

Rep. Rooney Is Named To Board of Regents

By Tom Harney

Congressman John J. Rooney (D-N.Y.) has been named a Regent of the Smithsonian.

The appointment by the Speaker of the House of Representatives, John W. McCormack, fills a vacancy on the 14-man governing body of the Smithsonian that occurred on July 28 with the death of Rep. Michael J. Kirwan.

Rep. Rooney, of Brooklyn, is an attorney who has served 14 consecutive terms in the House from the 78th through 91st Congresses. He is the fourth-ranking Democrat on the House Committee on Appropriations and is chairman of its Subcommittee on Appropriations for State, Justice, Commerce, the Judiciary and Related Agencies.

Rep. Rooney grew up in the neighborhood he now represents, New York's 14th Congressional District, which encompasses a large portion of Brooklyn. He attended St. Francis College from 1920 to 1922 and then took a law degree from Fordham University. To help meet his expenses, he played the cornet, "blowing it in chop suey joints," as he once put it, in his spare time.

After a law career devoted to real estate

titles and wills, fields demanding painstaking attention to detail, he was appointed an Assistant District Attorney in 1940 by New York Mayor William O'Dwyer. He gained a reputation as a tough rackets prosecutor. In 1944 he won election to the House.

Rooney, now 66, is described in Current Biography as "an arresting figure: short, compact, nearly bald, and so full of nervous energy that he reads, talks, dictates letters and even entertains visitors standing up. He rarely takes a vacation or a weekend off, and has no hobby except watching fights on TV and second-guessing the announcers."

He is married to the former Catherine Kramm Curran, and has four sons, John James Jr., Edward Patrick, Arthur Patrick Curran, and William Edward Curran, and a daughter, Mary Ann (Mrs. Michael G. Farrell).

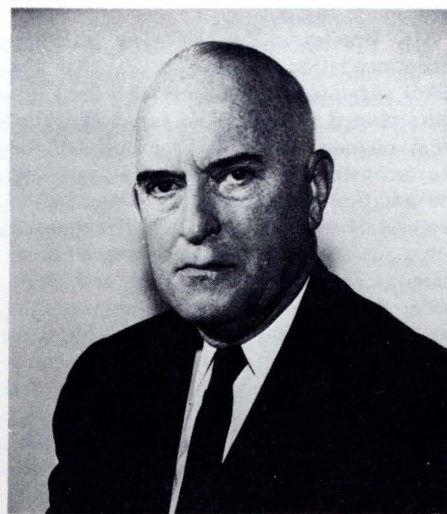
Rep. Rooney, in becoming a Regent, joins a Board that now includes: Chief Justice Burger, Vice President Agnew, Sen. Clinton P. Anderson, Sen. J. W. Fulbright, Sen. Hugh Scott, Rep. Frank T. Bow, Rep. George H. Mahon, John Nicholas Brown of Rhode Island, William A. M. Burden of New York, Crawford H. Greenwalt of Delaware, Caryl P. Haskins of



THE SMITHSONIAN TORCH

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Rep. John J. Rooney

Washington, D.C., Thomas J. Watson Jr. of Connecticut, and James E. Webb of Washington, D.C.

60 Stations Now Airing Radio Show

By Bill Craig

Radio Smithsonian is one year old and growing rapidly.

The first of the weekly half-hour programs of conversation and music went on the air September 7, 1969, over station WGMS in Washington. It marked the Smithsonian's return to regular radio broadcasting after a gap of more than 20 years since the conclusion of a popular science series sponsored by the Institution in the early 1940s.

Radio Smithsonian is described by Fred-eric M. Philips, Director of the Office of Public Affairs, as "a low-budget, no-frills project that makes an effort to broadcast a program reflecting Smithsonian activities in all their excitement, diversity, and importance."

The varied nature of the subjects aired on the series was heralded by the first program, which included an interview on starfish infestation in the Pacific, comments on Tibetan art, and a Bach sonata played on a violin in the Smithsonian's collection of musical instruments.

The 60 programs taped since then have dealt with such diversified topics as Greek antiquities, problems of pollution, the First Ladies' gowns, freeze-drying techniques for preserving museum specimens, American seacoast fortifications, Chinese and Russian porcelains, and sounds from the 1970 Festival of American Folklife.

Cynthia Helms and Dan McCleave are the regular OPA staff members who produce the series. Under an internship program established in cooperation with American University, student interns work with the regular staff members to learn the techniques of broadcasting while earning college credit.

Radio Smithsonian is now heard in Washington at 7:30 p.m. Sundays over WGMS (570 AM) and at 9 p.m. on WGMS FM; Tuesdays at noon on WAMU-FM (88.5), and Mondays at 9:30 p.m. on WETA-FM (90.0). WNYC-AM/FM in New York City is among the stations elsewhere that carry the programs. Fifty additional stations located in all parts of the nation, affiliates of the National Educational Radio Network, have requested tapes of the programs, and will begin broadcasting the series regularly in October.

"We have been extremely gratified by the response from stations as well as from the general public," Philips commented. "An important aspect of the series is that it truly attempts to represent the Smithsonian, the people at the Institution, and its varied programs, and to project them by radio."

organizations such as the Smithsonian must pioneer in winnowing and selecting from the spate of messages that now fill the communications channels of our advanced technological civilization. . . .

