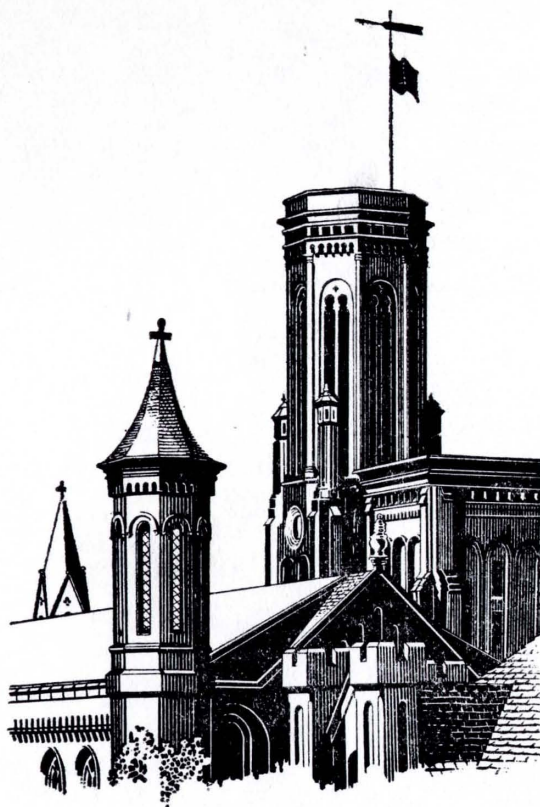


THE SMITHSONIAN

# TORCH

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SMITHSONIAN INSTITUTION

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## Holiday Greetings

As I write this I have just come back to my office from one of my regular quick walks through our great museum buildings. Today, as always, I watched the eager faces of our many visitors with delight. Almost everyone who comes to the Smithsonian finds in our national treasure house some special objects that amaze and delight him. In this way the Smithsonian museums provide millions of our visitors with something like the thrill of receiving Christmas gifts every day in the year.

As custodians of the nation's perpetual Christmas tree, it seems only appropriate that those of us who work at the Smithsonian should celebrate the Christmas season itself with real happiness. On December 23 at 3:00 p.m. we are going to have this year's fine Christmas party. There will be singing of carols and an opportunity for each of us to exchange Christmas greetings with our friends.

Personally the Carmichael family sends warmest Christmas and New Year's greetings to everyone who is concerned in any way with the truly constructive work of the old and almost hallowed Smithsonian Institution.

... LEONARD CARMICHAEL

## World of Mammals

The Hall of the World of Mammals, which opened November 24, affords a new concept in museum exhibit techniques.

Instead of conventional habitat groups gazing stiffly over their glass-encased environs and flanked by labels offering little more than bold identification, the new hall demonstrates the evolutionary processes by which species are formed and variations become fixed, the locomotion of animals, their coloration, their adaptation to climate and environment, and their economic relationship to man. Represented are familiar animals such as cats, dogs, bears, and pigs as well as little known or rare beasts.

The habitat groups range from the realistic to the impressionistic to convey knowledge in the most aesthetic setting possible. A mural on one wall depicts some of the animals man has worshipped and whose likenesses he has carved and painted.

Dr. Henry W. Setzer was the curator in charge of the hall; Rolland Hower supervised the exhibits staff of the Natural History laboratory; and Thomas Baker

was the designer. THE TORCH congratulates these and all the other members of the staff whose joint efforts made possible the "World of Mammals."

## New Publication for History and Technology

The history of science, invention, and technology is featured in the new Smithsonian publication titled "Contributions from the Museum of History and Technology." Recently issued as National Museum Bulletin 218, the initial volume contains 11 research articles covering a wide range of interests.

An article by Edward Kendall, associate curator of agriculture and wood products, sketches the history of a steel plow made in 1838 by John Deere—one of the many inventions that have made American farmers the most productive in the world.

Another article, by Jacob Kainen, curator of graphic arts, is a historical evaluation of Thomas Bewick, an immensely popular 18th-century English artist whose wood-engraving techniques were later adopted for illustrating periodicals and had much to do with the popularity and growth of such publications.

