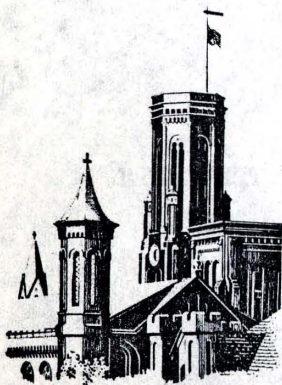
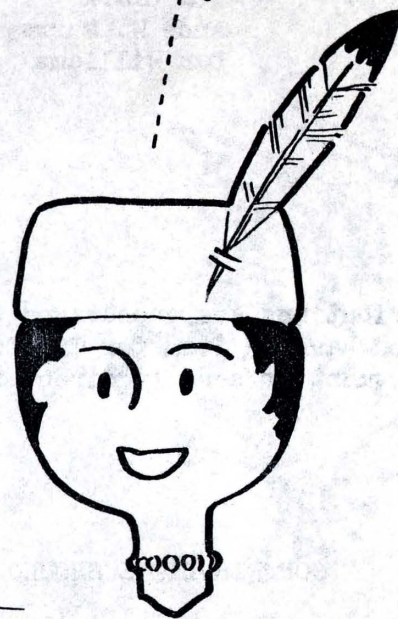
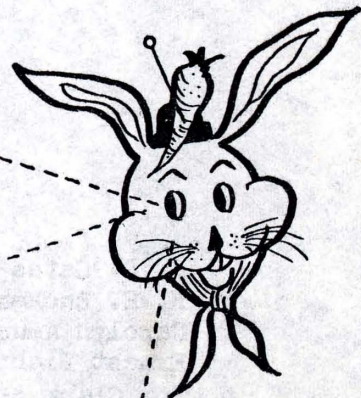


April 1957

THE SMITHSONIAN
TORCH



SMITHSONIAN INSTITUTION • WASHINGTON, D. C.

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Contributions are encouraged from all employees of the Smithsonian Institution. If you have an item for THE TORCH please give it to the secretary of your department or send it direct to Mrs. Fields in the Personnel Division.

CONTRIBUTIONS SHOULD BE RECEIVED BY THE LAST DAY OF THE MONTH.

April 1957

Number 26

IT'S SPRING

Now that April's here, a young woman's thoughts lightly turn to fancy hats.

The hats sketched on the cover could have been worn on long-ago Easter Sundays. They illustrate a few of the dozens of hats dating from the late 1700's through the "roaring twenties" that are in the collections of the division of civil history.

Every year the ladies' hats make an important fashion topic. Year by year the mode changes--now high, now low, sometimes large, and sometimes small--but always repeating the general shapes of the past with simple changes in form, materials, and color to match the changing spirit of each new age. For always fashion decrees that the hat be geared to the tempo of life.

The hat has played a varied role in the history of costume, dating back to remote times in men's dress as a simple cap or hood and, in comparatively modern times, becoming an essential part of women's dress.

The words "hat" and "cap" seem to have had their origin in terms used to designate the primitive home. According to Planche, an early authority writing on costume, the Belgic Britons had in their language the word "cappan," a term used by later peoples of the same region in describing their conical caps made of rushes and curiously resembling the ancient hut--made of wattles and tied together in a similar way--called "cab," "caban" (whence our cabin). So it appears that some relation existed between the primitive home and the first head covering.

Centuries later, about 1774, the calash (from the French "caleche," meaning carriage) appeared. This bonnet, made of silk or fine linen, really resembled the extension top of a carriage. It could be pulled down over the wearer's face or pushed back by means of a ribbon or streamer attached to the center of the front edge.

It would require several volumes to tell the history of American women's headdresses from colonial times until today. What an array of hoods, hooded cloaks, bonnets, and caps would precede our present-day millinery creations! Crowns, brims, wire, felt, silks, satins, velvets, straws, laces, ribbons, flowers, fruit, feathers, fur, wings, spreads, close fits, and elastic bands are a few of the words we would consider as related to the construction of women's hats.

It was not until the end of the 18th century that the word "bonnet" was used generally for feminine headgear. The word had been familiar as far back as the Middle Ages, but it had always referred to the little low caps worn by men and the similar cap with the high sugar-loaf crown. The use of the term in the last quarter of the 1700's makes the 18th century conspicuous as the period when bonnets for women first appeared. By the end of the century milliners everywhere were making bonnets, and a great industry took form.

The high note in millinery of the 19th century was the poke bonnet, and Godey's Lady's Book of 1859 shows a sign with an illustration of this type of hat. The sign is believed to have hung before the shop of a fashionable milliner.

Early in the 20th century the street costume was still a very elaborate affair, and the "dressy" hat accompanying the train on suit or dress was worn at all

hours of the day. It became customary for the stylish woman to wear her new spring hat on Easter Sunday, especially to church, "weather" or no.

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NEW HALL OF MAMMALS

All Smithsonian employees and their friends are invited to attend the official opening of the new hall titled "Large Mammals of North America" on April 30 at 8:45 p.m.

The ceremonies will be held in the auditorium of the Natural History Building. There will be brief remarks by Dr. Carmichael and Dr. Kellogg on Smithsonian contributions to natural science generally and to mammalogy particularly. Following the official opening, the guests will view the new hall.

Exhibited will be the large mammals of North America that were of importance to the early settlers of the continent. Some of these animals were important because they were sources of food or clothing; others were important because they were dangerous to the pioneers and their livestock.

The animals are shown in natural-appearing "habitat" groups, much as they appeared to the early settlers and explorers.

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FIELDWORK IN ALABAMA

Carl F. Miller of the River Basin Surveys staff left on April 3 for Eutaw, Alabama, where he will make archeological investigations at the Warrior River Lock and Dam project of the Corps of Engineers. After completion of his work there Mr. Miller will return to Russell Cave in northern Alabama and resume excavating that important site.

