



MAKING WAY—The old Armed Forces Institute of Pathology Medical Museum crumbles before the wrecker's ball to clear the way for construction of the new Joseph H. Hirshhorn Museum and Sculpture Garden. Bids are being invited this month for a construction contractor and will be opened April 24.

Photo by Harry B. Neufeld



THE SMITHSONIAN TORCH

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Scholars to Consider Comparative Behavior

by George J. Berkclacy

"What can we learn from the behavior of animals to help us deal with ourselves?"

"How does human behavior relate to animal behavior, especially regarding aggression and territoriality?"

"What elements in man's culture today are functioning as selective processes for the future?"

Eleven distinguished scientists and scholars from the United States and abroad will attempt to answer these and related questions when the Smithsonian convenes its third international symposium on *Man and Beast: Comparative Social Behavior*, May 14-16, in Washington, D.C.

The three-day symposium, supported by private grants, will be third in a series of periodic assessments of significant areas of knowledge conducted by the Institution.

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It will open formally with an academic procession and ceremony on May 14. A reception for participants will be held the previous evening. Special exhibits and the continuous showing of recent films on animal behavior will coincide with the symposium.

General sessions, to be held in the Departmental Auditorium at 14th and Constitution Avenue, will be open free to the public. They will be followed by seminars for speakers and symposium participants.

About 300 persons from the scientific, scholarly, professional, legislative and administrative fields, Smithsonian staff and the local community are being invited to participate in the working sessions of the symposium.

The eleven interpretive papers will be given in three subject areas: "Fundamental Mechanisms of Social Behavior," "Extending the Scope of Social Behavior," and "Evolution of Social Behavior."

All speakers will address themselves to social processes or functions that are relevant to the evolution of species. They will focus on social, not individual, behavior.

Symposium speakers and their subjects will be:

Spacing Mechanisms

Dr. Hans Kummer, formerly assistant to Professor Heinz Hediger, Director of the Zurich Zoo, and now with the Delta Regional Primate Center of Tulane University from which he is currently on leave, continuing his field work on the hamadryas baboon in Ethiopia.

Cooperative Behavior

Dr. John H. Crook has taken a wide-ranging approach to ethological studies based upon both birds and primates. Currently a lecturer on animal behavior in the department of psychology, University of Bristol, England, he is widely respected for his classic study on the evolution of social behavior and social systems in weaver birds.

Competitive Behavior

Dr. Edward O. Wilson, Professor of Zoology at Harvard University, has adopted an evolutionary approach to problems of social behavior, with continuous reference to basic processes of biogeography.

Attraction, Affiliation and Attachment

Dr. Robert B. Zajonc, Professor of Psychology and Coordinator of the Social Psychology Area at the University of Michigan, has performed pioneer laboratory experiments to study facilitation of humans in light of knowledge of isolated and paired rats, ants, and cockroaches.

(continued on page 4.)

SI to Try Satellite Animal-Tracking

by Jim Cornell

Santa Claus may get some Space Age assistance from the Smithsonian Institution and NASA in tracking down his roaming reindeer.

Scientists at the two institutions are now testing possible instrumentation for tracking large animals by means of earth-orbiting satellites.

As a first step, an elk from Yellowstone National Park will be fitted with special radio transmitters that will beam signals to the Nimbus-2 satellite.

The instrumentation, known as an Interrogation Recording and Location System (IRLS), is designed to record the daily movements and physiological data of the elk during a six-month period [with special reference to changes in weather and vegetation conditions].

The IRLS package was originally designed by NASA to provide measurements of the distance between a satellite and moving points on the earth as a potential aid to navigation.

Additional instruments, including temperature and possibly heart-rate sensors, may also be attached to the animal to study daily behavior. Although the migration patterns of elk are generally known, the specific information on how these daily movements are correlated with factors such as weather conditions, the availability of food and cover, and the presence of man, is lacking.

For example, the effects of snow storms, temperature, rain, wind, and humidity on migratory movements is not clearly understood. Although elk tend to seek shelter in times of bad weather, no one knows if migration is stimulated by the return of good weather.

White's Book Among Top 100

Transportation curator John White's new book, *American Locomotives, An Engineering History 1830-1880*, has been selected by Library Journal as one of the 100 outstanding science and technology books for 1968.

The first comprehensive, technical history of locomotive development for the early time period, it met the journal's criteria of providing "entertaining and recreational reading, factual data, and background material relating to some of the new ideas, developments, and changes in science, engineering and technology."

Nor does anyone know how rapidly the animals move from winter to summer grazing grounds or how the topography of the land affects the movement. In fact, no one really knows how the behavior of elk differs between migration periods and other times of the year.

Tracking the elk by satellite will provide an accurate and continuous daily record of their movement. Also, it will provide ground observers with precise locations of the animals for field observations.

The IRLS system is being modified as an animal package at NASA's Goddard Space Flight Center under the direction of Charles C. Cote. Helmut K. Buechner, head of the Smithsonian's Office of Ecology, is coordinating the field operations.

The actual "belling" of the elk and the

later ground observations will be made by the Craighead Brothers who pioneered in the electronic tracking of grizzly bears in Yellowstone.

