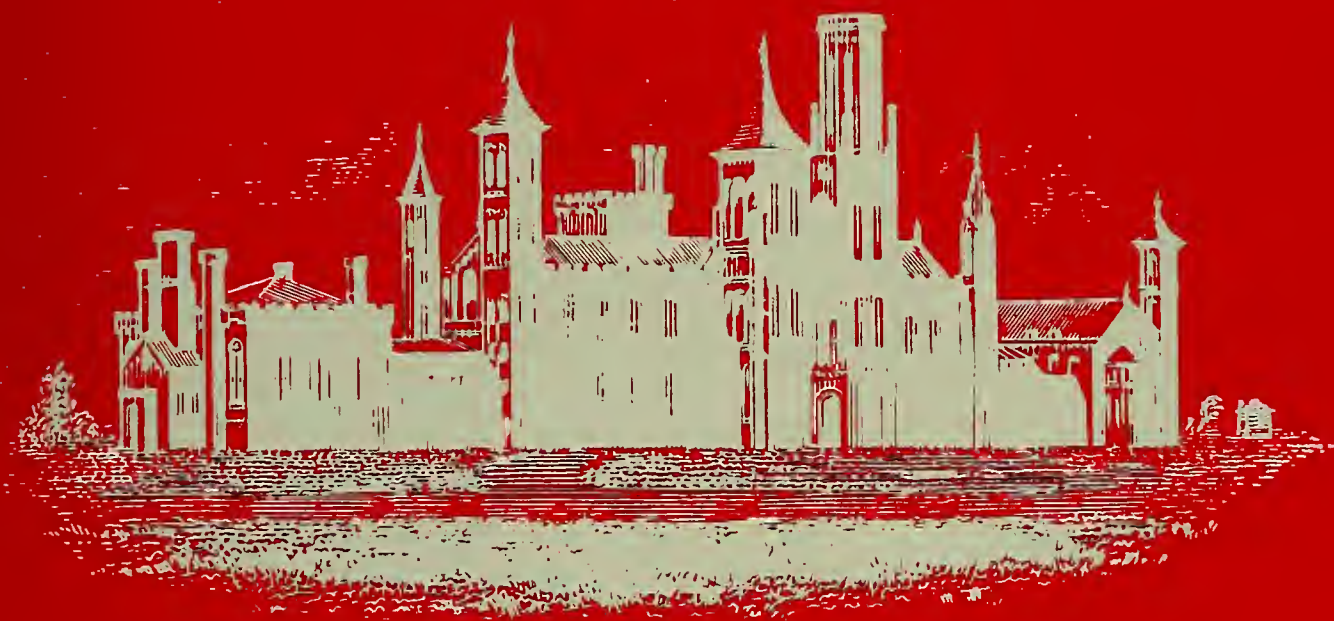


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# Fiscal Year 1994

## Budget Request to OMB



ADMINISTRATIVELY CONFIDENTIAL  
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Budget is submitted to the Congress in January 1993)

Smithsonian Institution  
September 1992

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**SMITHSONIAN INSTITUTION**

**FISCAL YEAR 1994**

**Budget Request to Office of Management and Budget**

# SMITHSONIAN INSTITUTION

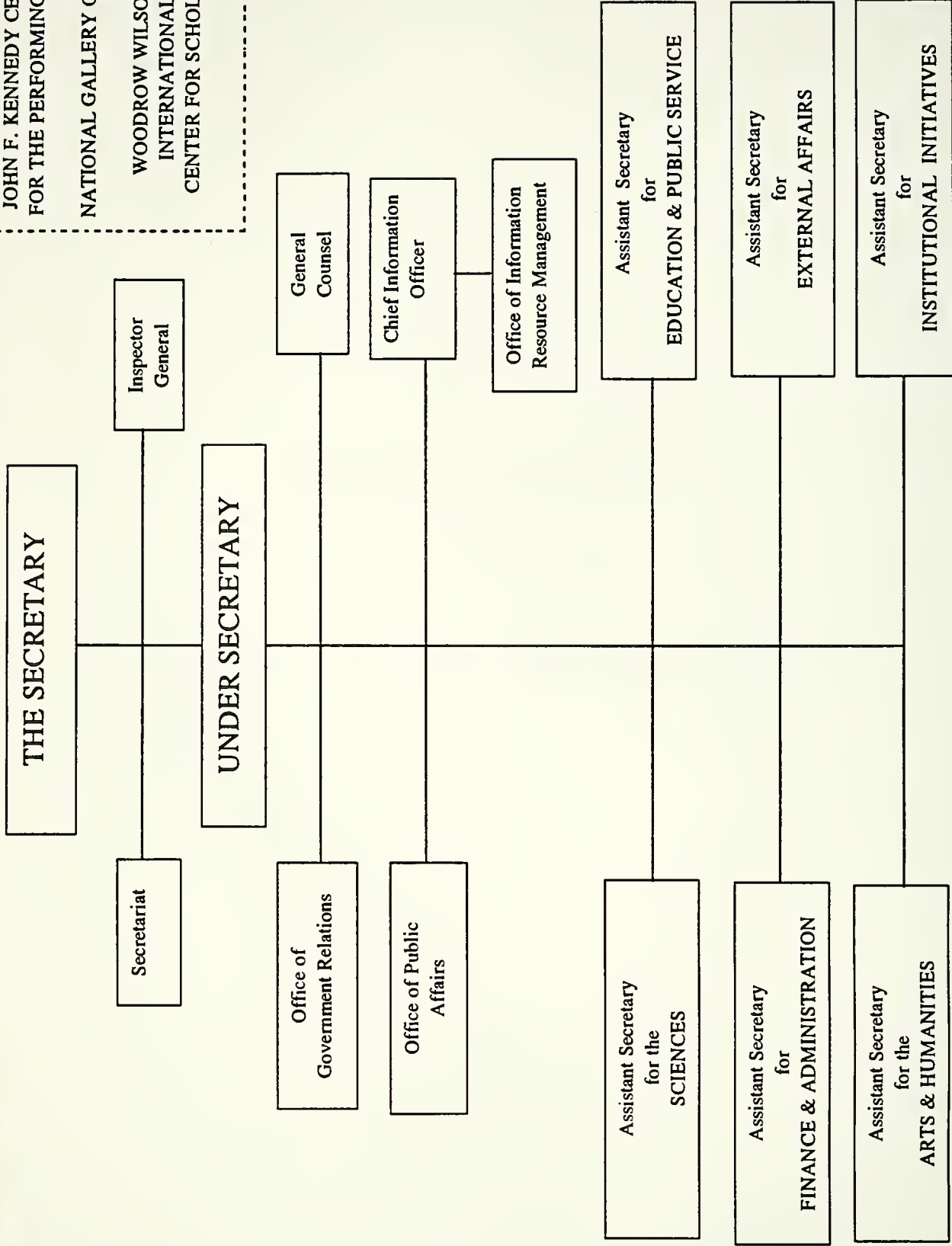
## Board of Regents

Under Separate Board of Trustees

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FOR THE PERFORMING ARTS

NATIONAL GALLERY OF ART

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# Smithsonian Institution Bureaus and Offices

## Assistant Secretary for the ARTS & HUMANITIES

Anacostia Museum  
Archives of American Art  
Arthur M. Sackler Gallery and  
Freer Gallery of Art  
Cooper-Hewitt, National Museum of Design  
Hirshhorn Museum and Sculpture Garden  
Institutional Studies Office  
National Air and Space Museum  
National Museum of African Art  
National Museum of American Art  
Renwick Gallery  
National Museum of American History  
National Postal Museum  
National Museum of the American Indian  
National Portrait Gallery  
Office of Exhibits Central  
Office of Museum Programs  
Office of Quincentenary Programs  
Smithsonian Institution Traveling  
Exhibition Service

## Assistant Secretary for FINANCE & ADMINISTRATION

Business Management Office  
Office of Accounting and Financial Services  
Office of Contracting and Property Management  
Office of Equal Employment and Minority Affairs  
Office of Facilities Services  
Office of Architectural History and Historic  
Preservation  
Office of Design and Construction  
Office of Environmental Management and Safety  
Office of Plant Services  
Office of Protection Services  
Office of Financial and Management Analysis  
Office of Human Resources  
Office of Planning and Budget  
Office of Printing and Photographic Services  
Office of Risk Management  
Office of Sponsored Projects  
Office of the Treasurer  
Ombudsman  
Travel Services Office

## Assistant Secretary for the SCIENCES

Conservation Analytical Laboratory  
National Museum of Natural History  
Museum Support Center  
National Zoological Park  
Office of Fellowships and Grants  
Office of the Registrar  
Smithsonian Astrophysical Observatory  
Smithsonian Environmental Research  
Center  
Smithsonian Institution Archives  
Smithsonian Institution Libraries  
Smithsonian Tropical Research Institute

## Assistant Secretary for EDUCATION & PUBLIC SERVICE

Center for Folklife Programs and  
Cultural Studies  
National Science Resource Center  
Office of Elementary and Secondary  
Education

## Assistant Secretary for EXTERNAL AFFAIRS

Office of International Relations  
Office of Special Events and Conference  
Services  
Office of Telecommunications  
Smithsonian Associate Programs  
National Program  
Resident Program  
Smithsonian Institution Press  
*Smithsonian Magazine*  
*Air & Space Magazine*  
Visitor Information and Associates'  
Reception Center

## Assistant Secretary for INSTITUTIONAL INITIATIVES

National Campaign for the National  
Museum of the American Indian  
Office of Development



SMITHSONIAN INSTITUTION  
FISCAL YEAR 1994 BUDGET REQUEST TO OMB

Table of Contents

	Page
Introduction .....	1
Nonappropriated Sources of Funding .....	10
<u>Salaries and Expenses</u>	
Uncontrollable Increases .....	13
<u>Sciences</u>	
Office of the Assistant Secretary for the Sciences .....	23
Smithsonian Astrophysical Observatory .....	28
Smithsonian Tropical Research Institute .....	32
Smithsonian Environmental Research Center .....	37
National Zoological Park .....	40
Smithsonian Institution Archives .....	45
Smithsonian Institution Libraries .....	48
International Environmental Science Program .....	52
Major Scientific Instrumentation .....	56
National Museum of Natural History/Museum of Man .....	63
Conservation Analytical Laboratory .....	69
Museum Support Center .....	73
<u>Arts and Humanities</u>	
Office of the Assistant Secretary for the Arts & Humanities .....	77
National Air and Space Museum .....	82
National Museum of American History .....	87
National Museum of American Indian .....	92
National Museum of American Art .....	96
National Portrait Gallery .....	101
Hirshhorn Museum and Sculpture Garden .....	105
Arthur M. Sackler Gallery/Freer Gallery of Art .....	108
Archives of American Art .....	114
Cooper-Hewitt Museum .....	117
National Museum of African Art .....	121
Anacostia Museum .....	125
Office of Exhibits Central .....	128
Smithsonian Institution Traveling Exhibition Service .....	130

Public Service and External Affairs

Office of the Assistant Secretary for Education & Public Service . . . . .	135
Center for Folklife Programs and Cultural Studies . . . . .	138
Academic and Educational Programs . . . . .	142
Office of the Assistant Secretary for External Affairs . . . . .	147
Smithsonian Institution Press . . . . .	153

<u>International Center</u> . . . . .	157
---------------------------------------	-----

<u>Administration</u> . . . . .	163
---------------------------------	-----

Facilities Services

Office of Design and Construction . . . . .	171
Office of Protection Services . . . . .	174
Office of Plant Services . . . . .	177

Facilities Planning, Renovation, Restoration, and Construction

Construction and Improvements, National Zoological Park . . . . .	181
---	-----

Repair and Restoration of Buildings . . . . .	187
---	-----

--Major Capital Renewal . . . . .	189
-----------------------------------	-----

--Repairs, Restoration, and Code Compliance . . . . .	193
---	-----

Construction . . . . .	201
------------------------	-----

--African American Museum . . . . .	202
-------------------------------------	-----

--General Post Office Building . . . . .	203
--	-----

--Suitland Collections Research Center . . . . .	204
--	-----

--National Museum of the American Indian . . . . .	205
--	-----

--Natural History East Court Building . . . . .	208
---	-----

--General Construction Planning . . . . .	209
---	-----

--Minor Construction, Alterations and Modifications . . . . .	210
---	-----

Appendix

FY 1994 Salaries and Expenses Increases . . . . .	217
---	-----

Special Foreign Currency . . . . .	220
------------------------------------	-----







**SMITHSONIAN INSTITUTION  
FY 1994 BUDGET REQUEST  
(\$000's)**

<u>APPROPRIATION ACCOUNT</u>	<u>FY 1993 BASE</u>	<u>FY 1994 REQUEST</u>
Salaries and Expenses	\$311,000	\$337,707
Construction	21,400	38,850
Zoo Construction	7,900	8,500
Repair and Restoration	<u>24,400</u>	<u>39,000</u>
<b>TOTAL</b>	<b>\$364,700</b>	<b>\$424,057</b>

The Smithsonian Institution, established by Congress in 1846, is an independent Federal establishment dedicated to the "increase and diffusion of knowledge." In fulfilling this mission, the Smithsonian has become a major international center for basic research, especially in the fields of astrophysics, tropical and environmental biology, history of science, aeronautics and space science, art history, and object conservation. The Smithsonian is the world's largest museum complex, visited by approximately 30 million people each year.

Throughout its history, the Smithsonian Institution has benefitted from a strong base of Federal support for its programs and its ability to complement this funding with non-appropriated sources of funds. As the Smithsonian's 150th anniversary nears, the Nation can look with pride at the success of this unique Federal/Trust partnership. The support of the President and the Congress has permitted the Smithsonian Institution to grow, to flourish, and to touch the lives of many Americans. Long-term investments have enabled the Institution not only to remain current in its collections and research but also to lead the way in studying and presenting them. The partnership that has supported the completion of the master plan for the National Zoological Park is an excellent example of the kind of sustained commitment necessary for future achievements. In addition, the Repair and Restoration program has demonstrated the wisdom of investing in renewal.

During 1992, the Smithsonian began a comprehensive organizational review. Major provisions of the organizational review, approved by the Smithsonian Board of Regents at its February 1992 meeting, include actions to establish greater accountability at the Assistant Secretary level by defining each area of responsibility more clearly and eliminating dual reporting relationships to certain Assistant Secretaries. In accordance with this plan, Assistant Secretary titles and reporting assignments were changed effective March 1992. In addition, key activities, including Government Relations and Public Affairs, will report directly to the Under Secretary. The Resident and National Associates Programs will be merged. Finally, a variety of actions including detailed study of the central administrative and financial units are underway to improve service delivery. This organizational realignment, including program reductions, streamlining, and possible mergers, will continue during FY 1993 and FY 1994.

## FY 1994 BUDGET PRIORITIES

The Smithsonian Institution's request for all operating and capital budget accounts in FY 1994 totals \$424.1 million, \$59.4 million over the FY 1993 base. Of this amount, \$398.4 million represents resources that the Institution needs to reinforce its programmatic, operational, and facilities infrastructure; only \$25.7 million represents resources for new program initiatives and services.

SALARIES AND EXPENSES - The Smithsonian's FY 1994 budget request manifests the priorities in Choosing the Future, the Institution's five-year prospectus: providing stewardship of the public trust, conducting research and increasing our understanding of the environment, exemplifying cultural pluralism, and modeling effective educational practices.

The Salaries and Expenses (S&E) request of \$337.7 million and 4,985 workyears represents a net increase of \$26.7 million over the FY 1993 level. Of this requested increase, \$22.3 million is for the support of ongoing programs and operating infrastructure requirements including \$17.5 million to cover the increased costs of "uncontrollable" items such as utilities, space rental, and the legislated pay raises. New program initiatives, each responding to a clear national and public imperative, account for \$4.4 million of the requested increase in Salaries and Expenses, including \$2 million for activities related to cultural pluralism, \$1.3 million for global change research, and \$1.1 million for education.

Of the total FY 1994 S&E budget, the Institution requests that \$31.45 million remain available until expended. These funds support the major scientific instrumentation program, collections acquisition, Museum Support Center equipment and move, exhibition reinstallation, the National Museum of the American Indian, the repatriation program at the National Museum of Natural History and land acquisition at the Smithsonian Environmental Research Center.

STEWARDSHIP OF THE PUBLIC TRUST - The increasing backlog of resource deficiencies jeopardizes the Institution's ability to manage the National Collections it holds in trust for the American people. Most requests for FY 1994 will simply maintain programs at an acceptable level; they do not represent new service levels. For the past three budget cycles, the Institution has grouped the resource deficiencies throughout various Smithsonian bureaus and offices into several broad categories to portray their magnitude. This year the Institution continues its efforts to reduce this backlog. The table below provides a summary of the \$8.5 million and 41 workyears the Institution is requesting for various infrastructure requirements in FY 1994 and shows the remaining need the Institution intends to address in future budget years.

**RESOURCES REQUESTED FOR FY 1994 FOR INFRASTRUCTURE  
COMPARED TO THE UNFUNDED BACKLOG OF REQUIREMENTS**

Infrastructure Category	FY 1994 Requested Increases		Unfunded Requirements Backlog	
	<u>FTE</u>	<u>\$000</u>	<u>FTE</u>	<u>\$000</u>
Conservation of Library and Archival Collections	0	\$0	12	\$2,893
Reinstallation of Permanent Exhibit Halls	0	0	4	5,937
Library Acquisitions	0	0	0	580
Collections Management	5	1,597	51	8,405
Human Resource Management	0	0	14	898
Clerical Support Staff	0	0	45	1,487
Specialized & Technical Staff and Support Costs	8	1,269	71	6,049
Major Scientific Instrumentation	3	1,158	N/A	N/A
Laboratory and Scientific Equipment (Non-computing)	0	0	0	410
Computers (Hardware)	0	0	7	3,004
Information Systems	1	1,244	104	15,337
Management Controls and Audit Deficiencies	0	61	31	1,531
Space Deficiencies	0	0	0	690
Facilities Maintenance Deficiencies	13	2,187	112	4,940
Health and Safety (including Asbestos Cleanup)	11	973	24	1,715
Security of Facilities and Collections	<u>0</u>	<u>0</u>	<u>10</u>	<u>660</u>
<b>Total</b>	<b>41</b>	<b>\$8,489</b>	<b>485</b>	<b>\$54,536</b>

Collections Management - The care of the millions of artifacts and specimens entrusted to the Smithsonian as part of the National Collections is a sacred responsibility to the American public now and for future generations. Only with proper care today will the National Collections be available for study by scholars in the future. But collections care is technical, tedious, and never ending. As the museum profession learns more about the composition of objects and the effects of environment, the requirements for care of the collections become ever more complex. The Institution has improved the registration, storage, restoration, and conservation care of objects. Yet even with advances such as the Collections Information System (CIS) and the Museum Support Center, the collections continue to grow and age, and their management requires increasing funding.

The funding requested for FY 1994 for collections management, 5 workyears and \$1.6 million, will enable several critical projects to advance. Many valuable objects in the National Collection from the National Museum of American History and the National Museum

of Natural History are currently being moved to the Museum Support Center to ensure their continued preservation for future generations. For the Natural History Building's Major Capital Renewal Project to proceed on schedule, the Smithsonian must increase the rate at which it is currently moving collections to the Museum Support Center. The anticipated cost of this program alone is \$1.1 million. Funding is also necessary to permit the move of collections from Cooper-Hewitt to an off-site location for storage during its renovation.

Specialized and Technical Staff and Support Costs - Increased technical assistance for members of the professional staff has been cited as a consistent and growing need for the last few years. Yet highly trained researchers and curators continue to be required to perform functions that divert them from their primary responsibilities, functions best suited to technicians. This situation has made it difficult for the Smithsonian to attract and retain specialists. Providing scholars with a proficient technical support staff is essential for the Institution to meet the many challenges facing the Nation in the next few years.

The FY 1994 request for 8 workyears and \$1.3 million for specialized and technical staff and support costs will allow the Smithsonian to advance several of its major research projects. Almost half (\$552,000) of the requested funding is sought for support of the Smithsonian Tropical Research Institute research vessel. This vessel, designed specifically for coastal operation in the Caribbean and tropical eastern Pacific Ocean, will be used as a laboratory in shallow water communities, providing insight necessary for long-term management of marine resources and environments.

Another component of this year's request is the establishment and operation of an advanced X-ray Astrophysics Facility Science Center through the Smithsonian Astrophysical Observatory. NASA selected the Smithsonian Astrophysical Observatory to develop and operate the new Astrophysics Facility Science Center. The two senior high-energy astrophysicists to be hired with the requested funding will develop software and data systems for the Facility, enabling the study of the energy from galaxies as x-rays.

Major Scientific Instrumentation - The Smithsonian Institution is requesting a total of 3 workyears and \$1.2 million for major scientific instrumentation projects in FY 1994. This funding is needed so that the Smithsonian Astrophysical Observatory can continue its development of a submillimeter wavelength telescope array. With this new array, SAO scientists will be able to study more effectively the formation of stars and planetary systems and the puzzling processes taking place in the cores of galaxies and quasars. The Smithsonian Astrophysical Observatory needs funds to support the conversion of the Multiple Mirror Telescope (MMT) to a telescope with a single 6.5-meter diameter mirror. The MMT will enable SAO to gather data on objects much fainter than is currently possible and to study more than twice as much of the universe.

Information Systems - Increasingly complex research, education, and business demands for information exceed the capabilities of the Institution's existing technologies. To meet these demands, the Institution has developed a series of plans for addressing its critical information

resource management needs. Among the most pressing requirements are systems for the management of museum specimens and objects and bibliographic and archival materials. To reclaim its position as a leader in research, education, and collections and to remain accountable as a public trust, the Smithsonian must have the resources to implement advanced information technologies.

The resources being requested in FY 1994 for information systems technologies total 1 workyear and \$1.2 million. With these resources, the Smithsonian will be able to replace its aging personal computer equipment, provide Smithsonian scholars with access to current research information through such high speed networks as Internet, and improve the systems which store and process information about its collections.

Management Controls - Although not a department or agency of the executive branch, the Smithsonian recognizes and observes the intent of the Federal Managers' Financial Integrity Act (FMFIA) and the Chief Financial Officers Act (CFO). The Smithsonian's Office of Inspector General (OIG) performs financial and program audits on a regular cycle. To supplement the OIG's review of internal controls, an outside certified public accounting firm performs an annual financial audit and the General Accounting Office and other agencies perform special audits from time to time. In addition, the Smithsonian's Office of Financial and Management Analysis conducts internal management review studies on an as-needed basis. These reviews and audits identify deficiencies in internal controls, policies, and procedures and areas where efficiency improvements are possible. They also provide information that will enable the Smithsonian to maintain compliance with internal and external requirements and improve its service to the public.

Recent studies have indicated a need for the Smithsonian to provide improved access to exhibits, programs, and facilities for individuals with disabilities. Funds totaling \$61,000 are being sought in FY 1994 to expand the Smithsonian's Accessibility Program with contractual interpreters for deaf visitors and reader services for visitors who are blind or cannot read printed materials, as well as training for Smithsonian staff on new developments in accessible design of exhibitions, programs, and facilities.

Facilities Maintenance Deficiencies - The Smithsonian owns, operates, repairs, and maintains more than 5 million square feet of space in more than 200 buildings. A few buildings are new; others are more than one hundred years old and appear on the National Register of Historic Landmarks or the National Register of Historic Places. The buildings are among the most precious artifacts the Smithsonian holds in trust for the Nation. Only with proper planning, operation, and maintenance of all of the Smithsonian buildings can the diverse programs of the Institution be carried out now and in the future. The Institution has identified a backlog of essential maintenance and repair projects, most recently estimated at \$221 million. For FY 1994, 13 workyears and \$2.2 million is being sought for facilities maintenance deficiencies. This funding will allow the Smithsonian to fill facilities maintenance positions already approved by Congress and to purchase required supplies for maintenance and repair. By increasing staff and equipment for facilities maintenance, the Institution will slow the rate of

deterioration of its buildings and thus slow the rate at which new repairs add to the backlog. By investing now in facilities maintenance in the various museums most in need of such support, restoration and replacement costs in the future can be reduced.

Health and Safety (Including Asbestos Cleanup) - The Institution is concerned about the health and safety of its staff and visitors. In recent years, Congress has allocated resources for environmental management and safety programming. Staff members are now available to assess most environmental, fire, and safety hazards in the workplace and public areas of Smithsonian buildings and to identify necessary changes to buildings or work practices that will protect employees who are exposed to hazardous conditions.

The Institution needs resources, however, to coordinate Institution-wide asbestos abatement work and to carry out other health and safety changes identified as necessary, particularly at the bureau level. A total of 11 workyears and \$973,000 is being sought in FY 1994 to correct these health and safety measure deficiencies. Both asbestos removal and hazardous waste removal needs can be addressed with these resources. Potential hazards result from the normal use of chemicals and technologies in the sophisticated research laboratories found at various Smithsonian sites. A portion of the requested funding will support the development of safety management and training programs at several of these sites, protecting both employees and visitors, and the environment.