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LECTURE ON THE SUN

Dr. Thomas Gold, professor of astronomy at Harvard University, told about "Cosmic Rays from the Sun" at the 24th Annual James Arthur Lecture on the Sun, which was presented on April 10 in the auditorium of the Natural History Building. The lecture was illustrated with slides.

The origin of cosmic radiation is still one of the major puzzles of astronomy, Dr. Gold pointed out. He said that fast-moving atomic particles bombard the earth from outer space, with energies vastly greater than any that can be produced in the laboratory. In recent times it has been found that the sun, on occasions, is capable of contributing greatly to this incessant bombardment. These extremely violent solar outbursts are now under investigation, in the hope that some understanding can be gained of the puzzling process of cosmic-ray production. Such investigations also give information about conditions in the space between the sun and the earth.

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NEW BOWLING LEAGUE OFFICERS

The annual election of officers of the Smithsonian Bowling League was held this month. Harvey Drack was elected to be the League's new president; he will serve from April 1, 1957, through March 31, 1958. Other members taking office are Bill Boyle, vice-president; Maria Hoemann, secretary-treasurer; and Vera Gabbert, statistician.

A 9-article constitution was also adopted by the League at the recent election meeting.

This year's bowling party committee (Chairman Mildred Keddy, Helena Weiss, Vic Elstad, and Wilbur Harman) are busy making important plans for the tenth-year

celebration to be held in the Magnolia Room at Hunting Towers on Friday, May 24, from 6:00 to midnight. Dinner will be at 7:30. All bowlers, ex-bowlers, substitutes and guests are invited. Please make inquiries and reservations through your team captain or the party committee.

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REGENTS

By joint resolution of Congress signed by President Eisenhower on March 14, Dr. John Nicholas Brown was appointed to the Board of Regents of the Smithsonian Institution and Dr. Arthur H. Compton was re-elected for a 6-year term to the Board.

Dr. Brown, of Providence, R. I., takes the place on the Board made vacant by the death last December of Everett Lee DeGolyer, of Dallas, Tex. A graduate of Harvard University, with honorary doctorate degrees from several universities, Dr. Brown has had a distinguished career in public and business affairs. During the years 1946 to 1949 he was Assistant Secretary of the Navy for Air. At present he is president of the Counting House Corporation and trustee of the Rhode Island Foundation, the Byzantine Institute, and the American School for Classical Studies at Athens, and a Fellow and member of the advisory and executive committees of Brown University.

Dr. Compton has served on the Board since 1938. A world-famous educator and physicist, he now holds the position of distinguished service professor of natural philosophy at Washington University in St. Louis, of which he served as chancellor from 1945 to 1953. His researches in the field of X-rays and cosmic rays have earned him many high honors

and awards, including the Nobel Prize in physics. He directed the work resulting in the first atomic chain reaction. In the years during and since World War II he has been active on many scientific and educational advisory commissions for the Government. In addition to his academic and technical scientific activities, Dr. Compton has written several books on the philosophy and human values of science that have received wide acclaim.

During the 110 years since the Smithsonian Institution was established, many of the Nation's most eminent statesmen, scientists, and public men have served on the Board of Regents. This Board, the governing body of the Institution, by law is composed of the Vice President of the United States, the Chief Justice of the United States, three members of the Senate, three members of the House of Representatives and six citizen members.

Early Regents included such famous names as Louis Agassiz, Alexander Dallas Bache, George Bancroft, Alexander Graham Bell, Rufus Choate, Jefferson Davis, Millard Fillmore, James A. Garfield, Asa Gray, Henry Cabot Lodge, Richard Rush, and Roger B. Taney.

In more recent years, there have been several such eminent men as Vannevar Bush, Arthur H. Compton, Calvin Coolidge, Charles G. Dawes, Frederic A. Delano, Charles Evans Hughes, Jerome C. Hunsaker, Thomas R. Marshall, John C. Merriam, Dwight W. Morrow, Harlan Fiske Stone, William Howard Taft, and Fred M. Vinson.

The present Chancellor of the Board is the Honorable Earl Warren, Chief Justice of the United States.

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Nothing is a waste of time if you use the experience wisely.

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TALKS ON VOLCANIC CINDER CONES

On Saturday, March 23, James H. Benn of the department of geology gave an illustrated talk before the District of Columbia Mineralogical Society. He described visits to volcanic cinder cones in the vicinity of Mexico City.

The cones, of which there are many, show evidence of having been active in fairly late geologic time. Some cones were observed being exploited for building materials.

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FAREWELLS AT FREER

A joint farewell party was held in the library of the Freer Gallery of Art for Eleanor Vickrey (nee Morsell) and Sidonie Heflin.

Eleanor Morsell, who has been working at the Freer for almost 15 years, was married to Richard Vickrey on November 24. She resigned on April 1 to accompany her husband to Seattle, where he will be employed by Boeing Aircraft Company. Her combination wedding-farewell gift from her Smithsonian friends was a planter bowl similar in design to some of the old Chinese ceremonial bronze vessels—a reminder of the Oriental objects by which she has long been surrounded!

Mrs. Heflin is leaving after several years of service at the Freer to go to Michigan, which was originally her home state. She, too, received a token from her fellow workers.

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Cooperation is spelled with two letters—W-E.

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MARRIED IN MARCH

Rebecca Gettens, daughter of Rutherford John Gettens, associate in technical research at the Freer Gallery of Art, was married to Van Boone Terrell Kreuchten on March 2. The ceremony, which took place in All Saints Episcopal Church at 4:00 p.m., was followed by a reception at the bride's home. The young couple is residing on Long Island, where Becky is attending Adelphi College, Garden City.