John Craighead of the University of Montana and Frank Craighead of New York State University at Albany will capture and instrument one elk in Yellowstone and also implant temperature sensors in its body. The instrumentation will be carried on a modified version of the special collar they previously developed for the ground-tracking of large animals.

The IRLS package designed by NASA weighs about 7 pounds. If elk tracking by satellite proves successful, the package may be further modified for instrumenting other large migrating animals such as caribou, polar bears, whales, and elephants.

Woodrow Wilson Center Director, Trustees Named

Benjamin H. Read has been named acting director of the Smithsonian's Woodrow Wilson International Center for Scholars. The appointment was made at the first meeting of the Center's Board of Trustees.

Read was formerly Executive Secretary of the Department of State and Special Assistant to the Secretary of State. Prior to that he was legislative assistant to Senator Joseph Clark, with special responsibilities in civil rights, education, labor, and foreign affairs.

The legislation passed by Congress established that the Center be administered by a 15-man Board of Trustees, to be composed of the Secretary of State, William P. Rogers; the Secretary of Health, Education, and Welfare, Robert H. Finch; the chairman of the National Endowment for the Humanities, Barnaby Keeney; the Secretary of the Smithsonian Institution, S. Dillon Ripley; three individuals appointed by the President from within the Federal Government—the Librarian of Congress, L. Quincy Mumford; the Archivist of the United States, James Rhodes; and Assistant to the President Daniel P. Moynihan—and eight appointed by the President from private life.

The eight private citizens on the board are:

Former Vice President Hubert H. Humphrey, chairman; historian Allan Nevins; political science professor John P. Roche; publisher Ernest Cuneo; law-

yer and former Presidential adviser Charles H. Hays; political scientist James Magregor Burns; architect Kevin Roche, and former Special Counsel to the President Harry C. McPherson.

Former Vice President Humphrey commented at the meeting, "I hope we will strive to make the Woodrow Wilson Center truly the intellectual center of the nation's capital—a crossroads for scholars, diplomats, and statesmen from all over the world."

"A professor from a foreign university, interested in the workings of the United States Government, could reside here for a time—within easy distance of the Capital, the White House, the National Archives and the riches of the Library of Congress."

"The Center can be a home for historians and political scientists from our own universities."

"And I certainly hope that public servants who find themselves suddenly returned to private life might find encouragement and inspiration through an association with this Center!"

The Board was granted the power to solicit and accept gifts of funds and property, obtain government grants, acquire the site for a building, appoint scholars from all over the world, and where appropriate provide stipends for them.

Suratt Named CBS Archivist

Archivist Samuel T. Suratt will leave the Smithsonian next month to become archivist of CBS News. He will be the first person to hold such a position with the network.

The job, not rigidly defined because it is a new position, will include bringing together the resources and research personnel of the network news division—newsfilm, video and audio tapes, libraries, etc.—and developing faster retrieval of material and further educational resources.

Suratt, 35, came to the Smithsonian in October, 1965 after a year of teaching at Ohio State University.

NCFA Showing European Artists, American Posters

by Ruth Oviatt

For Washington's spring tourists, the National Collection of Fine Arts is offering two attractive exhibitions: "European Painters Today" and "The American Poster."

The exhibition of contemporary European art, which will run from April 9 to June 1, consists of 80 paintings by 48 artists from 9 countries. Not intended as a survey—hence the title "European Painters" instead of "European Paintings"—the selection nevertheless samples most of the discernible trends in the heterogeneous European scene.

Represented are some of Europe's better known painters, among them England's Bridget Riley, who won the foremost prize for painting at last year's Venice Biennale, as well as many young artists whose work has never been seen before in this country.

This showing of European paintings does not represent a change of direction for the National Collection, which is dedicated to American art, but involves the matter of reciprocity since under

the museum's International Art Program, art of this country is exhibited in leading museums abroad.