#### INITIATIVES IN RESPONSE TO NATIONAL IMPERATIVES:

Global Change Research - During the past several years, countless studies and testimony have been presented before Congress and scientific groups concerning the effects of natural and human activities on the global environment. Rapidly evolving changes in the global environment have captured the attention of scientists, policy makers, and citizens around the world, including: the increase of atmospheric greenhouse gases such as carbon dioxide, methane, and the chlorofluorocarbons; the expected consequent changes in global climate and sea level; a global depletion of stratospheric ozone and the observed Antarctic "ozone hole"; widespread desertification and reduction in the diversity of plant and animal species; extensive damage to mid-latitude forests; and acidification of lakes and soils in many regions. At the least, these changes have far-reaching and potentially disruptive implications for the world's natural resources. In the worst case, the changes collectively threaten the life-support system of the Earth. The problem of global environmental change is crucial and urgent.

For one and a half centuries, the Smithsonian has conducted valuable research on the environment, including the past history and present state of the universe; the complex of living systems forming the Earth's different environments; and human cultures, past and present. The Smithsonian Institution is ideally positioned to undertake important research initiatives in the field of global change by building upon its unique capabilities: its unparalleled National Collections, including archives and libraries; its stewardship of lands and waters dedicated to research; its highly specialized equipment; and its dedicated research staff.



The Institution's proven ability to sustain long-term research at permanent sites distinguishes the Smithsonian from Federal organizations and most universities involved in such research. With its stewardship over large protected areas in both the tropical and temperate zones and its more than 150 scientists in a variety of biological and physical science disciplines, the Institution can undertake comparative studies to assist in understanding the complexities of the global problems.

A total of 5 workyears and \$1.3 million is being requested for FY 1994 to support the valuable research being conducted by Smithsonian researchers about the environment. An important component of this request is funding for the full development of a molecular evolution center in the tropics. Through the application of the latest genetic methods in research on forest and marine biology, understanding about the consequences of environmental degradation and loss of biological diversity will be enriched. This request also includes funding for the expansion of field studies to analyze geologic processes affecting global warming.

The information that the Institution will generate as the result of proposed initiatives in global change research will be broadly available to policy makers and members of the scientific community. These scientific findings will also form the basis for exhibitions at the National Museum of Natural History, the National Air and Space Museum, and other sites. The research funds being requested will enable vital scholarship to be expanded in important new directions and will also, in time, increase public understanding of environmental issues.

Cultural Pluralism - The topic of cultural pluralism has become increasingly important to the Nation and to the Smithsonian Institution over the last few years. One of the goals of the Smithsonian is to "interpret the many facets of the nation's social, ethnic, and cultural composition." The growing public interest in cultural diversity is in part owing to the rapidly changing cultural composition of the United States population. These growing minority populations appropriately expect representation of their interests in many sectors of society, including the presentation of their cultural history in the Nation's largest museum complex.

The Smithsonian has actively responded to the changing population and its increased expectations through many initiatives. Individual museums have added many exhibits about the unique contributions of different cultural groups; the Smithsonian has prepared a plan for improving the recruitment of minorities for employment; and outreach to under-served groups has been expanded. By enhancing access to the Institution to culturally diverse groups, the Smithsonian not only fulfills its public responsibility to serve all people but is itself enriched by their many contributions.

Through a wide range of programs, including exhibitions, scholarly and public symposia, publications, educational programs, traveling exhibitions, and radio and television productions, the Institution's Columbus Quincentenary Programs commemorated the 500th anniversary of the voyages of Christopher Columbus and the subsequent encounter among Europeans, Africans, and the indigenous people of the Americas. While the commemoration climaxes with the actual anniversary date in October 1992, several of these programs will continue through

FY 1993 and beyond. Moreover, taking advantage of the continuing interest generated by the Quincentenary, the Smithsonian has included funding in the FY 1994 budget request to establish permanent programs emphasizing the history and cultures of the Americas. In addition, planning for two major new museums--the National Museum of the American Indian and the proposed National African American Museum--will provide opportunities for research and programs about diverse cultures.

The requested funds for FY 1994 totaling 24 workyears and \$2.0 million for cultural pluralism initiatives will expand efforts to diversify the Smithsonian's work force, collections and programming, and audience. Much of the requested funding will support the development of the proposed National African American Museum and the establishment of permanent programs on the history and cultures of the Americas. The requested funding will also enable the Smithsonian to undertake many important programs of audience outreach, employee recruitment, and research and exhibitions on cultural diversity topics.

Education - Museums are important educational institutions. Children and adults alike are able to learn from the diverse collections they hold and the research their scholars conduct. The Smithsonian Institution is not only uniquely positioned to model effective educational practice to a nation seeking such models but it also has a national obligation to do so. As a major research center and as a national trust for an unequalled collection in the arts, humanities, and sciences, the Smithsonian provides formal and informal learning experiences to a public audience of individuals both young and old from many different cultural, educational, and economic backgrounds.

The Smithsonian has selected pre-college educational initiatives as a priority. The educational departments of Smithsonian museums offer an incredible range of school tours and related structured experiences to students annually. Through a central unit, the Office of Elementary and Secondary Education (OESE), the Smithsonian creates models for sharing Institution-based research, collections, and learning with schools and school systems nationally. The programs offered include professional development courses for teachers, internships and other learning experiences for students, and classroom materials tied directly to the school curricula.

Continuing education programs are available to the public both through the museum education departments and through the Institution's Resident and National Associate Program. The Institution's broad continuing education curriculum takes the form of courses, workshops, study tours, seminars, performances, and media programs. Through fellowship and internship programs, the Smithsonian is able to target college and university audiences at the undergraduate through the post-doctoral levels, enhancing their educational experience. Aside from these formal opportunities for learning, the Smithsonian is also open to the public daily for its enrichment.

Increases totaling 19 workyears and \$1.1 million are requested in the FY 1994 budget to strengthen the educational programs of the Smithsonian. In keeping with the establishment of

the pre-college education priority, most of the funds being requested will support increased outreach to both students and teachers. Teacher training programs, including the Regional Workshop Program, will be expanded, new and enhanced curriculum materials prepared, and networks created to allow participating teachers across the nation to share lessons and teaching strategies. Funds will also be available to support important science literacy programs in several Smithsonian bureaus. Through teacher training and student internships, the numbers of under-represented groups in the scientific work force can be increased over time.

The Smithsonian Institution has an important role to perform in meeting the educational needs of this nation. By recognizing these needs, building upon its unique strengths, and strengthening its current initiatives with the requested funding, the Smithsonian's educational impact will continue to grow, enriching the lives of many students, teachers, and other adults in the Nation.

#### **FACILITIES:**

Construction - The Smithsonian's request for the Construction program for FY 1994 totals \$38.9 million. Projects proposed by the Smithsonian for the FY 1994 budget include planning an African American Museum (\$0.3 million); completing the design for the required renovation of the General Post Office Building (\$1.3 million); planning, design and construction for the facilities of the new National Museum of the American Indian (\$21.0 million); beginning design for the Collections Research Center at Suitland, Maryland (\$4.5 million); completing the Natural History Building's East Court project (\$5.0 million); and several projects involving minor construction and/or modifications to existing buildings (\$6.0 million). The Institution also requests \$0.75 million for FY 1994 to continue planning for future construction projects.

Construction and Improvements, National Zoological Park - The request for the construction program at the National Zoological Park for FY 1994 is \$8.5 million. The request includes \$3.1 million to fund the highest priority repair and renovation projects at the Rock Creek Park site and Front Royal, Virginia; \$5 million for major construction at Rock Creek, including completion of the Aquatic Trail - Living in Water phase of the Zoo's Aquatic Habitats and beginning construction on the African Grasslands Exhibit; and Institution's request includes \$0.4 million to design a new, prefabricated building to consolidate maintenance, grounds, transportation, supply, and commissary operations into a single location at the Conservation and Research Center at Front Royal, Virginia.

Repair and Restoration of Buildings - The Institution is requesting \$39 million for the Repair and Restoration account. The Smithsonian's commitment to the maintenance and renovation of its facilities continues as a high priority in the FY 1994 budget. This request brings the Institution to the projected optimal annual level for the R&R account. The Institution must continue to eliminate the substantial backlog of deferred maintenance and repairs in its various facilities and protect the integrity of its physical infrastructure. The request includes \$8.95 million for the Major Capital Renewal program and \$30.05 million for Repair, Restoration, and Code Compliance projects.

## Nonappropriated Sources of Funding

In addition to support provided by Federal appropriations, the Institution receives nonappropriated funds to expand and enrich its programs. The Institution presents nonappropriated fund activities (Trust funds) along with the Federal budget request to provide an overview of all uses of funds for each Smithsonian bureau. The estimates for Trust funds are subject to the uncertainty of donations, grants, and contracts; fluctuations in visitor attendance; and the volatility of the economy, which directly affects restaurant, mail order, and shop revenues; Associates' memberships; and other auxiliary activities. The Institution's gross operating revenue, less the expenses of the auxiliary activities, represents the net operating revenue available for programmatic and other worthwhile purposes.

Both the original FY 1992 Trust budget and the most recent reprojected constitute approximately 26 percent of all net operating revenues. These revenues include grants and contracts received from Government agencies. The Smithsonian expects Government grants and contracts will total roughly \$35 million in FY 1992. Based on current projections for FY 1992, gross Trust fund revenues, excluding Government grants and contracts, will be \$240.6 million with net income of approximately \$63.8 million. While unrestricted revenues have declined, restricted purpose funds are estimated at \$30 million, an increase of \$7 million over FY 1991.

The Trust funds include unrestricted funds, restricted funds, and Government grants and contracts. The Institution applies them in the following manner:

### UNRESTRICTED FUNDS:

General - The sources of general unrestricted funds are investment income; unrestricted endowment income; net proceeds from the museum shops, mail order, and food service concessions; sales of Smithsonian books, records, and other products based on designs and objects in the collections; the Resident Associate and National Associate programs (including the Smithsonian and Air and Space magazines); and overhead recovery on Government grants and contracts the Smithsonian receives. Overhead recovery is the principal source of Trust support for central management and administrative service units of the Institution, such as legal counsel, accounting, personnel, procurement, and budget. General funds also support various activities, such as the Cooper-Hewitt Museum, Center for Folklife Programs and Cultural Studies, Office of Development, Office of Telecommunications, Smithsonian Tropical Research Institute, Visitor Information and Associates' Reception Center, and a variety of Institutional and bureau-based programs. The Board of Regents approves these allotments.

Special Purpose - These funds arise from revenue-producing activities operated by various bureaus and offices and transfers of General funds. The two largest of these activities are the Theater/Planetarium operation of the National Air and Space Museum and the exhibit rental activity of the Institution's Traveling Exhibition Service. Special Purpose funds also

include miscellaneous revenues from the sale of posters, exhibit brochures, and publications; tuition reimbursement from universities; the museums' share of sales in the restaurant and museum shops; and membership and admission fees.

In FY 1979, the Board of Regents approved the annual transfer of General funds to Special Purpose funds for certain programs previously financed through Federal appropriations. These include the Institution's various fellowship programs (FY 1992 allotments of \$2.011 million). The Institution also transfers General funds to make awards under its Collections Acquisition, Scholarly Studies, and Educational Outreach programs. The FY 1992 budget provided a total of \$2.853 million for these awards.

In FY 1992, \$832,000 was available to purchase exceptional objects important to the collections. The Institution also designated \$1.66 million for innovative scholarly research projects that by definition or because of scheduling requirements did not fit within the Federal budget process. These included multi-disciplinary research projects initiated by the Institution's research staff, sometimes in collaboration with scholars from other institutions. The Institution allocated the remaining \$361,000 of the \$2.853 million available for this program to conduct a wide range of educational outreach programs of benefit to the public, with special focus on diverse cultural audiences.

In FY 1985, the Board of Regents approved an annual Trust-fund allocation for the Special Exhibition Fund (SEF). The Institution supports exhibition programs with Federal funds and donations from individuals, foundations, and corporations as well as with the SEF. The Special Exhibition Fund, with \$1.727 million in FY 1992, provided additional funds for temporary and permanent exhibitions proposed by Smithsonian bureaus that, regardless of scale, were outstanding in terms of their educational value to the public. The Fund gives special consideration to exhibitions that approach content in imaginative ways; that allow bureaus to explore new or expand current interpretive or exhibition techniques; that are worthy but, by their nature, unlikely to attract private funds; and that are likely to reach previously underserved audiences.

RESTRICTED FUNDS - Restricted Trust funds include gifts, grants, and endowments from individuals, foundations, organizations, and corporations that specify the use of the donation or bequest. Generally, these funds provide support for a particular exhibit or research project. The Freer endowment is the largest restricted endowment in the Institution. Under the terms of the original gift and bequest, this fund is strictly limited to uses benefiting the Freer Gallery of Art.

GOVERNMENT GRANTS AND CONTRACTS - Various Government agencies and departments provide grants and contracts for special projects that only the Smithsonian can conduct because of its expertise in a particular area of science, history, art, or education and because of its ability to respond quickly to certain needs.









## FY 1994 UNCONTROLLABLE INCREASES

The Smithsonian Institution seeks funds to pay costs that are beyond its control to manage. These costs result from established practices in regulating wages, insurance premiums, utilities, rent, and the effects of inflation. The Institution requests \$17,306,000 for the following uncontrollable costs:

### Salary and Related Costs

#### Necessary Pay:

--Annualization of FY 1993 Legislated Pay Raise	\$ 1,920,000
--FY 1994 Legislated Pay Raise	7,917,000
--Within-Grade Step Increases	770,000
--Health Insurance (Increase in Premiums)	953,000
--Federal Employees' Retirement System (FERS)	1,533,000
--Payroll Base Deficiencies	427,000

#### Other:

--Workers' Compensation	39,000
--Unemployment Compensation	<u>50,000</u>

Total, Salary and Related Costs \$13,609,000

Utilities, Communications, and Postage	845,000
Rental Space	445,000
Smithsonian Astrophysical Observatory Rent	365,000
Inflation	<u>\$ 2,042,000</u>

Grand Total, Uncontrollable Increases \$17,306,000

SALARY AND RELATED COSTS - The Institution requests a net amount of \$13,609,000 for the projected higher salary and benefits costs in FY 1994 for FY 1993 staff as follows:

Annualization of FY 1993 Legislated Pay Raise - The Smithsonian has included an amount of \$1,920,000 in its FY 1994 request to annualize the costs of the anticipated 3.7 percent January 1993 pay raise. The FY 1993 budget request now pending before the Congress contains full funding for three-quarters of a year applicable to the FY 1993 pay raise. The request provides full funding to cover costs for the remaining quarter of a year.

FY 1994 Legislated Pay Raise - The Smithsonian requests an amount of \$7,917,000 to fully fund the anticipated FY 1994 legislated pay raise of 4.7 percent for three-quarters of a year. The Institution will seek funds to annualize this pay raise in its FY 1995 budget request.

Within-Grade Step Increases - The Smithsonian seeks \$770,000 in FY 1994 for within-grade step increases. For General Schedule employees, these increases are required by Section 5335 of Title 5, United States Code. Wage employees are covered by law and prevailing rates. Increases include the partial-year costs of new actions scheduled to occur in the budget year, as well as the costs of annualizing FY 1993 step increases.

Health Insurance - For FY 1994, the Institution requests \$953,000 to cover the rising cost of health insurance premiums for employees. The Smithsonian's FY 1992 base is \$8,444,000, with a \$1,050,000 increase pending before Congress for FY 1993. The requested increase includes the funds required to annualize the projected FY 1993 cost increase (\$224,000 for one-quarter of the year) and to cover an estimated FY 1994 increase of ten percent (\$729,000 for three-quarters of the year).

Federal Employees' Retirement System (FERS) - The Smithsonian requests an increase of \$1,533,000 to cover the increased benefit costs associated with the higher percentage of FERS participants comprising the Federal workforce. Earlier this year the Institution calculated the increased cost of FERS over the existing Civil Service Retirement System (CSRS) for all on-board FERS employees. For FY 1994, the projected inception-to-date cost increase associated with former CSRS positions that are now occupied by staff in the FERS system amounts to \$8,746,000. To date, the Institution has received \$7,213,000 in its Federal appropriation to fund this shift (includes a \$3.471 million increase pending before Congress), leaving a shortfall of \$1,533,000. Additional funds will be required in the future, as the composition of the Institution's Federal workforce continues to shift to FERS participation (versus CSRS) over time.

Payroll Base Deficiencies - The Smithsonian requests an amount of \$427,000 to cover payroll base deficiencies existing throughout the Institution. The requested funding will remedy payroll base erosion stemming from staff promotions, pay increases, and the occasional need to fill vacancies at higher grades in order to attract the best candidates. The following offices request funding to cover various payroll base deficiencies: Inspector General (\$170,000); Quadrangle Building Manager (\$125,000); Assistant Secretary for Education and Public Service (\$70,000); Telecommunications (\$39,000); Government Relations (\$10,000); Elementary and Secondary Education (\$7,000); and Development (\$6,000). The offices identified have relatively small operating budgets, with little flexibility to reprogram resources to personnel.

Workers' Compensation - The Smithsonian requests an increase of \$39,000 as specified in the provisions of Section 8147(b) of Title 5, United States Code, as amended on April 21, 1976, by Public Law 94-273. This law provides for payments to be made to employees for injuries and to their families in cases where work accidents result in employee death. These payments are determined and made by the U.S. Department of Labor's Employment Standards

Administration, which subsequently bills agencies for costs incurred for their employees. Despite the Institution's emphasis on the Accident Safety Program administered by the Office of Environmental Management and Safety (OEMS), which provides employee training in safety awareness and promotes the identification and elimination of potential hazards in the workplace, there has been an increase in employee compensation costs. The FY 1994 bill for the Institution's Federal portion, (\$1,493,000) covers the actual expenses incurred for the period July 1, 1991, through June 30, 1992. With an amount of \$1,454,000 in its base for workers' compensation, the Institution requests an additional \$39,000.

Unemployment Compensation - The Institution requests an increase of \$50,000 for the projected higher unemployment compensation costs estimated for FY 1994. The Smithsonian has a base deficiency in this account for FY 1992 and the FY 1993 budget pending before Congress does not include an increase.

UTILITIES, COMMUNICATIONS, AND POSTAGE - An FY 1993 Federal base of \$20,305,000 and anticipated reimbursements of \$950,000 (total of \$21,255,000) are available to fund the costs of electricity, steam, gas, fuel oil, water, sewer, communications, and postage for nearly all Institution facilities. The Smithsonian requires an increase of \$845,000 in FY 1994 to cover anticipated costs.

The Smithsonian's projections of future utilities costs consider a variety of factors. These include:

- comparative data on actual energy consumption in previous years for each facility;
- adjustments for normal weather conditions for this geographic region based on information provided by the National Weather Service;
- actual and projected rates charged by utility companies;
- actual and projected reimbursements for utility costs from concessions, museum shops, and the Friends of the National Zoo;
- modifications to work and public spaces within facilities;
- continued energy conservation efforts in all Smithsonian buildings;
- improvements installed to heating, ventilating, and air conditioning systems and components throughout the physical plant;
- the design of new facilities;
- projected increases in consumption caused by expanded use of computers and other equipment throughout the Institution.

The following table shows the costs and base funds available to cover the components of the Utilities account from FY 1992 to FY 1994.

ANALYSIS OF UTILITIES AND COMMUNICATIONS COSTS

FY 1992 - FY 1994

(\$000's)

	<u>FY 1992</u> <u>ESTIMATE</u>	<u>FY 1993</u> <u>ESTIMATE</u>	<u>FY 1994</u> <u>ESTIMATE</u>
<u>ELECTRICITY</u>			
<u>Use</u> - Millions of KWH	120.3	121.9	121.9
<u>Unit Cost</u> - Average per KWH	0.067	0.067	0.067
<u>Cost</u> - \$000's	\$8,100	\$8,170	\$8,170
FY 1994 Estimated Cost			\$8,170
FY 1993 Base*			<u>\$7,413</u>
Base Shortage, Electricity			\$ 757
 <u>STEAM</u>			
<u>Use</u> - Millions of Pounds	193.6	193.6	193.6
<u>Unit Cost</u> - Avg. per 1,000 lbs.	15.50	15.50	15.50
<u>Cost</u> - \$000's	\$3,000	\$3,000	\$3,000
FY 1994 Estimated Cost			\$3,000
FY 1993 Base			<u>\$3,500</u>
Base Surplus, Steam			\$ 500
 <u>GAS</u>			
<u>Use</u> - Millions of Cubic Ft.	1.354	1.354	1.354
<u>Unit Cost</u> - Avg. per Cubic Ft.	.7386	.7386	.7386
<u>Cost</u> - \$000's	\$1,000	\$1,000	\$1,000
FY 1994 Estimated Cost			\$1,000
FY 1993 Base			<u>\$1,000</u>
Base Shortage, Gas			\$ 0
 <u>FUEL OIL/WATER</u>			
<u>Cost</u> - \$000's	\$ 300	\$ 350	\$ 400
FY 1994 Estimated Cost			\$ 400
FY 1993 Base			<u>\$ 400</u>
Base Shortage Fuel Oil/Water			\$ 0

D.C. GOVT. WATER/SEWER

<u>Cost - \$000's</u>	\$2,266	\$1,542	\$2,030
FY 1994 Estimated Cost			\$2,030
FY 1993 Base			<u>\$1,542</u>
Base Shortage, D.C. Water/Sewer			\$ 488

COMMUNICATIONS

<u>Cost - \$000's</u>	\$4,300	\$4,500	\$4,800
FY 1994 Estimated Cost			\$4,800
FY 1993 Base			<u>\$4,800</u>
Base Shortage, Communications			\$ 0

POSTAGE

<u>Cost - \$000's</u>	\$2,500	\$2,600	\$2,700
FY 1994 Estimated Cost			\$2,700
FY 1993 Base			<u>\$2,600</u>
Base Shortage, Postage			\$ 100

<u>TOTALS</u>	FY 1994 Estimated Cost	\$22,100	
	FY 1993 Base	<u>\$21,255*</u>	
	FY 1992 Requested Increase	\$ 845	

\* Reflects FY 1993 Federal base plus anticipated reimbursements in FY 1994 of \$950,000.

Electricity - The largest single component of the Utilities account is electricity. The consumption total for FY 1992 reflects that 1992 was an unusually cool year compared to normal weather patterns in the Washington, D.C., area. The FY 1993 and FY 1994 estimates of electrical consumption reflect a return to the normal weather pattern for the region as well as general increases associated with automation efforts under way in all Smithsonian facilities and the upgrading of exhibit halls in the Museum of Natural History and the Museum of American History. The FY 1992 - FY 1994 rate estimate reflects the effect of the D.C. Gross Receipts Adjustment tax, which is being passed on to consumers by the utility company. These factors will require an increase of \$757,000 to cover the anticipated costs of electricity in FY 1994.

Steam - The FY 1994 estimate for steam reflects an anticipated stabilization of consumption coupled with the continuation of a stable rate that has existed for a number of years. Based upon these factors, the Institution expects that FY 1994 costs will produce a base surplus of \$500,000.

Gas - The FY 1994 estimate reflects no increase in consumption, rate, or costs over the anticipated costs for FY 1992. With these stable conditions, base resources are expected to be sufficient to cover the anticipated costs for FY 1994.

Fuel Oil/Water - The FY 1994 estimate reflects consumption increases associated with the National Zoological Park facilities at Front Royal, Virginia, and the National Museum of the American Indian facilities in New York City, as well as expanded facilities at the Silver Hill Facility in Suitland, Maryland. Current base resources are sufficient to cover the estimated costs of fuel oil and water in FY 1994.

D.C. Government Water/Sewer - The FY 1993 and FY 1994 estimates are cost projections provided by the D.C. government and are based upon prior-year actual usage data. An increase of \$488,000 is requested to cover the anticipated costs of D.C. government water/sewer for FY 1994.

Communications - By 1994, demands will continue for increased telephone and data communications services. In addition to normal telephone service cost increases, requests for access to such services as voice mail and electronic mail are expected to increase significantly. Increases in data communications traffic generated by access to the automation of personnel, financial, and procurement systems are also expected. Finally, costs associated with expanded use of data communications to the Smithsonian Tropical Research Institute in Panama will require additional funding. Current base resources are sufficient to cover the expected communications costs increases for FY 1994.

Postage - Effective October 1, 1992, the United States Postal Service will require the Institution to pay for its postage use based on counting each piece of mail sent rather than on the mail-sampling method that has been in use for years. The Institution expects this change in the way the annual cost of postage is determined to result in higher costs. Additionally, mail volume continues to increase in response to requests for services and information from the public. These factors more than offset savings anticipated from the closing of the International Exchange Service operation and will require an increase of \$100,000 to pay for the Smithsonian's use of the United States Postal Service in FY 1994.