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ELECTED TO ALUMNAE BOARD

Grace L. Rogers, of the division of crafts and industries, was elected to the board of directors of the Home Economics Alumnae Association of the University of Maryland at the association's spring meeting on March 30.

Miss Rogers, who attended the meeting, was elected to the board for a 3-year term. She also was elected as the association's corresponding secretary for the coming year.

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NFFE ELECTS OFFICERS

David T. Ray, of the Smithsonian library, has been elected president of the Smithsonian Branch of Federal Employees Union No. 2, National Federation of Federal Employees. Other officers elected were Mrs. Mary Quigley, of the department of zoology, as vice-president, and Emma Kran, also of the department of zoology, as secretary-treasurer.

Mr. Ray and Mrs. Quigley also were elected to the board of representatives,

with Dorothy Darmody, of the department of anthropology, and Miss Kran selected as alternates.

The election took place at a meeting in the Natural History Building on March 21.

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PUBLISHED IN MARCH

"Trochamminidae and Certain Lituolidae (Foraminifera) from the Recent Brackish-Water Sediments of Trinidad, B. W. I.," by John B. Saunders. Smithsonian Miscellaneous Collections, 16 pages.

"Geology and Vertebrate Paleontology of Upper Eocene Strata in the Northeastern Part of the Wind River Basin, Wyoming. Part 1. Geology," by Harry A. Tourtelot. Smithsonian Miscellaneous Collections, 27 pages.

"Formosan Cossonine Weevils of Bamboo," by Elwood C. Zimmerman. Proceedings of the U. S. National Museum, 10 pages.

"Nearctic Wasps of the Subfamilies Pepsinae and Ceropalinae," by Henry K. Townes. Bulletin of the U. S. National Museum, 289 pages.

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INSTRUCTS ON KITE FLYING

Advice from Paul Garber, Director of the National Air Museum, on how to build and fly kites was featured recently in the aviation column by Charles Tracy in the Cleveland Press.

Here are some of his tips:

"Two-stick kites are simplest, most common, and best for less-windy days. Smooth, paper side of kites faces the wind and the flier. Bend cross-stick rearward into shallow bow.

"Be sure of wind direction before trying to launch a kite. You must head directly into the wind. . .

"Three-stickers are best in windy weather. Build a strong one and you can fly it on the windiest days. It flies higher and steadier than the two-sticker but must always have a cloth tail for balance. . .

"Use good twine on your three-sticker. It has plenty of pull.

"The two-sticker can be flown in light breezes without a tail. But if kite darts, dives or loops, add tail until it flies steadily."

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RECEIVES CASH AWARD

Lucile Hoyme, aid in the department of anthropology, recently received a cash award of \$65 and a certificate of merit for service. The presentation was made by Dr. Carmichael, who said:

"Instead of putting the agency to the expense of printing new catalog cards to provide space for recording all the available data on a specimen, you proposed a rubber stamp whereby the additional information could be stamped onto existing cards. As a result of this fine suggestion, the department of anthropology was spared the expense of printing new cards, the risk of error in transferring the information to another set of cards, and the cost of personnel to accomplish the action.

"In extending my congratulations, I wish to thank you for your superior accomplishment and for the special services you have rendered to the department of anthropology and the Smithsonian Institution as a whole."

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TURKISH ART EXHIBIT

The National Collection of Fine Arts is showing an exhibition of color renderings of "Five Hundred Years of Turkish Tiles" by Capt. Izzet Çetin. The exhibit, sponsored by the Turkish Embassy, opened on April 14 in the foyer of the Natural History Building; it will continue through April 28.

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TRAVELING JAPANESE ART

A special exhibition of 53 hanging scrolls and painted screens by the Japanese artist Tomioka Tessai (1836-1924) is being circulated among leading museums in this country and Hawaii by the Smithsonian Institution Traveling Exhibition Service.

This is the first time an exhibition of Tessai's work has ever been seen in the United States. It was organized by the Kokusai Bunka Shinkokai (the Society of International Cultural Relations) and the National Museum of Modern Art in Tokyo. All works were lent from the splendid collection of the Kiyoshi Kojin Temple in Takarazuka, Japan. The exhibition was made possible with the help of the Asia Foundation.

This selection of works by Tomioka Tessai spans the development from his early works in the style of Yamoto-e painting and his more robust works in the manner of Otsu-e and Ukiyo-e, to the final culmination in the luxuriance of the art of his late period.

The exhibit opened at the Metropolitan Museum of Art in New York on April 4. It will be there one month and then begin a tour of museums in Boston, Kansas City, Seattle, San Francisco, and Honolulu.

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LECTURES IN WEST

Dr. Herbert Friedmann, curator of birds, returned about the middle of March from a lecture tour in California and Arizona.

Having been appointed the first Lida Scott Brown lecturer at the University of California at Los Angeles, Dr. Friedmann spent several weeks there giving a course of lectures on birds to the staff and graduate students in the departments of zoology, bacteriology, and fine arts.

He also gave a seminar lecture to the zoology staff at the University of California at Berkeley.

On the way back east, he spoke at the University of Arizona, at Tucson.

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EXPERIENCES EARTHQUAKE

A letter dated March 23 from Dr. Waldo Schmitt, head curator of zoology, tells of the earthquake in San Francisco last month.

"The earthquakes, a whole series of 'shakes,' lasted through most of yesterday and early this morning--2 a.m. and again at about 4. The most severe tremor was at 11:45 yesterday while I was calling on Dr. Bowman at his folks' home here in San Francisco. It was like a gigantic rock slide in a quarry after a blast--and you would have thought it right next door, if not under the house. First quake I've ever experienced that amounted to anything."