Alexander Graham Bell's part in making the phonograph a workable device is the subject of an article by Leslie Newville, former MHT staff member. Based on records in the Smithsonian collections, the article describes the work done by Charles Sumner Tainter and other associates of Bell in the laboratory he set up in Washington, D. C., in 1880.

The Conestoga wagon and prairie schooner are descended from the type of Pennsylvania farm wagon Braddock used during his ill-fated campaign against the French at Fort Duquesne in 1755. Model-builders will find a comparison of these wagons in an article by Donald Berkebile. This article also contains plans drawn by Donald Holst, a fellow exhibits worker, of a freight-carrying wagon of the early 1800's.

An article by George Griffenhagen, former curator of medical science, and James Young tells of the introduction of English patent medicines in colonial America. Edward Battison, associate curator of mechanical and civil engineering, writes on the failure of an early attempt to make a dollar watch. Philip Bishop, head curator of arts and manufactures, examines the battle between Bessemer and certain of his contemporaries, barely a hundred years ago, over patent rights to the process of producing cheap steel.



Robert Multhaupt, acting head curator of science and technology, writes on mine pumping in Agricola's time and later. Grace Rogers, acting curator of textiles, tells of the Scholfield wool carding machine that is a feature exhibit in her new textile hall. James King, acting curator of electricity, discusses the natural philosophy of William Gilbert and his predecessors; and Derek Price, a former consultant, has contributed an article on the origin of clockwork, perpetual motion devices, and the compass.

The volume contains over 200 pages and is well illustrated. It may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. The price is \$2.50.

A limited supply of separates of the individual articles is available at the Smithsonian publications office for the official use of staff members.

Typography and general design of the volume were the work of Museum Editor John Lea. Layout of text and designs for covers of the whole volume and of the separates were the work of Art Editor Frank Dobias.

### Space-Ship Bumpers

To a considerable extent, "bumpers" on space craft would protect the vehicles from meteor crashes, says Dr. Fred L. Whipple, Director of the Astrophysical Observatory.

Collisions with meteors have been pictured as a major peril of any future travel outside the earth's atmosphere, where there are millions of these bodies. Some are seen as shooting stars when they collide with the earth. Actually, says Dr. Whipple, the meteors may not be as dangerous as some astronomers have calculated, and they will not, for the most part, constitute a major danger.

"Outside whatever skin the vehicle has," says Dr. Whipple in a recent report to the Office of Naval Research, "place another one approximately a tenth of its thickness separated a few centimeters from the inner skin. The meteor, striking the outer skin, will explode there and only the gas vapor will strike the inner skin. The gas vapor does not possess the crater-producing power of the original body and will not cause punctures. I think this method, used judiciously, can cut down the hazard of meteors in space by a factor of about 100."

Although there probably is no complete solution for the problem, says Dr. Whipple, risk of a sizable explosion is probably not much greater than that of being struck by lightning on earth. There is, of course, no known protection against being struck by a large

meteor, he points out. If it is large enough to shoot through the ship there will not be any ship left.

"Simply striking the skin," Dr. Whipple says, "will produce a violent explosion, and any object that still remains intact enough to go through and strike the other wall will have expanded and be quite destructive."

The space-ship bumpers, he predicts, probably will not cost much more than automobile bumpers; relatively, that is.

### Rescues Dangling Workman

The quick thinking and long legs of an exhibits technician recently averted what might have been a painful accident at the exhibits laboratory on 24th Street.

Contractors were installing a ceiling grille that required considerable electric drilling through concrete. They were using a roll-around scaffold for the job. Atop this wriggly rig, at 14 feet, one of the workmen reached a little too far. The ensemble teetered to a noisy crash . . . but hold on! Probably accustomed to quick thinking, the workman latched onto some electric conduit that yielded slowly to his weight.

Rangy, athletic Elmer Finke, who witnessed the incident along with more-hypnotized members of the staff, cleared the intervening 30 feet and somehow ended up with a 10-foot stepladder at just the right time and place. No casualties, but plenty of action.