Energy Conservation - The Institution continues to monitor and limit all forms of energy consumption. An automated energy management system reduces peak energy demand by selectively shutting down equipment when necessary. This system, when fully installed, will monitor equipment in all buildings for fluctuations or malfunctions and alert staff to inspect for problems. Ongoing efforts also include:

- continuing the phased program of comprehensive building energy audits;
- renovating heating, ventilating, air conditioning, plumbing, and electrical systems;
- reducing lighting levels in work and nonpublic areas;

- installing more efficient lighting fixtures;
- operating heating and air conditioning systems at the minimum level necessary to prevent damage to the collections;
- curtailing electrical consumption during nonpublic hours;
- increasing attention to energy conservation when determining space use, space modifications, and the design of new facilities.

Through the use of the Facilities Management computer system, the Smithsonian will eventually gain closer control over building lighting systems. The system conserves electricity by turning lights on and off as use fluctuates. Automated lighting controls are now in place at the Air and Space Building, American History Building, Natural History Building, and Quadrangle Complex. The Smithsonian plans to install such a system in the American Art and Portrait Gallery Building by FY 1993 and in later years in other major buildings.

RENTAL SPACE - For FY 1994, the central rental account, included in the line-item for the Office of Plant Services, requires \$445,000 for uncontrollable expenses. This account provides for the Federal portion of the rental expenses for program and administrative activities located in L'Enfant Plaza, the Smithsonian Institution Service Center at 1111 North Capitol Street, the research bureaus of the Archives of American Art in New York City and Boston, Massachusetts, and collection storage at the Fullerton Industrial Park in Springfield, Virginia. The amounts below reflect projected costs for rental space at these sites:

**FEDERAL RENTAL PROGRAM**  
**ADMINISTERED BY THE OFFICE OF PLANT SERVICES**  
**FY 1992 - FY 1994**  
 (\$000's)

	FY 1992		FY 1993		FY 1994	
	<u>Estimated Cost</u>	<u>Estimated Cost</u>	<u>Estimated Cost</u>	<u>Estimated Cost</u>	<u>Estimated Cost</u>	<u>Estimated Cost</u>
	<u>Federal</u>	<u>Trust</u>	<u>Federal</u>	<u>Trust</u>	<u>Federal</u>	<u>Trust</u>
L'Enfant Plaza	\$1,963	\$1,480	\$2,036	\$1,547	\$2,313	1,637
North Capitol Street	1,149	148	1,490	169	1,616	184
Archives of American Art:						
- New York	265	--	285	--	300	--
- Boston	15	--	15	--	17	--
Fullerton	<u>309</u>	<u>--</u>	<u>330</u>	<u>--</u>	<u>355</u>	<u>--</u>
Total Costs	\$3,701	\$1,628	\$4,156	\$1,716	\$4,601	\$1,821
Base	3,656		4,156		4,156	
Surplus/(Deficit)	(45)		(0)		(445)	

The FY 1994 estimate for Federal rental costs for L'Enfant Plaza reflects annual cost increases specified in the lease agreement and takes into account the offsetting Trust-fund contribution for shared administrative activities and office space occupied by the specific auxiliary activities on the Mall.

The projected rental expense for space at 1111 North Capitol Street includes the cost increase associated with a negotiated extension of the current lease through September 1994 and a significant property tax increase. The allocation policy on administrative and programmatic space also governs the Federal/Trust apportionment of costs for this location.

The projected rental expense for the Archives of American Art represents funding requirements for the spaces occupied in New York City and Boston. The increase for the New York office reflects inflationary adjustments in the rental rate.

The projected rental expense for the Fullerton reflects the continuing cost of storage space for the Smithsonian Institution Archives and the National Museum of American History.

For FY 1994, the projected Federal share of the central rental account is \$4,601,000. The Institution's Federal base is \$4,156,000 in FY 1993 as reflected in the request pending before Congress. The Smithsonian requires an additional \$445,000 to defray increased space rental costs for the previously mentioned locations in FY 1994.

SMITHSONIAN ASTROPHYSICAL OBSERVATORY RENT - For FY 1994, the Smithsonian Astrophysical Observatory (SAO) seeks \$30,300 to cover uncontrollable rent increases for its facilities located at 60 Garden Street in Cambridge, Massachusetts. In addition, SAO is seeking \$67,900 for a necessary expansion of its facility located at 1815 Massachusetts Avenue in Cambridge. SAO is also seeking \$266,800 for additional space in the Cambridge area to accommodate the expansion required for the AXAF Science Center. The total requested rent increases amount to \$365,000.

60 Garden Street Property (\$30,300) - For FY 1994, SAO seeks \$30,300 to cover the impact of uncontrollable rent increases for the 60 Garden Street facility. SAO leases approximately 90,000 square feet of space from Harvard College Observatory (HCO). Rent is negotiated annually and is dependent on the actual costs of operating and maintaining the buildings during the previous year, adjusted for any carryover of costs from the previous year. HCO has raised the level of maintenance on its buildings as well as increased its contribution to the Maintenance Reserve Fund to a University prescribed level adequate for proper maintenance of the buildings in future years. For FY 1994, the HCO budgeted increase for these purposes will require the Federal share of SAO's rental costs to increase by \$30,300.

1815 Massachusetts Avenue Property (\$67,900) - SAO presently leases approximately 37,600 square feet of space at the Porter Exchange Building. By FY 1994, the Smithsonian expects to lease an additional 11,000 square feet at this facility to accommodate the expansion of support services and Trust research projects currently located at 60 Garden Street.



AXAF Science Center (\$266,800) - To accommodate the requirements of the recently acquired NASA contract for the AXAF Science Center, SAO is seeking 30,000 square feet of space with annual rent costs estimated at \$900,000. The Federal share (29.65 percent) of the rent increase attributable to the additional space requirements of the AXAF Science Center will amount to \$266,800.

INFLATION - For FY 1994, the Smithsonian requests an amount of \$2,042,000 to offset the inflation-related erosion of the Institution's purchasing power that has occurred over the past year. The amount requested was calculated using the Consumer Price Index (3.3 percent for FY 1994) provided by the Office of Management and Budget. Supplies and services affected by inflation over the past year include:

<u>Services</u>	<u>Areas of Inflationary Increase</u>
Collections Management	Storage and conservation equipment and supplies
Research	Travel, supplies, scientific instruments, books, and research journals
Facilities Management and Administration	Medical/safety supplies and equipment, equipment service and maintenance, and custodial supplies and equipment

For FY 1994, the Institution seeks \$2,042,000 to help offset the base erosion resulting from inflation. This amount represents the effects of inflation on the Institution's Federal nonpersonnel budget for FY 1994, excluding utilities, rent, Major Scientific Instrumentation, and Museum Support Center equipment and move costs. The impact of inflation is equivalent to a significant reduction each year to the base resources of all Smithsonian organizational units. As a consequence, inflation affects the quality of scientific, research, educational and public programs, and the care and conservation of the National Collections. The requested increase will offset the negative effects brought about by inflation for FY 1994.



## **SCIENCES**



## Assistant Secretary for the Sciences

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
	FTE	Amount	General		Special		FTP	Amount	FTP	Amount
			FTP	Amount	FTP	Amount				
FY 1992 Estimate	35	1,712	10	874	-	1,671	-	575	2	224
FY 1993 Estimate	36	1,919	8	650	-	1,702	-	701	2	357
FY 1994 Estimate	38	2,371	8	650	-	1,712	-	629	2	363

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Office of the Assistant Secretary for the Sciences (OAS/S) facilitates, strengthens, and plans for the Smithsonian's worldwide scientific efforts and research support activities. The Office develops and implements Institution-wide policies that foster the creation and dissemination of high-quality research in the sciences and promote science as an essential endeavor that contributes to knowledge and addresses issues of pressing concern to society. The Office also seeks to build an excellent research staff that reflects the Nation's diverse heritage and the Institution's scholarly strengths, to foster interdisciplinary research and effective linkages between scholars within and outside of the Institution, and to encourage the integration of research results and research staff into the other areas of the Smithsonian, particularly exhibition, education, and public programs.

Also included in this line-item are the Smithsonian Institution Scientific Diving Program, the Office of Fellowships and Grants, and the Office of the Registrar. As a result of the reorganization of the Smithsonian conducted in 1992, the Joseph Henry Papers Project and the American Studies Program, formerly included in this line-item, now report to the Assistant Secretary for the Arts and Humanities and are included in that line-item. The staff of the former Office of Interdisciplinary Studies have been transferred to other areas of the Institution.

The Smithsonian Institution Scientific Diving Program oversees the diving activities of the Smithsonian staff and related investigators, ensuring their safety and training in compliance with the Department of Labor's Occupational Safety and Health Administration (OSHA) regulations and the standards of the American Academy of Underwater Sciences. The Office of Fellowships and Grants (OFG) administers the Institution's programs of research grants, fellowships, and other scholarly appointments. The Office of the Registrar (OR) develops,

oversees, and coordinates Smithsonian collections management policies to preserve and improve access to the National Collections and assure their continued availability to present and future generations.

For FY 1994, OAS/S requests an increase of 1 workyear and \$300,000 as support for Institutional memberships in Internet, Research Libraries Information Network (RLIN), and Coalition for Networked Information to Advance Scholarships and Intellectual Productivity (CNI). The Office of Fellowships and Grants requests 1 workyear and \$152,000 to improve science literacy (1 workyear and \$52,000); and provide molecular evolution fellowships (\$100,000).

## PROGRAM:

I. Office of the Assistant Secretary for the Sciences - With base funding of 20 workyears and \$1,068,000, the Office of the Assistant Secretary for the Sciences, in concert with the Secretary and other management staff, supervises the scientific activities of the Institution. The Office performs a wide range of functions: advises the Secretary and Under Secretary on major policy issues as a member of the Smithsonian's Senior Management Team; coordinates programmatic and facilities planning for Smithsonian science activities by working closely with bureaus, offices, and programs; allocates Institutional research resources through the budget process (Federal and Trust) and through internal competitive funding programs; assesses the programmatic and administrative strengths of science bureaus, offices, and programs in order to set priorities and coordinate activities; evaluates scholarly staff through the hiring, review, and promotion process; provides leadership, communication, and support to the Smithsonian's scholarly community and research support offices; fosters Smithsonian ties with outside scholarly organizations and universities worldwide; promotes an appreciation of the importance of scientific research among the Smithsonian staff and outside constituencies, such as Congress, the Office of Management and Budget, major donors, and the media; and encourages the integration of Smithsonian research with other Smithsonian endeavors.

To provide leadership and support for program operations, regular communication is maintained with key staff of all bureaus, offices, and programs under the administration of the Assistant Secretary for the Sciences via meetings, phone contact, and exchange of memoranda and documents. The Office produces a bi-monthly newsletter and scholarly events calendar offering information on funding programs, proposal deadlines, research opportunities, and Smithsonian conferences, lectures, symposia, and public programs. This Office, which also oversees the Scientific Diving Program, coordinates scientific diving activities that support collection and the study of underwater subjects and environments. The Scientific Diving Program provides critical training and certification procedures for all Smithsonian divers (357 individuals authorized to dive since January 1990).

II. Office of Fellowships and Grants - With base funding of 9 workyears and \$423,000, the Office of Fellowships and Grants manages the Institution's centralized fellowship and

internship programs, all other stipend appointments, and additional significant programs that support research by Smithsonian scholars and their collaborators.

Through these programs, students and scholars from throughout the world visit the Institution and use its varied resources. OFG administers approximately 900 appointments and 55 grants. In FY 1992, OFG awarded 81 pre- and postdoctoral fellowships through the Institution-wide program. Twenty-five of these recipients were foreign students and scholars from 15 countries. Under the Short-Term Visitor Program, 155 persons representing 35 countries came to the Institution. The Smithsonian Institution-University Programs in the Structure and Evolution of Terrestrial Ecosystems, funded by a grant from the Andrew W. Mellon Foundation, placed 20 researchers and students at the National Museum of Natural History and the Smithsonian Tropical Research Institute. In addition, Federal and Trust funds allocated to the bureaus supported 256 short- and long-term awards. The Office also administered internship stipend awards for 184 students in FY 1992.

OFG administers programs to increase minority participation in Smithsonian research disciplines and educational activities. Thirty-four students joined ongoing research and museum studies in the Minority Internship Program. The Native-American Awards Program selected 18 Native-American students and scholars to collaborate with the staff and work on Native-American resources and activities at the Institution.

Two grant programs provide scholarly support to Smithsonian professional staff. Fourteen proposals were funded in the first cycle of the Scholarly Studies Program. Thirty-two proposals are pending review in the second cycle during the summer. The Research Resources Program supports archival projects, and seven awards were made under this program.

III. Office of the Registrar - With base funding of 3 workyears and \$227,000, the Office of the Registrar (OR) permits diverse audiences access to the National Collections while designing systems to keep the collections safe. The Office supervises the management of 137 million objects and specimens and designs inventory and internal control procedures that provide accountability for Smithsonian collections. During FY 1992, OR revised the Institution's collections management policy directive, Office Memorandum 808, on collecting biological specimens and costs recovery for outgoing loans. The Office published "A Primer to Endangered Species Laws," which explains requirements for obtaining Federal permits for specimens or artifacts containing plant and animal parts or products protected by Endangered Species Laws. To ensure accountability, OR introduced a unique Statistical Sampling Plan (SSP) for collections inventory purposes.

Researchers and the public may gain access to the National Collections through the Collections Information System (CIS). During FY 1991 and FY 1992, the National Portrait Gallery purchased off-the-shelf collections information software; the Cooper-Hewitt Museum established a fully operational and integrated collections management system; and the National Museum of Natural History produced a Collections and Research Information System (CRIS) Master Plan.

As the leading participant in the International Council of Museums Documentation Committee, OR assists in mapping the development of collections automation systems worldwide; its latest survey will be completed in 1992. During FY 1992, OR presented lectures on collections management at the international museum conferences held in Romania, Slovenia, and the Netherlands.

#### EXPLANATION OF PROGRAM INCREASE:

##### I. Office of the Assistant Secretary for the Sciences:

Institution Memberships in Internet, Research Libraries Information Network (RLIN), and Coalition for Networked Information to Advance Scholarships and Intellectual Productivity (CNI) (1 workyear and \$300,000) - A system administrator and base funds for computer hardware and software, supplies, travel, training, and membership fees for three high-speed information networks will serve the entire Smithsonian community, including scholars, librarians, archivists, and others in need of specialized information. The networks will enhance the Institution's access to vital research data held elsewhere.

##### II. Office of Fellowships and Grants:

Establishment of Programs to Improve Science Literacy (1 workyear and \$52,000) - An internship/fellowship coordinator will establish new programs and activities to improve the science literacy of the country's youth, with a special goal of increasing the numbers of underrepresented groups in the scientific work force.

Establishment of Molecular Evolution Fellowships (\$100,000) - Requested funds will support two two-year postdoctoral fellowships in molecular evolution that will permit the best scholars emerging in this field to come to the Institution to explore and use the latest techniques for addressing issues relating to biodiversity at the species, population, and global levels.

#### NONAPPROPRIATED SOURCES OF FUNDING:

##### I. Office of the Assistant Secretary for the Sciences:

Unrestricted General and Special Purpose Funds - Annual allotments provide funds that support the salary, benefits, and expenses of the Assistant Secretary for the Sciences. An allotment also supports three important international foundations (King Mahendra Trust for Nature Conservation, Seychelles Island Foundation, and the Charles Darwin Research Foundation) that operate field research stations used by Smithsonian staff members as well as others in the scientific community. The Smithsonian also provides support for the exchange of scholars and scientific information between the Smithsonian and scientific organizations in other nations. Special purpose funds support cooperative agreements between the Smithsonian and



the Nation's universities. The Research Opportunities Fund supports unanticipated general research for Smithsonian scholars.

## II. Office of Fellowships and Grants:

Unrestricted General and Special Purpose Funds - These funds are primarily for the Institution-wide fellowship programs. Scholars and students on short visits also receive support. A program allotment provides funding for a portion of the administrative expenses of the Office of Fellowships and Grants. The Regents Fellowship Program continues to bring distinguished visiting scholars to the Institution.

In addition, special purpose funds support minority internships and faculty fellowships, minority students pursuing graduate degrees under the Education Fellowship Program, and the Native-American Awards Program. The Scholarly Studies Program encourages research by Smithsonian staff in the sciences, arts, and humanities.

## Smithsonian Astrophysical Observatory

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	124	13,077	56	6,060	43	4,980	-	-	163	30,550
FY 1993 Estimate	136	14,985	56	7,519	52	5,260	-	-	167	31,600
FY 1994 Estimate	143	15,867	56	8,189	52	5,250	-	-	172	31,400

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Smithsonian Astrophysical Observatory (SAO) conducts research to increase understanding of the origin and nature of the universe and to communicate this information through publications, teaching, and public presentations. SAO studies diverse systems including the large-scale structure of the universe, clusters of galaxies, galaxies, quasars, the Sun, and the formation, structure, and evolution of the planets, as well as laboratory astrophysics, atmospheric physics, and geophysics. SAO research has a major impact in the worldwide scientific community and has helped the United States maintain its leadership in astrophysical research.

For FY 1994, SAO requests 4 workyears and \$309,000 for two senior high-energy astrophysicists (2 workyears and \$196,000) and for two science-education specialists (2 workyears and \$113,000). An increase of \$365,000 justified in the Uncontrollable Increases section of this budget will support SAO's rent.

In addition, the FY 1994 request for SAO includes an increase of 3 workyears and \$208,000 for salaries, rent, and related costs for the submillimeter array. Since this increase is related to the Major Scientific Instrumentation request, the justification for these positions appears in the Major Scientific Instrumentation section of the budget. The Institution also requests an increase in funding in the Major Scientific Instrumentation line-item for the nonpersonnel support to continue the construction of the submillimeter wavelength telescope array and the conversion of the Multiple Mirror Telescope to an instrument with a single mirror, 6.5 meters in diameter.

**PROGRAM** - The Smithsonian Astrophysical Observatory is a member of the Center for Astrophysics (CfA) headquartered at Cambridge, Massachusetts, where, in collaboration with the Harvard College Observatory, it pursues a broad program of research organized by the following

disciplines: atomic and molecular physics, high-energy astrophysics, optical and infrared astronomy, planetary sciences, radio and geoastronomy, solar and stellar physics, and theoretical astrophysics.

SAO's observing facilities include the Fred Lawrence Whipple Observatory in Arizona, the Oak Ridge Observatory in Massachusetts, and a millimeter-wave radio telescope at Cambridge, as well as instruments launched from time to time aboard balloons, rockets, and spacecraft.

Research - In FY 1992, SAO made significant advances in several program areas. The following were among the highlights:

- SAO has initiated development of the Advanced X-Ray Astrophysics Facility (AXAF) Science Center (ASC) to provide the link between the international scientific community and the orbiting X-ray telescope. When fully developed, the ASC will be responsible for analyzing and archiving data from the orbiting X-ray observatory and will function as an information clearinghouse and source of support for astronomers using the facility. In fulfilling these functions, the ASC will help researchers maximize the scientific return from the mission.
- SAO developed an instrument that, with improvement, can provide critically needed measurements of atmospheric constituents that play important roles in controlling the ozone balance in the upper atmosphere. This infrared spectrometer was initially developed for astrophysical studies, but it can be used for studies relating to this pressing societal problem. For example, the spectrometer can make uniquely accurate measurements of the stratospheric abundances of the products resulting from the breakdown of the compound methyl bromide, which is used to fumigate agricultural products shipped from one country to another. When bromine from this substance reaches the stratosphere, it promotes the destruction of ozone. Even at concentrations as low as 20 parts per trillion, the effect is likely significant. Measurements from the improved infrared spectrometer, when combined with laboratory measurements and theoretical models, will allow SAO scientists to determine if the agricultural uses of methyl bromide will have to be sharply curtailed in the near future--an action with potential consequences in the billions of dollars, according to information provided by the U.S. Department of Agriculture, which is acutely interested in this problem.
- A 6.5-meter-diameter mirror blank intended to replace the six separate mirrors of the Multiple Mirror Telescope was successfully cast by SAO's partner in this project, the University of Arizona. The mirror is the largest single glass blank ever cast in the United States.
- The extremely powerful radio signals from space of methanol molecules (methyl alcohol) were discovered by an SAO astronomer. This discovery has important

implications for understanding how stars form and for measuring the size and age of the universe.

- SAO conceived and developed the idea of using long tethers in space. The Smithsonian has the patent on this concept, and the National Aeronautics and Space Administration (NASA) has tested it on a shuttle flight in August 1992. SAO scientists were the principal investigators for two experiments to be carried out with the tether on this flight: electrodynamic processes in the upper atmosphere and dynamic forces affecting a satellite on a string.
- Observations by SAO astronomers of cyclic brightening on a star in the constellation Cetus show long-term variations in magnetic activity analogous to the solar cycle. These measurements represent the first direct evidence for a magnetic cycle on a star other than the Sun. When these results are combined with those from SAO studies to be made of other similar stars, scientists should have a far better understanding of the Sun's enigmatic magnetic behavior.
- Using a 1.2-meter millimeter-wave radio telescope atop the observatory complex in Cambridge, SAO scientists found two new and surprising features of the Milky Way. The first is a layer of molecular hydrogen gas extending some 1,000 light-years both above and below the plane of our galaxy; the second is a cluster of molecular clouds some 100,000 light-years distant from the galactic center.
- The first ground-based detection of gamma radiation at the trillion electron volt (TeV) level ever seen from a source beyond our galaxy was made by the Whipple Observatory Gamma Ray Collaboration, which observed a distant galaxy previously identified as a source of lower-energy gamma rays by the Compton Gamma Ray Observatory satellite. The origin of these extraordinarily powerful rays is a mystery; scientists speculate that they originate near a massive black hole.
- An SAO scientist, with colleagues elsewhere, found convincing evidence that Nova Muscae (a southern hemisphere star observed to experience an explosive outburst of energy in 1991) may be a binary system in which the primary component is a black hole. This black hole, however, would be far less massive than the one responsible for the TeV gamma rays described above.
- The successful imaging of the asteroid Gaspra by NASA's Galileo spacecraft in October 1991 was due in large measure to precise positional information provided by SAO scientists from observations at its Oak Ridge Observatory in Massachusetts. High-resolution photographs from that encounter show a 12-mile-long, potato-shaped, heavily cratered, rocky body scored by long, deep grooves probably caused by successive collisions with other bodies in space.

In support of these and other studies, SAO continued the development of a submillimeter wavelength telescope array, the conversion of the Multiple Mirror Telescope to a single-mirror instrument, and the construction of a two-element optical and infrared interferometer. An 11-meter optical reflector for ground-based gamma-ray astronomy was put into operation at the Whipple Observatory, where it will be used in conjunction with an existing ten-meter reflector as a "stereo-telescope system."

Education - SAO has always had a deep commitment to education. Even before concerns about the lack of science literacy among young Americans were widespread, SAO began developing Project STAR, a program using examples based on astronomy to improve the teaching of basic principles of science and mathematics at the high school level. These innovative materials emphasize low-cost student activities based on "high-tech" devices, such as a hand-held spectrograph (costing a few dollars) that helps students to understand the physics of light.

#### EXPLANATION OF PROGRAM INCREASE:

Operation of the Advanced X-Ray Astrophysics Facility Science Center (2 workyears and \$196,000) - Two senior high-energy astrophysicists, with funding for rent and other necessary support, will develop the software and data systems needed for this Facility, which NASA selected SAO to develop and operate, and will use the observations from the Facility to study the puzzling processes that produce the prodigious amounts of energy radiated from some galaxies as X-rays.

Improvement of the Science Literacy Program (2 workyears and \$113,000) - Two science education specialists will study the obstacles that students, particularly women and minorities, encounter in learning science and mathematics and evaluate SAO's education programs to increase their effectiveness and to make direct and significant contributions to improving science literacy throughout the United States.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Unrestricted general funds come primarily from overhead charged on contracts and grants. These funds are used to support administrative positions and other administrative costs of SAO. Special purpose funds come primarily from the Institution's Trust funds. Trust funds provide direct support for some research as well as for the Fellowship and Visiting Scientist Programs, which are the largest users of special purpose funds.

Restricted Funds - Restricted funds consist of specific endowments, as well as gifts from individuals, foundations, or corporations earmarked for particular research purposes.

Government Grants and Contracts - SAO receives the majority of its funds through Government agency contracts and grants for research in its particular areas of expertise and experience. This research is often carried out in cooperation with both governmental and academic institutions in the United States and abroad.