Dr. Schmitt was stopping off at San Francisco prior to sailing for Tahiti as leader of the Smithsonian-Bredin Society Islands Expedition. He is accompanied on the expedition by Harald Rehder of the division of mollusks and Thomas Bowman and Charles Cutress of the division of marine invertebrates.

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NEW APPOINTMENTS:

Consultant:

Brooke Hindle (Off. of Ass't Dir.)

Administrative Assistant:

Eileen Cavanaugh (Off. of Reg.)

Exhibits Workers:

Frank A. Gambino, Jr. (Off. of Exh.)

Peach K. Jordan (Off. of Exh.)

Physical Science Aids:

Grover C. Moreland (Min. & Pet.)

Peter H. Stone (APO)

Electronic Research Scientist:

Andrew B. Ledwith (APO)

Archeologist:

Robert E. Greengo (RBS)

Museum Aid:

James L. Connors (Paleon. & Pale.)

Librarian:

Jack F. Marquardt

Library Assistant:

Anne G. Ostroff

Junior Clerks:

Lorraine M. Compart (BSIE)

Zehera Mardi (BSIE)

Operating Engineer Foreman:

George E. Barsh

Carpenter:

Albert C. Severtsen

Painter:

Alfred T. Pearson

Laborer:

Raymond M. Moore

Guard:

Elmer E. Tigner

SEPARATIONS:

Joseph A. Mickens

Earl B. Hart, Jr.

James D. Armistead

Peter Hilt

Jack W. Staff

Charlie G. Brown

Dorothy C. Blanton

Walter R. Scott

Frank O. Lowe

Oscar C. Zahrndt

Jean H. Anderson

Reba Hall

Sidonie O. Heflin

Audrey N. Walcott

CONVERTED TO CAREER APPOINTMENTS

The following employees have completed the required 3-years in career-conditional status and are now full-fledged career employees:

Rodner Stone (NZP)
Annie Sollers (M&O)
Marion G. Brooks (M&O)
Evelyn F. Anderson (Botany)

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PAKISTAN ART EXHIBIT

The work of one of the leading artists of Pakistan, Zainul Abedin, will be featured in a special exhibition in the Natural History Building from April 8 to 29. Included in the showing will be Mr. Abedin's now famous "Famine Sketches," as well as watercolors and line drawings of contemporary life and scenes of his native land. The artist, who is principal of the Dacca Institute of Art, is on a world tour, having recently exhibited his work in Japan and Mexico.

European art critics have said that in his "Famine Sketches" Abedin succeeds to an extraordinary degree in depicting horror. The quick, bold strokes of his sketches are remarkable for their economy and strength. His decorative oil paintings based upon folk art of the Pakistani are as pleasant and entertaining as the sketches of the starved and poor are expressive of terror. His work is a combination of the Western and the Eastern influences.

The exhibition is sponsored by the Ambassador of Pakistan and Begum Ali and is shown under the auspices of the National Collection of Fine Arts.

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DUNK YOU VELLY MUCH

Lena Hill's sister in Wilmington, Del., received a gift from a relative in Japan the other day. The box it came in had originally contained Japanese doughnuts, and on it was the following advertisement:

"As a fresh gift, please use milk Doughnut of box-cases in case of your presents and visiting and cellophone-case, in case of your travelling, sports and children eating between meals.

"Milk doughnut contains much butter-milk, and is made through the process of a peculiar invention. always, it has a high nutritive. Doughnut has been existing exists from time immemorial, and at first it was as a club or an alligatorpear. Sayig it, remember the May Flower. The saving buoy! which colonists to America depended on as their life rope through their long voyage, and was at face.

"Perhaps, Doughnut is given a hint from this fact.

"It is later, that is come to the pretty and descend from, as now. That simple tase, which is not seen in a beautiful cake is the very great attractive."

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MAHEM IN CE CLASRUM

We are in complete accord with Bernard Shaw's campaign for a simplified alphabet. But instead of immediate drastic legislation, we advocate a modified plan.

In 1957, for example, we would urge the substituting of "S" for soft "C". Certainly students in all sites of the land would be reseptive to this.

In 1958 the hard "C" would be repleased by "K" sinse both letters are pronounsed identikally. Not only would this klarify the konfusun in the minds of spellers, but typewriters and lino-types kould all be built with one less

letter and all the manpower and materials previously devoted to making the "C's" kould be used to raise the national standard of living.

In the subsequent blaze of publicity, it would be announsed that the troublesome "PH" would henseforth be written "F". This would make words like "fonograf" 20 persent shorter in print.

By 1959 publik interest in a fonetik alfabet kan be expekted to have reatshed a point where more radikal prosedures are indikated. We would urge at that time the elimination of al double leters whitsh have always ben a nuisanse and desided deterrent to akurate speling.

We would al agre that the horrible mes of silent "E's" in our language is disgrasful. Therfor, in 1961, we kould drop thes and kontinu to read and writ merily along as though we wer in an atomik ag of education. Sins by this tim it would be four years sins anywun had used the leter "C", we would then sugest substituting "C" for "Th".

Kontinuuing cis proses year after year, we would eventuali hav a reali sensibl writen languag. By 1975 wi ventyur tu sa cer wud bi no mor uv ces teribli trublsum difikultis. Even Mr. Shaw wi beliv wud be hapi in ce noleg cat his drims finali kam tru.

---By Dolton Edwards

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IDENTIFICATION CARDS

Smithsonian employees, whether on private or Federal roll, who have not received an identification card may obtain one by calling in person at the personnel office.

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RIVER BASIN NEWS

Dr. Robert E. Greengo left Lincoln, Nebr., on March 13 to head up an archeological field party making a survey of the Dardanelle Reservoir area in Arkansas. This is the first field party from the Missouri Basin Project of the River Basin Surveys to get underway in the 1957 field season. Mr. Greengo expects to be in the field until the latter part of April.

