3000 to 4000 feet and remained in the air over a minute and a half. As a military project associated with the Spanish War, Langley agreed to undertake a man-carrying aircraft, but its launching was not successful. With Charles M. Manly aboard, the plane caught on the launching gear and plunged into the river. A month later another launching failed also because of a mechanical fault. To quote from Langley: "Failure in the aerodrome itself or its engine there has been none; and it is believed that it is at the moment of success and that the engineering problems have been solved; that a lack of means has prevented a continuance of the work.

In 1903 when Langley's machine was wrecked in launching, he was within the very sight of his goal. It has been said by some that in this of his many projects he



Original picture of aerodrome breakup—The Washington Evening Star.

was like the prophet of old, who, after 40 years of wandering in the wilderness, was permitted to view the promised land upon which he never set foot. Langley believed that his reward would be the knowledge that he had done the best he could in a difficult task, leaving results which would be useful to others. He brought to a close the portion of the task which he considered his—the demonstration of the practicability of mechanical flight - and for the next stage, which is the commercial and practical development of the idea, "it is probable that the world may look to others. The world indeed will be supine if it does not realize that a new possibility has come to it, and that the great universal high-way over head, is now soon to be opened."



Samuel Pierpont Langley

LANGLEY, 1834-1906

Dr. Samuel Pierpont Langley may be known best to the public for his experiments in aerodynamics, but as the third Secretary of the Smithsonian, this field was only one of his scientific interests that developed into notable achievements. In this short page summary, the aerodrome, the Astrophysical Observatory, and the National Zoo are emphasized, but his administration at the Smithsonian was marked by many other advances. Although Langley devoted his entire life to science and was internationally known as an astronomer, he also pioneered for the humanities at the Smithsonian by encouraging the establishment of a National Gallery of Art.

He was born on August 22, 1834, at Roxbury, Mass., now a part of Boston. He attended Boston Latin School and graduated from Boston English High School, but never attended college. Langley spent 20 years as director of the Allegheny Observatory, near Pittsburgh, and professor of physics at Western University of Pennsylvania. He was recognized as one of the front-rank American astronomers. In 1887 he was selected by Secretary Baird as Assistant Secretary of the Smithsonian and in 1887 he became the third Secretary of the Institution, where he remained until his death in 1906.



Buffalo at National Zoo

LANGLEY AND THE ASTROPHYSICAL OBSERVATORY

Langley was the founder of SAO. The Astrophysical Observatory was designed for what was called the "New Astronomy," this being the title of a book which Dr. Langley wrote. Under Langley's guidance the Observatory pioneered in studies of solar radiation and its effects on the earth's environment. His chief contribution to astrophysics was the bolometer, an extraordinarily sensitive thermometer, and its application to the study of the energy of the sun and the distribution of the sun's radiation in the spectrum. He also made similar investigations of the radiation of the moon. These investigations concerning the sun and the moon were carried on at the Smithsonian Astrophysical Observatory, then in Washington. In 1955, the headquarters of the Observatory and research facilities were moved to the grounds of the Harvard College Observatory in Cambridge, Mass. The research has plunged into the Space Age and Langley's "New Astronomy" gets newer and newer every day.



SAO Headquarters, Cambridge, Mass.

LANGLEY AND THE NATIONAL ZOO

One of Langley's great successes during his administration of the Institution was the establishment of the National Zoological Park, which has thrived and grown into one of the finest collections of animals in the world. Today it is once again being replanned and rebuilt to meet present-day demands.

Following is a quotation from one of Langley's letters to the Hon. Samuel Dibble, House of Representatives, dated Jan. 18, 1889, at the start of this endeavor concerning the location of the Zoo: "A piece of ground singularly suitable, by the variety of its features, to the provision for the wants of all the different kinds of animals, existed in the picturesque valley of Rock Creek, in the part nearest to the City. Here not only the wild goat, the mountain sheep, and their congeners would find rocky cliffs, which are their natural home, but the beavers brooks in which to build their dams, the buffalo places of seclusion in which to breed and replenish their dying race, aquatic birds and beasts their natural home, and in general all animals would be provided for on a site almost incomparably better than any now used for this purpose in any other capital in the world.'