## Smithsonian Tropical Research Institute

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	145	6,801	3	203	2	311	-	267	-	365
FY 1993 Estimate	154	8,034	3	152	2	382	-	373	-	470
FY 1994 Estimate	163	9,323	3	152	2	360	-	242	-	350

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Smithsonian Tropical Research Institute (STRI) is the Nation's premier center for fundamental research on tropical ecosystems. It maintains the only extensive U.S. research facilities in the mainland New World tropics. Studies at STRI of tropical forest and coastal marine communities provide basic data upon which to base decisions on the wise use and possible fate of these unique and threatened natural systems. STRI is permanent host to a core of tropical researchers, who in turn provide an intellectual environment that attracts a great many visiting scientists and research fellows. STRI researchers study the evolution, behavior, ecology, and history of tropical species in systems ranging from coral reefs to tropical rain forests. Growing strengths in molecular biology, plant physiology, and paleoecology complement established excellence in evolutionary biology and ecology. For more than four decades, STRI has carried out intensive research on Barro Colorado Island (BCI), part of the Barro Colorado Nature Monument (BCNM), which is under STRI custodianship as designated in the Panama Canal Treaties of 1977. Results of BCI studies are now a critical resource of long-term studies for understanding tropical forests, and the station is a center for continuing studies without peer. The ability of STRI researchers to compare and contrast the splendidly different marine systems of the Atlantic and Pacific coasts, using the STRI research vessel and conveniently located laboratories, makes their research of unique significance. Possessed of perhaps the best tropical research library in the southern part of the Americas and with a state-of-the-art conference center and experienced administrative staff in Panama City, STRI expects to continue to catalyze public awareness of tropical science.

For FY 1994, STRI requests an increase of 9 workyears and \$1,289,000 for strengthening the global change molecular evolution research program (5 workyears and \$450,000); establishment of an occupational safety and health program (2 workyears and \$137,000);

support of research vessel operations (\$552,000); and establishment of a human ecology program (2 workyears and \$150,000).

**PROGRAM** - The Smithsonian Tropical Research Institute performs four major functions in fulfilling its mission in tropical biology:

- conducts fundamental research on the ecology, physiology, evolution, and behavior of plants and animals, including humans, with emphasis on the relationships of tropical forest organisms to global climatic change;
- provides facilities and logistical support for an international scientific community to study both terrestrial and marine tropical biology;
- supports environmental education, conservation, and management of tropical ecosystems;
- protects and manages the Barro Colorado Nature Monument under a treaty-assigned responsibility.

Most species of plants and animals live in the tropics, yet the tropics are among the least-studied and -understood ecosystems. These species are also rapidly disappearing, and their loss may affect regional and global climatic patterns. Tropical deforestation and uncontrolled harvesting of marine resources cause extinction of species that are sources of medically and commercially important natural products. The study of tropical environments is vital to understanding biological diversity and its change through time. STRI, the only wholly tropical research institute belonging to the United States, is also widely recognized as the world's leader in this field. Its extensive marine and terrestrial research program provides the knowledge and understanding essential for the effective management and conservation of these resources. Among STRI's primary assets are the trust placed in the Institute by the host country and a long history of collaboration with Panamanian scientists and students. The continuing cooperation of the Republic of Panama facilitated the work at STRI of resident scientific staff and more than 300 visiting researchers representing 28 nations during FY 1992.

**Molecular Evolution** - Molecular evolutionary research at STRI involving indigenous peoples, tropical marine fish, and several invertebrates is providing fresh insight into the processes of biological diversification and the effects that global processes have on marine populations. The same genetic methodologies that are proving so useful to understanding human disease also are increasing understanding of the biotic consequences of physical catastrophes, such as environmental degradation and the loss of biological diversity.

**Behavioral Ecology** - The study of behavior of individual species forms an essential link in understanding the origins of biological diversity. Exciting new ideas are being developed at STRI about how novelties arise, how animals select mates, reproduce, and take care of their young. These studies involve birds, crabs, frogs, insects, spiders, and squid. They employ

modern techniques for recording, analyzing, and synthesizing animal signals and draw on molecular techniques to determine genetic relationships among the individuals and species being studied. Their results increase understanding of one of the major components in the evolution and maintenance of biodiversity in the tropics: how animals behave in their interactions with each other and with their environment.

Plant Physiology - STRI has become the world center for tropical plant physiology. State-of-the-art physiology laboratories have been established on Barro Colorado Island and at the Tupper Center. STRI scientists study how tropical forest plants respond and adapt to variations in rainfall, light, temperature, ultraviolet (UV) radiation, and other variables as well as the biochemical and genetic bases for these responses. The Plant Physiology and Molecular Evolution Programs are converging to provide a comprehensive picture of plant adaptation to variable tropical environments.

Tropical Marine Ecology - Tropical marine communities are changing in the short term as a consequence of deforestation, increases in human exploitation, and the discharge of agricultural and industrial wastes and, in the long term, as a result of major physical changes that are both natural and anthropogenic. STRI researchers are documenting coral bleaching associated with El Niño (a phenomenon occurring every three to five years that alters weather patterns by warming surface waters in the equatorial Pacific), altered coral reef structure resulting from the die-off of the Caribbean black sea urchin, and gradual loss of coral colony cover in coastal fringing reefs for reasons yet unknown. The construction of a new research vessel with funds appropriated in FY 1990 and FY 1991 will allow expansion of marine studies to the entire Caribbean and tropical eastern Pacific Ocean.

Paleoecology - No complete understanding of the modern American tropics is possible without factoring in changes of climate and vegetation resulting from natural and human influences and the profound biologic and oceanographic consequences of the closing of the Panamanian Isthmus, which occurred about three million years ago. Researchers have found that, contrary to conventional wisdom, tropical forests have changed profoundly over the last 200,000 years, first in response to climatic oscillations associated with the Ice Age and then from ancient modification and clearing by Amerindians during the last 11,000 years. Surprisingly, extant forest over much of the Pacific watershed may be very young, having recovered from prehistoric clearing only after European arrival and the decline of indigenous peoples. This information will help researchers build viable models of sustainable resource use and reforestation. A grant from the Mellon Foundation has funded technical assistance and fellowships under the paleoecology program.

Canopy Access System - The tropical forest canopy is the most diverse and environmentally sensitive habitat on Earth, yet it is poorly known because access has hitherto been extremely difficult. STRI has pioneered the use of modified construction tower cranes to provide safe, rapid access for both researcher and equipment to large areas of forest canopy. STRI installed a small prototype crane in FY 1990, and this system continues to provide design and engineering data for the much larger, permanent access system planned for Barro Colorado



Island. Ongoing research is showing for the first time how canopy trees respond to seasonal and shorter-term changes in light, humidity, temperature, and atmospheric carbon dioxide. These studies are revolutionizing understanding of tropical forest biology and will provide the basis for management and conservation of tropical forests in the face of accelerating deforestation and rapidly changing climate.

Fellowships, Conservation, and Environmental Education - One of STRI's major efforts centers on the development and support of young scientists. In FY 1992, 70 young men and women from 17 nations participated in STRI's academic programs, including students and professionals who took part in courses organized by STRI on conservation and natural resource management and field biology. In addition, STRI continues its programs to educate the lay public about tropical environments and cultures.

#### EXPLANATION OF PROGRAM INCREASE:

Strengthening the Global Change Molecular Evolution Research Program (5 workyears and \$450,000) - A senior scientist, laboratory manager, senior research technician, research technician, and equipment technician, with base funds for support costs will permit the full development of a molecular evolution center in the tropics to apply state-of-the-science genetic methods to studies of forest and marine biology. This research will help explain the consequences of environmental degradation and loss of biological diversity.

Establishment of an Occupational Safety and Health Program (2 workyears and \$137,000) - A safety officer and a secretary will establish and administer programs for employee safety training, fire protection, and the safe storage and disposal of chemicals and hazardous waste, including the shipment of hazardous waste to the United States and disposal according to applicable state and Environmental Protection Agency regulations.

Support of Research Vessel Operations (\$552,000) - Requested resources will fund basic research and operating equipment and will provide base funds for annual operations of STRI's new research vessel, which has been designed specifically for coastal operation in the Caribbean and tropical eastern Pacific Oceans. The vessel will be used as a laboratory to document past and current changes in shallow water communities necessary for long-term management of marine resources and environments.

Establishment of a Human Ecology Program (2 workyears and \$150,000) - A human ecologist and research assistant, with supplies, equipment, and travel funds, will establish a Human Ecology Program to study the relationship among human settlements, land use, and ecological preservation in the lowland tropics. This research will help provide an intellectual framework for policy decisions in tropical America.

## NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds derive from a variety of sources, including receipts and collections from users of Barro Colorado Nature Monument facilities (20 U.S.C. 79b (d)) and annual allotments. Such funds support, in part, the salaries and related costs of the fellowship program, the senior sabbatical program, insurance, supplies, and a long-term collaborative research program with the Forest Research Institute in Malaysia. Funds also support a short-term fellowship program in tropical biology; visiting scientists and students; field research; seminars and lectures; and environmental, conservation, and educational activities in Panama. Funds to support research at STRI also are available from the Institution's Scholarly Studies and Research Opportunities Fund.

Restricted Funds - These funds are in the form of restricted endowments that specify the use of the donation or bequest and gifts and grants from individuals, foundations, organizations, or corporations for specific purposes. These funds support scientific research related to the biological, ecological, and behavioral processes that serve as a basis of tropical ecosystems; research related to geophysical events; publication and distribution of research results; and studies related to endangered tropical environments.

Continuing support from the Exxon Corporation provides short-term tropical biology fellowships and assistance to 25-30 students per year from developing Latin American countries. In FY 1991, STRI received \$1.1 million from the MacArthur Foundation to support the Center for Tropical Forest Science over a five-year period. In FY 1992, STRI received a gift of \$1 million from the estate of Earl S. Tupper to create an endowment fund for research and \$500,000 for remodeling two buildings to make space for the paleoecology and molecular evolution programs.

Government Grants and Contracts - In FY 1992, STRI completed a five-year contract of more than \$4 million awarded by the Minerals Management Service of the Department of the Interior to study the effects of the 1986 catastrophic oil spill at the Galeta field station. The study continued during 1992 with a \$400,000 contract with the Marine Spill Response Corporation.

## Smithsonian Environmental Research Center

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	45	2,389	2	91	-	63	-	20	-	290
FY 1993 Estimate	52	3,475	2	86	-	63	-	20	-	200
FY 1994 Estimate	52	3,475	2	86	-	63	-	20	-	200

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Smithsonian Environmental Research Center (SERC) in Edgewater, Maryland, performs basic scientific research on coastal air-land-water systems. SERC currently occupies 42,000 square feet of laboratory, office, educational, and support space and 2,600 acres of land on the Rhode River, a tidal river system. The interdisciplinary staff, visiting scientists, and students study how land use, air quality, and weather variations affect the movement of nutrients, eroded soil, and other materials through the system; the dynamics of plant and animal populations; and the overall health of the system. SERC also conducts public education and outreach activities for audiences of varied ages and diverse cultures. The research staff uses long-term observations, controlled experiments, and models to address a wide variety of ecological questions, particularly those relevant to the Chesapeake Bay region. SERC is part of a global network of United States and international sites, each of which is conducting ecological research relevant to its geographical region.

For FY 1994, SERC is not seeking additional funding for programmatic increases.

**PROGRAM** - SERC research aims to understand how coastal air-land-water environmental systems function. The research staff addresses a wide variety of ecological questions while conducting long-term interdisciplinary studies of a tidal subestuary of the Chesapeake Bay (Rhode River) and its watershed. This watershed contains a mosaic of upland and floodplain forests, marshlands, croplands, pastures, abandoned fields, and residential areas typical of the mid-Atlantic coastal plain. Comparative studies are conducted throughout the Chesapeake Bay region to put results from the Rhode River site in a regional perspective. SERC studies the effects of herbicides on plants in the Chesapeake Bay, the effects of acid rain on deciduous forests and bay fish reproduction, the role of riparian forests in alleviating

agricultural pollution, the effects of increasing concentrations of atmospheric carbon dioxide on natural communities, and the impact of forest fragmentation on woodland bird populations.

Research - Responding to concerns that the stratospheric ozone layer is threatened, SERC has for 17 years continuously monitored global ultraviolet solar radiation at the earth's surface with precision spectral radiometers. Detailed analysis of data for the Washington, D.C., region confirms significant changes in ultraviolet radiation (UVB). Summer daily total UVB doses for all weather conditions peaked in 1983 at 29 percent above the long-term mean and 54 percent above the mean for 1979-82. For clear-sky days, when the sun was 34 degrees from vertical, a broad maximum UVB dose of 13 percent above the long-term mean was measured from 1983-89. By 1990 ultraviolet radiation had declined significantly. These findings suggest that changes in ultraviolet radiation at the earth's surface are more dynamic than previously appreciated and are affected significantly by factors other than stratospheric ozone.

Another study at SERC evaluated the terrestrial sources and estuarine dispersion of phosphorus as a key nutrient flowing into the Chesapeake Bay. SERC research contrasted two subwatersheds in the coastal plain part of the drainage basin, one a mature hardwood forest that had never been cleared and the other a cropland that had been in cultivation for at least 150 years. In the forest surface soils, nearly 70 percent of the phosphorus was bound as organic forms. On the cropland, cultivation and fertilizer applications had increased total and inorganic phosphorous content but had decreased organic phosphorus. In seven years of continuous measurement of discharges from these two contrasting watersheds, SERC scientists found that the cropland discharged eight times as much total phosphorus as the forest, due to a combination of greater erosion rates and the higher phosphorus content of the soil. Discharge of dissolved organic phosphorus was 50 percent higher from the forest, but discharges of all other types were higher from cropland. As nutrients move from the watershed into the estuary, they are assimilated by phytoplankton, and dissolved inorganic phosphate is released from eroded soil particles. As a result, the ratio of available inorganic phosphorus declines, and nitrogen becomes the limiting nutrient in the tidal headwaters of the subestuaries of the Bay. This relationship contrasts with the lower reaches of subestuaries and the upper main stem of the Chesapeake Bay, where the ratio of nitrogen to phosphorus is very high. These localized variations in nitrogen to phosphorus indicate the need for an overall nutrient management strategy for the Chesapeake Bay region.

Three species of the barnacle genus *Balanus* occur in the Chesapeake Bay: *B. subalbidus* in very low salinities, *B. improvisus* in mesohaline regions, and *B. eburneus* in high salinity regions near the ocean. SERC scientists conducted experiments on larval barnacles to test whether salinity and/or organic "settlement factors" released by attached adults of each species controlled where planktonic larvae settled. Neither salinity nor adult settlement factors alone are adequate to induce settlement of larval barnacles. However, the interaction of both factors combined synergistically to cause larvae to settle in their respective estuarine zones. These findings are significant because they show that both physical and biological cues in the environment are required for successful settlement of estuarine species, and that control

of estuarine barnacles on ships will depend upon the varying salinity zones along a vessel's course.

Recent SERC research on the products of photosynthesis in marine and estuarine algae will have a significant impact on global change models of the carbon cycle. A class of sugar polymer known as chitin is a major photosynthetic product in some algal species. Chitin has unusual chemical properties for a sugar, more typical of a protein. As a result, it has mistakenly been lumped with proteins in previous research on the carbon cycle. SERC staff is conducting a survey of the abundance of chitin in various species of algae grown under divergent environmental conditions.

Educational Activities - At SERC, groups of students and the general public can observe a variety of natural habitats firsthand. SERC's broad range of educational activities includes teacher-led field trips, self-guided nature trails, and guided tours. About 4,000 visitors participated in SERC's public programs last year. The Java History Trail, a new self-guided exploration of the natural and human history of the Chesapeake, opened in July 1992.

Students from all over the world come to SERC to work with its scientists and educational staff, both in the field and in the laboratory. Predoctoral, postdoctoral, and sabbatical programs for professionals make it possible for visiting scientists to carry out collaborative or independent research. SERC also disseminates the results of its research through scientific journals, national and international meetings and seminars, and the training of scientists, as well as through its public education activities.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds, provided by allotments and grants from the Institution's internal award programs, support special events, work/learn and fellowship programs, and the salary costs of a docent coordinator and a public program director.

Government Grants and Contracts - Various Federal and State agencies supply funds for special projects conducted at SERC that use the expertise of the staff and the unique physical characteristics of the site. Four grants from the Chesapeake Research Consortium support research on ecosystem dynamics and community ecology; a grant from the U.S. Department of Energy advances the study of effects of greenhouse gases on tidal marshes; a grant from the National Oceanic and Atmospheric Administration supports work on the relationship between sunlight attenuation in the Chesapeake Bay and plant community dynamics; and a grant from the Maryland Department of the Environment supports studies of the role of riparian vegetation in nutrient dynamics.

## National Zoological Park

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	363	16,752	1	183	4	1,075	1	693	-	400
FY 1993 Estimate	368	18,320	1	166	4	466	-	832	-	594
FY 1994 Estimate	377	18,988	1	166	4	514	-	832	-	625

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - When the National Zoological Park (NZP) was founded in 1889, its mission was defined as "the advancement of science and the instruction and recreation of the people." The Zoo still works to achieve these ends. NZP has certain features in common with other Smithsonian public facilities and some features that are unique within the Smithsonian family. Its exhibits are alive, and new exhibits require new construction, not merely remodeling. Since NZP's public function is educational and recreational, it seeks to enhance public awareness about biology and related subjects. This emphasis means that the Zoo is concerned with all aspects of life, both terrestrial and aquatic, small and large, past and present. Humankind has been part of the living world, and an increasing influence on it, ever since our species first appeared. Human biological history is therefore part of the Zoo's subject matter. Responding to the world environmental crisis, the Zoo is now committed to representing the whole of life on earth, plant and animal, in all its complexity and glory. To this end, NZP will transform the animals-only zoological park into a biological park. In the BioPark, the intermeshing relationships of animals and plants will be highlighted. The BioPark will educate visitors by its spectacle and beauty and foster a concern for the future of life in all its forms. This holistic approach will combine living exhibits of plants and animals with museum-type exhibits of structures, such as skeletons and fossils. It will make fruitful cross-correlations with exhibits by other Smithsonian entities presenting research in art and science.

For FY 1994, the National Zoological Park requests an increase of 9 workyears and \$668,000 for the support of public programs (3 workyears and \$300,000); to correct base deficiencies in the facility maintenance area (5 workyears and \$249,000); and to address audit deficiencies in the area of fire protection (1 workyear and \$119,000).

**PROGRAM** - By historic mandate, the primary mission of the National Zoological Park is the advancement of science, conservation of biodiversity, education, and recreation. NZP serves both the general public and more specialized audiences by promoting the conservation of life on Earth through informal and formal education, research, and animal health programs. NZP's educational efforts center on biological literacy, with special emphases on evolution, complex adaptive interactions, the origins and importance of biodiversity, global change, and the impact of humans on the rest of the world. The Zoo has moved beyond being a zoological park concerned only with animals to becoming a biological park with a scope extending to the whole living world, emphasizing interactions and holism. By cross-referencing other parts of the Institution, NZP focuses on biology in the fields of behavior, physiology, ecology, molecular genetics, conservation (applied and theoretical), veterinary medicine, and wildlife biology. Interdisciplinary cooperation is encouraged in all these areas of research.

In pursuit of its mission, NZP exhibits a wide range of living plants and animals on its 163-acre facility in Rock Creek Park in Washington, D.C., and maintains the Conservation and Research Center on 3,150 acres near Front Royal, Virginia, as a major animal breeding, conservation, training, and research center. The scale and scope of the Zoo's programs require a skilled support staff and specialized equipment and materials capable of developing and maintaining the unique systems essential to supporting living animal and plant exhibits.

**Living Exhibits** - The BioPark breaks down traditional divisions in biological exhibition between plants and animals, aquatic and terrestrial life, vertebrates and invertebrates, past, present, and future, and even science and art. At the Zoo, exhibit remodeling, renovation, and construction support a new emphasis on education about the living world. NZP goes beyond habitat exhibits that re-create natural environments to make the wonders of biology, such as intricate and beautiful adaptations for survival, accessible to all visitors. In FY 1992, the Zoo opened the Cheetah Research Station, which presents the animal's unique sensory and locomotor adaptations to hunting by high-speed chase. The exhibit also highlights NZP's diverse scientific research on cheetahs. The new Reptile Discovery Center is a closeup interactive exhibit exploring the biology of animals that are fascinating and informative but typically secretive. The Amazonia Gallery nears completion with the installation of a tropical river ecosystem--authentic Amazonian trees and plants, as well as a variety of fish, reptiles, birds, and mammals.

At its Rock Creek site, the Zoo cares for more than 6,200 animals, comprising about 500 species and approximately 1,400 plant species. At the Conservation and Research Center, the Zoo maintains more than 800 animals representing 52 species whose status in the wild is precarious. In FY 1991, more than 1,000 births and hatchings occurred at the Zoo. NZP attained a similar success rate in FY 1992 including the birth of a gorilla (which was abandoned at birth by its mother and successfully adopted by another female in the group), Sumatran tiger twins, two clouded leopards, Eld's deer, a flamingo, Bali mynahs, pancake tortoises, Australian side-necked turtles, and African plated lizards.

Public Education and Information - The Zoo is placing an ever-increasing emphasis on education. In the 1991-92 school year, more than 25,000 students from eight states and the District of Columbia participated in its educational programs. In 1991, NZP's New Opportunities in Animal Health Sciences (NOAHS) initiated a program of first putting scientists in the classroom with students and then bringing the students in to see those scientists at work. In the 1993-94 school year, the Education Department wants to expand this program. In 1992, the Zoo opened Tiger Stop, the first in a series of exhibits for young children. In 1993, the Amazonia Gallery will open as the largest interactive exhibit in the nation on tropical rain-forest science and conservation. Such programs and exhibits are vital to increasing scientific literacy among our citizens and encouraging scientific careers among our children.

In public information, NZP had more than 200 newspaper and magazine stories published in FY 1991. Twenty-eight of these articles went nationwide. In 1992, articles on the development of the Amazonia Gallery, the birth of twin Sumatran tigers, and the Zoo's growing successes in advanced reproductive-research with endangered species received widespread attention. Through such means, NZP continues to reinforce its public role as one of the Nation's leaders in education, conservation, and research.

Research - In the spring of FY 1992, the Zoo established a multi-media laboratory to expand its expertise in animal behavior and communication. The Smithsonian's interbureau Migratory Bird Center also opened at NZP. NZP's Reproductive Physiology Program performed fertility evaluations on more than 110 exotic cats of 12 species in 20 North American zoos and produced pregnancies by artificial insemination in Eld's deer, puma, cheetah, tiger, clouded leopard, and black-footed ferrets.

Animal Management - NZP veterinarians and pathologists, working in Africa and at the Zoo, began research on tuberculosis in buffalo, carnivorous marsupials, and birds. Tuberculosis imperils small populations of endangered animals and greatly restricts the movement of animals among Zoos in cooperative breeding programs. Findings also may be useful in addressing the rapidly increasing incidence of tuberculosis in human populations. The veterinary staff is determining antibiotic doses for avian embryos in the shell. The results will allow prenatal treatment of diseases in birds and ultimately in reptiles. The veterinary and reproductive physiology staff conducted a field assessment of the health, genetics, and reproductive potential of the rare Indian lion, the only lion subspecies remaining in Asia.

Animal Conservation - Current research projects at the Conservation and Research Center include reproductive studies on black-footed ferrets, Eld's deer, Guam rails, and other endangered species. The breeding of black-footed ferrets and Guam rails has been extremely encouraging, and Center staff is now participating in reintroduction efforts for both these species. In recent years, research on the Center's native flora and fauna has increased substantially, focusing on the conservation of migratory birds and the effects of herbivores on the overall wildlife community. In cooperation with the National Park Service, major experimental study plots have been established in several locales on the Center and within the adjacent Shenandoah National Park.



The Zoo staff continues to play a leading role in international conservation through the wildlife and zoo animal management training programs for developing countries. These courses have provided training to more than 800 students and professionals from more than 40 countries. The Center has developed and continues to maintain CONSLINK, an international computerized conservation bulletin board, and Center staff has organized international workshops on microcomputer data management and analysis in India and Malaysia. The Center also is playing a leading role in the coordination of major biodiversity conservation centers in China, Malaysia, and Sri Lanka.

The Smithsonian Migratory Bird Center - Established in FY 1991, the Center is located in a modular building at the National Zoological Park. The Center's mission is to acquire and disseminate scientific information to help conserve birds that migrate from North America to the tropics. To accomplish this mission, the Center initiates long-term research and training in Mexico; develops innovative bilingual (English/Spanish) outreach materials; and supports basic research projects on the population biology of migratory birds. In addition, the Center's staff responds to public inquiry on bird migration and consults with nongovernmental groups and Federal agencies on issues related to migratory bird conservation.

#### EXPLANATION OF PROGRAM INCREASE:

Cultural and Ethnic Diversity in Professional Staff (3 workyears and \$300,000) - Because of slow turnover, the diversity of the Zoo's professional staff has not yet reached an acceptable level, particularly in the research and curatorial areas. The Zoo will establish one curatorial and two upward-mobility positions and vigorously recruit individuals from a wide array of culturally significant minority groups, unrepresented or underrepresented on Zoo staff.

Support of Facilities Maintenance for New Exhibits (5 workyears and \$249,000) - Two water quality specialists, two utility system repairers and a skilled tradesman, with funding for supplies, materials, and water treatment chemicals, will support the high degree of water filtration and maintenance requirements of the four new exhibits and facilities that are integral in the Zoo's conversion to a BioPark.