FINALLY

In eras of decisive historical change all institutions undergo trials: the challenge of changes in purpose, efforts to adapt to changing circumstances, and perhaps even lapses of confidence from within or without. . . . Every institution must be receptive to change, to new patterns of communication, to the concerns of new groupings in society, and to new expectations.

If the Smithsonian is to deepen its services to our society we must continue to strengthen our administrative structure, to seek new sources of support, to enlist men and women of principle and insight as officers and staff members, and to hold our performance to ever higher standards of quality and meaningfulness. I submit that the Institution must increase its ability to adapt to changing circumstances, shifting patterns of public needs, and widening horizons of leadership within the Congress and the Executive Branch.

Ripley Explains Role, Aims of SI

What lies ahead for the Smithsonian? Statements made at the recent hearings of the House Subcommittee on Library and Memorials provide an outline of the Institution's directions and goals. Following are excerpts from Secretary Ripley's statement to the committee on plans for 1970-1976. On inside pages are selections from the testimony of other Smithsonian officials. These selections are necessarily limited. Full texts of the hearings, when printed, will be available at the Smithsonian libraries.

We believe that our first responsibility is to continue the general lines of endeavor to which my predecessors, with the support of the Congress, committed the Institution: basic research in selected areas of national interest; development and maintenance of the national collections in biology, anthropology, history and the arts; and enlightenment of the public through exhibitions, and related activities.

TWO

An overriding concern should continue to be the quality of the professional staff effort within the Smithsonian and, I cannot too strongly emphasize, the achievement of an adequate level of support of that effort. I have repeatedly appealed to the President and Congress to remedy deficiencies in support of research and scholarly programs.

While virtually half of the growth in appropriations since 1964 has been devoted to staffing and operating new facilities authorized by the Congress, an equal effort has been made to sustain the basic scholarly program: support for field work, instruments, libraries and again libraries, automatic data processing, improved personnel procedures, technician support, related higher education activities, better access to colleagues through scholarly publishing, and unremitting emphasis on the professional character of staff appointments, all against a background of increasing costs.

Much remains to be done on this score. We are now documenting the character and extent of these support shortages in even greater detail for the President's budget in the future. Our budget henceforth will proceed on two tracks—the first a phased elimination of these shortages and the second to provide for the continued development of programs entrusted to us by the Congress.

THREE

There are a number of courses we should avoid. We repeatedly decline requests to assume responsibilities which we believe to be too extensive. The Institution is an establishment, somewhat akin to a university or research academy, not a public program agency with massive national

operations, field offices, or extensive granting programs.

It was once suggested that the Institution assume management of international educational and cultural exchanges funded by the Government, for example, but we could not agree. The Board of Regents has followed a consistent policy against distant museum operations such as regional museums or national museums in cities other than the Capital. Professor Henry's principle, that the Smithsonian should not bear responsibilities that others are willing to assume, still applies today. . . .

FOUR

Without infringing the autonomy of our bureaus and their distinctive objectives we shall seek the advantages of existence as a community of scholars wherein scientists and scholars learn from one another. Whether by tracing biochemical relations from one group of organisms to another or studying the behavior of a group of vertebrates first in the tropics and then following on with observations in the setting of the zoo and close anatomical and distributional studies in museum collections, we benefit from association with our colleagues. . . . Our desire to maintain unity of outlook and professional endeavor suggests that the Smithsonian should avoid program developments that do not in some way reinforce some of its other activities.

FIVE

The museum as an institution in society is one focus for Smithsonian concern; the other focus is on the vigorous prosecution of lines of study which, if left to themselves, would not receive the attention that the national interest requires. Sometimes we move beyond the museum setting to develop laboratory investigations.

When we constitute a museum it is with due emphasis upon its scholarly responsibilities in adding to the store of man's knowledge. These two foci of concern should continue to determine the Smithsonian's course, rather as two points generate an ellipse: neither museums without scholarship nor scholarship without concern for communicating with the public at large, but as in the beginning the *increase* and the *diffusion* of knowledge.

SIX

Beginning this year the observance of the bicentennial of the American Revolution will become a predominant factor in the development of Smithsonian programs. Within the settings of our history and art museums members of the public may seek a reappraisal of our national experience with due reference to its international setting. Fresh insights of historians should be interwoven with superb offerings of objects and art works that portray our Nation's course over the past two centuries

and suggest paths for our continued development.

SEVEN

From the studies of the sources of energy and means for its use by living systems to the explanation of biological diversity the Smithsonian represents an unexcelled multi-disciplinary array of information resources and professional scientists which bear upon critical needs to improve our understanding of the physical environment upon which human society depends. We anticipate increasing demands upon our efforts in systematic biology, anthropology, astrophysics, and environmental studies as important resources in the national effort in environmental improvement.

EIGHT

One of the most important unfulfilled hopes for the Smithsonian is that a great national museum might be developed on the authorized space on the Mall between Fourth and Seventh Streets and along Independence Avenue to recreate the experience of man's greatest adventure: flight and space exploration. We also aspire to present insights about the significance of the space age for everyday life and to communicate an understanding of the scientific discoveries originating from space exploration.

Thus we are coming to appreciate that it is not only machines, or relics of the past, or evidences of the skills of craftsmen that concern us, but man himself. Thus we propose also to continue to study the idea of a museum of man which could convey something of the ever-widening insight into man and society that characterizes the progress of knowledge today.