G. Hubert Smith, archeologist, recently spent a week at the Minnesota Historical Society (where he formerly served as curator of the museum) to assist with planning for new archeological investigations in Minnesota, including historic sites and park developments.

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UNITED JEWISH APPEAL

The following is an excerpt from a communication received from the White House:

"To all who are engaged with religious conviction in world-wide overseas relief efforts, I send greetings. Through such projects as your Emergency Rescue Fund of United Jewish Appeal we give positive witness to our faith in God and to the responsibility each bears to his brothers in need. By supporting these vital programs of service to the homeless, hungry and destitute, we can reach across the oceans in true friendship as "People to People" showing our compassion and concern.

"Best wishes for the complete success of your efforts which parallel our Nation's interest in the health and welfare of all peoples. . . . Dwight D. Eisenhower"

Anyone interested in contributing to the United Jewish Appeal, 1957 Emergency Rescue Fund, may do so through Leonard Price in the division of radiation and organisms, extension 323.

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THAT PARKING PROBLEM AGAIN

Are you planning a vacation for a few days, or for several weeks?

If so, the many employees hopefully waiting on the pending list for parking will appreciate your contacting the superintendent's office (extension 387) with information as to the time you will be away.

Regulations permit that those on the pending list may be given your parking place for the temporary period you will not be using it. Please remember that your vacation can also be of benefit to others.

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GUARD RETIRES

Oscar Zahrndt, Smithsonian guard who retired on February 28 because of disability, was presented with a government bond by L. L. Oliver, buildings superintendent, on behalf of Mr. Zahrndt's many friends in the Smithsonian.

Mr. Zahrndt served as a guard at the Smithsonian for over 11 years, and including military service he had over 16 years with the Government. He will be missed by his friends, who wish him many years of leisure in his retirement.

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Philosophy is common sense in a dress suit.

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CREDIT UNION NOTES

The Credit Union was organized to provide a convenient depository for small savings and to make loans for provident or productive purposes. Banks, as a rule, do not accept deposits of less than \$5, but no saving is too small for deposit in the Credit Union. In 1934, when federal credit unions were first chartered, personal loans were practically unknown and a person in need of cash had to patronize a pawn shop, or "hock shop" as it was inelegantly referred to. There he was charged exorbitant rates of interest; so in self-interest he joined with other persons having a common bond of occupation and formed a credit union.

Loans are made out of funds accumulated from savings of members. Applications for loans are passed upon by a credit committee elected by the members. Repayments are made semimonthly, monthly, or according to any other agreed-upon schedule. Interest on these loans is three-fourths of 1 percent a month on the unpaid balances, except for loans to purchase new automobiles. A lien is taken on the car and the interest is one-half of 1 percent a month.

Advertisements of loan agencies often are deceptive in quoting rates of interest. You should always find out what the cost of the loan will be. The following schedule shows what loans from the Credit Union actually cost:

Loan	12 Months	2 Years	3 Years
\$100 (Standard)	\$4.87	\$9.38	\$13.87
(New Automobile)	3.25	6.25	9.25
\$200 (Standard)	9.75	18.75	27.75
(New Automobile)	6.50	12.50	18.50
\$500 (Standard)	24.35	46.88	68.38
(New Automobile)	16.25	31.25	46.25
\$1000 (Standard)	48.75	93.75	138.75
(New Automobile)	32.50	62.50	92.50

You receive the full amount of your loan. Interest is not deducted in advance as is done by banks on personal loans. Interest decreases in proportion to the repayments of loan. A member may, if he wishes, repay his loan in full at any time and the amount of interest is reduced accordingly.

The loan is insured at no extra cost to the borrower. If he should die or become totally and permanently disabled his loan will be paid in full.

Loans are made only to members. Do not wait until you are in need of a loan to join the Credit Union, as this may cause undue delay in acting on your application. Take advantage of the savings feature and join the Credit Union now. Then you will be eligible for a loan in case of an emergency or to finance the purchase of an automobile.

Earnings from loan operations are returned to members in the form of dividends. When you borrow from the Credit Union you share in the earnings on your loan.

NEW POWER HALL

The history of power machinery is the theme of a new exhibit that opened in the Arts and Industries Building on March 27.

The various types of windmills and waterwheels whose power drove the flour mills from the time of the Romans until the time of our grandparents are shown in a series of photographs arranged on a map. The combination of the scientific interests of Galileo and others of his time, and the necessities of the owners of flooded coal mines led to the invention of the steam pump about 1700. Subsequently, the pump was developed into a steam engine for turning machinery.

Exhibited in the new hall are replicas of some of the apparatus of these early scientists and models of early steam engines that began the story of mechanical power.

The establishment of the United States as an independent nation occurred just as the possibilities of the steam engine were coming into general recognition. Models are shown of the engines of James Rumsey and John Fitch, competing steamboat inventors who demonstrated boats before George Washington and before the Continental Congress at its 1787 meeting in Philadelphia. Also shown is the oldest existing engine of American construction. It was used in 1804 to power a ferry boat between Hoboken and New York City.

Other original engines typify the ponderous power plants of a century ago and the intricately made engines of Corliss and other famous inventors who brought the reciprocating steam engine to its highest development at the end of the 19th century.

The development of steam and water turbines, internal combustion engines, and electric power are similarly told, through models, full-sized machines, and exhibits demonstrating the principles of their operation.

WINS TROPHY

Earl E. Eisenhart returned from his Florida vacation last month with a silver tray engraved with his name and "The Huntington Winner, Shuffleboard 1957."