Infrastructure Requirement to Correct Audit Deficiency (1 workyear and \$119,000) - A fire alarm specialist and funds for supplies, materials, and equipment, will expand NZP's fire protection and prevention programs to meet the Smithsonian's requirements as defined in a recent internal audit.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds come from a variety of sources, including allotments and fees for services and general use of the facilities by Trust fund units or outside organizations. The Zoo uses these funds to support and maintain its facilities, purchase plants and animals for the collection, support multi-year fellowship programs, purchase scientific and research equipment, and support the salary and travel costs of the director.

Restricted Funds - Gifts and foundation grants support training programs, research projects, and the acquisition of animals for exhibit purposes. Since FY 1990, the Zoo has received substantial outside funding to support the training of zoo professionals from developing nations in wildlife management, conservation, and zoo management. This program will continue in FY 1992 and throughout the planning period. Since its creation in 1986, the New Opportunities in Animal Health Sciences Center has continued to receive financial support for its programs in biomedical research.

Government Grants and Contracts - The National Zoo receives direct and indirect support from various Government agencies and departments to support specific research projects. Zoo researchers, in collaboration with investigators from the National Cancer Institute, have studied the effects of genetic monomorphism on reproductive performance, endocrine status, and animal health. The research staff received financial support from the National Institutes of Health to study in vitro fertilization in domestic and nondomestic cat species. In association with the U.S. Department of Agriculture, the Zoo is expanding research efforts in the areas of sperm and embryo preservation, genetic engineering, and artificial breeding of domestic animals. The Zoo's medical staff is investigating the characteristics of a new primate hepatitis virus with a grant from the U.S. Department of Health and Human Services.

## Smithsonian Institution Archives

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	16	715	6	223	-	-	-	-	-	-
FY 1993 Estimate	20	921	6	219	-	-	-	-	-	-
FY 1994 Estimate	20	921	6	219	-	-	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Smithsonian Institution Archives (SIA) is the official repository of Smithsonian Institution records and related historical documentation. SIA is the Institution's means of assuring systematic, comprehensive historical accountability of its national public trust. SIA supports Smithsonian research, management, and planning; serves other scholarly research and responds to public inquiries; and provides advice to archival research programs in and outside the Institution. As the Smithsonian grows, ages, and diversifies, SIA accommodates, preserves, and manages a constantly increasing volume and an ever-changing technological variety of Institutional records and other pertinent historical documentation.

The Smithsonian is not seeking additional funding for FY 1994 programmatic increases for the Archives.

**PROGRAM** - The Smithsonian Institution Archives surveys official records and scholarly research files, appraises their historical research potential, schedules those of lasting evidential and informational value for acquisition and accessioning into its custody, and conducts oral and video history interviews to complement and supplement the written Institutional record. SIA manages the archives thus acquired by preserving, arranging, and describing materials so that they are useful for research. SIA assists scholars and other researchers in using the Archives and responds to public inquiries for archived information. SIA gives advice to and shares archival and oral history experience and expertise with other archives and museums.

Specific accomplishments in FY 1992 include programs in records scheduling and collections acquisition, archives management, research and reference services, and outreach.

Records Scheduling and Collections Acquisition - SIA staff completed surveys, appraisals, disposition recommendations, and scheduling for discrete series of records and scholarly research files in six Smithsonian offices or subbureau departments. A records disposition schedule was issued for the Office of Telecommunications. SIA staff continues to consult with representatives of the National Museum of the American Indian regarding the management and disposition of their archives and records.

Archives Management - Work continued on long-term projects to process and preserve architectural drawings and replace nitrate negatives with safety film copies. In particular, SIA supported work by the Smithsonian Tropical Research Institute to replace nitrate negatives with safety film copies. The Archives provided opportunities for hands-on training of conservation interns of the Conservation Analytical Laboratory. SIA published Volume II of the multi-volume Guide to Photographic Collections at the Smithsonian Institution and collection-level guides for five historical document collections, including Guide to the Exposition Records of the Smithsonian Institution and the United States National Museum, 1867-1939 and Guide to the A. Gilbert Wright Papers, 1936-1981. The guide to the Wright Papers was prepared by an intern from the Confederated Salish and Kootenai in Montana, who has returned to Montana to establish an archives for the Salish and Kootenai Tribal Cultural Center. Long-range planning, in cooperation with the Office of Design and Construction, for a libraries and archives facility at Suitland, Maryland continued.

Research and Reference Service - SIA holdings contributed to a number of publications, among them an article in Montana Magazine and Georg Wilhelm Steller's Journal of a Voyage with Bering, 1741-1742.

Outreach - Archival and museum personnel from Kenya, Australia, and South America were among some three dozen visitors to SIA for archives management and oral history information.

<u>Statistical Summary of SIA Activity</u>	<u>FY 1990</u>	<u>FY 1991</u>	<u>FY 1992*</u>
Accessions Added during Year (cubic meters)	29.59	36.13	19.82
Accessions Added during Year (cubic feet)	1,045	1,276	700
Total Holdings at Year-end (cubic meters)	454.95	491.08	510.90
Total Holdings at Year-end (cubic feet)	16,066	17,342	18,042
Reference Inquiries	1,246	1,584	1,500
Items Provided to Researchers	6,009	7,491	6,000
Pages of Copy Provided to Researchers	26,554	23,407	24,000

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\* FY 1992 figures are projected, based on activity through the end of the second quarter.

## NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Provided by annual allotments, these funds cover the salaries, benefits, and support costs for an archivist and an archives technician. In addition, these funds cover salaries, benefits, and support costs for temporary staff devoted to survey work and publication of a multi-volume guide to photographic collections throughout the Smithsonian. At the end of FY 1992, three volumes are in print and a fourth is ready for publication. Small internal grants for projects and income from copying services and royalties were credited to the Archives in FY 1992.

## Smithsonian Institution Libraries

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	109	6,021	12	652	-	11	-	5	-	-
FY 1993 Estimate	109	6,400	12	669	-	13	-	5	-	-
FY 1994 Estimate	109	6,442	12	669	-	13	-	5	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Smithsonian Institution Libraries (SIL) supports the mission of the Smithsonian Institution "for the increase and diffusion of knowledge" by providing access to information in all forms to Smithsonian scientists, scholars, curators, and staff, as well as others with research needs. SIL accomplishes this purpose by building, organizing, managing, housing, and preserving collections; by providing reference services and consultation; by employing all appropriate technologies for finding and disseminating information; and by contributing to and drawing from remote data bases. SIL offers educational opportunities, including exhibitions, internships, publications, lectures, and user instruction. SIL participates in local, national, and international networks and cooperative activities that promote the sharing of information, access to recorded knowledge, and the support and advancement of scholarly communication.

For FY 1994, the Smithsonian Institution Libraries requests an increase of \$42,000 for a minority postgraduate residency program in Library and Information Science.

**PROGRAM** - The Smithsonian Institution Libraries supports multi-disciplinary research at the Smithsonian Institution by providing research services, collections acquisition and management, and outreach programs. SIL's collections contain more than 1.1 million volumes and include 15,000 journals, 40,000 rare books, and more than 1,800 manuscript units. By centralizing acquisitions and cataloguing, reference and information services, preservation and conservation efforts, and administrative services, SIL gains operational and cost efficiencies. The staff uses computer support and electronic technology for most internal library operations and for resource sharing and communication with other libraries and information repositories. The Smithsonian Institution Bibliographic Information System (SIBIS) provides access to

collections through an on-line catalogue. SIBIS also is used for acquisitions, cataloguing, and increasingly for circulation and inventory control.

In FY 1992, SIL staff, along with other SIBIS users, initiated plans to upgrade the seven-year-old system into a new system to be called SIRIS (Smithsonian Institution Research Information System). SIL automated its circulation records in two more locations: the American History Museum Branch and the Smithsonian Environmental Research Center Branch. Thirteen of SIL's 18 locations are now using automated circulation. As a cost-cutting measure, SIL is phasing out the Smithsonian International Exchange Service, which has provided a subsidy to other institutions since the late 19th century for shipments of scholarly materials to and from foreign countries. This exchange service is no longer critical to research since more efficient means of exchange are available, including electronic networking and improved publishing programs.

Research Support Services - SIL provides daily, direct support to researchers from 18 branch libraries, including Central Reference and Loan Services and the Dibner Library of the Special Collections department. All branches offer sophisticated subject expertise. SIL staff searches on-line data bases and queries national networks to find and retrieve requested items and information. For hard-to-find and highly specialized materials, SIL contracts with commercial document delivery services. SIL's Users Advisory Committee meets several times a year to consider issues affecting SIL policies and service.

In FY 1992, SIL added personal computer-based workstations to selected branches to facilitate researchers' access to SIBIS, commercial data bases, and CD-ROM (compact disc, read-only memory) disc services. SIL updated the User Guide, which provides information about the system's branches and their collections, to include the new National Postal Museum. Several branches prepared and distributed bibliographies and new-title lists to interested scholars and libraries in the United States and abroad. The staff arranged to have the National Museum of the American Indian Resource Center's books catalogued and added to SIBIS. The staff also worked closely with a planner to design a library branch and develop services for the National Postal Museum, a satellite facility of NMAH, located at the City Post Office building near Union Station. SIL, which provided services to the National Philatelic Collection through the NMAH branch, will open the National Postal Museum branch in September 1992. Finally, the staff began planning for library support for the proposed National African American Museum.

Collections Acquisition and Care - SIL acquires materials through purchase and through a gift and exchange program with more than 3,360 partners in 122 countries. However, limited funds for acquisitions have not permitted SIL to purchase sufficient materials to support new Institutional programs, including molecular systematics and other fields of special interest. Escalating costs of journals also have reduced SIL's ability to supply scholars with journals. Even with the additional funding provided for this purpose in FY 1992, SIL is faced with a projected 16 - 19 percent inflation of journal prices in 1993. As a result, SIL will cancel nearly \$40,000 in subscriptions.

SIL houses its collections in Smithsonian buildings in Washington, D.C., and other locations, including Edgewater, Maryland; Cambridge, Massachusetts; New York City; and the Republic of Panama. SIL controls its collections and makes them available to researchers at the Institution and worldwide by systematically describing materials and entering them into the SIBIS On-line Catalogue and into the On-line Computer Library Center, a national bibliographic data base. In FY 1992, SIL continued to supplement in-house cataloguing with contract cataloguing and conversion of manual records to machine-readable data.

In July 1992, SIL moved administration of the Book Conservation Laboratory to the Preservation Services Department, consolidating the program. The Department completed a pilot project designed to establish and test procedures to microfilm brittle books that are too deteriorated for physical conservation. Using external vendors, the section microfilmed 350 volumes and established contracts to handle another 1,000 volumes in FY 1993. In January 1992, the Department initiated a repair program for nonrare books and journals.

Outreach - SIL serves the wider scholarly community and the public through outreach programs, including exhibitions, publications, and lectures. In FY 1992, with funding from the Special Exhibition Fund, SIL worked with the National Museum of American History to present an exhibition and symposium on world's fairs. On view until September 1992, the exhibition "World's Fairs" displays a colorful range of publications and souvenirs from major international expositions held from 1851 to 1940. The symposium, held on March 20, 1992, drew a capacity crowd. SIL's Quincentenary exhibition, "Science in the Age of Columbus," will open on Columbus Day 1992.

With funding from the Special Foreign Currency Program, SIL administers the Science Information Program for translations, which has brought 267 translations of books into print since 1960. Four new translations were published this year: Mesozoic Coleoptera; a volume on voles in the series Fauna of the USSR; Tetraonidae and Phasianidae of the USSR: Ecology and Morphology; and part 1 of the Handbook of Systematic Malacology. Nearly 25 additional titles are in various stages of production. SIL also published two research guides: The Books of the Fairs: Materials about World's Fairs, 1834-1916, in the Smithsonian Institution Libraries (American Library Association, 1992), an illustrated, annotated bibliography of the 1,700 titles in the collection; and Catalog of the Library of the National Museum of the African Art Branch (G. K. Hall, 1991). SIL staff prepared a new edition of the pamphlet, Book Collecting and the Care of Books, which is distributed without charge to the public on request.

SIL continues to build the fund-raising and development program begun in FY 1991. The James Smithson Society awarded SIL a grant to fund a one-year pilot program postgraduate residency for a minority member of the library and information science profession. Funding also was received to begin the SIL/Dibner Library Resident Scholar Program to promote the study of the history of science and technology. Supported by the Dibner Fund, the program will continue in FY 1993. The SIL Newsletter was redesigned to promote the Smithsonian Institution Libraries more effectively and encourage private support.



## EXPLANATION OF PROGRAM INCREASE:

Postgraduate Residency for Minorities in Library and Information Science (\$42,000) - Requested funds will support a minority professional with a recently awarded degree in library and information science in a training program that will serve cultural diversity goals at the Smithsonian and the library and information sciences profession.

## NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - An administrative allotment funds administrative salaries and related support costs including travel, training, and supplies. A program allotment supports such special events as public lectures and seminars.

Restricted Funds - Gifts and grants from individuals, foundations, endowments, organizations, and corporations provide these funds for specific purposes. In FY 1992, SIL received funding for a pilot program to provide a postgraduate residency for a minority member in the library and information sciences profession. Also during 1992, the first two Dibner Resident Scholars were appointed. Support for this program will continue to be provided by the Dibner Fund in 1993.

## International Environmental Science Program

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	15	938	-	-	-	-	-	-	-	-
FY 1993 Estimate	20	1,271	-	-	-	-	-	-	-	-
FY 1994 Estimate	20	1,271	-	-	-	-	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The International Environmental Science Program (IESP) is a multi-bureau interdisciplinary effort to coordinate the Smithsonian Institution's long-term monitoring and study of unique and significant ecosystems. The goal of the Program is to evaluate and eventually to predict the impact of human activities and natural change on selected ecosystems. Research sponsored by IESP occurs at two permanent Smithsonian sites--the Smithsonian Tropical Research Institute (STRI) in Panama and the Smithsonian Environmental Research Center (SERC) in Edgewater, Maryland--and several nonpermanent sites throughout the world.

For FY 1994, IESP is not seeking additional funding for programmatic increases.

**PROGRAM** - The International Environmental Science Program supports Smithsonian research to meet the urgent need for long-term studies of the world's ecosystems, especially in tropical and subtropical regions where the rapid rate of tropical deforestation, loss of suitable soil, and resulting threat to wildlife are of critical importance to biological diversity and global change. The Program provides funds for teams of scientists, both Smithsonian staff and collaborators, to monitor natural variations in specific environments undergoing human change.

Scientists maintain permanent IESP research sites at the Rhode River Estuary at Edgewater, Maryland, and in the tropical lowland forest of Barro Colorado Island in Panama and the Galeta Reef on the Atlantic side of the Isthmus of Panama. For more than 20 years, scientists have gathered information for a data base on the biological, physical, and chemical components of various ecosystems. Analyses of these data have produced speculations and verifiable hypotheses about long-term patterns in climate and disturbances resulting from human activity.

Research sponsored by IESP also takes place at nonpermanent sites on Aldabra in the Seychelles and in Venezuela, Brazil, Mexico, and the Amazonian regions of Peru and Bolivia. Smithsonian scientists, with support from the host governments, are continuing their efforts at these sites to gather descriptive data.

The following summaries highlight IESP's most significant accomplishments for FY 1992 at the Program's permanent and nonpermanent sites.

Edgewater, Maryland - For 18 years, Smithsonian scientists have monitored a series of water quality parameters in the Rhode River, a tidal river system. Trend analysis data have revealed no clear evidence of an increase in dissolved nutrients. Phytoplankton chlorophyll had no long-term trend. Total suspended particles and forms of phosphorus, nitrogen, and carbon either decreased or had no trend, except for dissolved ammonium, which increased somewhat. The largest and most consistent trend was a decrease in dissolved organic nitrogen. Correlations were also tested between local and Susquehanna River watershed discharges and nutrient concentration in the Rhode River. In some cases, nitrate was positively correlated with either local or Susquehanna flow depending on season, location in the estuary, and time scale. At both weekly and seasonal time scales, chlorophyll was positively correlated with Susquehanna flow in spring. These results and the pattern of fluctuation in the ratio of dissolved inorganic nitrogen to phosphorus support the hypothesis that chlorophyll concentrations in spring are controlled by nitrate inputs from the Susquehanna, while in summer they are controlled by the regeneration of inorganic nitrogen from organic matter produced in the spring. The results of these trend analyses show that despite major efforts to improve the management of nutrient inputs to the Chesapeake Bay, concentrations of key dissolved nutrients have not changed significantly over the last 18 years.

Panama - At Galeta, long-term monitoring of reef and mangrove communities continues to provide valuable data on the impact of the April 1986 oil spill on these areas. Evidence now suggests that effects of the oil spill are prolonged because of cycles of re-oiling episodes. Oil penetrates mangrove sediment, causing die-off or reduced growth of mangrove trees and seedlings with resulting physical damage to the shoreline. Erosion then re-exposes oil, which kills off or injures recovering reef and mangrove organisms and starts another cycle. In addition, regular monitoring of sea level at Galeta provides data on a critical aspect of global climatic change.

Aldabra - Studies in three long-term projects were continued during the 1992 field season. For the Marine Invertebrate Project, 74 samples yielded numerous polychaete worms, crustaceans, and molluscs, including several undescribed sabellid worm species. For the five-year Terrestrial Tortoise Project, almost 1,500 animals were measured. Scientists took blood samples from 110 individuals, photographed the dorsal and lateral scutes of 120 animals, and collected the skeletal remains of 26 specimens. These data will guide decision-making in the conservation management of the atoll. For the Marine Turtle Project, scientists tagged 31 hawksbill turtles and 30 green turtles. Six hawksbills tagged in 1985 were recovered and they yielded valuable growth data on this poorly known species. Using a benign stomach flushing

technique, scientists investigated the feeding habits of hawksbills and green turtles. They monitored green turtle nesting activity on Aldabra, Assumption, and Cousin islands. Twenty years of data on hawksbill nesting activity on Cousin Island are currently being compiled. These are the most comprehensive data ever collected on this species, and they will be valuable in a reassessment of conservation regulations for the Seychelles.

Venezuela - A continuing 16-year demographic study of several social groups of the red howler monkey documented infant adoption and incest avoidance in this species. These findings help set in context long-term strategies for managing this significant group of primates in the wild and in zoos.

Brazil: Golden Lion Tamarin Project - By June 1992, 26 of 93 reintroduced tamarins bred in zoos (28 percent) remained from those released between 1984 and 1991, and 52 young survived from 77 born (68 percent). Altogether, there are 78 more tamarins in the wild as a result of the Institution's reintroduction program, making this one of the most successful animal reintroduction programs ever undertaken.

The Poco das Antas Reserve was seriously damaged in early 1990 by a major fire that broke out during an unusually dry wet season. Nearly 25 percent of the Reserve was burned, and scientists estimate that forest regeneration was set back up to ten years as a result. The fire also will delay efforts to increase the small population of golden lion tamarins within the Reserve. Scientists are continuing several projects to chart the effects of the fire, and they have initiated several experimental reforestation projects. Findings will help scientists and land managers understand how to rehabilitate damaged ecosystems in the tropics. During 1992, an experimental Ecotourism project was developed. Many members of Congress visited this Program during the United Nations Conference on Environment and Development in Rio de Janeiro.

Mexico - In 1992, scientists and volunteers continued several projects designed to quantify how a dry tropical forest recovers from hurricane and fire damage. Recovery of the forest from hurricane damage has been faster than recovery from fire. Most processes (tree growth rates of leaf litter production, for example), have returned to prehurricane levels in areas affected by the hurricane, but recovery has been slower in burned areas because most of the trees were killed. Reproductive output (seeds and fruits) of the forest continues, but it is less bountiful than it was prior to the hurricane. After four years, the bird community is also very similar to what it had been before the hurricane. In 1992, tree growth data from the project have greatly benefitted the development of a regional plan for sustainable forestry. The data were used to calibrate growth models for a regional sustainable forestry effort called the Plan Piloto Forestal.

Latin America: Neotropical Lowland Research Program - In FY 1992, scientists conducted field and laboratory work in archeology, botany, entomology, herpetology, and ichthyology on the lowland forest biota of Bolivia, Brazil, Colombia, Costa Rica, Ecuador, French Guiana, Peru, and Tobago. Results of these investigations provide new information on

the composition and distribution of the neotropical biota that is important for the completion of conservation planning and several major publications. An example of the interrelationship of conservation biology and systematic biology is that two program researchers participated, by invitation, in conferences organized by Brazil and Mexico addressing, in part, their biodiversity assessment as background for the United Nations Conference on Environment and Development in Rio de Janeiro.

## Major Scientific Instrumentation

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	-	7,819	-	-	-	-	-	-	-	-
FY 1993 Estimate	-	8,039	-	-	-	-	-	-	-	-
FY 1994 Estimate	-	8,341	-	-	-	-	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The development of major scientific instrumentation is vital to enable Smithsonian scientists to remain at the forefront of their fields. Because of the magnitude of the costs and the time scale required to fabricate new instruments and reconfigure existing ones, the Institution requests funding for such projects under this line-item rather than under individual bureau line-items. Since these projects will, of necessity, require long-term development and multi-year funding, the Institution also requests that funds in this line-item be available until expended.

For FY 1994, the Institution requests no-year funding of \$8,341,000 to continue construction of the submillimeter telescope array (\$5,988,000), to continue conversion of the Multiple Mirror Telescope (MMT) (\$1,636,000), and to develop instrumentation for the converted MMT (\$717,000).

The FY 1994 request includes the following increases above the FY 1993 level: an increase of \$550,000 for the submillimeter telescope array (over the estimated FY 1993 base of \$5,438,000) and an increase of \$400,000 for the development of instrumentation for the converted MMT (over the estimated FY 1993 base of \$317,000). These increases are offset by a reduction of \$648,000 in the funding required for the conversion of the MMT (from the estimated FY 1993 base of \$2,284,000). In addition, the Institution asks for an increase in the funding for salaries and related costs for new personnel associated with the submillimeter telescope array as one-year funding in the Smithsonian Astrophysical Observatory line-item (3 workyears and \$208,000). However, the justification for those positions is included here because of their relationship to the Major Scientific Instrumentation request.

**PROGRAM** - The development of major scientific instrumentation, such as modern telescopes, requires research and development (R&D) over an extended period of time. Teams of Smithsonian scientists, technicians, and contractors, focused on critical telescope elements such as optics, detectors, receivers, and support structures, are engaged in these R&D efforts. To facilitate the unique extended R&D efforts that are critical to the completion of major scientific instrumentation, the Institution established this no-year line-item in the FY 1989 budget.

Since FY 1989, the Smithsonian has requested funding under this line-item for two projects for the Smithsonian Astrophysical Observatory:

- development of an array of submillimeter telescopes;
- conversion of the Multiple Mirror Telescope.

Both these advanced scientific projects involve the fabrication of major new instrumentation that will take a number of years to complete. SAO expects the submillimeter telescope array to be completed in FY 1997. Annual operating costs are expected to be about 8-10 percent of the construction costs. Almost all operating personnel will be hired during the design and construction phases of the project. Thus, they already will be included in the SAO base when operations commence.

SAO expects "first light" for the converted MMT in 1995. SAO originally estimated that the total cost to the Smithsonian for the conversion would be no more than \$10 million (1987). Except for the effects of inflation, SAO's estimate is unchanged, \$11 million (1991).

#### **EXPLANATION OF PROGRAM INCREASE:**

**Construction of an Array of Submillimeter Wavelength Telescopes (\$550,000) and staff support (3 workyears and \$208,000):**

**Scientific Justification** - The last frontier for ground-based astronomy consists of observing the skies with telescopes sensitive to submillimeter waves--light with wavelengths between those of infrared and radio waves. Only in the past few years has technology advanced sufficiently to allow the construction of telescopes that can observe the universe at submillimeter wavelengths. When completed, SAO's submillimeter wavelength telescope array will have a resolving power of better than one second of arc, far finer than any single-antenna submillimeter wavelength telescope. This array will make fundamental contributions to astronomy and astrophysics by:

- advancing studies of star formation through mapping the structure and motions of the disks that eventually contract into stars;
- advancing studies of galactic structure through detailed mapping of emissions from carbon monoxide molecules;

- permitting accurate measurements of submillimeter wavelength emissions from quasars and active nuclei of galaxies that will clarify the relationship between these enormously energetic objects and may reveal the source of their energy;
- providing new information about the surfaces and atmospheres of planets and other objects in the solar system.

Status and FY 1994 Plans - Since beginning its submillimeter program in FY 1987, SAO has been assembling a team to develop the array and its associated high-frequency receivers. In January 1991, the preliminary design for the instrument and the site data were presented to the project's 15-member Scientific and Technical Advisory Group, which was created in 1989 to help guide the project during its multi-year development. This group of preeminent scientists from the international astronomical community approved the design and recommended that the array be located on Mauna Kea in Hawaii. Negotiations with the University of Hawaii to site the SAO submillimeter array of telescopes in this location are now in progress. Meanwhile, the antenna specification activities were completed and procurement activities started. The rest of the design study for the array project is now essentially complete. Receiver development resulted in the completion of a state-of-the-art 230 GHz receiver, which is being tested on a suitable European antenna located in Chile.