NINE

The birthright of today's citizen is an understanding of the forces shaping himself and his world. It is to museums that many people look for access to the works of artists, an appreciation of the past, an awareness of the scientific view of nature, and for portents of the future. All museums must experiment with new techniques of exhibition and embark upon research aimed at improving their effectiveness in popular education. The quality of our response to this democratic vista will continue to be a matter of overriding concern to the Smithsonian in years to come.

TEN

From the amassing of great national collections will arise difficult questions about how to guarantee access to the information they contain. This will call for innovative designs of indices, catalogues, and ways to manage vast resources of information. . . . If man is not to be engulfed by a rising tide of reports, paper, data, computer printout, and memorabilia,

'Good Morale'

Leonard Pouliot, former Director of Personnel: *It is my observation that the morale of Smithsonian employees is generally good. This conclusion is based upon a lower level of employee turnover in most job categories as compared to other agencies, a relatively lower level of racial discrimination complaints and a very low level of general complaints as confirmed by the Civil Service Commission. The Commission advised that they had only five complaints from Smithsonian employees in two years.*

Of course, we know that morale is basically the sum total of individual satisfactions and that there are many variables contributing to morale. Some of these variables include a feeling of personal esteem, a desire to know that one's efforts are viewed as being worthwhile, of acceptance by others and a belief concerning their supervisors' competencies.

We in the Smithsonian know that morale is not static and that every person perceives things differently from one day to the next. It is for this reason that we place heavy demands upon our supervisors to exert their managerial skills to enhance morale. Supervisors do not always succeed but it is certainly rare to find a supervisor deliberately desiring bad morale among his staff.

We plan to conduct an employee attitude and morale survey within the next ninety days to assess the effectiveness of supervisors and the morale of employees. There are organizations in the Smithsonian wherein morale is excellent. There are other organizations where morale is not high and it has become evident that the managers and supervisors need to concentrate on motivation and morale.

We will continue to assist those managers whose efforts do not seem to bring about employee satisfaction along with high productivity.

2 Views of Next 3 Decades

**Daniel Boorstin,
Director, NMHT**

The Smithsonian's opportunity to use all the ingenuities of modern technology is also unique. Less confined by the boundaries of the printed matter or the lectured word than many other institutions, the Smithsonian is accustomed to use living creatures, physical objects, audio-visual techniques, dramatic performances, and patriotic incentives.

In a vital nation, institutions are always changing their roles. Government, universities, and private industry, among others, are certain to abandon some roles and to assume some that are new. The Smithsonian has an opportunity to see that enterprises for the increase of knowledge which American civilization requires are not abandoned. The Smithsonian, with its remarkable flexibility, its combination of private and public resources, can find ways to encourage Americans and others to cooperate in the increase and diffusion of knowledge.

In these last decades of the 20th century, the vitality and explosiveness of American ingenuity and American enterprise give a new importance to an old role of the Smithsonian. As many of the other agencies of education and acculturation become preoccupied with the present, with the "relevance" of everything to what is reported in this morning's newspaper, the Smithsonian can play a leading role in giving the nation its perspective. In every generation the Smithsonian can help cure the nation of myopia. When Americans seem discouraged by their apparently unique and overwhelming current problems, the Smithsonian's rich resources of national history and of the history of man's progress can remind the nation of how and what it has been able to accomplish. With the approach of the nation's 200th birthday, the Bicentennial of the American Revolution, the Smithsonian has a special opportunity to help the nation to a wholesome rediscovery of its mission and its destiny.

The Smithsonian's opportunities, then, and its responsibilities—unlike those of other educational institutions—are not limited by geography, by age, or even by

literacy. Its audience extends from the youngest child whose parents can carry him to view the Star Spangled Banner at the National Museum of History and Technology, to the learned Nobel-Prize-winning physicist who assesses the universe at the Smithsonian Astrophysical Observatory. As the temptations increase to atomize the American people, the need becomes daily greater for the Smithsonian to draw men together in a common recognition of the achievement of man in America and of man's common quest.

**Joshua Taylor,
Director, NCSA**

Although much apologizing goes on in an effort to dispel the idea of the Smithsonian's being the nation's attic, I think that over the next 30 years the virtue of having an attic will become more marked.

The present attitude of the young that seems so anti-historical should not be misread. Actually there has probably never been a generation that has so thoroughly made the past a part of itself. The rebellion is against the purposeful schemes of 19th-century historicism.

Brought up with these formulas of causation and moral context, it is hard for us to see history in the formless, non-chronological array of past objects that now popularly appears. But freed from its schemes and directions, the past, as a directionless but nicely differentiated complex of experiences, offers an unending array of distinct facets to our understanding, otherwise jaded by easy concepts and the monotony of efficient production.

In a disposable culture, a new value is likely to be found in the uniqueness of persistent things. Therefore, far from losing its character as a perpetuator of things, the Smithsonian should become an even more determined pack-rat. Furthermore, I would hope that its nature would be imitated in various parts of the country, that there would be many local attics.

These should not be agencies for the diffusion of centrally gathered knowledge, but should emphasize the vestigial peculiarities of their regions to serve as bulwarks against the mind-numbing sameness that is sweeping the world.

Reflections on the Smithsonian

Wheeler, Bradley Discuss GAO, Handling of Funds

Mr. Brademas. Is there any difference in opinion between Smithsonian and the GAO [General Accounting Office] with respect to any recommendations they may have made to you?