Mr. and Mrs. Eisenhart spent three weeks in St. Petersburg, and it was there that he displayed his prowess.

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ROBERT A. CUSHMAN

Robert A. Cushman, retired entomologist of the U. S. Department of Agriculture and for many years assistant custodian of Hymenoptera in the National Museum, died at his home in Altadena, Calif., on March 28.

He was born in Taunton, Mass., in 1880. Following study at the University of New Hampshire and at Cornell University he was appointed entomologist in the Department of Agriculture in 1906, and he remained in that organization until he retired for health reasons in 1944.

For several years Mr. Cushman was engaged in studies on the cotton boll weevil and its parasites at the Department of Agriculture laboratories in Tallulah, La., and Dallas, Tex. In 1911 he was transferred to the Division of Deciduous Fruit Insect Investigations with assignment to the laboratory in Vienna, Va. Soon after this move he began part-time duty with the Department's staff of taxonomists at the National Museum, and several years later he was made a regular member of that staff.

Between 1914 and 1947 Mr. Cushman published many significant contributions dealing with the classification of certain groups of parasitic Hymenoptera, particularly the Ichneumonidae. Late in 1927 he was sent to the Philippines to pack and bring to the National Museum the A. C. Baker collection of insects, which had been bequeathed to the National Museum on condition that the Museum send someone to the Philippines to attend to its packing and shipping.

It contained about 300,000 pinned insects and was one of the largest single accessions to the insect collections. One hundred five cases were required for its transportation.

Mr. Cushman is survived by his wife and one son, Arthur D. Cushman, entomological artist with the U. S. Department of Agriculture.

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ADAM G. BÖVING

Dr. Adam G. Böving, associate in zoology, died at his home in Washington on March 16.

He was 87 years of age, but had continued his researches on coleopterous larvae until a short time before his death. He was one of the pioneers and world authorities in his special field. His work, characterized by its soundness, thoroughness, and originality, was recognized for its quality by his fellow workers everywhere. Its usefulness will continue and his name will be long remembered by systematic entomologists.

Dr. Böving was born and trained in Denmark, and came to this country just before World War I by invitation from the late Dr. L. O. Howard, then head of the old "Bureau of Entomology" of the U. S. Department of Agriculture. He remained with the Bureau, with offices in the National Museum until his retirement. Later, as advancing years made it more arduous for him to come to the office, he continued his studies at his home.

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"Better to slip with the foot than with the tongue."

---English Proverb

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FREER TRAVELERS

The first of April saw the return of John A. Pope, assistant director of the Freer Gallery, from a trip starting last August that took him and Mrs. Pope, chief of the Smithsonian Traveling Exhibition Service, around the world via Japan, Taiwan, Hong Kong, Southeast Asia, Indonesia, Burma, India, and England.

On March 27 Harold P. Stern, assistant in Japanese Art, departed for Japan, Korea, Hong Kong, and Taiwan. He is not scheduled to return to Washington until the middle of December. His trip to Korea is as a member of a committee arranging for an exhibition of Korean art similar to that of the Japanese exhibition held in this country in 1952-1953.

Shorter trips were made or are being planned by A. G. Wanley, director, to Boston to attend meetings of the Far Eastern Association, April 2-6, and to Princeton, N. J., to attend meetings of the American Oriental Society, April 24-26; Rutherford John Gettens, associate in technical research, to Oberlin, Ohio, to attend a seminar on "Resinous Surface Coatings," April 2-5; and R. A. Schwartz to Meriden, Conn., to study techniques used at the Meriden Gravure Company, April 6-10.

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VISITS FARMERS' MUSEUM

Edward Kendall, curator of agricultural industries, visited the Farmers' Museum at Cooperstown, N. Y., early this month to study material offered to the National Museum on a permanent loan basis. The material obtained will be used in the modernization of the agriculture exhibits.

A, B, AND O

Every individual inherits his blood type just as he does his hair color or the shape of his nose. There are many substances in the blood which can be used to differentiate people, but certain factors have been most widely used for classification.

Substance A is found in the red blood cells of about 40 percent of Americans. It carries with it another substance called anti-B.

From 10 to 12 percent of Americans have substance B, with corresponding anti-A. A few people have both A and B and no anti-factors. Physicians usually prefer to give transfusions within blood groups because of the anti-factors, which may cause transfused blood cells to stick together and be destroyed.

However, most Americans (about 45 percent) have neither A nor B, but usually small amounts of anti-A and anti-B. These people have type O blood, and they are known as "universal donors." With a few exceptions, type O people have anti-factors in so small an amount that their blood, when transfused into any of the other groups, will cause no adverse reactions.

The Rh factor is another way of classifying blood. Infrequently, the Rh factor can be a source of danger, so it is important to know something about it. Next month The Torch will explain how the Rh factor works.

If you have ever donated blood, you have been informed of your blood type. It is good to have this information in case of emergency.

Join your co-workers on April 19 when they visit the Red Cross as part of the Smithsonian Blood Donor Program. You will be helping to insure the benefits of the program as well as receiving information about your blood type. For details, call Miss Amundson on extension 449.

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FREE CHEST X-RAYS

In cooperation with the U. S. Public Health Service, the D. C. Tuberculosis Association, and the D. C. Department of Public Health, arrangements have been made for free chest X-rays for all Smithsonian Institution employees.

The following schedules have been set up:

BSIE employees, April 18 and 19; mobile unit at the Pan American Sanitary Commission.

NZP employees, May 13, 14, 15; mobile unit at Bureau of Standards.

Smithsonian employees in buildings along the Mall, June 7; mobile unit in courtyard of Department of Justice Building.

On the payday preceding time for scheduled X-ray you will receive registration and notification cards with instructions for completing both. A report of result of the X-ray will be sent to your home address or any address indicated.