In FY 1992, SAO began construction of the major electronic systems associated with the antennas. These systems include the correlator, the prototypes of the high-bandwidth data-transmission systems, and the first operational receivers. While negotiations with the University of Hawaii are in progress, the array team is completing the planning and the environmental impact assessment for a suitable site.

Goals for FY 1993 include acquiring the observing site and completing the architectural design of the summit facility. The site agreements will include the development of an archeological plan for the area. The project also expects to prepare a temporary observing site at the Massachusetts Institute of Technology's Haystack Observatory in Westford, Massachusetts, which will serve as a convenient facility for assembling the carrier and the first antenna in late 1993. Receiver construction will continue at an increasing pace to provide receivers for the first antenna tests at Westford. Construction will be well under way on the correlator--the very large, special-purpose computer that decodes the signals from the antennas to reconstruct the radio images of the sky.

For FY 1994, the Institution requests a total of \$5,988,000 for the submillimeter array program in the Major Scientific Instrumentation line-item. This funding represents an increase of \$550,000 from the expected FY 1993 base. Funds will be used to assemble and test the first two antennas and to complete the procurement of the remaining antenna components. SAO also expects to let the first construction contracts to prepare the site. The complete list of proposed FY 1994 expenditures is as follows:



(\$ millions)

-- continue assembly and test of antennas and carrier.....	\$2.5
-- contract for buildings and paving on site.....	1.5
-- fund construction of additional operational receivers.....	1.0
-- test the initial correlator prototypes.....	0.2
-- build data communication systems for the summit.....	0.3
-- cover administrative expenses and purchase supplies & equipment.....	0.5
<hr/>	
Total FY 1994 Costs	\$6.0

The SAO line-item requests funding for the staff required for the submillimeter telescope array. With the funding increases requested for FY 1994, SAO will fill three new positions for the project (3 workyears and \$199,000) and rent space at the site (\$9,000). These positions include a lead observer to direct the installation efforts and testing and subsequent daily operations, an administrator, and a secretary. These staff members will be permanently based at the site.

Project Schedule - The multi-year construction schedule for the submillimeter array began following the design study phase in FY 1991 and is planned for completion in FY 1997. The following chart shows the total level of funding required for the project from FY 1989 through completion of the instrument in FY 1997, including allocations already made (actual for FY 1989 - FY 1991 and 1991 dollars for FY 1992 - FY 1997).

PAST AND PROJECTED FUNDING FOR THE SUBMILLIMETER TELESCOPE ARRAY  
FY 1989 through FY 1997  
 (1991 dollars; actual where already spent)

	FTE	(\$ millions) <sup>1,2</sup>
FY 1989	3	0.8
FY 1990	6	1.6
FY 1991	12	3.6
FY 1992	18	6.4
FY 1993	25	6.9
FY 1994	28	7.6
FY 1995	34	7.5
FY 1996	34	5.7
FY 1997	34	4.4
<hr/>		
Total	194 <sup>3</sup>	\$44.5

<sup>1</sup>Rounded to the nearest \$100,000.

<sup>2</sup>Includes all personnel costs (for FY 1994, for example, the personnel costs will total \$1.6 million).

<sup>3</sup>Represents cumulative workyear requirement over the nine-year period.

Conclusion - When operational, the SAO submillimeter telescope array will be a major scientific instrument of international stature. The array will be unique in the world in its combination of wavelength coverage and resolving power. It will therefore measurably enhance the scientific competitiveness of the United States.

Conversion of the Multiple Mirror Telescope (-\$648,000):

Scientific Justification - Conversion of the MMT (located at Mt. Hopkins in Arizona) to a telescope with a single 6.5-meter diameter mirror will more than double the light-gathering power of the telescope and increase its field of view more than several hundred times. The converted telescope will allow scientists to observe many objects simultaneously; for certain types of problems, the converted telescope will therefore permit up to 300 objects to be observed simultaneously, an enormous increase in efficiency of data collection over that possible with the MMT. The capabilities of the converted MMT will have many applications by:

- permitting study of large patterns in the galaxy distribution that may offer insights on the evolution of the universe;
- measuring the velocities of gas in very distant galaxies that will help scientists determine the rate of expansion of the universe when it was younger;
- allowing pioneering studies of rapidly changing astrophysical phenomena in double stars and in systems with one star whose core is so dense that not even light can escape from it--a black hole.

Status and FY 1994 Plans - With funding provided for the conversion project in FY 1987 through FY 1992, SAO ordered, received, and tested the glass required for casting the 6.5-meter mirror in the University of Arizona's Steward Observatory Mirror Laboratory. SAO also selected a consulting engineering firm; completed the conceptual and preliminary design for the building modifications, optical support structure, and primary mirror cell; and purchased the f/9 secondary mirror blank.

As part of its contribution to this joint project, the University of Arizona's Mirror Laboratory enlarged the casting furnace and constructed a mold to allow the 6.5-meter mirror to be cast. The Mirror Laboratory also successfully polished two 3.5-meter diameter mirrors and a 1.8-meter diameter mirror, proving the capability of the "stress-lap" polishing technique developed by the Mirror Laboratory that will be required to polish the 6.5-meter diameter mirror. In 1992, the Mirror Laboratory successfully cast the 6.5-meter diameter mirror, the largest single mirror blank ever cast in the United States. In FY 1993, SAO will issue fabrication contracts for the building, optics support structure, and primary mirror support. SAO will also order the blank for the f/5.2 secondary mirror. The Mirror Laboratory will clean and begin final shaping of the 6.5-meter primary mirror blank.

For FY 1994, the Institution requests a total of \$1,636,000 to continue the conversion process. This request represents a decrease of \$648,000 from the FY 1993 level of \$2,284,000. The main efforts in FY 1994 will be to polish the 6.5-meter diameter mirror, fabricate the on-telescope aluminizing system, and assemble and test the primary mirror cell.

Project Schedule - SAO expects "first light" for the converted MMT in 1995 at a total cost to the Smithsonian of no more than \$11 million (1991). The exact cost of the conversion and the precise contribution of the University of Arizona are still not known, but \$11 million is believed to be a reliable upper figure for the Smithsonian Institution's contribution. This total includes amounts allocated in FY 1987 for the purchase of glass and refractories. The funding provided in FY 1988 was part of the one-year appropriation for SAO. Beginning in FY 1989, the Smithsonian requested and received funding for the MMT conversion as no-year funding in this line-item. The breakdown of funds by year (actual for FY 1987 - FY 1991 and 1991 dollars for FY 1992 - FY 1994) is shown in the following chart.

PAST AND PROJECTED FUNDING FOR CONVERSION OF THE  
MULTIPLE MIRROR TELESCOPE  
FY 1987 through FY 1994  
(1991 dollars; actual where already spent)

	(\$ millions) <sup>1</sup>
FY 1987	0.5
FY 1988	0.5
FY 1989	0.6
FY 1990	0.9
FY 1991	2.0
FY 1992	2.4
FY 1993	2.4
FY 1994	1.7
Total:	\$11.0

<sup>1</sup>Rounded to the nearest \$100,000.

Conclusion - The MMT conversion is the most cost-effective way to ensure that Smithsonian astronomers will remain in the forefront of ground-based optical and infrared astronomy through the remainder of the 20th century and beyond.

Instrumentation for the Converted MMT (\$400,000) - A multi-object spectrograph will permit SAO scientists to use the converted MMT in studying the origin and nature of large-scale structure in the universe.

In FY 1992, SAO began work on this instrumentation. Major activities were analysis and mechanical design of the robot positioner structure, design of the fiber optic probes and the associated fabrication equipment, and optical design of the spectrograph that must simultaneously analyze the light carried via the 300 optical fibers. During FY 1993, SAO will complete design of the robot positioner, begin the mechanical design of the spectrograph, and acquire some of the optical components. In FY 1994, SAO proposes to complete the mechanical design of the spectrograph and acquire the fiber positioner robot and the remaining optical components for the spectrograph.

For FY 1994, the Institution requests a total of \$717,000 to develop and build this new instrument for the converted MMT. This funding represents an increase of \$400,000 from the requested FY 1993 base.

## National Museum of Natural History/Museum of Man

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	624	33,780	4	444	-	910	-	4,139	17	778
FY 1993 Estimate	638	36,914	3	412	1	1,430	-	6,588	17	708
FY 1994 Estimate	647	38,378	3	412	1	1,186	-	8,346	17	712

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The National Museum of Natural History/Museum of Man (NMNH/MOM) is the largest research organization in the Smithsonian complex. Studies carried out by the Museum's staff--and by scientists worldwide using its collections--increase understanding of the diversity, abundance, and evolutionary relationships of plants and animals living today and in earlier periods and shed light on the origin and evolution of the Earth and solar system. Studies of different cultures enhance knowledge of cultural history and human adaptation to the environment, while research on human biological variation and evolution helps to uncover the history of humankind from paleolithic times to the present. Through its many exhibits, educational programs, and scholarly and popular publications, NMNH/MOM disseminates knowledge about the natural and cultural diversity of the world. The Museum recognizes that, with more than six million visitors each year, it has a unique opportunity and responsibility for improving scientific literacy, and it is committed to presenting the best current scientific thinking in a stimulating environment. The Museum houses one of the world's largest and most valuable assemblages of natural history specimens and cultural artifacts. It acquires, preserves, cares for, studies, and interprets these vast collections and makes them accessible as an indispensable resource to the scientific community and public.

For FY 1994, NMNH requests 11 workyears and \$1,914,000 for the establishment of evolutionary systematics greenhouse facility staff and support (2 workyears and \$150,000); expansion of facilities planning and coordination (3 workyears and \$194,000); expansion of the safety management program (2 workyears and \$242,000); improvement of the collections and research information system/computer network (\$300,000); strengthening the global change, earth history research program (\$350,000); strengthening the global change, biodiversity research program (\$350,000); expansion of natural science education programs (2 workyears and

\$128,000); and the inauguration of a collaborative research project studying cultural diversity in Africa and the New World Diaspora (2 workyears and \$200,000). The FY 1994 estimate reflects a decrease of 2 workyears and \$450,000 associated with the return of Columbus Quincentenary funding.

### PROGRAM:

Research - NMNH/MOM's staff of 125 scientists is conducting more than 200 research projects throughout the world. Many of the projects are contributing to an understanding of worldwide losses in biodiversity and the causes of global environmental change.

Current research initiatives include the following:

- In June 1992, the Museum, in collaboration with the University of Guyana and the World Wildlife Fund, opened the Centre for the Study of Biological Diversity in Georgetown, Guyana. The two-story Centre, the first of its kind in South America, includes library, office, laboratory, and collection space for ongoing studies of the flora and fauna of the Guianas by the Museum and the University. The Royal Bank of Canada donated the funds for the building, and the program is supported by the Smithsonian and the University. The Centre will expand the research program to include education and conservation concerning the biodiversity of northeastern South America.
- Three months before the cataclysmic eruption of Mt. Pinatubo, in the Philippines, on June 15, 1991, the Museum's Global Volcanism Program (GVP) was already reporting activity at this long-dormant volcano through its monthly Global Volcanism Network. GVP data show this eruption to be the world's largest since 1932, and many believe that its stratospheric products are cooling the climate. The GVP staff, working with interagency groups, is studying this intriguing possibility. They also contributed to an international meeting in March 1992 on volcanoes and climate.
- Museum archeologists working at Olorgesailie, Kenya, are employing new methods to investigate the history of landscape use by early people. They are uncovering evidence of biotas, climates, geological events, and traces of early humans 1.2 million to 49,000 years ago and probably to within 5,000 years of the present. This is the first site where this landscape approach has been applied. In 1991, archeologists uncovered new fossil sites, and excavations recovered approximately 2,500 stone artifacts and fragmentary fossil bones in 990,000-year-old soil.

Briefings and Workshops - The 15th Annual Conference of the Society of Ethnobotany, organized in part by Museum anthropologists, was held at the Smithsonian in March 1992. At the meeting, a Museum anthropologist announced that he and his colleagues have discovered

what they believe is the wild ancestor of today's summer squash. Their findings challenge traditional views of the origins of this important crop plant and provide convincing new evidence for the importance of Native American plant domestication in prehistoric eastern North America.

The NMNH Biological Diversity Program held an international workshop in June 1992 on standard methods for measuring biological diversity. The scholarly workshop, focused this year on mammals, is the second in a series designed to set standards for field biologists worldwide.

Research Publications - Among the Museum's 620 publications in 1991-92 was Disease and Demography in the Americas. Written by leading experts and edited by two Museum scholars, it explores patterns of population in the Americas both before and after 1492.

Collections - Among the notable FY 1992 acquisitions were:

- 500 ethnographic objects from New Guinea;
- a large collection of deep-sea manganese nodules, documenting potential ore sources for undersea mining;
- more than 10,000 specimens of midwater crustaceans and cephalopods from the University of Oregon;
- the Thompson diamonds--a magnificent set of three cognac-hued, pear-shaped diamonds with a total weight of 90.5 carats.

The Museum's multi-year program to develop a modern computer-based Collection and Research Information System moved ahead in FY 1992 with the completion of the Mitre Corporation study of the system architecture.

Public Programs - Record crowds during the year, owing to the popularity of the Columbus Quincentenary exhibition "Seeds of Change," indicate that the Museum may set a new attendance record in 1992, perhaps exceeding eight million visitors. "Seeds of Change," the single largest exhibition ever undertaken by the Museum, commemorates the 500 years of cultural and biological exchanges between the eastern and western hemispheres since the Columbus voyages. The exhibition continues to generate unprecedented publicity nationally and internationally and will remain open through May 1993.

Two additional exhibitions deserve mention. "Pitchers, Pots and Pipkins: Clues to Plantation Life," an exhibit featuring a variety of ceramic bowls, cooking pots, pitchers, and serving dishes excavated from slave cabins and plantation mansion kitchens, was installed in the Museum's renovated Constitution Avenue lobby. "Peoples of the Luzon Mountains: Philippine Photographs by Eduardo Masferre" documents the unique peoples of the remote highland

region of Luzon, the largest island in the Philippines. The images include a series of striking portraits of the Luzon highland people and environs.

For the third year, the Museum's Office of Education conducted a Natural Science Institute for the Teachers of Minority Students, featuring activities for grades 4-12 aimed at learning how to "read" natural history.

The Museum continues development of new Native American and Geology, Gems, and Mineral complexes. Renovation of the Insect Zoo has begun with the reopening scheduled for September 1994.

#### EXPLANATION OF PROGRAM INCREASE:

Establishment of Evolutionary Systematics Greenhouse Facility Staff and Support (2 workyears and \$150,000) - A greenhouse manager and a technician, with provision for equipment, supplies, and other services, will care for important collections of live tropical plants in the newly completed greenhouse facilities at the Museum Support Center complex in Suitland, Maryland, so that they will be available for studies in plant systematics, ecology, evolution, and biodiversity.

Expansion of Facilities Planning and Coordination (3 workyears and \$194,000) - Three project specialists with necessary support costs will evaluate the impact of scheduled major building renovation and construction projects on Museum activities, design space for temporary and permanent relocations of staff to keep them out of the way of construction work, and ensure that the renovations meet the Museum's needs.

Expansion of the Safety Management Program (2 workyears and \$242,000) - Two safety officers, support costs, and base funds for hazardous waste removal will ensure that the Museum complies with stringent new safety laws, as well as with the requirements of the Smithsonian's internal audit program, in protecting the public and the general environment from potential hazards resulting from the normal use of chemicals and technologies in some of the most sophisticated research laboratories found in any museum in the world.

Improvement of the Collections and Research Information System/Computer Network (\$300,000) - Requested resources will fund necessary contractual support, hardware, and software to initiate installation in the scientific departments and collections management support units of the new Collections and Research Information System. The system will enable the Museum to meet the escalating requests for information and items from the National Collections by scientific researchers, natural resource managers, law enforcement officials, and the lay public.

Strengthening of the Global Change, Earth History Research Program (\$350,000) - Requested funds will strengthen geologic and anthropological studies by increasing technical services for specialized research and data base development, research equipment and supplies,



and expanding field studies in a program that analyzes geologic processes that have a major effect on global warming with the aim of predicting human response to major environmental changes.

Strengthening of the Global Change, Biodiversity Research Program (\$350,000) - This request will strengthen marine and tropical forest studies by increasing support for technical services contracts, research equipment purchases, critical supplies and materials, and field support in a program that documents the biodiversity, structure, growth, and regeneration of tropical forest and coastal ecosystems in Central and South America. The goal of this program is to develop predictive models that can help mitigate the impact of environmental changes and protect the diversity of the world's flora and fauna, which form the basis for sustaining life on Earth.

Expansion of Natural Science Education Programs (2 workyears and \$128,000) - Two program coordinators with funds for student stipends will develop and support a program of teacher training and student internships designed to stimulate an interest in science among minority students (kindergarten through high school seniors) in the District of Columbia and Prince George's County, Maryland, and a research training program that provides unique opportunities for undergraduates to work directly with natural history scientists and collections.

Inauguration of a Collaborative Research Project Studying Cultural Diversity in Africa and the New World Diaspora (2 workyears and \$200,000) - Two research assistants with necessary support will work with African and New World Diaspora scholars to inaugurate a collaborative program that seeks to synthesize existing research and begin new work on historical relationships and contemporary connections between people in Africa and those of African descent in the Americas.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Museum derives funds from a variety of sources, including its share of net proceeds of the museum shops and food concessions. During FY 1992, allotments provided for the salaries of the Museum's director and three staff members as well as support for one meeting of the Museum's new National Board.

NMNH/MOM benefits from the Institution's many awards programs such as the Special Exhibition Fund, Collections Acquisition Program, Research Opportunities Fund, Research Exchange Fund, and Scholarly Studies, all of which support research, education, and exhibit projects.

Examples of awards in FY 1992 include support for a study of how humans have affected global change in Egypt's Nile Delta, causing the disappearance of lagoons and wetlands as well as changes in sea level and climate; an interactive exhibit on spiders that will use high-tech films, fiber optic murals, live and model specimens, and explanations from prose, poetry, and

technology of how spiders have influenced humans; and a Spanish-language brochure for the "Seeds of Change" exhibition.

Restricted Funds - The Museum receives support for specific programs and projects through donations from private individuals, foundations, and corporations. Private contributions to construct a new Geology, Gems, and Mineral Hall, expected to open in 1996, have slowed in the current economic climate. Research grants include support from the World Wildlife Fund for research and operational costs and for the Biological Dynamics of Forest Fragments (BDFF) project in Brazil, especially its outreach and training programs; from the Mellon Foundation, which provides BDFF support of botanical and ecological research; from Xerox for the "Seeds of Change" exhibition, which runs from October 1991 until May 1993; and from Exxon, whose support since 1975 for the Smithsonian West-Atlantic Mangrove Program (SWAMP) has made possible a detailed long-term and multi-disciplinary analysis of the Twin Cays mangrove swamp ecosystem on the Barrier Reef Platform of Belize.

NMNH/MOM manages the Smithsonian Marine Station at Link Port (SMSLP), Fort Pierce, Florida. Hunterdon Endowment funds are dedicated to the basic operating support of this oceanographic research facility for use by Smithsonian and national and international visiting scientists. Seward Johnson Endowment funds provide for the support of the Johnson-Sea-Link submersible owned by the Harbor Branch Oceanographic Institution (HBOI), the host facility. NMNH is proceeding with a fund-raising strategy to support construction of a laboratory and residential facilities that will serve the mission of SMSLP and its research initiatives.

Government Grants and Contracts - These funds are provided by various Government agencies and departments for special projects conducted at the Museum to take advantage of its unique scientific expertise in systematics. An example includes funding received from the United States Information Agency for the Bering Sea Eskimo exhibition, which brings the Inuit culture to European cities.

## Conservation Analytical Laboratory

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	42	2,757	-	-	-	-	-	15	-	-
FY 1993 Estimate	42	2,969	-	-	-	-	-	-	-	-
FY 1994 Estimate	42	2,969	-	-	-	-	-	-	-	-

FTE = Full-time equivalent  
 FTP = Full-time permanent

**ABSTRACT** - The Conservation Analytical Laboratory (CAL), located at the Museum Support Center in Suitland, Maryland, is the Smithsonian's specialized research facility for the conservation and technical study of museum objects. CAL helps the Smithsonian and other museums in the study, preservation, and conservation of objects of artistic, scientific, cultural, and historical importance. CAL staff examines the conservation-related properties of these materials, extracts historical information from their technical record, and improves conservation treatment technology. Staff conservators apply the knowledge gained from scientific research directly to the actual treatment of objects. Experience with a wide range of materials in analytical and technological studies enables CAL to collaborate in anthropological and art historical research. The wide variation in the state of preservation of objects in the National Collections provides the overview needed to define directions in conservation research. CAL also conducts a conservation-training program in basic and advanced conservation theory and technique, supports and organizes workshops and seminars, and disseminates the latest knowledge in the field of conservation and cultural materials research to museums and research professionals throughout the United States and the world. For FY 1994, CAL is not seeking additional funding for programmatic increases.

**PROGRAM** - The major programs of CAL are archaeometry, conservation research, conservation training, and technical information. These programs, while distinctive, share methodologies and requirements for equipment and staff expertise. Hence their integration within CAL produces a strong, positive, mutual reinforcement.

**Archaeometry** - In this program, physical and natural scientists collaborate with scholars from the arts and humanities to address questions of an art historical or archeological nature.

A number of techniques used in these programs requires specialized facilities that CAL, in collaborative agreements with the National Institute for Standards and Technology (NIST), operates at the latter institution.

Work on the application of digitized image handling and analysis to the various visual information representations for paintings obtained during technical examination (such as radiographs and infrared images) continued in close collaboration with both industry and the National Archives. With the Archives, CAL organized a two-day symposium on analytical image processing. CAL continued developmental work on neutron activated autoradiography, a technique for the technical study of paintings, in collaboration with German colleagues at the Hahn Meitner Institut in Berlin.

Research on the provenance of Maya polychrome pottery, in which CAL staff collaborates with scholars at, among others, Duke University, the National Museum of Guatemala, and the Institute for Anthropology and History of Guatemala, produced results which, in combination with the decipherment of the glyphs on these vessels, provide new insight into the organization of Mayan communities and the relationships among their rulers. CAL will incorporate these results in a traveling exhibit planned for 1994.

In the biogeochemistry program, CAL installed a facility for polymerase chain reaction (PCR) amplification of DNA. One stunning result in this program was the purification and identification of indigenous protein in a 350-million-year old fossil of *Lingula*. Thus far, it had been thought that biomolecules in fossil records did not survive beyond about 100,000 years.

Conservation Research - Research in this program pursues the identification and characterization of the chemical and physical processes involved in the deterioration of materials in museum collections (conservation science) and the development and evaluation of treatment techniques for unstable collection items (treatment technology). CAL's scientists and conservators address these questions in collaborative teams.

One indication of the success of this program is the interest that its work has elicited not only in the conservation field but also outside it. Recently, CAL has been approached by private industry to explore mechanisms for collaboration and technology transfer in a project on mechanical properties of materials and on the conservation and preservation of photographic materials.

In the research on mechanical properties and behavior of materials and objects, CAL researchers have been able to predict the behavior of objects under changing environmental conditions (temperature and relative humidity) using computer-generated models and properties for the constituent materials measured in the laboratory. This understanding of environmental conditions may make it possible to formulate more realistic values for the permissible ranges of temperature and relative humidity in the museum climate. Collaborative work with the National Gallery of Art and the Canadian Conservation Institute on the protection of works of art in transit resulted in a workshop organized by CAL at the Smithsonian Institution on the

packing and transportation of paintings. CAL plans to organize a series of such workshops throughout the United States and Canada during the next year.

Work on the preservation and conservation of photographic materials centered on the conditions for long-term storage at low temperature, so-called cold storage. The results of this investigation, which incorporates the mechanical behavior of photographic materials as well as the traditionally considered chemical properties, appear to challenge the commonly advocated practice of conditioning the material to lowered humidity before cold storage.

CAL's research on the natural and accelerated aging of artists materials, especially paper, is contributing to the development of standards for the display of library and archival materials by a committee of the National Information Standards Organization (NISO). CAL staff continued research on modern synthetic materials with study of the deterioration of elastomers, centering on materials from the collections of the National Air and Space Museum. With the American Chemical Society, CAL co-sponsored a special symposium on polymers in museum collections.

The analytical services section provided increased scientific and technical support to conservators and curators throughout the Smithsonian. About 6,000 samples were analyzed in response to about 400 requests for assistance.

Conservation Training - The Furniture Conservation Training Program (FCTP) started its third class of students, while the second class completed its course work and will commence the internship year. In addition to the four courses taught as part of the FCTP, but also open to other interested professionals, CAL organized six advanced conservation courses on subjects such as the identification of synthetic dyes on historic textiles, appropriate materials for use in the display of collections, the properties of leather, and the use of the suction table in the treatment of paintings and textiles. CAL continued the joint CAL-Johns Hopkins University graduate program in conservation science. The program's first two Ph.D. degrees are expected to be awarded during the next fiscal year.