Mr. Bradley. Yes, sir. The principal recommendation, as we see it, that the GAO suggested we take up with the Congress related to the use of some, speaking from memory, \$350,000 appropriated for the reconstruction of the central part and the addition of monumental wings to the Natural History Building which happened some years ago but the final expenditures were made in this fiscal year and came under their purview. Their point was that the funds normally appropriated for construction shall not be used for anything that is not attached to the building. We have consistently—and so have other agencies—sought to produce a turnkey building complete with everything in it, including furniture, furnishings, all ready to go as a new structure. . . .

So, we justified to our two committees, House and Senate, in some detail that we would like to have as a part of the construction appropriation, which totaled almost \$20 million in all, an amount for furnishings and equipment along with a lot of other things—light bulbs, landscaping, and so forth. We detailed that and outlined it in the budgetary justifications, and we showed that to the General Accounting Office. We are at a loss to understand why there is any question about the expenditure of funds justified for furniture and furnishings and equipment when you spend it for the very purposes for which you justified it to the Congress without dissent.

Mr. Brademas. I do not mean to pursue this particular question in great detail. It seems to me on the face of it, one ought always to be on the side of expending funds for the purpose for which they were in-

tended, but I must say as I look at the first page of the GAO report and read the sentence under "Findings and Conclusions" that the Smithsonian used \$40,095 and then Smithsonian also used \$3,835, and GAO is upset about that, when I think of what goes on over in the Department of Defense, my blood does not boil very much.

Treasurer T. Ames Wheeler: I believe it is evident from this broad picture of the Smithsonian's finances that the accounting problems of the Institution are indeed complicated. We operate, in effect, with six different kinds of monies, namely:

- Federal funds for current operating purposes
- Federal funds for construction projects
- Private unrestricted funds
- Private restricted funds
- Grant and contract monies
- Foreign currencies

At the same time, our activities are spread over some 40 different bureaus, offices and activities of the Institution. . . . Many of the most diversified of these operations have come into being in fairly recent years. The result from a financial and accounting standpoint is that we have outgrown our previous relatively simple accounting system.

To meet this situation the Smithsonian has been striving with the utmost vigor over the past two years or more to revise its financial and accounting methods so as to provide the modern management information and control system needed to give proper guidance for the direction of this diversified Institution. . . .

In summary, then, it can fairly be stated that our financial and accounting controls have been adequate to prevent overspending or misspending of the Institution's federal appropriations. Our private funds are independently audited each year and disclosed fully to the Institution's Board of Regents at the Board's regular meetings, with further annual disclosure to the public in the Smithsonian Yearbooks. At the same time, it has been fully recognized that by reason of the rapid growth of the Institution, improvements were needed both in our accounting operations and in our codification of internal procedures. Strenuous efforts to achieve these improvements have been underway for over two years, with major segments of the program already accomplished and the remaining portion scheduled to be completed as rapidly as possible in the next year or so.

The Magazine: Link to SI

Mr. Bingham. Would you tell us a little bit about the publication that you inaugurated this year, and what the status of that is?

Dr. Ripley. This is a magazine which has been developed as an effort to reach Associates more than 50 miles from Washington. . . .

It had been the intention from the beginning to attempt to set up a national organization of Associates. So we started this fall, after two years of study, a National Associates magazine by soliciting memberships in the National Associates. At the present time we have something over 180,000 members of this National Associates organization. We have a beginning board for the National Associates. The chairman is one of our Regents, Mr. Watson.

The magazine has gotten off to an interesting and, I think, very successful start.

The purpose of the magazine is to create a first link between someone living more than 50 miles from Washington and the Smithsonian itself. . . .

Mr. Bingham. Do you find that the response to this effort indicates to you that there is a demand for such publication in light of the fact that there are so many publications of various kinds?

Dr. Ripley. We have done one or two test mailings on the kinds of people who become National Associates. The magazine was started as the first link on the basis of a hunch that there were many people at a sort of professional level in the country who would be interested in a

Bradley Summarizes Recent SI Growth

Under Secretary Bradley: The Congress in recent years has substantially broadened the diversified programs of the Institution. Over 20 programs have been added by legislation, including such major museums and functions as the Museum of History and Technology, the National Portrait Gallery, the Foreign Currency Program, the National Air and Space Museum, and the Woodrow Wilson International Center for Scholars. However, the growth of the Smithsonian's role as trustee "for the increase and diffusion of knowledge among men" and its need for additional leadership positions is most dramatically presented in the following brief statistics. The Smithsonian personnel has increased from 500 employees in 1955 to over 2,000 employees in 1970 and our operating appropriations from \$3 million to \$30 million, or almost tenfold.

The Congress has recognized that visitors to the Smithsonian have increased from eight million in 1957 to an estimated 19 million in 1970. Through the generosity and, may I say, the recognition accorded by the Congress to the Smithsonian, our buildings for the preservation of the national collections and for their exhibition have more than doubled, rising from 1.4 million square feet to 3.3 million square feet. . . .

The original Smithsonian endowment of \$500,000 has now grown to over \$30,000,000 and remains the basic resource to which, in recent years, Congress has added substantial annual appropriations and programs. Although the Smithsonian fully respects the budgetary and legislative procedures established by the Executive Branch, this does not change its essential nature as a separate corporate trustee with a direct mandate from the Congress.