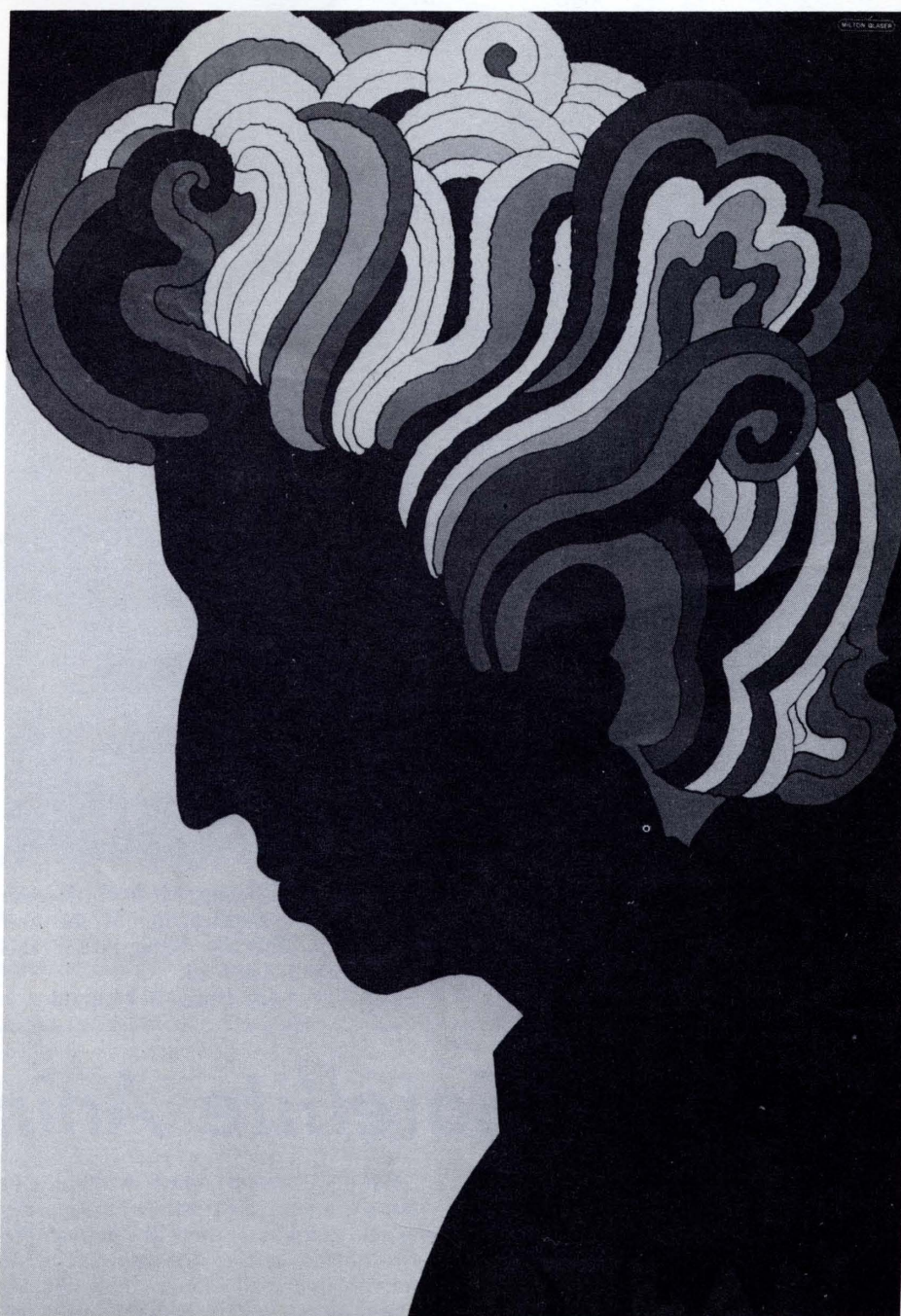
The extensive poster exhibit, which will be on display from April 25 to June 15, traces the history of the poster in the United States from just before the Civil War to the moment. It was selected by Margaret Cogswell, deputy chief of NCFA's International Art Program.

The showing focuses on three periods in American poster history: a collecting craze in the 1890s, when artists such as Edward Penfield and Maxfield Parrish were creating work which remains memorable more than a half-century later; World War I, when patriotic posters of an unequalled force and vigor were created; and the post-World War II period, when posters became a means for collectors to obtain art by painters they could otherwise not afford.

Contemporary artists represented in the exhibition include Ben Shahn, Andy Warhol, Roy Lichtenstein, George Segal, Milton Glaser, Saul Bass, Norman Rockwell, Saul Steinberg, and Helen Frankenthaler.

All of the older posters are lent by the Library of Congress, which for this Washington exhibition of the nationally touring show has contributed many fragile early theatrical posters, including the first billboard poster ever created in the U.S., an 8-by-11-foot woodcut entitled "Five Celebrated Clowns" advertising a circus.

Milton Glaser's famous 1967 poster of Bob Dylan is one of the contemporary examples of American poster art going on display at NCFA. The landmark psychedelic creation is part of an extensive show ranging from the Civil War to the present.



Antarctica Lures Three Sorting Center Staffers

Compiled by Francine Berkowitz

Leaving the chill of Washington for an oceanographic cruise south this month are three Oceanographic Sorting Center staff member, H. A. Fehlmann, Ernani Menez, and Victor L. Haley. South, however, means Antarctica.

Other March travelers are:

Assistant Secretary Charles Blitzer, to Japan and India to explore opportunities for cooperative research programs in the arts and humanities.

Robert H. Gibbs, Jr., Fishes, studying fish collections at museums in western Europe.

MNH Director Richard S. Cowan, to Costa Rica and Guatemala to attend executive committee meetings of the Organization for Tropical Studies.

William G. Melson, Petrology, and George S. Metcalf, Anthropology, in Costa Rica for a joint volcanologic and archeologic study of the Arenal Volcano.

Walter F. Cannon, Science and Technology, in Great Britain and Italy to study 19th-century instruments, laboratories and observatories and to trace the interactions of British, Irish, and Italian scientists of the early 19th century.

Thomas R. Soderstrom, Botany, surveying areas of Tunisia for a pre-Saharan research station.

F. R. Fosberg, MNH Director's office, in London and Paris to attend a symposium on a Royal Society expedition to Aldabra, and to visit herbaria.

Jon B. Eklund, Physical Sciences, in Scotland, England, France and Germany to conduct research on the history of chemistry and examine museum exhibits.

William B. Trousseau, Anthropology, in the UAR and Syrian Arab Republic to examine progress of SI programs and participate in archeological excavations.