The first two interns in archeological conservation--one postgraduate and one graduate student--joined excavation projects in the Middle East and Central America. The Samuel H. Kress Foundation provided funding assistance for their travel expenses. Four other recently graduated conservators received postgraduate internship training, as did three graduate students, two preprogram interns, five summer interns, one midcareer fellow (funded with financial assistance from the Samuel H. Kress Foundation), and an Indonesian textile conservator funded by the United States Information Agency.

Technical Information - About 720 requests for information from the general public were answered by CAL's information specialists, scientists, and conservators. CAL's information program also handled about 175 requests for information assistance from Smithsonian staff and another 220 from museum professionals nationwide. In addition, CAL's information specialists performed about 220 data base searches for museum professionals inside and outside the Smithsonian on the Conservation Information Network (CIN), of which CAL is a contributing

partner. The number of reprints in CAL's collection of conservation literature grew by about 3,850 articles.

**NONAPPROPRIATED SOURCES OF FUNDING:**

**Unrestricted General and Special Purpose Funds** - These funds, derived from the fees charged to participants in CAL's advanced conservation specialist courses, partially offset the expenses incurred in organizing these courses. Funds from the Smithsonian's Scholarly Studies Program and the Research Opportunities Fund are available to support research projects.

## Museum Support Center

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	46	5,541	-	-	-	-	-	-	-	-
FY 1993 Estimate	56	5,843	-	-	-	-	-	-	-	-
FY 1994 Estimate	62	7,170	-	-	-	-	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Museum Support Center (MSC), located in Suitland, Maryland, is a specially equipped and environmentally controlled facility providing state-of-the-art technology for scientific research, conservation, and collections storage. MSC accommodates collections storage in four sections (or pods) for three general types of needs: collections storage in cabinets, "wet" collections storage on open shelving for biological collections in alcohol, and "high-bay" storage for very large objects. MSC also houses the Conservation Analytical Laboratory (CAL) and conservation laboratories for the National Museum of Natural History (NMNH) and the National Museum of American History (NMAH), the NMNH Laboratory for Molecular Systematics, and other specialized NMNH research laboratories. MSC's facilities provide the best conditions possible for preservation of the National Collections for future generations.

For FY 1994, the Institution requests an increase of 6 workyears and \$1,327,000 for the Museum Support Center Move costs and objects decontamination. The Institution requests that the funds for MSC collections storage equipment and MSC Move costs remain available until expended (for FY 1994, this totals \$4,996,000). MSC base resources include an amount of \$994,000 to reimburse the permanent Judgment Fund of the U. S. Treasury in compliance with a vendor judgment relating to the purchase of storage equipment for the Museum Support Center facility.

**PROGRAM** - The Museum Support Center provides facilities for the conservation and preservation of museum objects, conservation training, scientific research, and storage of museum collections. New, specially designed storage equipment is now available at MSC to house the more than 36 million specimens and objects.

The MSC Operational staff provides computer services for administrative, research, and collections management data, including the transfer to MSC of the more than 36 million specimens and objects. The staff also meets the facility research and collection study needs of MSC occupants, provides shipping and receiving services, moves equipment, oversees safety and security operations, and maintains strict environmental and cleaning services required for the proper storage of museum collections.

The size and scope of the move of Smithsonian collections to the Museum Support Center, including the preparation and relocation of millions of objects and specimens from nine curatorial departments in two different museums, are unprecedented within the museum world. The volume, characteristics, and variety of the collections and the distance of the transfer pose special challenges that must be addressed as part of the move. MSC Move staff technicians inspect the objects for pests and conservation problems, clean them, and stabilize them prior to their move. The collections relocated to MSC are properly curated, less crowded, and stored in better controlled environmental conditions than collections in most other Smithsonian storage areas. As a result, they have far better prospects for long-term preservation and will be significantly more accessible to researchers.

Early in its planning for the relocation of collections, the Smithsonian established the concept of the "Initial Move," with the objective being the phased transfer of over 36 million designated objects from NMAH and NMNH to MSC over a multi-year period. These collections will occupy approximately two-thirds of the MSC storage space, and the remaining third will be used for "Growth." To date, the Smithsonian has focused on the Initial Move into the high-density storage equipment. During this time, however, many of the collections of the curatorial departments have continued to grow. As a result, the distinction between those collections and activities designated for the Initial Move and those collections targeted for the future Growth Move has blurred. The Institution has begun to conduct a small amount of Growth Move activity prior to completing the Initial Move activity.

MSC Collections Storage Equipment - The General Services Administration (GSA) has awarded all procurement packages that provide the storage equipment required to relocate the Initial Move high-density collections to MSC. By August 31, 1992, the contractor had installed 2,637 shelving cabinets, 4,307 drawer cabinets, 833 insect cabinets, 668 botany cabinets, all of the cantilever shelving, all of the compactor screens, 236 large cabinets, 7,815 shelves, 40,369 drawers, and 850 polyscreens. GSA anticipates completion of manufacture and installation during 1993 of all high-density procurement storage equipment packages for the Initial Move.

The Institution is now addressing two of the three remaining requirements for MSC collections storage equipment:

- design, purchase, and installation of the "high-bay" collections storage equipment for Pod 4;



- procurement and installation of the balance of the collections storage cabinets for Pods 2 and 4, begun in 1991.

A window of opportunity remains open to the Smithsonian to purchase the cabinets for Pods 2 and 4 under a current contract for a set price. This set price includes a ceiling for annual escalation costs above the base price. Under the terms of this contract, the Smithsonian must order these cabinets by FY 1994 or pay higher costs to procure them at a later date.

The design, purchase, and installation of the balance of the "wet" storage equipment for Pod 3 will be addressed in future years when funds are available.

MSC Move - During FY 1992, NMAH and NMNH continued to move collections to MSC with assistance from the small Move staff. NMAH moved 1,600 textiles, patent models, baskets, mats, and engineering models. Approximately 15,400 objects from the North American Indian collections were moved. Other collections moved included 1,205,100 insects, 300 marine mammals, and 400 bird eggs and nests. In addition, many collection objects already moved to MSC and stored in temporary locations were relocated to their final storage destination in the Pods. For the Natural History Building's Major Capital Renewal Project (mechanical renovation) to proceed on schedule, the Smithsonian must increase the rate at which it is currently moving collections to MSC. The North and West attics are being vacated now and must be emptied by December 31, 1993.

#### EXPLANATION OF PROGRAM INCREASE:

Accelerate Move of Objects and Asbestos Decontamination (6 workyears and \$1,327,000) - Six technicians and funds for contractual services, supplies, and equipment will prepare objects for transfer and move them to MSC as well as remove asbestos from contaminated objects prior to their move, especially specimens important for the study of biodiversity and the physical destruction of the Earth's environment, Native American objects, and other NMNH collections that must be removed from the Natural History Building in FY 1994 if NMNH's Major Capital Renewal Project is to remain on schedule.



**ARTS AND HUMANITIES**



## Assistant Secretary for the Arts and Humanities

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	34	2,329	8	553	1	42	1	255	-	-
FY 1993 Estimate	38	2,844	8	593	-	45	1	105	-	-
FY 1994 Estimate	43	3,305	8	593	-	50	1	105	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Office of the Assistant Secretary for the Arts and Humanities, formerly the Office of the Assistant Secretary for Museums, provides direction to bureau directors, support offices, and programs in the arts and humanities in developing, executing, and managing their individual missions. It oversees essential museum functions, such as collections management, exhibitions, education, and public programs. The Office provides leadership in assuring equal employment opportunities and in achieving full physical and intellectual accessibility of programs and collections to a culturally diverse public. It participates in national and international endeavors and fosters cooperation with other institutions in the arts and humanities.

This line-item includes the Office of Museum Programs, which provides training and research services to the museum profession worldwide; the Joseph Henry Papers Project, which researches and publishes the manuscripts of Joseph Henry, the first Secretary of the Smithsonian; and the American Studies Program, which conducts a graduate program in American culture, incorporating course work at the Smithsonian.

As a result of the Smithsonian reorganization conducted in 1992, the Office of the Registrar, formerly included in this line-item, now reports to the Assistant Secretary for the Sciences and is included in that line-item.

For FY 1994, the Office of the Assistant Secretary for the Arts and Humanities requests an increase of 3 workyears and \$261,000 to expand the African American Institutional Study Program (3 workyears and \$200,000) and to support services and training in the Accessibility

Program (\$61,000). The Office of Museum Programs seeks an increase of 2 workyears and \$200,000 to establish a Museum Internship Cooperative Program.

### PROGRAM:

I. Office of the Assistant Secretary for the Arts and Humanities - With base funding of 18 workyears and \$1,816,000, the Office of the Assistant Secretary for the Arts and Humanities (OASAH) works closely with museums, educators, and special committees to improve outreach programs, serve broader audiences, and plan and monitor new initiatives. It encourages improvements in accessibility throughout the Institution and new techniques in presenting programming for the public. OASAH administers six major programs: the African-American Institutional Study Program, the Accessibility Program, the Special Exhibition Fund, the Collections Acquisition Program, the Integrated Curriculum Development Project, and the Experimental Gallery.

African American Institutional Study Program - During FY 1990, the Smithsonian Institution convened an Advisory Committee to determine the type of entity needed for interpreting African American history and culture; the possibilities for collaborations with existing cultural institutions, both within and outside the Institution; and the appropriate organizational structure for pursuing scholarship in African American material culture, an area that has been inadequately researched. In FY 1991, the Smithsonian's Board of Regents supported the Advisory Committee's recommendations that there be a freestanding African American museum on the Mall.

Accordingly, task forces, consisting of scholars from both within and outside the Institution, met and clarified the programmatic needs of the new museum. The task forces examined such issues as research, collections, development and marketing, administration, and facilities planning. The program and collections management plans as well as recommendations for acquisitions will be completed in FY 1993. Staff will continue to identify collaborators and resources and to update listings of key African American collections, professionals, and research efforts. They will also begin to define collaborative efforts with other institutions concerned with African American history and culture.

Accessibility Program - Established in January 1991, the Accessibility Program works to ensure that visitors and staff with disabilities have access to the Smithsonian's programs, exhibitions, and facilities. Toward this end, the program assumes a central coordinating role in the Institution, conducting training and evaluation as well as providing technical assistance to all Smithsonian bureaus and accessibility services to museum and Zoo visitors. The program collaborates extensively with museums and other organizations across the country to improve accommodations for people with disabilities. In FY 1992, the program began a comprehensive, four-phase assessment of the Institution's exhibitions, publications and audiovisuals, programs, and facilities.

Special Exhibition Fund - In 1984, the Board of Regents established the Special Exhibition Fund to supplement Federal appropriations for exhibitions resulting from scholarly research in various scientific, humanistic, aesthetic, technical, or interdisciplinary fields represented throughout the Institution. The Fund encourages interdisciplinary projects, experimentation both in exhibition technique and in content, and evaluation of the public's response.

Collections Acquisition Program - In January 1978, the Board of Regents established a Trust-funded Acquisitions Program to supplement Federal acquisition monies, which were insufficient for museums to purchase important, but expensive, works of art. In recent years, the Program has broadened to include other disciplines and has encouraged acquisitions that represent diverse cultural perspectives.

Integrated Curriculum Development Project - In FY 1992, Congress appropriated funds to convene a task force jointly organized by the Duke Ellington School for the Performing Arts and the Illinois Math and Sciences Academy to explore the development of a curriculum based on the case study method that would successfully combine the arts, humanities, and sciences. The resulting curriculum will be piloted at both schools and later replicated on a national scale. An Advisory Council has been selected, along with task forces consisting of approximately five teachers from each school.

Experimental Gallery - The Experimental Gallery encourages innovation and risk taking in exhibit technique and style. It provides space for exhibit makers to create, innovate, explore, and experiment with the exhibition development process, audience access, exhibition context, and techniques and style, including design, material, and interpretive strategies. Current subject areas are multi-cultural exhibitions in the arts, humanities, and sciences and interactive exhibitions in the physical and natural sciences. The Experimental Gallery will begin an extensive evaluation phase in 1993.

II. Office of Museum Programs - With base funding of 13 workyears and \$619,000, the Office of Museum Programs (OMP) provides training and technical assistance to museums nationally and internationally. In FY 1992, OMP trained more than 250 museum professionals from the United States and abroad in all aspects of museum work. It expanded course offerings in its training programs for tribal communities, reaching more than 100 American Indian museums and cultural centers. The Office offered referral, registration, counseling, and career development services to more than 700 interns and developed new materials that allowed for broad, low-cost dissemination of its programs.

III. Joseph Henry Papers Project - With base funding of 5 workyears and \$284,000, the Joseph Henry Papers Project conducts interpretive historical research on the life and times of Joseph Henry, a pioneer American physicist and the first Secretary of the Smithsonian Institution. It supports internal and external scholarly research on 19th-century American science and maintains the Alexander Graham Bell-Joseph Henry Library. The Project recently published the sixth volume of the Henry Papers, which details Henry's experimentation in

electricity and magnetism at the College of New Jersey (now Princeton University) and his election as the first Secretary of the Smithsonian.

IV. American Studies Program - With base funding of 2 workyears and \$125,000, the American Studies Program sponsors a graduate program in American material culture in cooperation with various universities located in the Washington, D.C., area and in other cities. The program director and cooperating scholars teach three or four seminars a year to graduate students for academic credit in American studies or American history departments of affiliated universities. This program disseminates the knowledge acquired through course studies and fosters research on American studies within and outside the Institution.

#### EXPLANATION OF PROGRAM INCREASE:

##### I. Office of the Assistant Secretary for the Arts and Humanities:

Expansion of the African American Institutional Study Program (3 workyears and \$200,000) - Two research historians and a secretary/assistant, with support for research activities and operational expenses, will identify, research, collect, and interpret artifacts and archival material relating to African Americans in film, video, and the performing arts, in support of the developing program of the proposed African American museum on the Mall.

Expansion of Accessibility Program Services (\$61,000) - Requested resources will support contractual interpreters for deaf visitors and reader services for visitors who are blind or cannot read printed materials; purchase access equipment for museum and Zoo areas that directly serve the public; and bring expert speakers from around the country to instruct Smithsonian and other museums' staff on new developments in accessible design of exhibitions, programs, and facilities.

##### II. Office of Museum Programs:

Establishment of a Museum Internship Cooperative Program (2 workyears and \$200,000) - An intern program coordinator and a secretary/assistant, with stipends and travel for ten interns and funds for office operations, will establish a cooperative program that will educate entry-level professionals by giving recent college graduates a dual internship experience at the Smithsonian and at small, culturally specific museums throughout the United States.

#### NONAPPROPRIATED SOURCES OF FUNDING:

##### I. Office of the Assistant Secretary for the Arts and Humanities:

Unrestricted General and Special Purpose Funds - These funds support the salary, benefits, and expenses of the Assistant Secretary, special assistant, and museum program specialist. In addition, transfers of unrestricted Trust funds support the Collections Acquisition Program, which facilitates the Smithsonian's purchase of major acquisitions, and the Special



Exhibition Fund, which provides partial funding through a competitive process for important and innovative exhibitions throughout the Institution.

Restricted Funds - In FY 1991, the Office of the Assistant Secretary for the Arts and Humanities received a grant of \$150,000 from the American Psychological Association to continue development of the Experimental Gallery.

## II. Office of Museum Programs:

Unrestricted General and Special Purpose Funds - OMP receives an annual allotment to support travel and subsistence expenses of minority professionals attending OMP seminars. OMP has two revolving Trust funds: one for training tuition and one for an audio-visual loan and sales program, the proceeds of which offset expenses and fees. In addition, OMP has one Trust fund to support intern registration and administrative services.

## III. Joseph Henry Papers Project:

Unrestricted General and Special Purpose Funds - Funds are available from the Smithsonian's Research Opportunities Fund to support research projects.

Restricted Funds - The Smith College Tuition Fund defrays travel and auxiliary support costs for staff, interns, and volunteers, as well as for stationery supplies. Support from the National Academy of Science pays for incidental programmatic items not otherwise funded, including journal subscriptions and additions to the Henry Papers research collections. A grant from the Ida Hornstein Reingold Memorial Fund supports the scholarly activities of the Joseph Henry Papers Project.

## IV. American Studies Program:

Unrestricted General and Special Purpose Funds - The American Studies Program receives tuition reimbursement from cooperating universities, principally George Washington University and the University of Maryland, College Park, whose graduate students take courses offered by the American Studies Program. The tuition reimbursement refunds the Smithsonian Institution for the use of its facilities by the students participating in Smithsonian classes and, in addition, provides honoraria and reimbursement for the services of outside experts participating in the program.

## National Air and Space Museum

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	231	11,533	3	243	46	4,193	1	3,112	3	306
FY 1993 Estimate	233	12,448	3	247	-	4,344	-	1,721	-	443
FY 1994 Estimate	236	12,862	3	247	-	4,619	-	1,716	-	271

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The mission of the National Air and Space Museum (NASM) is to memorialize the national development of aviation and space flight; collect, preserve, and display aeronautical and space flight equipment of historical interest and significance; serve as a repository for scientific equipment and data pertaining to the development of aviation and space flight; and provide educational material for the historical study of aviation and space flight. Within the broader mission, immediate goals of the Museum are to explore and present the history, science, technology, and social impact of aeronautics and space flight and to investigate and exhibit the nature of the universe and our environment. Current research, exhibitions, films, outreach, and collection and archival efforts are dedicated to these goals.

In addition to its Mall location, NASM maintains the Paul E. Garber Preservation, Restoration, and Storage Facility in Suitland, Maryland. The Institution is seeking authorization for the planning and design of an extension at Dulles International Airport to house the Museum's storage, restoration, and exhibit production facilities and enable the Museum to care for its largest aircraft and spacecraft.

For FY 1994, NASM requests an increase of 4 workyears and \$455,000 to increase collections management programs (1 workyear and \$150,000), educational outreach (1 workyear and \$75,000), minority employment opportunities through the Upward Mobility program (2 workyears and \$80,000), and maintenance of its artifacts and Mall facility (\$150,000). The FY 1994 estimate reflects a decrease of 1 workyear and \$41,000 associated with the return of Columbus Quincentenary funding.

PROGRAM - The major programs of the National Air and Space Museum are historical and scientific research; exhibitions and films; collections development; preservation, restoration, and conservation of artifacts; publications; and education and outreach activities.

Research - Researchers at the Center for Earth and Planetary Studies (CEPS) are using remote sensing data to determine surface changes in the Earth's drylands, the geologic evolution of planetary surfaces, and the analysis of volcanic and tectonic features on the Earth and terrestrial planets. Global Change Research programs include studies of lacustrine deposits in the eastern Sahara, sand transport in the Western Desert of Egypt and the Mojave Desert, and spectral analysis of dune sand in the deserts of Africa. A collaborative study with researchers at the University of New Hampshire and in Czechoslovakia will assess forest and soil damage due to air pollution in Czechoslovakia and elsewhere in central and eastern Europe. Research in planetary studies includes geologic mapping of portions of Mars and volcanic and tectonic features on Venus from radar images and other data returned by the Magellan spacecraft.

NASM's research staff devotes much of its effort to educational outreach, especially at the elementary school level, presenting public programs and lectures worldwide, often in conjunction with exhibitions and films.

Exhibitions and Films - "Legend, Memory, and the Great War in the Air," an exhibition that opened in FY 1992, examines the evolving role of the airplane during World War I and contrasts the romantic myth of aerial combat with the air war's grim reality. In addition, a World War II commemorative exhibition opened that will feature a different aircraft and its role in the war, each year through 1995. Currently on exhibit is the P-47 Thunderbolt. The "Star Trek" exhibit, based on the television series of the 1960s, examines the historical, political, social, and cultural issues and themes of that era. More than 80 original props, models, and costumes used in the creation of the original series are featured, as well as a short documentary film. Before it closes in January 1993, it is estimated that almost 1 million visitors will have viewed this exhibition. Opening in FY 1993, "Where Next, Columbus?" examines space exploration during the next 500 years and the prospective roles of both manned and robotic missions.

Blue Planet, the Museum's newest IMAX film, examines the global environment as seen from space and the effect of natural and man-made forces on the Earth. Since its premier in November 1990, it has been seen by more than 9 million people. Destiny in Space, currently in production and scheduled to premier in June 1994, will examine the future of human and robotic exploration of space. Cosmic Voyage is currently in the script development and fund-raising phase. This film will use the most advanced computer animation and special effects to take viewers on a journey across the entire range of space and time scales known to science. Also in the fund-raising stage is a film entitled Aircraft Carrier, the first aviation IMAX film since To Fly, which premiered in 1976. It will highlight the excitement of carrier aviation, life aboard ship, fleet support, and the history and future role of carriers.

In FY 1992, "Exploring New Worlds" premiered in the Albert Einstein Planetarium. The show, in keeping with the Smithsonian-wide observance of the Columbus Quincentenary, looks at past, present, and future explorations of this world and others. It is an attempt to explain what compels our species to explore its surroundings--from the extremes of the subatomic world of elementary particles to the ultramicroscopic structure of the universe.

Collections Development - The Museum's Archives received increased requests in FY 1992, particularly for photographic services. Archives and curatorial staffs are currently working on a collecting plan for the Museum. Due to a lack of storage space, a temporary moratorium was placed on collecting archival material during FY 1992. The NASM Collections Committee has encouraged curators to become increasingly selective as they consider additional artifacts. As a result, the number of new objects received has dropped significantly. The number of artifact loans has, however, increased as NASM shares its collections with other museums. A series of new loans has been initiated whereby qualified museums fund the restoration of an object in the NASM collection in exchange for a longer-term loan of the object.

Preservation, Restoration, and Conservation of Artifacts - NASM recently refurbished several aircraft so that they could be installed in exhibitions or loaned to other museums. The Spirit of St. Louis was lowered from the ceiling, cleaned, and thoroughly inspected in view of the public and then it was rehung. Other major accomplishments in FY 1992 include the ongoing restoration of the Enola Gay, which will be completed in 1995; treatment of several large World War II aircraft; preservation of the C-130 and Super Constellation aircraft stored outdoors at Dulles; and construction of a temporary structure for the SR-71 Blackbird. The Museum has documented poor storage conditions at the Garber Facility. This information will be used to develop a repair schedule. In FY 1992, the conservator oversaw the construction of a new conservation mannequin that will preserve spacesuits currently on exhibit.

Publications - As a part of the Smithsonian's Columbus Quincentenary celebration, NASM will publish Looking at Earth, a general audience book that contains more than 190 images and mosaics of the Earth's surface collected by a wide range of international spacecraft and sensors. Another book published in FY 1992, Boeing 247: The First Modern Airliner, traces the development of this aircraft and its impact on the first days of commercial transcontinental passenger service. Recent additions to the Smithsonian History of Aviation series include Stanley Sadler's Segregated Skies: Black Combat Squadrons of World War II.

Education Outreach Activities - Several new initiatives are aimed at increasing visits by minorities to the Museum and their participation in public programs. NASM encourages local school systems to bus youngsters to the Museum for programs featuring minority astronauts or military and civilian aviators who can serve as role models. The pilot program "Learning as a Family Experience" brings students, their families, and their teachers to the Museum after public hours for demonstrations, tours, short talks, and an IMAX film. Teachers participate in workshops prior to the evening event and receive free curriculum materials from the Education Resource Center. Another program trains minority students to perform demonstrations in the

Museum's galleries on the principles of aviation and space flight. These programs help young people gain insight into the principles of flight while also building their self-confidence and experience in making public presentations.

The first of a thirteen-part television series "Smithsonian Frontiers of Flight," will air on the Discovery Channel beginning in September 1992.

In FY 1992, NASM cooperated with the embassies of Norway and Iceland to sponsor a symposium on the history of exploration and the possibility of human colonization of space. The queen of Norway and the president of Iceland attended this event. The panel discussion included such noted explorers as Thor Heyerdahl and Michael Collins.

#### EXPLANATION OF PROGRAM INCREASE:

Strengthening of Collections Management (1 workyear and \$150,000) - Requested funds will support a conservation technician, furnish a chemical treatment laboratory, and contract the services of skilled conservators. This much-needed support will provide for artifact condition reporting, environmental monitoring and help tackle the significant backlog of conservation treatments.

Expansion of Cultural Diversity in Education Programs (1 workyear and \$75,000) - A minority science demonstrator will carry out gallery demonstrations on the principles of aviation and space flight, and additional funds will expand the "Learning as a Family Experience" pilot program designed to bring teachers and low-income minority students and their families to the Museum for an evening of enrichment.

Expansion of the Upward Mobility Program (2 workyears and \$80,000) - Two minority museum technicians will be hired at the GS-6 level into a program that, through training and mentoring, will advance them to target positions as museum specialists (GS-12) to improve the cultural equity of the staff and provide diversity of focus in NASM's exhibition and research efforts.