Matter of Degrees

Philip Ritterbush, Director, Office of Academic Programs: The Institution does not seek to award degrees. Should we do so we would have to inaugurate general or preparatory instruction for graduate students—directly contradicting our own tenet of specialization in depth. We do not "do" all biology or all history—only select areas. Within these areas students are welcome, especially if their home institution cannot do them justice.

Will the Smithsonian "become" a university? Not, I venture to say, in the sense of that term in the present day. There is, however, a very real possibility that universities will become more diverse and experimental, and that in the course of their own innovations they may hit upon a formula like that which has guided the Smithsonian: specialized research and a commitment to open popular education.

Even then, I don't think it would be fair to say that the Smithsonian had "become" a university. Rather it will go on as it has gone on, being itself, responding to unfulfilled potentials cooperatively.

monthly account of this sort which embraces art, history, science, and so on, the manifold interests of the Institution. The response from these test mailings show that over 60 percent of the people who have become National Associates are people at a high professional level or capacity. This is expressed in their careers and the kinds of income they have, and so on. This is an astonishing response so far as the magazine is concerned. . . .

Mr. Thompson. What is your profit and loss figure on these [Associates] memberships?

Mr. Warner [William Warner, Assistant Secretary]. The Resident Associate program has been self-sustaining almost since the beginning and has shown a slight profit. We actually had a small loss this year in the Resident Program of around \$23,000. But most of the years it makes money.

On the returns from National membership, that is, the magazine, I think we project that we will turn the corner and start making a profit in about a year from now.

The Future in Science

RBL To Monitor Solar Radiation Around Globe

Dr. Galler: Dr. William Klein [Director of RBL] is attempting in coordination with the Smithsonian Astrophysical Observatory, Dr. Whipple's bureau, to develop a system of environmental monitoring stations elsewhere in the United States and other parts of the world in order to compare the radiation, solar radiation in various parts of the globe.

Hopefully, over a period of time, this will give us a full picture of what is happening. I should also point out that, as was mentioned or touched on by Dr. Klein, one of the unknown, one of the ponderables in this equation deals with what we call the biological clock, how the changes in solar radiation may either keep in phase or take out of phase growth and development in plants and subsequently or secondarily animals. We are engaged in a program of animal tracking, radio tracking of animals, satellite connected and hopefully there will be a convergence of the data that is being obtained through Dr. Klein's radiation biology laboratory, the collections of specimens that are being made at the same time through the Museum of Natural History for systematics and studies of the biological distribution over space and time, and the effects on animals through the satellite radio tracking systems.

MNH Research No Newcomer To Ecology

Richard Cowan, Director, NMNH: Among all the animals other than man, a consciousness of the environment appears to be limited to the presence or absence of food, beneficial or harmful temperatures, adequate or inadequate conditions for reproduction, and other life responses.

Man alone is able to comprehend the environment in relation to his needs and in aesthetic terms as well; in spite of this unique quality, it is also man who despoils, destroys, and desecrates his environment. On the other hand, only the human species can care enough about the environment to repair at least some of the damage.

Whatever improvements are made rest squarely on the natural sciences and the knowledge they generate. The research staff of the National Museum of Natural History—anthropologists, zoologists, botanists, paleontologists, and mineral scientists, working together—contribute importantly to the growing awareness of our living world.

I think it is fair to say that there have always been more scientists of the natural history type in the Smithsonian than of any other class of researcher and from the outset they have been contributing to environmental understanding.

Goldwater Questions, SI Answers

Senator Barry Goldwater brought up several questions about Smithsonian management. SI was asked to submit responses. Two of the primary issues are addressed in this way below.

Subject:

Senator Goldwater stated that his aim is to inquire whether the Smithsonian's list of priorities has slipped off course and whether the same level of attention should be given to the National Air and Space Museum that the Institution gives to so many other of its projects. He specifically asked the same question with regard to the Museum of Natural History.

Smithsonian Comment:

We believe that there is no question about the position of the Board of Regents or the Secretary of the Smithsonian Institution concerning their interest in striving for a construction appropriation for the National Air and Space Museum Building.

The Museum of Natural History and the science of systematic biology represents one of the many important activities of the Smithsonian Institution. Not only have these areas been of concern since very early in the Institution's history, but they represent certain of the most significant sources of knowledge that the Institution has.

The national collections for which we are responsible combine specimens collected over the many years of our existence with the accumulated knowledge about these specimens and the interpretations made concerning their role as members of ecological units. They comprise a body of knowledge unavailable elsewhere which has only recently been recognized as an essential basis for many of the programs of federal mission-oriented agencies in the field of pollution control and environmental enhancement. The geographic, ecological, and temporal data attached to each specimen provide essential ingredients for our attempts to prevent further deterioration, to restore quality where it has been degraded, and to assess probable effects of future environmental manipulation.

For example, from this resource we may establish the natural radiation levels in organisms collected before nuclear weapons testing, the load of metallic compounds carried by them before air pollution advanced to its present threatening proportions, and the biochemical constitution of organisms before we began releasing persistent pesticides into the environment. . . .

By way of summary, [we] should like

to propose that our biologists are the producers and weavers of the fabric that they and their ecologically oriented colleagues tailor to meet the most urgent human problem—survival in a decaying environment.

The research collections of the National Museum of Natural History represent a unique national resource for science generally, but specifically they are increasingly recognized as the documentation for most of what we know about the natural world of which we are a part. . . . Most importantly, these objects and the research products derived from their study present us with information that may be used in unprecedented ways to predict the nature of the effects on the environment of future proposed manipulations.