RBL Talks On Environment

The Radiation Biology Lab's seminar in environmental biology continues each Thursday at 7:30 p.m. in the MHT auditorium. Speakers and their subjects include:

March 20—Evolutionary Significance of Abundance, Lawrence B. Slobodkin, State University of New York.

March 27—Distributional History and Ecology of Some Parasites and Their Hosts in the Arctic, Robert L. Rausch, Arctic Health Research Center, U.S. Public Health Service.

April 3—spring vacation

April 10—Patterns and Processes of Some High Mountain Ecosystems, William S. Osburn, Jr., U.S. Atomic Energy Commission.

Video Tape Aiding Marine Study

by Mary M. Krug

Modern oceanographic techniques used by the Division of Sedimentology hold a potential bonus for scientists in other disciplines, both in and outside the Smithsonian.

Marine geologist Daniel Stanley, curator and supervisor of the division, studying the Wilmington Canyon on the outer Atlantic shelf and slope off Delaware Bay, has recently used underwater video equipment to make direct observations of the ocean floor 1500 feet below the surface. The result is about 25 hours of valuable footage that show not only sediment movement, but the life on the bottom surface—something that not very many life scientists have had the opportunity to observe at these depths.

"Fish, crustaceans, echinoids, polychaetes—there doesn't seem to be a square meter of bottom surface that is not in some way reworked by organisms," Stanley notes. "The tapes could be available to life scientists. At this stage it is still pretty rare to make direct visual observations down at 1,500 feet."

Dr. Stanley has had duplicates made of the tapes for loan to interested

marine scientists and has the equipment necessary for monitoring it.

A 20-minute film made from tapes will be shown this month at the northeastern meeting of the Geological Society of America and this summer at the International Congress for Quaternary Research in Paris. The video equipment was provided by grants from the Smithsonian Research Foundation and the National Geographic Society.

A TV camera and powerful light mounted in a cage was suspended from a cable attached to the stern of the ship. Suspended in the camera range below the cage were a compass and a penetrometer, a calibrated rod-like spike to indicate the bottom consistency. A TV monitor in the ship's laboratory allowed scientists to position the camera just above the ocean floor.

The Wilmington Canyon study is a long-range project being conducted in cooperation with the U.S. Coast Guard on board the USCGS ROCKAWAY. Working with Dr. Stanley are Drs. Gilbert Kelling, University of Wales; Peter Fenner, American Geological Institute; and Donald J. P. Swift, Old Dominion College. The object of investigation is

one of a group of four canyons sited on the outer continental shelf off the eastern U.S.

The Wilmington Canyon is not unlike a submerged Grand Canyon. It is close to a mile deep, several miles wide, V-shape in cross-section, and its axis from the shelf to the deep sea is sinuous, or snake-like.

The research is aimed at finding out the origin of these canyons and how they act to trap sediments. Dr. Stanley is exploring the theory that canyons act as "funnels" for the transfer of sediments from shallow continental shelf to the deep abyssal plain below.

Possible origins of ocean canyons, long and hotly debated by marine geologists, include normal erosion by river valleys at a time when this part of the ocean floor was subaerially exposed. This, however, would require that the outer continental margin has been depressed or that sea level was once several thousand fathoms below its present level. Other possibilities include underwater erosion by currents or by slumping off the steeply dipping walls.

The tapes, says Stanley, have allowed the researchers to see the "striking importance" of bottom-living organisms that seem to disturb the original stratification of sediments and may even cause their slumping downslope. Also unexpected and heretofore unrecorded in this canyon is evidence of strong bottom currents to depths of at least 1500 feet, as noted by ripple marks and the movement of dense clouds of material in suspension.

Bottom samples dredged from the canyon, seismic profiles and television observation of outcrops on the canyon walls place the cutting of the canyon before the Pleistocene glacial epochs.

Not all the sediment observed is natural. Even in the ocean depths, man's fine hand has shown up in wrappers, beer cans, and even a wine bottle.

Daniel Stanley watches a video tape replay of the ocean bottom in Wilmington Canyon, object of study by the MNH sedimentologist. On the screen is a penetrometer, which shows the bottom consistency.



Ten Colleges Will Appear In Drama Festival Finals

Ten of the nation's best college and university drama companies have been invited to perform in Washington April 28 to May 12 in the Smithsonian's first American College Theatre Festival, co-sponsored by the Friends of the Kennedy Center and American Airlines and produced by the American Educational Theatre Association (AETA) and the American National Theatre and Academy (ANTA).

Coinciding with the Festival will be a symposium—"The American Theatre, a Cultural Process"—organized by the SI Division of Performing Arts with Henry B. Williams, the Festival's Director of Related Educational Programs. The symposium will mark the first time that a scholarly symposium has been held covering all fields of the American theatre.

The ten groups, chosen to appear from among 176 entrants and their plays, are:

Brandeis University, *THE CRIMINALS*.

Hampton Institute, *THE ADDING MACHINE*.

Hofstra University, *RASHOMON*.
Los Angeles City College, *THE WAY OF THE WORLD*.

North Carolina School of the Arts, *SHE STOOPS TO CONQUER*.

Pennsylvania State University, *THE MISER*.