One staff member there says he can hardly wait to report for work each day.

### SI Receives Bronze of General Doolittle

The Smithsonian has received a head-and-shoulders sculpture in bronze of Gen. James H. Doolittle as a gift from the Shell Oil Company.

Formal presentation was made by H. S. M. Burns, president of Shell Oil, at a luncheon on December 16 at the Washington Hotel. Secretary Carmichael accepted the gift for the National Air Museum. Other guests at the luncheon included General Doolittle and several of his former associates in aviation and military ventures.

The bronze sculpture is the work of Madame Suzanne Silvercruys, wife of Lt. Col. Edward F. Stevenson, daughter of the late Baron Silvercruys who was president of the Supreme Court of Belgium, and the

sister of the Baron Silvercruys who recently retired as Belgian Ambassador to the United States. Madame Silvercruys is a graduate of the Yale School of Fine Arts and has produced nearly a hundred likenesses of prominent persons. She is also an author and lecturer.

The bronze sculpture is now exhibited in the Arts and Industries Building. When ultimately displayed, it will form the central unit of an exhibit outlining some of General Doolittle's more important accomplishments in aeronautics, including his record transcontinental flights, his winning of the Schneider, Bendix, and Thompson trophies, his precision flight and landing in 1929 that were guided by instruments alone, and his leading of the Tokyo raid and other vital air offenses in World War II.

### Mechanical Sewing

Recently renovated exhibits on the development of the sewing machine were opened to the public on December 9 in the Arts and Industries Building. The display is located on the south balcony of the Hall of Textiles.

Early family-type treadle machines produced in the 1850's and 1860's are shown along with the less expensive hand-turned machines of the same period. The latter were sold under such poetic names as "Common Sense," "Fairy," "Monitor," "Boudoir," and others.

Many attempts to produce a "different" machine to avoid the payment of a royalty to the Sewing Machine Combination resulted in a bevy of strange and decorative types. Sewing machines in the form of a cherub, a dolphin, and a horse are exhibited with sewing shears and a single-strip-of-metal machine of 1863. Two motorized machines of the 1870's are shown, as well as a treadle-operated device for fanning the seamstress to keep her cool.

The exhibition was designed by Paul C. Batto following a plan outlined by Grace Rogers, acting curator of the division of textiles.

### River Basin News

Dr. Robert L. Stephenson, chief of the Missouri Basin Project, recently addressed employees of Lincoln Home Shops at a dinner meeting of the group in Lincoln, Nebr. His subject was "Columbus and the Indians." A few weeks ago he spoke before the Science Club of Lincoln High School on the work of the Missouri Basin Project.

Dr. Wallace Chafe, Bureau of American Ethnology linguist, visited the laboratory on November 3 and

consulted with Dr. Preston Holder of the University of Nebraska and Mr. Lee Madison of the Missouri Basin Project staff. Dr. Chafe visited in North Dakota and Oklahoma before returning to Washington on November 23.

Archeologist G. Hubert Smith spent the week of November 9 at the State Historical Society of North Dakota, in Bismarck, doing research in connection with the report he is preparing on Like-A-Fishhook Village and Fort Berthold.

Archeologist Harold A. Huscher attended the meetings of the Southeastern Archaeological Conference at Macon, Ga., November 13, 14.

Dr. Frank H. H. Roberts, Jr., Director of River Basin Surveys, arrived in Lincoln on November 23 to consult with Dr. Stephenson on administrative matters and to attend the 17th Plains Conference, held November 26-28. On November 24 they met in Omaha with National Park Service representatives, personnel of the Corps of Engineers, and the superintendent of the State Historical Society of North Dakota relative to archeological work at the Huff Indian Village.

Participants in the 17th Plains Conference from the Missouri Basin Project included Dr. Stephenson, general chairman; Dr. Warren Caldwell, chairman of the session on field reports; Charles H. McNutt; Robert W. Neuman; Mr. Smith; and Mr. Huscher.