The collections of natural history materials and the institutions that are the national caretakers are grossly deficient of the support they deserve and must have if they are to provide the data science must have. Consequently, the condition of the collections is deteriorating for lack of storage space and equipment; professional systematists are spending unconscionable amounts of time in menial tasks for lack of technical assistance; and the rate of growth of the manpower for systematic studies is far below the level already needed. . . .

We have suggested that the National Academy of Sciences establish a standing committee on systematic biology that would give special attention to the requirements for adequate preservation of the invaluable resource represented by the major one hundred systematic collections in the museums and other centers across the land. . . . In any case, those of us who share the responsibility for maintaining national reference collections must find ways of fulfilling those responsibilities in the face of rapidly increasing demands for systematic information that are derived from national programs in oceanography, ecology, and the like.

Subject:

Senator Goldwater referred to sharp complaints about the decline of support to the National Museum of Natural History.

Smithsonian Comment:

Each year our budget submissions to the Bureau of the Budget and the Congress have justified the need for additional funds for support of our scientific research and the maintenance of the collections. Our success in acquiring additional funds in our appropriations for these purposes is usually a reflection of National economic conditions.

Ripley, Whipple Describe Need for Radio Telescope

Secretary Ripley:

An appraisal of national needs in the field of radio astronomy was documented in the Whitford Report in 1964. The situation was found to be bleak. The Report included as one recommendation that engineering studies be pursued for the largest possible steerable parabolic antenna. The instrument now proposed to this Committee represents a conservative step toward the design of the largest feasible such antenna.

Since the time of the Whitford Report, I am advised that no action has been taken to carry out its major recommendations for a radio astronomy program of vital importance to the Nation.

It is contemplated that this research facility will be used by scientists from every section of the country. Under the administration of the Smithsonian, the telescope will therefore be a truly national facility serving national goals.

Fred L. Whipple, SAO Director:

Radio astronomy is a product of 20th century science. It began in 1932 when Karl Jansky of the Bell Telephone Laboratories discovered that our Milky Way was producing a noise interference with trans-Atlantic radio communication. Little progress was made until after World War II, during which radars encountered occasional interference from solar noise static. Radio astronomy developed rapidly afterwards because of the enormous impetus to electronics that the war had produced. . . .

Radio astronomy has extended our measuring tools to the limits of the optical universe and perhaps farther. The quasi-stellar objects, or quasars, which appear to be point sources optically, are radio sources of immense energies. . . .

Because of the development of electronic clocks of extraordinary precision (one second of time error in a million years) it is now possible to use radio telescopes

In the fiscal year 1965, the National Museum of Natural History was allotted \$2,326,000 and 219 positions. In fiscal year 1966, this Museum expended \$2,854,000 and had 236 positions. Included in these figures was support for the Office of Oceanography and Limnology and for the Ecology program. In fiscal year 1970 this Museum expended an estimated \$3,885,000 and had 258 positions. The latter amounts are exclusive of Oceanography, Ecology, and the Center for the Study of Man, programs associated with the study of natural history.

The increase in the Museum of Natural History from \$2,854,000 in 1966 to \$3,885,000 in 1970, an amount of \$1,031,000, was 36%. Included was a substantial amount for salary increases pursuant to law. . . .

It should be noted that the programs of the Museum of Natural History are supported to a substantial degree through other, separately budgeted units of the Institution. In 1970, the Smithsonian Research Awards to the Museum of Natural History staff amounted to \$295,000 and the Foreign Currency Program allotted \$760,000, including certain multi-year awards.

Building, Director Sought for NASM

Mr. Ripley: The National Air Museum was established by Act of Congress in August 1946 and amended in 1966 to include references to space flight and space flight equipment. It is hoped that the authorizing Act of 1966, which includes the provision of land and a site for a building, can be actively studied in the next budget hearing for 1972, with the thought that we can restudy what now appears to be a building which has been designed too long and held waiting in the wings for too long, and hope to come back to the Congress eventually for a far less expensive and smaller building than was originally intended.

Mr. Bradley: I should say that we have interviewed 31 potential directors. We have been diligent, we have been looking for an extremely capable man, and we don't yet have him, but we are zeroing in and we think we soon will have a director.

simultaneously over the entire diameter of the Earth to measure angular diameters of distant quasars and other radio sources to accuracies much higher than those possible optically, to about a thousandth of a second of arc.

More recent radio astronomy has led to the discovery of a new form of matter in the remarkable *pulsars*. These stars are neutron stars, that is, made of neutrons. They are so dense that a volume represented by the ball of a ballpoint pen, if made of this substance, would have a mass of a hundred thousand tons. Such stars may have a total mass comparable to the Sun, but they have diameters of only ten to twenty miles. Some of these stars spin about their axes as fast as thirty times a second. . . .

Parallel to radio astronomy, the new science of radar astronomy has developed rapidly in the last two decades. With a powerful radiowave transmitter emitting extremely short pulses of radiation, a large radio antenna can be used effectively as a radar to bounce radio pulses from the Moon, the near planets such as Mercury, Venus, and Mars, and the Sun.