University of Oklahoma, *LYSISTRATA*.

University of Texas, *AN ENEMY OF THE PEOPLE*.

University of Washington, *VOLPONE*.

Wayne State University, *A FLEA IN HER EAR*.

A. Richards, MHT Draftsman

by Philip W. Bishop

The death of Abraham Richards (called George by his intimates) removes an interesting character from the Washington scene.

Born in the north of England, he was apprenticed as a draughtsman in a Lancashire machinery manufactory but, at the end of his service, found himself in the depression of the 1930s. To earn a living, he entered "private service" and, thus, a new career.

So well did he do in this new field that in 1936 he was recommended to Joseph E. Davies, soon to be sent to Moscow as our Ambassador. Richards became his butler and general factotum and, during 1936-1938, he handled most of the Russian porcelains collected in the USSR by the then Mrs. Davies (better known as Marjorie Merriweather Post) and now in large part reposing at Hillwood. Moscow was followed by a year at the Embassy at Bruxelles.

With the outbreak of World War II, Richards returned with Mr. Davies to Washington till the Army took him for a three years' duty. After the war, Richards returned to his original vocation, spending four years in the Washington Navy Yard as a draughtsman. When that was closed down in 1961, he joined the Department of Arts & Manufactures in the Museum of History and Technology as a draughtsman and technician. A monument to his skill remains in the form of the original Van de Graaff accelerator, which he removed from the Carnegie Institution and reinstalled in the hall of nuclear energy.

He was a fine draughtsman, but his heart remained in the more sophisticated art of the butler, which he was able to express by gracious service at many a Washington party. His acquaintance with the great—and near-great—in Washington was wide and his knowledge of the changing scene encyclopedic.

Mr. Richards' popularity in the Museum was seen in the response to the invitation to join in sending flowers. A substantial check was sent to Mrs. Richards as well as flowers. His old department is deeply appreciative of everyone's generosity.

An alternate selection, the University of Arizona, will appear in place of the University of Washington, performing *MISALLIANCE*.

The productions will be staged in the old Ford's Theatre and in a newly designed tent theatre on the Mall (see October *TORCH*). The Division of Performing Arts will be providing production facilities.

"The plays chosen are an extraordinary selection of dramatic literature," actress Peggy Wood, co-chairman of the Festival and honorary president of ANTA, commented. "There is comedy, music and drama. What the American College Theatre Festival has done for the colleges and their interest in drama is hard to measure. However, it is already evident that the Festival is producing outstanding effects of excellence and that the students are reaching for the stars."

Each college group will stay in Washington six days, presenting their own production three times, watching other productions and attending the symposium.

Seminar subjects, all related to American theatre, will include acting, plays and playwrights, theatre architecture, scenography, directing, producers, educational theatre, native forms of drama, 1600-1900; European influences on the American stage, dramatic criticism, the Negro in the American theatre, and musical theatre.

Meteorite Fall Draws Quick Study

Early the morning of February 8, a blinding blue-white fireball turned night into day over a 1000-mile path from southern Mexico to El Paso, Texas.

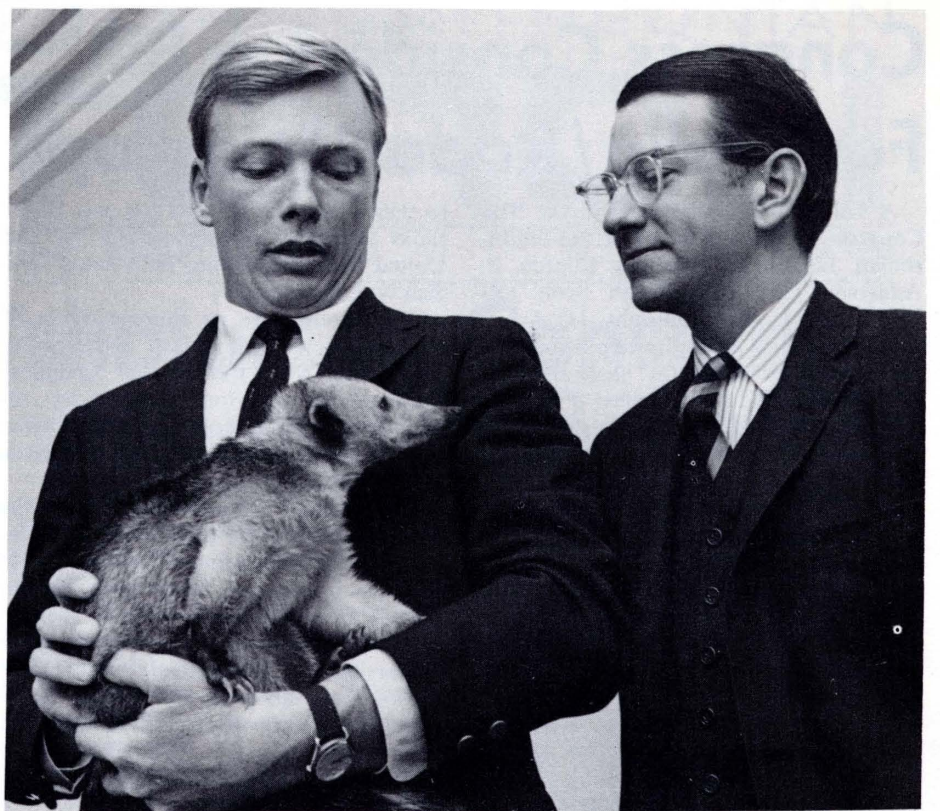
Hundreds of observers throughout Mexico reported seeing the brilliant flash of light and hearing a tremendous explosion. More important, a veritable shower of meteorite fragments fell on the little town of Pueblito de Allende in the plains of Central Mexico.