### Questions Answered on Health Benefits

In its last two issues, THE TORCH has printed questions and answers pertaining to eligibility and the types of plans available under the new law providing health benefits for Federal employees. The questions and answers listed below have to do with the benefits offered by the plans.

**Q.** What benefits will each of the plans offer?

**A.** The law does not spell out the exact benefits for any of the plans, so this question cannot be answered specifically at this time. The law does require each of the two Government-wide plans to offer the employee a choice or option between two levels of benefits. The employee organization plans and the group- and individual-practice prepayment plans may or may not offer options between various levels of benefits.

**Q.** What will be the difference between the two options offered by each of the Government-wide plans?

**A.** One option will offer less benefits and cost less than the other. However, all options of the Government-wide plans must include both "basic health" and "catastrophic" coverage.



Q. What is meant by "basic health" coverage?

A. This is the kind of coverage most people now have. It gives some protection against the more common kinds of hospital and surgical expenses.

Q. What is meant by "catastrophic" coverage?

A. Catastrophic coverage gives some protection against the more unusual and heavy expense of a serious or prolonged illness. It often includes items such as long periods of hospitalization, expensive operations, private nurses, medical care received at home, drugs and medicines, medical supplies and equipment, etc.

Q. Will the employee-organization plans and the group- and individual-practice prepayment plans include catastrophic coverage?

A. Many of these plans may very well do so but, unlike the Government-wide plans, the law does not require them to include catastrophic coverage.

Q. What is the reason for having various plans and options?

A. There are two main reasons. First, it allows employees free choice of the kind of plan they prefer; for example, service benefits or indemnity benefits. Second, some employees may feel that they do not need as much protection and should not have to pay for coverage they do not want. With the various plans and options you will be able to choose one which best fits your needs.

Q. How will I be able to decide which option or plan is best for me?

A. Before the law becomes effective, you will be given literature explaining the benefits of each plan and each option. You will then be able to select the plan or option you like best.

## Opportunity's Knocking

Many of us have become complacent with our present professional knowledge. We are prone to drift along rather than troubling to educate ourselves. Since self-development is essential for career-development, we should consider taking some night courses at local schools and colleges.

Registration for courses at the U. S. Department of Agriculture Graduate School will begin at the end of January, and local colleges will begin registration about the same time. You've probably thought about it before, but let's start the new decade off right by acting on the thought.

Catalogs for USDA's spring semester will appear on our bulletin boards after New Year's. You may get further information by calling the personnel division, extension 277.

## SI Artist Wins Award

Don Fredette, of the exhibits staff, has won the award for silver in the Corcoran Gallery of Art's "14th Annual Area Exhibition." His winning work is a silver and rosewood chalice with a silver patten. Another example of Mr. Fredette's work, a silver and rosewood casserole dish, also is in the exhibition.

Three other members of the exhibits staff have paintings in the exhibition—Peter De Anna, with "Seated Boy"; Arthur Smith, with "Auroras of Autumn"; and Thea Winger, with "Landscape No. 3." Mr. Smith's painting has been purchased by the Corcoran Gallery of Art for its permanent collection.

The special exhibition opened on November 21; it will continue through December 20.

## New Cultural Historian

John Pearce recently joined the staff as an assistant curator in the division of cultural history. He comes to the Smithsonian Institution from the Henry Francis du Pont Winterthur Museum and the University of Delaware, where he completed a 2-year fellowship program leading to a master of arts degree.

Mr. Pearce earned his bachelor of arts degree in 1956 at Yale, where he majored in American studies and history of art. He has done graduate work at Johns Hopkins University, and has served as editorial assistant in "city planning" at the Yale School of Architecture and Design.

## More New Talent

Although the MHT exhibits staff as originally planned was to be BIG, there has been such a rash of incoming talent that the space on the tally board (the third one, incidentally) cannot accommodate three new names—Jamie Hitchcock, Dorothy Briggs, and Clarence Steele.

Jamie's a girl, but, more remarkable, she's a quiet Texan. She's a graduate of Baylor, and has done commercial art work.

Dorothy's a girl, too. She's remarkable because she's a fairly long-time resident of D. C. She hails from Springfield, Mass.