All employees are urged to take advantage of this opportunity. The importance of having a chest X-ray annually cannot be minimized. Men over 45 are urged to have a chest X-ray every six months.

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VISITS DOLL

Peter Doll marked the sixth anniversary, April 8, of his residence in the Civil History Court of the A & I Building. Peter, a 35 year-old, 6-inch doll, is master of the fabulous 21-room doll house that has been a favorite exhibit for children of all ages since it was presented to the Museum in 1951 by Miss Faith Bradford. To celebrate the occasion Miss Bradford paid a formal visit to Peter and his little family; she also brought in an armload of flowers to the department of history.

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PLAIN LETTERS

A recent report of the Hoover Commission Task Force on Paperwork Management concluded that Government letter-writers are guilty of long sentences, long paragraphs and long words. Government letters abound with legal terms, abstract nouns, passive verbs and dense subordinate clauses. There is a prevailing opinion that this is, in fact, "Government style." The net result is: (1) Letters are often hard to understand, causing additional unnecessary correspondence; and (2) Letters are unduly long, causing additional unnecessary cost.

In an effort to improve the efficiency of Government letters, the General Services Administration has made available a handbook on "Plain Letters," prepared by Mona Sheppard, staff specialist in correspondence management.

For the next few months The Torch will reprint pertinent sections of the manual for the guidance of all letter-writers in the Smithsonian Institution.

"The Principle.-Most of us, in and out of Government, welcome straight-away English with a sigh of relief. Our preference for plain writing does not come from literary taste alone; nor does it stem solely from the fact that simple language is easy to read. We also have a dollar interest. Everybody knows that spendthrifts in words are spendthrifts in dollars. Without benefit of measure it is safe to say that needless words pile up needless costs, and foggy meanings exact their tolls from the tax bin.

"Despite these facts, many people have the notion that plain letters are not stylish in Government. There are those outside the Government who think that the Government nowadays avoids plain language like the very plague. They tell us we habitually wind off long involved sentences weighed down with big meaningless words. Showing us all the things wrong with our writing they point to letters that abound in legal terms, abstract nouns, passive verbs, and dense subordinate clauses. But then they say, after all, that's Government style.

"Keeping company with these people in their notion is the man who gets a hard-to-understand Government letter. To be sure, he is peeved upon being muddled by a phrase such as 'noncompensable evaluation heretofore assigned,' but he is seldom really mad. After all, he says, that's the way the Government writes.

"Here, seemingly, is a rut so deep it's hard to see the way out. But the rut, mind you, is in the way of thinking. There is no real obstacle in the way of writing good Government letters. The old 'beg-to-advise' clichés are in mothballs; grammar is sound. The men and women who write Government letters are better prepared than ever before to write clearly. Moreover, we have the means within Government for showing them how it is done. We have only to shake off the complacency in the way of thinking to make plain letters the prevailing style.

"Craftsmanship.-What makes a Letter Plain? Take a minute to look at a letter. There it is: a simple parcel for carrying a message. So characteristic is its appearance you know at once what it is. It has a head to show where it came from and when it was written. An address tells its destination. The close serves to prove who sent it; the body is its why and how. Custom adds a couple of frills: a salutation to greet the reader and a complimentary close to show him respect.

"So there you have a letter, parts and parcel! Had you ever thought how neatly the parts are parceled, and with what deference to that dictum for clarity, 'what, where, when, who, why, and how!'

"Because of this neat arrangement you can get off to the business of writing a letter at once. Don't let the frills trouble you. If your agency or the person who signs the letter has a preferred salutation and complimentary close, respect that preference. Otherwise, you will show good taste by using Dear Mr., Mrs., or Miss with a surname as a salute, and Sincerely yours as a compliment. Gentlemen is appropriate for saluting several men; Ladies for several women. When addressing both men and women the etiquette books would have you mention the ladies

first, as Ladies and Gentlemen. A salutation like My dear Mr. President or My dear Mr. Secretary, and a close like Respectfully yours, are reserved for very formal letters. Use them sparingly lest they become unduly unctuous.

"When in doubt about a proper salutation and complimentary close, ask your stenographer. That is really her business.

"The 4-S Letter-It is your job to write the message, the body of the letter. If you do your job well, people who read one of your letters know at once why you wrote it without their being at all conscious of how you wrote it. In other words, you write plainly.

"Some of us have the notion that we impress our readers, or perhaps our bosses, with big words and long involved sentences. We think the more we say and the more pompously we say it, the more distinguished our letters will be. That is far from the truth as any good letter craftsman can tell us. Good plain letters are the kind our readers like to receive. And they are the kind our Government profits by, because they are efficient as well as satisfying.

The 4-S Formula-Shortness

Simplicity

Strength

Sincerity

For Shortness:

Don't make a habit of repeating what is said in a letter you answer.

Avoid needless words and needless information.

Beware of roundabout prepositional phrases, such as with regard to and in reference to.

Watch out for nouns and adjectives that derive from verbs. Use these words in their verb form frequently.

Don't qualify your statements with irrelevant 'ifs.'

For Simplicity:

Know your subject so well you can discuss it naturally and confidently.

Use short words, short sentences, and short paragraphs.

Be compact. Don't separate closely related parts of sentences.

Tie thoughts together so your reader can follow you from one to another without getting lost.

For Strength:

Use specific, concrete words.

Use more active verbs.

Don't explain your answer before giving it. Give answers straightaway; then explain if necessary.

Don't hedge. Avoid expressions like it appears.

For Sincerity:

Be human. Use words that stand for human beings, like the names of persons and the personal pronouns you, he, she, we, and so on.

Admit mistakes. Don't hide them behind meaningless words.

Don't overwhelm your reader with intensives and emphatics.