Within 12 hours after this spectacular event, the Center for Short-Lived Phenomena was coordinating the recovery of more than 100 kilograms of rare meteoritic material for almost immediate analysis in several government laboratories.

The Center's first step was to get cooperation from the U.S. Air Force in collecting possible ablation samples from the fireball still present in the atmosphere.

Air Force meteorologists calculated the wind direction and velocities at the time of fall and a B-57 was flown through the probable dust train, which by then had drifted over the Gulf of Mexico.

Samples of atmospheric dust collected by special filter traps aboard the B-57 were sent to the U.S. Geological Survey laboratory in Menlo Park, California, for analysis by Dr. Michael Carr.



LIVELY SOUVENIR—Cosumbo, a mountain coati mundi, is a living reminder of an adventurous mountain-climbing expedition in Colombia conducted as a vacation project by Robert W. Mason, left, and Philip C. Ritterbush last month. Dr. Ritterbush organized the successful reconnaissance of the Nevado del Huila, an ice-covered range of volcanic peaks rising to elevations of 18- and 19-thousand feet above sea level in the Cordillera Central of Colombia.

In addition, Dr. Ritterbush and two Colombians participating in the expedition ascended a subsidiary peak, the West Spur of the Pico Norte, at 18,500 feet.

The peaks have not been visited since a first ascent 25 years ago and there has been no reliable information about conditions of terrain and routes of approach, which will be subjects of a definitive report by the 1969 expedition.

Cosumbo will be a pet for the Mason children.

At the same time, the Smithsonian Center contacted Mexican officials and scientists and learned that possible fragments had been found on the ground.

Independently, Dr. Elbert King, a scientist at the National Aeronautics and Space Administration's Manned Spacecraft Center in Houston, Texas, traveled to Mexico and personally inspected the area of reported fall.

He reported back to the Center for Short-Lived Phenomena the recovery of 20 meteorite samples with a total weight of more than 100 kilograms. To everyone's excitement, the meteorites were identified as Type 3 carbonaceous chondrites, a rare type of meteorite thought to contain traces of extraterrestrial organic matter.

Dr. King immediately returned to the United States with samples of the material for analysis in laboratories at NASA and at SAO.

At the Observatory, the samples went to Dr. Edward Fireman for radioisotopic measurements. According to Fireman, this analysis began less than 100 hours after the fragments fell from space, perhaps, "the fastest it has ever been done."

Radioisotopic analysis of rare elements in freshly fallen meteorites provides clues to the origin and the evolution of the solar system.

Even before the first samples arrived in the labs, however, a research team from the Smithsonian had arrived in Mexico to conduct more detailed field studies. Brian Mason and Roy Clarke of the SI Department of Mineral Sciences flew to Pueblito de Allende to search for additional fragments and to map the distribution of the fall over a 50 square kilometer area.

Mason and Clarke reported back that they had picked up 26 kilograms of fragments within the first three hours of their search!

Charles Tougas and Skip Schwartz from the Astrophysical Observatory's Mt. Hopkins and Prairie Network, respectively—both experienced meteorite hunters—also went into Central Mexico to gather eye-witness reports of the fireball sighting as an aid to scientists plotting its trajectory and possible origin in the solar system.

Both the Mason-Clarke and Tougas-Schwartz teams remained in the area about a week gathering information and additional samples. Clarke brought back to MNH about 35 specimens, ranging in size from a few grams to 17 kilograms.

The Pueblito de Allende Meteorite Shower may prove to be one of the most valuable in history. For example, it is only the second time that ablation samples from the atmosphere have been collected simultaneously with samples on the ground.

The success of the speedy meteorite recovery is due to many factors: the fast action of the Center for Short-Lived Phenomena; the cooperation of MNH, the Air Force, NASA, and Geological Survey; the help of the Mexican people; and a good bit of luck.

Yes, luck!

The fragments fell smack in the middle of a little town and literally were picked up off the streets.

In fact, the largest recovered specimen just missed hitting the local post office.



Mineralogists Eugene Jarosewich, left, and Roy S. Clarke examine samples from a Mexican meteorite shower for the Center for Short-Lived Phenomena.

Lunchbox Talks

The regular Wednesday noon lunchbox talks presented by NASM on the second floor of A&I include the following speakers and subjects this month:

March 26—Capt. Marion H. Eppes, USN ret., University of Maryland College of Business and Public Administration, "The Flight of the Slow Satellite."

April 2—Dr. Stanley R. Mohler, chief, Aeromedical Applications, FAA, "The Wiley Post Story."