While radio astronomy was demonstrating that the surface of Venus is hotter than a roasting oven, radar astronomy demonstrated a slow retrograde rotation of the planet; that is, Venus turns clockwise as seen from the north instead of counter clockwise as is prevalent for both rotation and revolution in the solar system. Huge radars are now mapping the completely cloud-covered surface of Venus and the still partially observed surface of Mars to produce radar pictures with detail comparable to what one can see on the Moon with binoculars. Venus has huge mountain ranges on its surface.

The proposed 440-foot diameter radar enclosed fully steerable radio dish has received the most thorough and competent engineering study attempted for any such system. An antenna of great area is required because the radiations we measure in radio astronomy and the reflected signals that we attempt to receive in radar astronomy are unbelievably weak. If set on the strongest radio star a 100-million-million great radio dishes would be required to light up a 100-watt light bulb. . . .

The scientists of the United States have led the world by discovering *all* of the new lines so far known in radio astronomy and by making other major contributions. Yet, we as a nation lag shamefully in the development of large radio antennas. . . .

Basic research is fundamental to the welfare of our country both in the areas of intellectual progress and in applications to modern technology and human welfare, but we are being seriously handicapped by the lack of funds with respect to progress made in other countries that have far fewer resources. The proposed telescope will be a national facility, available for use by other scientists but also available to other departments or activities in the Government for special purposes.

Our scientists have proven competence to forge ahead to new discoveries of a truly exciting nature, the most interesting of which, like the pulsars, will be unpredictable. We know, however, that the great 440-foot dish will enable us to study by radar the satellites of Jupiter, some asteroids, an occasional comet and to study the near terrestrial planets in a detail not achievable for Venus even by space probes.

Since radio astronomy appears capable of penetrating farther toward the outskirts of our physical universe than optical methods, the new dish gives us a confident assurance of new discoveries about the nature of the universe, its age, and yet unknown processes that occur today or occurred billions of years ago when perhaps the universe was new. It can provide us with a deeper understanding of the nature of space-time-relativity and the universe in which we live. Applied to the space program it can effectively multiply the payloads of deep space probes by increasing their communication rates with the same power sources. If we ever detect the presence of intelligent beings elsewhere in the universe, we will almost certainly do so by means of a great radio telescope.

What's Ahead in the Arts

Blitzer Outlines Directions Of Institution Art Programs

Charles Blitzer, Assistant Secretary:

I would expect that the National Portrait Gallery will give high priority to building up its collections and strengthening its historical program. I expect that the National Collection of Fine Arts will place the greatest emphasis on the care and use of its permanent collections, and on developing its potential as a center for research in the history of American art. In both these cases, the presence at the Smithsonian of the Archives of American Art will be an enormous help. I expect that the Museum of History and Technology will pay particular attention to methods of communicating more and more effectively with its visitors, who already total some five million a year. I am sure that the Hirshhorn Museum will concentrate upon plans for its public opening. . . .

In short, then, it is our view that each of our history and art museums should be an independent, viable entity, operating within agreed-upon areas and policies, under the guidance of its advisory board, its director, and its professional staff. I believe that today each of these museums is better equipped to achieve its purposes and to carry out its mandate than ever before. I base this statement on a judgment of the collections, the professional staff, the physical facilities and, perhaps most important of all, the strength and clarity of purpose of each museum.

As to the Institution's future in history and the arts, I would say first that, with the exception of special American Revolution Bicentennial activities, we have no large, novel plans that go beyond our present mandate from the Regents and the Congress. I believe that all of our energies, and all of the support we can hope to obtain, can best be devoted in the years immediately ahead to fulfilling the responsibilities and realizing the opportunities that we already have. . . .

I have mentioned these themes—American civilization, world art, and human creativity—in order to suggest that the Smithsonian's activities in the humanities and arts represent more than a random collection of separate museums and bureaus pursuing wholly unrelated programs. In doing so, however, I most emphatically do not intend to suggest that these individual museums and bureaus should be viewed as no more than pieces

in a larger mosaic. On the contrary, I am absolutely convinced that our major responsibility in this area is to make each museum and each bureau as strong as possible.

I am convinced further that to this end each must maintain its own character, its own identity, its own programs and, to the greatest extent possible, the means to carry them out. And I am also convinced, although it may at first seem paradoxical, that the best way to achieve the kind of cooperation I have been talking about is to ensure that each museum is dedicated to the pursuit of its own objectives in research, education and public enlightenment, and to ensure that each is as strong and lively as it can be in this pursuit.

Freer Aim Is Knowledge Of Eastern Civilizations

John Pope, Freer Director: To maintain the atmosphere that fosters productive research, to continue adding to the sum of knowledge of the civilizations of the East, to publish and make available this information to the interested world, these matters are the concern of those who are responsible for the operation of the Freer Gallery. In an era where the museum is more and more becoming a center for social activities and a place of entertainment, it is ever more important that the Gallery not lose sight of the purposes for which it was founded and the fields in which it has made a unique contribution. The much abused word "relevant" means "bearing upon, connected with, pertaining to, the matter in hand"; for us the matter in hand was clearly defined by Mr. Freer.

Ever since the start of World War II, United States interest and participation in the affairs of the Far and Near East has greatly expanded. It has become more and more imperative that we understand the civilizations, both ancient and modern, of these areas for they daily affect our lives.