Do not be obsequious or arrogant. Strive to express yourself in a friendly way and with a simple dignity befitting the United States Government.

"The 4-S formula contains the rules for correcting the common faults of Government letters, but it does not contain all the advice for writing good letters. Some good advice is omitted for the simple reason that no craftsman can tell you how to make use of it.

A craftsman can tell you, for instance, that the information in letters should be correct and complete, but he can give you no specific rules for making it so. That's up to you.

"Other advice is omitted because it leads to rules for correcting faults not usually found in Government letters. There are the basic rules of grammar, for example, which most Government writers observe. This does not mean that we must be purists to write good plain letters. We may occasionally split an infinitive or leave a participle dangling without spoiling the efficiency of a letter, offending the reader, or detracting from the dignity of Government. It does mean that the quality of our grammar must be such that it is always acceptable in polite company."

LEADERSHIP AND SUPERVISION (Part 2)

This is the second in a series of articles on "Leadership and Supervision" from material furnished by the U. S. Civil Service Commission.

Supervision and Productivity.-

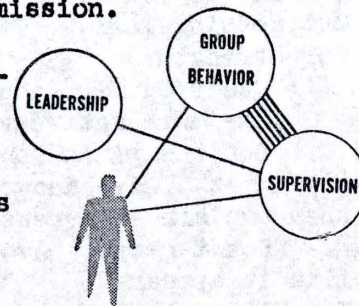
The productivity of work groups is a product: employees' efforts are multiplied by the supervision they receive.

Many investigators have analyzed this relationship and have discovered elements of supervision which differentiate high and low production groups. These researchers have identified certain types of supervisory practices which they classify as "production-centered".

The difference between these two kinds of supervision lies not in specific practices but in the approach or orientation to supervision. The employee-centered supervisor directs most of his efforts toward increasing employee motivation. He is concerned more with realizing the potential energy of persons than with administrative and technological methods of increasing efficiency and productivity. He is the man who finds ways of causing employees to want to work harder with the same tools. These supervisors emphasize the personal relations between their employees and themselves.

Production-centered supervisors, on the other hand, emphasize the administrative and technical aspects of work processes. Their main, and almost sole, concern is the need for production and more production, and they think of their employees as laborers who operate machines or mechanically perform tasks. They probably believe that, rather than increasing employee productivity, they increase production--in spite of their employees.

Now, obviously, these pictures are overdrawn. No one supervisor has all the virtues of the ideal type of employee-centered supervisor. And, fortunately, no one supervisor has all the bad traits



found in many production-centered supervisors. We should remember that the various practices that researchers have found which distinguish these two kinds of supervision represent the many practices and methods of supervisors of all gradations between these extremes. We should be careful, too, of the implications of the labels attached to the two types. For instance, being production-centered is not necessarily bad, since the principal responsibility of any supervisor is maintaining the production level that is expected of his work group. Being employee-centered may not necessarily be good, if the only result is a happy, chuckling crew of loafers.

To return to the researcher's findings, employee-centered supervisors:

- *recommend promotions, transfers, pay increases
- *inform men about what is happening in the company
- *keep men posted on how well they are doing
- *hear complaints and grievances sympathetically
- *speak up for men

Production-centered supervisors, on the other hand, don't do those things. They check on employees more frequently, give more detailed and frequent instructions, don't give reasons for changes, and are more punitive when mistakes are made. Employee-centered supervisors were reported to contribute to high morale and high production, whereas production-centered supervision was associated with lower morale and less production.

More recent findings, however, show that the relationship between supervision and productivity is not this simple. Investigators now report that high production is more frequently associated with supervisory practices which combine employee-centered behavior with concern for production. (This concern is not the same, however, as anxiety about production, which is the hallmark of our production-centered supervisor).

Defining Morale.—We had said that employee-centered supervisors contribute to high morale as well as to high production. But how can we explain units which have low morale and high productivity, or vice versa? Usually production and morale are considered separately, partly because they are measured against different criteria and partly because, in some instances, they seem to be independent of each other.

Some of this difficulty may stem from confusion over definitions of morale. Morale has been defined as, or measured by, absences from work, satisfaction with job or company, dissension among members of work groups, productivity, apathy or lack of interest, readiness to help others, and a general aura of happiness as rated by observers. Some of these criteria of morale are not subject to the influence of the supervisor, and some of them are not clearly related to productivity. Definitions like these invite findings of low morale coupled with high production.

Both productivity and morale can be influenced by environmental factors not under the control of group members or supervisors. Such things as plant layout, organization structure and goals, lighting, ventilation, communications, and management planning may have an adverse or desirable effect.

We might resolve the dilemma by defining morale on the basis of our understanding of the supervisor as leader of a group: morale is the degree of satisfaction of group members with their leadership. In this light, the supervisor's employee-centered activities bear a clear relation to morale. His efforts to increase employee identification with the group and to strengthen his leadership lead to greater satisfaction with that leadership. By increasing group cohesiveness and by demonstrating that his influence and power can aid the group, he is able to enhance his leadership status and afford satisfaction to the group.

NEXT MONTH: Improving Supervision.



"Figby, lucky devil, has Blue Cross."

HUMAN RELATIONS

"We believe that according to our desire we are able to change the things round about us. We believe this because otherwise we can see no favorable solution."

"We forget the solution that generally comes to pass and is also favorable: We do not succeed in changing things according to our desire, but gradually our desire changes."

"The situation that we hoped to change because it was intolerable becomes unimportant. We have not managed to surmount the obstacle, as we were absolutely determined to do, but life has taken us round it, led us past it, and then if we turn round to gaze at the remote past, we can barely catch sight of it, so imperceptible has it become."

---Marcel Proust

The most difficult thing in life is to know yourself.