Congress Considering Bill For Radio / Radar Telescope

A bill (S.705) introduced in the 91st Congress by three Regents of the Smithsonian Institution, Senators Clinton P. Anderson (D-N.M.), Hugh Scott (R-Pa.), and J. W. Fulbright (D-Ark.), would authorize SI to develop a national radio/radar telescope for basic research in astronomy and astrophysics.

Under the proposed authorization, the Smithsonian would acquire land and design a telescope which would be available for use by all qualified researchers in the United States. The primary design under consideration is a fully steerable dish-type antenna between 400 and 500 feet in diameter and enclosed in a radome. The radome permits the construction of a very large instrument of great precision.

At present the Smithsonian is seeking only an authorization for two million dollars to complete antenna design studies and to begin evaluating acceptable sites.

The proposed legislation was referred to committee after its introduction and now awaits further action.

On November 30 and December 1, 1968, more than 35 leading American radio and radar astronomers met at SI

to review the urgent need for new major radio research instrumentation for the United States, including both arrays and dish-type instruments.

This group gave its support to an SI plan to establish a facility featuring an instrument with the general specifications of the 440-foot radio/radar radome-enclosed telescope designed by the Northeast Radio Observatory Corporation (NEROC).

The group recommended that the NERO concept be used in the final design for a Smithsonian telescope and that the instrument, when built, be operated as a national research facility.

A twelve-man advisory committee of university and government astronomers drawn from all over the United States was appointed to work with SI under the chairmanship of Dr. John W. Findlay of the National Radio Astronomy Observatory.

The facility proposed in the Anderson-Fulbright-Scott bill would be operated by the SAO. However, the bill specifies that the scientific advisory committee review the planned research programs for the telescope.

The advisory committee also will assist Smithsonian in the final antenna design studies and develop the scientific and technical criteria which are applicable to site selection.

Swans Subject Of Zoo Lecture

Dr. William J. F. Sladen of Johns Hopkins University will be the next speaker in the Friends of the National Zoo series on "Our Wild Animal Resources."

Dr. Sladen will discuss "Research on the Migration Behavior of Whistling Swans" April 21 at 8:15 p.m. in the Zoo Elephant House. The program is for members and guests, but the general public will be admitted at 8:10.

Program chairman for the Friends is Robert Mason. For information on this or other FONZ programs, phone him on 5811.



Johnny Hood, a museum technician at the National Collection of Fine Arts, is a featured singer on a long-playing, Dynamo-label record due to be issued within weeks. A member of the Maskman & the Agents singing quartet, Hood has been cutting successful 45 r.p.m. rock and roll records for several years, but the long-playing disk will be a first for him as well as his group. Twelve songs recorded by them on the small records are being collected on the new issue.

One of these songs, "One Eye Open," has been a big seller nationally and was in the top 10 of District radio stations for three weeks in December.

Hood, a first tenor, has played nightclub dates here and in several other cities and has appeared on television. He is something of a celebrity in the rock and roll world. "I sign autographs," he says.

NCFA to Add Saturdays to Film Schedule

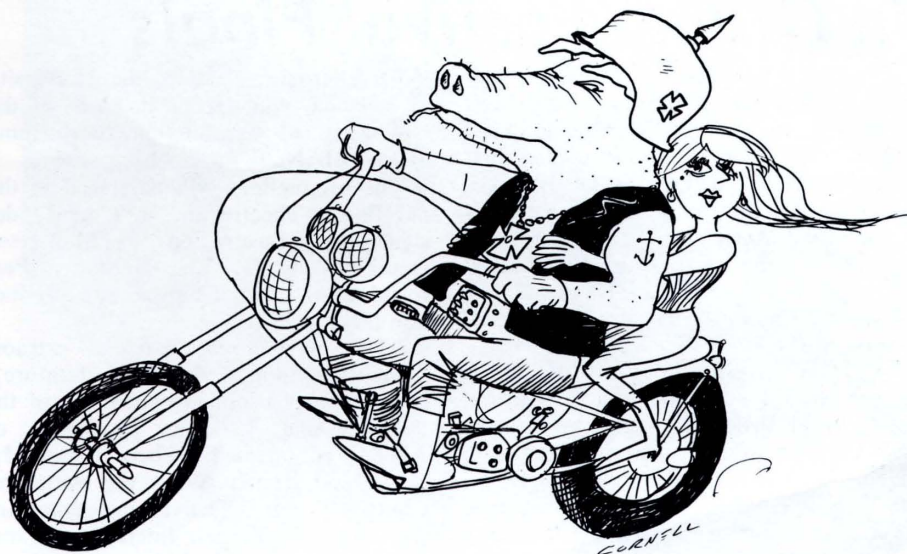
Because of its success, the film theater of the National Collection of Fine Arts is being expanded. Free movies on art and as art screened on the first and third Thursdays of each month will now be shown a second time on the first and third Saturdays of the month.

New hours for the continuous showings are noon to 3 p.m.

The reruns start next month. April 3 and April 5 films are "Mosaic" and "The Art of Seeing." On April 17 and April 19, "Francis Bacon Paintings" and "The Reality of Karel Appel" will be presented.

Two lectures on art have been scheduled by the NCFA. Dr. Francis O'Connor of the University of Maryland will talk on "The New Deal Art Projects: A New Field in American Art History" on March 27, and Kynaston McShine of the Museum of Modern Art, in New York, will speak on "The International Avant-Garde: Fashion and Politics" on April 10. Both free talks will be given at 8 p.m. in the museum's Lecture Hall.