Accompanying this expansion of interest there has been a sizable population

growth. A result of these factors is a major increase in service demands on and need for the Freer Gallery of Art. This we welcome, for it is in line with the aims as set forth in the gifts of both James Smithsonian and Charles Lang Freer. It signals our direction for the future, for within the limits of the Deed of Gift we shall ever strive to study these civilizations through their objects of art and disseminate the knowledge gained therefrom.

To achieve this goal, we must accelerate our growth physically and financially while traditional standards of excellence must be maintained.

Sadik Describes 2 NPG Projects

Marvin Sadik, NPG Director:

Dealing with the last-named program first, the Catalogue of American Portraits has thus far acquired documentary information about nearly 20,000 portraits, and photographic records of a major portion of these works. Ultimately, this material should constitute a nationwide union catalogue covering all public and private collections. Data about these portraits is being programmed in such a way that, when computerized, information retrieval will be possible from a number of viewpoints, such as subject, artist, locale, etc. Computer programs also will be devised to provide answers to more complex questions involving combinations of criteria.

While most major institutions have published their holdings, the gathering of information about portraits in traditionally unpublished collections, such as state, county, and local historical societies, colleges and universities, private collections, and dealers' galleries presents a much more difficult problem. In order to pursue this objective, it will be necessary to send scholar-photographer research teams into the field. The Keeper of the Catalogue of American Portraits presently is investigating time-saving automated data-collection

Lerner Ready Opening Show For Hirshhorn

Abram Lerner, Hirshhorn Director:

The opening exhibition of the Hirshhorn Museum and Sculpture Garden will consist of selections from the painting and sculpture collections displayed within the Museum building, while a permanent exhibition of monumental sculptures will be placed in the outdoor Sculpture Garden and on the Museum grounds.

Although it is planned to use the Museum's entire exhibition space to display selections from the permanent collection when the Museum officially opens, a large area has been designated for special changing exhibitions. These exhibitions will be mounted by the curatorial staff or by guest curators. Major one-man, group, and theme exhibitions emphasizing individual excellence as well as significant developments in modern art will be displayed at our Museum using objects from the permanent collection as well as loans from institutions throughout the Nation and abroad.

The world-wide reputation of our sculpture collection makes it particularly appropriate for our Museum to initiate an international sculpture biennial which would give Washington an art event of the first magnitude and would attract outstanding artists, scholars, critics, and art lovers from every part of the world.

devices, portable photographic gear, means of transportation, costs and budgets, and the personnel necessary for the implementation of such a project.

Already extremely useful, the Catalogue of American Portraits ultimately will be of incalculable value to historians, sociologists, economists, and so on, as well as to the general public—not only as regards the portraits themselves, but in terms of the information about the subjects portrayed. . . .

The National Portrait Gallery projects several exhibitions to celebrate the Bicentennial of the American Revolution. One of these would deal with the portraits of George Washington, an iconographic exhibition of life portraits, political cartoons, and cult images executed during the period of Washington's lifetime and up until the centennial of his birth. In addition to the production of a major publication, this exhibition is one which would lend itself particularly well to a film on Washington based primarily on the portraits, but interspersed as well with associative material and footage shot on location. Another exhibition, on the Signers of the Declaration of Independence, would contain as many of their portraits as are extant and available and focus on the great diversity of background, occupation, and personality among the men involved in the writing and signing of this document.

Ripley Explains Naming Of Hirshhorn Museum

Mr. Brademas. Could you comment on the role of the Smithsonian in obtaining the Hirshhorn collection, give us your judgment on its significance, and perhaps comment on the naming of the building? I am sure you are aware that has been the subject of some conversation, also, in the press, in view of the experience of the Smithsonian with the National Gallery of Art and the relationship between the Gallery and Mr. Mellon.

Dr. Ripley. The role of the Smithsonian has been to encourage the acceptance of the gift of the Hirshhorn collection by the nation, and in connection with that I am very happy to accede to the concept that the building should be named the Joseph H. Hirshhorn Museum and Sculpture Garden.

We have many examples of equivalent buildings on the Mall and in other parts of the nation which have been named after a donor. There is constant discussion and argument in the press and among aficionados of this sort of thing as to whether or not this is noble or ignoble in any instance, whether or not it will add to the collection or depreciate the collection, whether or not it will serve the general purposes of the public.

We have the Smithsonian bequest memorialized in the form of the Smithsonian Institution. We have the Freer bequest memorialized in the form of the Freer collection, which is far more restrictive in its terms, which has been accepted by the Regents of the Smithsonian and authorized by the Government of the United States on a far more narrow and restrictive basis than anything in the present legislation regarding Hirshhorn. Except for the sole surviving member of the friends of Mr. Freer who were thought to have his esthetic tastes in mind, namely, Mrs. Eugene Meyer, [now deceased] it is impossible for any other person to give anything to the Freer collection. It is not impossible for people to give things to the Hirshhorn collection, and they already have been

doing so.

We have also the tradition within the nation that other buildings, let us say the Guggenheim Museum in New York, memorialize the name of a donor and are built or not built with funds provided by that donor, because both cases occur. After a period of time the museum stands as an entity by itself. It encourages, or not, collections.

I would say the relative merits or demerits of naming a building after a particular person are secondary to the question of the acquisition of the collection.



Rep. John Brademas (left), Secretary Ripley, and Rep. Frank Thompson confer during a break in the recent House hearings on the Smithsonian. Other subcommittee members are Jonathan Bingham, Kenneth Gray, Fred Schwengel, James Harvey, and Philip Crane.