Clarence comes from Seattle via the Bureau of Reclamation.

Dorothy and Clarence are accomplished ceramists. Dorothy has done major mosaic work, so ceramics is more of a vocation with her. Clarence, an oils teacher, confines his ceramic activities to home beautification.

## Published in November

SPECIAL PUBLICATION.—*The Smithsonian Institution*, revised edition.

SMITHSONIAN MISCELLANEOUS COLLECTIONS.—*Genera of Tertiary and Recent Rhynchonelloid Brachiopods*, by G. Arthur Cooper.

*The Anatomical Life of the Mosquito*, by R. E. Snodgrass.

PROCEEDINGS OF THE U. S. NATIONAL MUSEUM.—*The Rodent-Infesting Anoplura of Thailand, with Remarks on Some Related Species*, by Phyllis T. Johnson.

## Norwegian Art Exhibit

An exhibition of 115 rare and beautiful examples of Norwegian tapestries, carved and painted wooden furniture, and other objects of Norse folk art will be on view at the Natural History Building through January 10. Considered the most important collection of Norwegian folk art ever presented in this country, the exhibition was organized in cooperation with the Norwegian Government and is being circulated to six major American museums by the Smithsonian Institution Traveling Exhibition Service.

The exhibition consists of two sections. The first is devoted to 60 outstanding examples of Norwegian tapestry from the 16th, 17th, and 18th centuries. The golden age of Norwegian tapestry weaving shows in essence the best ingredients of the Northern European Renaissance blended with old native traditions in which a firm decor and a predilection for strong, bright colors can be traced to the Viking Age.

The tapestries reveal a pictorial language which is unique. Three-dimensional scenes are translated into delightful, flat patterns, particularly important to modern designers who frequently turn to such past styles for inspiration. Among the favorite scenes are representatives of the New Testament parable of the Five Wise and the Five Foolish Virgins, King Solomon receiving the Queen of Sheba, the Magi and the Adoration, and the Feast of Herod.

The second section, devoted to folk art other than tapestry, includes carved and painted wooden cupboards, chests, and chairs; beer bowls, cups, and tankards in animal shapes; and other household objects. Many of these utensils, dating from the 17th, 18th, and 19th centuries, were used in ceremonial functions. As in the tapestries, the representations on the furniture and other woodwork are bold and schematic, with the objects usually painted in bright, contrasting colors.

Biblical scenes, animals, geometrical and architectural designs, and the acanthus leaf were favorite motifs.

Selections for the exhibition were made by a committee of Norwegian museum directors and curators headed by Dr. Thorvald Krohn-Hansen, director of the Arts and Crafts Museum in Trondheim. The exhibition was first shown in this country at the Brooklyn Museum, where it was formally opened by the Norwegian minister of foreign affairs, Mr. Halvard Lange, and Norwegian Ambassador Paul Koht.

The Washington presentation was formally opened by Ambassador Koht on December 12. Dr. Krohn-Hansen, who attended the opening, gave a lecture on "Norwegian Folk Art" on December 14 at 8:30 p. m. in the Natural History Building.

## Staff Members on Program for Annual AAAS Meeting

Several members of the Smithsonian staff are to present papers or serve as presiding officers at the 126th Meeting of the American Association for the Advancement of Science to be held at the Morrison Hotel in Chicago from December 26 to 31.

Those taking part are the following: Dr. A. C. Smith, Director of the Museum of Natural History; Dr. Herbert Friedmann, head curator of the department of zoology (MNH); Dr. Robert P. Multhauf, acting head curator of the department of science and technology (MHT); and Dr. Richard S. Cowan and Dr. Velva E. Rudd, associate curators in the National Herbarium's division of phanerogams.

Since its aggregate memberships exceed two million, the AAAS is by far the largest and most influential group of related scientific organizations in the world. Consequently, its annual meetings attract world-wide attention.

## Contributors to This Issue

Contributions to THE TORCH are encouraged from all employees. Items may be sent to Mrs. Fields in the personnel division.

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