(Wo)Man and Beast



Social Behavior

(continued from page 1.)

Neurological Aspects in Social Behavior

Dr. Detlov Ploog, Professor of Psychiatry and Director, Clinical Institute of the Max-Planck Institute for Psychiatry, is regarded as a brilliant investigator in three fields: psychiatry, neurophysiology, and ethology.

Genetic Aspects of Social Behavior

Dr. William D. Hamilton, visiting lecturer in genetics at the University of Para, Belem, Brazil, and a participant in a joint Royal Society-Brazilian National Research Council expedition to the Matto Grosso, is a member of the permanent staff of the Silwood Park Field Station of the Imperial College of Science and Technology.

Perspective on Nature/Nurture Controversy

Dr. Glen McBride, senior lecturer in the Department of Psychology, University of Queensland, Australia, began his career as an applied geneticist. He has moved toward a genetic examination of sociality and social grouping, where his experience gives him broad perspective on ethological problems.

Man's Ancestral Social Forms

Dr. Irven DeVore, Associate Professor of Anthropology at Harvard University, has pursued research into primate behavior at the University of California at Berkeley and also The Center for Advanced Study in the Behavioral Sciences. He is unique among social anthropologists in his extensive first-hand knowledge of the social behavior of primates.

The Cultural Animal

Dr. Robin Fox, Professor of Anthropology at Rutgers University, is a student of the evolution of human behavior. He formerly was associated with the Department of Social Relations at Harvard University, and Lecturer at the

University of Exeter and the London School of Economics.

The Great Shift—Instinct to Intuition

Dr. Susanne K. Langer, Professor Emeritus of Philosophy at Connecticut College, is a leading authority on the formation and function of symbols in all areas of man's intellectual activity: art, myth, and science.

International Behavior & The Prospects For Human Survival

Louis J. Halle, a leading student of international affairs and author of *Men and Nations*, is presently a professor at the Institut Universitaire des Hautes Etudes Internationales in Geneva, Switzerland.

The proceedings of the symposium will be edited for publication in a single volume as the third in a series that began in 1965 with *Knowledge Among Men*, commemorating the 200th anniversary of the birth of James Smithson. The 1967 volume was entitled *The Fitness of Man's Environment*.

Boards Elect SIE Staffers

Two members of the Science Information Exchange staff were recently honored.

Dr. Frank J. Kreysa, SIE associate director and chief of the Physical Sciences Division, was elected chairman of the Board of Trustees of the American Society for Safety Research. He is also president *pro tem* of the organization, which fosters and promotes research in safety through direct sponsorship of research projects and graduate study.

Cloyd V. Taylor, chief of the Engineering Branch, was elected to membership on the National Executive Board of the Army Aviation Association of America. Taylor is a retired Army lieutenant-colonel.

Smithsonian Fish Stories

by George E. Condon

There was no mistaking the news release from the Smithsonian Institution's publicity department. The words were easily legible.

"Why not," they said, "drop by the Museum of Natural History just for the halibut?"

It just proves what I've been trying to say all along; that they have everything at the Smithsonian, even a captive punster or two. There may be a lot of stuffed animals on exhibition, but there's nothing stuffy about the Smithsonian.

The halibut responsible for the terrible lapse by the publicity department, incidentally, is a six-foot two-inch fish named Hilda that was presented by the Halibut Association of America to represent the Pacific Ocean halibut population. There already was a halibut on display, but it came from the Atlantic Ocean, and there was a lot of strong feeling about this partisanship until the Pacific Coast people got their fish accepted.

HILDA IS DISPLAYED just below the 92-foot, 135-ton giant Blue Whale, which has been the pride of the Museum of Natural History and unchallenged until recently. But now the Natural History Museum in New York has come up with a 94-foot Blue Whale and everybody is waiting to see what the next move will be by the Smithsonian in this absorbing story.

The whales are plastic models of real animals, but most

specimens of the life forms to be found on land and in the water are the real McCoy. As a matter of fact, one of the best exhibits is Artemus McCoy himself, a pioneer philatelist who was captured at a stamp collectors' convention in Philadelphia in 1873 and stuffed with canceled 2-cent stamps which since have become terribly valuable.

STUFFING EXHIBITS like lions and tigers and Yellow Bellied Sapsuckers gradually is going out of style. A number of models are executed in life-like plastic now, and even better, a lot of animals to be used in exhibition are being given a new Smithsonian-developed freeze-drying process to preserve them.

Freeze-dried coffee has been on the market for some time now, of course, and some day perhaps a cup of it will make the display case at the museum here, but meanwhile the Smithsonian scientists have discovered they don't have to skin or eviscerate an animal for display if they put it in the freeze-dry chamber. The report is that while the animal loses most of its weight, it still retains a lifelike appearance.

Thanks to the freeze-dry process, a cold, hungry wolf comes out looking like a cold, hungry wolf. They'll do anything for realism at the Smithsonian. If the wolf ever thaws out, of course, it's every man for himself, but up until now the freeze-dry process has worked out fine. We'll reserve final judgment until after the February thaw.

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