Replacement of Carpeting and Equipment (\$150,000) - Requested funds will enable NASM to replace carpet so worn by the heavy volume of visitor traffic that it creates a safety hazard and to purchase artifact and building cleaning equipment to service the entire building.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds come from a variety of sources, including the Museum's share of net proceeds from the museum shops and restaurants, a share of the net proceeds from bureau activities (such as the theater and planetarium), and annual allotments. In addition to meeting expenses of the theater and planetarium and support costs of the director, these funds finance fellowships, research chairs, guest lecturers, symposia, and special public events. A portion of the proceeds from the theater and planetarium support

the production of new IMAX films, including Blue Planet, Destiny in Space, and Aircraft Carrier. The Museum also receives outside support for these films.

The Lindbergh Chair of Aerospace History and the International Fellowship provide continuing support for distinguished scholars to study at the Museum. Other fellowship programs include Guggenheim, Verville, Embry Riddle, and Martin Marietta internships, which support pre- and postdoctoral students, minority students, and distinguished scholars in aviation and space science.

Restricted Funds - These funds provide restricted endowments that specify their use. Examples of these funds are the Ramsey Endowment for research relating to naval flight history, the Guggenheim Endowment for lectures and stipends, and the NASM Education Fund. NASM receives numerous corporate donations, both monetary and in-kind, to support collections management, the Laboratory for Astrophysics, various educational programs, exhibits, publications, the Embry Riddle Internship Program, public science demonstrations, the Exploring Space lecture series, and the General Electric Aviation lecture series. A children's corner in the upcoming "How Things Fly" gallery and the restoration of the Enola Gay have been partially funded by contributions from individuals.

Federal Grants and Contracts - The National Aeronautics and Space Administration (NASA) is the primary source of Federal grants to NASM. Continued funding from the NASA grant program supports research activity in planetary geology by the Museum's Center for Earth and Planetary Studies, including photogeologic investigation of planetary tectonic features, the structural geology of the Basalt Plains of Washington State, the geographic mapping of Mars, and the Planetary Image Facility. In FY 1992, NASA partially funded a research project to study forest damage in Czechoslovakia due to the effects of air pollution. This is one of the Center's research projects related to the Institution's Global Change Research program. NASA also sponsored a NASM staff member as a mission scientist on the European Space Agency Infrared Space Observatory. The Laboratory for Astrophysics has received funding from NASA for continuing research in infrared astronomy.

## National Museum of American History

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	366	18,413	1	189	9	921	2	5,086	-	-
FY 1993 Estimate	369	19,469	1	183	9	950	2	5,000	-	-
FY 1994 Estimate	371	19,424	1	183	9	975	2	5,000	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The National Museum of American History (NMAH) is an educational institution dedicated to understanding the experiences and aspirations of all the American people. Through collections, research and publications, exhibitions, and an array of public programs, with a special emphasis on musical performance, the Museum preserves and interprets the national heritage for scholarly and general audiences. Its collections of artifacts, numbering in the millions, together with its extensive archival holdings and the National Numismatic Collection, represent the social, cultural, scientific, and technological development of the United States and constitute one of the most comprehensive history collections in the world. The National Museum of American History also administers the National Postal Museum. In all of its endeavors, NMAH makes a special effort to recognize the diverse aspects of American culture and to present that diverse culture to audiences on the Mall and far beyond.

For FY 1994, the National Museum of American History requests an increase of 7 workyears and \$479,000 for asbestos removal at its Silver Hill Facility in Suitland, Maryland (\$100,000); mandatory building management initiatives such as trash recycling and hazardous waste removal (\$73,000); staffing for educational services to increased numbers of Museum visitors (3 workyears and \$146,000); and programs for African Americans, Hispanic Americans, and American Indians (4 workyears and \$160,000). The FY 1994 estimate reflects a decrease of 5 workyears and \$524,000 associated with the return of Columbus Quincentenary funding.

**PROGRAM** - The National Museum of American History investigates, collects, preserves, interprets, and honors the heritage of the American people through original research, publications, exhibitions, and public programs designed to increase the understanding of American history.

**Collections Acquisition** - In FY 1992, the Museum received a number of significant objects through purchases and gifts. The Museum acquired the rare 1787 Genard printing press, which helped set the course for American and British printing 30 years later. Another very rare and important acquisition was the 1929 model "91" Miller racing car built by celebrated and innovative racing car designer Harry A. Miller. Mrs. Tom Thumb's (Lavinia Warren Bumpus) sewing machine and elaborate miniature cabinet, decorated with six panel paintings depicting her 1863 wedding to Tom Thumb (Charles Stratten), was an unusual textiles-related acquisition. The musical history collections were enriched by a 19th-century lady's worktable with piano, a rare 19th-century melodeon, and Irving Berlin memorabilia. The Museum also acquired nearly 200 World War II escape and evasion materials from the U.S. Army's secret MIS-X service, and the physical sciences collections were enhanced by important artifacts related to fluorine chemistry work crucial in building the atomic bomb as part of the Manhattan Project.

**Collections Management** - In FY 1992, collections management staff made considerable progress in reducing documentation backlogs, particularly in the armed forces, numismatics, and community life collections. Planning, training, and data base testing in FY 1992 will result in initial versions of the comprehensive Collections Information System (CIS). The Museum strengthened its inventory program by the transfer of central batch records to the NMAH minicomputer and the development of a prototype statistical sampling program. The staff also began a nationally emulated multi-year effort to document unclaimed loans.

The collections management staff also concentrated on supporting building renovation work. Specialists relocated more than 11,000 objects within NMAH or transferred them to the Fullerton Industrial Park in Springfield, Virginia, where the Museum leased an additional 12,000 square feet of space in FY 1992. NMAH moved more than 5,000 objects from seven curatorial divisions into the Museum Support Center. Beginning in late FY 1993, the Museum will share a new collections storage building with the National Air and Space Museum while one asbestos-contaminated and two deteriorated storage buildings undergo renovation over the next five years. The staff is also preparing to move the National Philatelic Collection to the new National Postal Museum which staff will occupy in 1992.

The Department of Conservation's new Costumes, Textiles, and Fragile Organics Laboratory, including a collections rehousing section, began operations in FY 1992. The staff treated 86 gowns, costumes, and other textile objects for two major exhibitions and treated and rehoused 45,000 fragile paper items.

**Research and Publications** - Much of the Museum's research activity complements the Museum's ambitious exhibition schedule. In FY 1992, research took place on the following



exhibit topics: science in American life, including development of academic chemistry, industrial research, genetic engineering, and study of the environment; everyday life in 19th-century America, including industrialization and labor, immigration, African American communities, and westward expansion; children's printing presses; and pressed glass.

Long-term staff projects that will result in a variety of publications and public programs include histories of the information age; the Tennessee-Tombigbee waterway; agriculture in Virginia; public health nursing; the American soldier in World War II; oral history studies of NIKE advertising and Kraft Television Theater; African-American sacred songs and worship traditions; political excitement in America, 1830-60; consumerism; culture and politics in 18th-century America; and a reappraisal of the history of photography in America.

The Museum maintains an active program of research on its collections. These efforts produced nearly 100 publications in FY 1992. Fine examples include a richly illustrated book on the evolution of electioneering and a book about women in American Indian society.

Exhibitions - The Museum opened 14 new exhibitions in FY 1992, ranging in size from a single case to a 7,800-square-foot show. Of special note are two new permanent exhibitions. Using the historic gown collection as its centerpiece, "First Ladies: Political Role and Public Image" explores the roles and accomplishments of America's First Ladies and the public's expectations and perceptions of them. "American Encounters," the Museum's major Columbus Quincentenary show, examines the cultural interactions of American Indians, Hispanics, and Anglo-Americans in New Mexico over the past 500 years. Other exhibitions of special interest include "American Pressed Pattern Glass"; "Behind Bars," a photography exhibition on prison life at a maximum security prison; "Elephant Ivory," a showcase exhibit on the use of ivory in industrialized societies and its effect on elephant populations; and "American Women in War," a showcase exhibit documenting the long-standing presence of women in conflicts from the Civil War to the Persian Gulf War.

Opening in FY 1993, the permanent exhibition "Land of Promise/Land of Paradox" will explore the dynamism of American life in the 19th century through the experiences of African Americans, Cherokees, and Central and Eastern European Jews. In late FY 1993 or early FY 1994, the exhibition "Science in American Life" will open for public viewing. This exhibition will explore how chemistry and the physical and biological sciences have affected society and how society has influenced the pursuit of science.

Work progresses on the Museum's Master Plan to renovate the building and reinstall its exhibitions. By May 1993, Phase IVa, which includes the last of the exhibition galleries, will be complete, and work will resume in storage and office areas.

Public Programs - In FY 1992, the Museum developed and presented more than 150 educational activities, publications, forums, special events, and performances to increase public understanding of America's heritage. Many of these educational outreach efforts focused on the Columbus Quincentenary by exploring the interrelationships among American Indian,

Hispanic, Anglo-American, and African-American cultures in the Americas. Examples of the Museum's Quincentenary programs are "Good as Gold," a three-day public symposium on food exchanges among Europe, Africa, and the Americas; "Will the Circle Be Unbroken?" a three-day scholarly conference on the African diaspora; and "American Encounters," a series of free concerts featuring Hispanic and American Indian music from New Mexico, presented in conjunction with the exhibition of the same name.

The Museum also initiated a pilot Youth Interpreters Program, through which high school students learn to be teachers and demonstrators in exhibitions. In the Spring of 1994, NMAH will target teenage audiences with live interpretation throughout the Museum.

#### EXPLANATION OF PROGRAM INCREASE:

Completion of Asbestos Removal (\$100,000) - Requested funds will provide for services, supplies, and equipment for the Museum's decontamination of objects exposed to asbestos at the Garber Facility in Suitland, thus redressing health and safety deficiencies and improving control of and public access to the National Collections.

Improvement of Building Management and Safety (\$73,000) - This request will fund the increased costs of contracts for refuse removal and recycling, hazardous waste removal, waste water analysis, and pest control as mandated by Federal and local environmental regulations.

Expansion of Education Programs (3 workyears and \$146,000) - A weekend program manager and two education coordinators, with funds for publications, historic reproductions, and supplies, will develop and manage a program of demonstration carts and centers, and create and administer a museum-school program that will bring teachers from around the country to the Museum for tours and workshops.

Strengthening of Cultural Pluralism Efforts (4 workyears and \$160,000) - A part-time project assistant, two research coordinators, and a publicist, with funds supporting travel and supplies, will help redress the imbalance of how American society, the Smithsonian, and NMAH have portrayed the lives and culture of diverse ethnic groups by preparing a data base about antebellum black communities, assist in research programs in African-American and American Indian cultures, promote the Museum's public programs, and initiate a major annual conference series.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - This funding is from various sources, including the Museum's share of museum shop, photography shop, and cafeteria sales; publication royalties; and various annual allotments. In FY 1993, these funds will support the salary and benefit costs of the museum director and the Museum's unique chamber music performance and recordings program.

Restricted Funds - The principal sources of income for these funds are individual or corporate gifts and foundation grants provided for specific purposes. In FY 1992, significant gifts were received from a variety of corporations and foundations to fund oral history, documentation, and exhibit projects on advertising.

Gifts and grants are the major source of funding for new exhibitions. Major grants have been received from the American Chemical Society and the Occidental Chemical Corporation to support a major exhibition on "Science in American Life," scheduled to open in 1993, and its educational programs. The Timex Corporation has pledged a major gift in support of the renovation and reinstallation of the permanent hall of timekeeping and clocks. Pitney Bowes has given a generous gift in support of the new National Postal Museum. Other gifts in support of exhibitions are from the Computerworld Information Technology Awards Foundation, Inc., to support the exhibition "The Information Age"; from Beyond the Wall, Inc., to support an exhibition on Vietnam War memorabilia; and from the Hearst Corporation to support the opening of the "First Ladies" exhibition.

In FY 1992, significant gifts were received to support publications. The Richard Lounsbery Foundation and the Susan and Elihu Rose Foundation gave generous gifts to produce a magazine for children on American history. The Museum also received funding from Eastman Kodak for a book on the history of photography, from Good Humor Ice Cream for a brochure on the history of ice cream, and from Avery Faulkner for a book on historic Washington, D.C.

Generous unrestricted gifts in support of Museum programs came from Pharmacy World Congress '91, the Laurel Racing Association, Morgan Stanley Realty, Inc., Gavel International Corporation, Dennis Trading Group, IVI Travel, the Research Board, AFMAC's Resort Co., and the Bank of America.

## National Museum of the American Indian

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	124	10,398	2	235	-	50	-	250	-	-
FY 1993 Estimate	182	15,599	1	188	-	84	-	200	-	-
FY 1994 Estimate	182	14,410	1	188	-	83	-	200	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The National Museum of the American Indian (NMAI), established in 1989 by P.L. 101-185, recognizes and affirms to Native communities and the non-Native public the historical and contemporary cultures and cultural achievements of the Native peoples of the western hemisphere through development and use of its collections and nationwide public programming, research, and exhibitions executed in consultation with Native peoples. NMAI operates planning and administrative offices in Washington, D.C., the former Museum of the American Indian at Audubon Terrace in New York City, and a Research Branch located in the Bronx, New York. This Research Branch houses curatorial offices, a conservation laboratory, and most of the Museum's 1 million objects. In 1994, a new exhibition center in New York City will open at the George Gustav Heye Center at the Alexander Hamilton U.S. Custom House. Future facilities will include a reference, collections, and program support center at Suitland, Maryland, and a museum building on the Mall. Additionally, NMAI will develop a nationwide program of training and outreach services for Native communities in consultation with Native Americans.

NMAI is not seeking additional funding for FY 1994 programmatic increases. NMAI's estimate for FY 1994 reflects a reduction in base funding of \$1,189,000 related to one-time costs associated with the furnishings and equipment for the Custom House (\$1,100,000) and costs relating to the National Campaign Office (\$89,000).

**PROGRAM** - The Museum of the American Indian, Heye Foundation, located in New York City, opened its doors to the public in 1922. On June 24, 1990, the collection was transferred to the Smithsonian Institution to form the base of the National Museum of the American Indian. The collection, which was initiated near the turn of the century, is one of the

world's richest assemblages of artifacts of the indigenous cultures of the western hemisphere. In collaboration with Native Americans, the new Museum will advance knowledge and understanding of these cultures, including their art, history, and languages. Through innovative public programming, research, and collections management, the Museum will recognize its special responsibility to protect, support, and enhance the development and perpetuation of Native cultures and communities.

Facilities Planning - During FY 1992, numerous Native American consultants, various technical advisors, and NMAI and Smithsonian staff completed the programmatic definition and initial space allocations for the museum on the Mall and the support center in Suitland, Maryland. Together these buildings will provide levels of collections care and public access not possible in current facilities and generate the ambitious outreach programs and services planned for Native American communities and organizations. Planning has aimed to accommodate traditional object care requirements and to provide for access to the collections and related information by all people. Planning is now completed for the George Gustav Heye Center in New York, and construction will begin in September 1992. NMAI staff has also finalized lease arrangements with the General Services Administration for operations in the Alexander Hamilton U.S. Custom House building.

Exhibitions and Public Programs - During FY 1992, NMAI completed work on "Pathways of Tradition," an exhibition that will open in mid-November 1992, in the rotunda of the Alexander Hamilton U.S. Custom House as a prelude to the 1994 grand opening of the George Gustav Heye Center. The exhibition, made possible with funding provided for this purpose in FY 1992, will draw on objects selected by Native Americans and be informed by their first-person commentary. During its two and one-half months it will provide the Museum both educational and fund-raising opportunities.

Design and production of the four 1994 opening exhibitions at the George Gustav Heye Center will continue through FY 1992 and FY 1993. "Points of View" will represent the breadth of the collection through objects selected by 28 Native Americans that offer multiple perspectives. Issues surrounding the relationship of contemporary Native American artists to their traditional past will be explored in "Celebrations," in which 25 Native American artists, each specializing in a different art form, will collaborate on a single installation. The third exhibition, "Shared Visions," consisting of contemporary Native American painting and sculpture, has been organized by the Heard Museum in Phoenix and will be accompanied by ancillary educational material developed by NMAI. The final exhibition will orient the visitor to the Native American history of the lower Manhattan area and the history and architecture of the Custom House. The staff is also continuing to plan the public programs that will accompany these inaugural exhibitions and the exhibitions that will follow.

For "Pathways of Tradition," the staff has scheduled an Indian Dance Festival and collected articles on Native American dance for publication in the fall of 1992. Other publications under development include a book highlighting NMAI collections and a study of

Navajo weavings. The staff also helped organize a program of contemporary music of Native America for the 1992 Smithsonian Festival of American Folklife.

Outreach Services - NMAI's primary emphasis in outreach in FY 1992 has been to build staff capacity to broaden services. After a nationwide search, the Museum filled the vital position of assistant director for public programs with a Native American who has two decades of experience in exhibitions, writing, and management of Native American cultural centers and museums. The Museum hired a field consultation assistant who, aided by Native American representatives, will recommend museum policy and planning. The Museum also provided regional workshops for Native Americans run by the Smithsonian's Office of Museum Programs. Development of training and other outreach services remains a high goal for the new assistant director for public programs. A discussion with representatives of several Latin American nations in July 1992 helped advance plans for international programs based on NMAI collections.

Collections Management and Access - In FY 1992, the Institution installed and began use of a conservation laboratory in the 3,000-square-foot annex to the New York Research Branch that will help serve urgent collection needs. These facilities and the addition of two conservators are supporting preparations for the 1992 and 1994 exhibitions, collections photography for related publications, and planning for the relocation of collections exhibited and stored at the Audubon Terrace facility to the Research Branch in FY 1993. The curatorial staff worked with NMAI board committees and outside specialists to develop a comprehensive collections policy, expected to be approved by the board in the fall of 1992. Research and negotiations resulted in substantial progress on an important repatriation request from Alert Bay/Cape Mudge, British Columbia. Individual collections research projects are proceeding on Navajo textiles, the documentation of the Apache collections, and a data base for NMAI's more than 100,000 photographs. In FY 1993, the Museum will establish a repatriation office to produce inventories and additional documentation responsive to National, Smithsonian, and the Museum's repatriation policies. The office will play a leadership role in nationwide repatriation activities.

The Museum added a total of 13 positions to its conservation, registration, and collections management staff in FY 1992. Additional collection management staff will be required beginning in FY 1993 to consolidate the New York collections at the Bronx facility and begin to prepare them for relocation to the Washington facilities. Because of the severe overcrowding of staff and collections, NMAI will acquire and outfit several trailers at the Bronx facility in the fall of 1992 to permit the work of collections management programs to proceed.

National Campaign - The NMAI National Campaign staff will complete the first full year of operation in 1992. The staff is following a detailed and extensive fund-raising strategies plan adopted by the Smithsonian's Board of Regents in September 1990, with a planning goal of \$60 million. This goal includes the one-third share of the construction costs of the Mall museum, as well as support for the Museum's outreach and educational programs. Toward this goal, as of July 1992, the Campaign raised \$4.52 million from individuals, foundations, and

corporations through direct solicitations, proposals, and proceeds from special events. The Campaign plans several fund-raising events in New York City in conjunction with the November 1992 preview exhibit, "Pathways of Tradition."

The membership program component of the Campaign is building a broad-based constituency for long-term support of the Museum. By July 1992, approximately 50,000 persons had joined the Museum with an average gift of \$27. The National Campaign estimates that 80,000 to 100,000 individuals will eventually join the Museum's membership program. In addition, the Campaign established an Honorary Committee for the Campaign and is recruiting a volunteer leadership group, the International Founders Council, with a total of 20 member acceptances expected by December 1992.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Smithsonian has established allotments to cover salary and support costs for the NMAI director and the Trust portion of the National Campaign costs, including one position's salary and support costs. In addition, the Institution established an unrestricted special purpose account to receive income from the National Museum of the American Indian's Campaign, which began in January 1991. The NMAI currently receives income from museum shop sales, admissions, and donations. Investment income will be available from the permanent endowment of the Heye Foundation, which was included in the property transfer.

## National Museum of American Art

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	128	7,300	1	207	-	319	-	1,044	-	-
FY 1993 Estimate	129	7,751	1	165	-	666	-	1,564	-	-
FY 1994 Estimate	131	8,025	1	165	-	813	-	1,286	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The National Museum of American Art (NMAA) seeks to represent the finest achievements of American visual artists working in painting, sculpture, the graphic arts, photography, and crafts. The Museum presents diverse art from all regions, traditions, and cultures in America, including folk as well as fine art, through major exhibitions and related educational programs for public and scholarly audiences. The Museum fosters research nationwide through fellowship and intern programs, and it maintains automated data base inventories as a resource for American art scholars. The scholarly staff publishes new research in books, articles, and catalogues for the purpose of underscoring the relationship of art and history. The Renwick Gallery, part of the National Museum of American Art, focuses on American crafts and decorative arts. NMAA also maintains the Barney Studio House, a period home open for tours and interpretive programs.

For FY 1994, NMAA requests an increase of 3 workyears and \$178,000 for a national arts and humanities education program (2 workyears and \$126,000) and cultural pluralism initiatives (1 workyear and \$52,000). As a joint request with the National Portrait Gallery (NPG), NMAA also requests for the American Art and Portrait Gallery Building Manager's office 2 workyears and \$309,000 for facilities management staff (2 workyears and \$44,000); replacement of museum furnishings (\$165,000); and a safety program (\$100,000). The FY 1994 estimate reflects a decrease of 2 workyears and \$59,000 associated with the return of Columbus Quincentenary funding.

**PROGRAM** - The National Museum of American Art explores the contributions of the Nation's artistic heritage from the 18th century through the present. Through a multi-faceted



program of acquisitions, exhibitions, research, publications, and education, the Museum presents and interprets American art for a broad and diverse public.

Collections - The Museum's collections, numbering more than 36,500 objects, encompass paintings, sculpture, graphic art, photography, and folk art from the 18th century to the present and contemporary crafts. In FY 1992, the Museum acquired John Singleton Copley's 1763 Portrait of Mrs. Watson, the first work by the country's most important colonial artist to enter the collection. The 19th-century collections were enhanced by the acquisition of The Concord Minute Man of 1775, a bronze sculpture by Daniel Chester French. Works by Grant Wood, Andrew Wyeth, and Joseph Cornell added important dimensions to the 20th-century collections. The photography collection was dramatically expanded by the addition of groups of photographs by Roy DeCarava and Aaron Siskind, while works by Felipe Archuleta, Eluid Martinez, Martin Ramirez, and Alex Maldonado were important additions to the Museum's folk art collection. A walnut bench by George Nakashima, two ceramic works by Betty Woodman, and a group of turned wood bowls by various craft artists, including Bob Stocksdale and Bruce Mitchell, were added to the Renwick's collection of contemporary American crafts.

Exhibitions - Among the 13 exhibitions on view during FY 1992 at the Museum and its Renwick Gallery, several drew considerable attention and national press coverage. "Homecoming: William H. Johnson and Afro-America, 1938-1946," drawn primarily from the Museum's collection, presented the work of one of America's leading African-American painters. In "Between Home and Heaven: Contemporary American Landscape Photography," the Museum's recently acquired collection of contemporary landscape photography was unveiled and a national tour organized. "Chicano Art: Resistance and Affirmation, 1965-1985" surveyed the work of more than 90 contemporary Mexican-American artists. The Renwick Gallery featured the jewelry of Albert Paley and the baskets of John McQueen. To celebrate its 20th anniversary, the Renwick opened an exhibition of its permanent collection. In addition, the Museum's touring exhibition program sent seven exhibitions from the collection to 14 cities throughout the United States.

The Museum also initiated a program to reinstall and reinterpret its permanent collection. NMAA reconfigured galleries to more prominently feature the Museum's collections of folk art and western art. Three magnificent Thomas Moran paintings received new reproduction frames, based on photographs of originals from 1872 and 1893. Educational labeling and handouts now offer significant contextual and historical information about the collections.

Projected exhibitions under development include "Revisiting the White City: American Art from the 1893 World's Fair," which will open in April 1993 and will present the finest achievements of America's visual artists during the late 19th century. This quincentenary exhibit is a co-sponsored exhibition with the National Portrait Gallery. An exhibition of the paintings of Thomas Cole will explore the artist's major social and artistic concerns, while "American Wicker," at the Renwick, will offer the first serious study of this important medium in American furniture.

Research - The Museum combines programs for professional training and scholarship with resources for advanced research. In FY 1992, the Museum solicited comment and opinion from more than 75 scholars, librarians, educators, and museum professionals and prepared a five-year plan for the Research and Scholars Center. Implementation of the plan begins in FY 1993.

The fellowship program hosted 12 pre- and postdoctoral fellows and 11 visiting scholars from across the United States and abroad in FY 1992. Now in its fifth year, the Charles C. Eldredge Prize for outstanding scholarship in the field of American art was awarded to Dr. Richard P. Wunder for his publication on the Vermont sculptor Hiram Powers. The intern program sponsored 32 graduate and undergraduate students during FY 1992, including five minority, foreign, and disabled students.

Research resource material continued to grow and improve in FY 1992. The Museum's newest research data base project, Save Outdoor Sculpture, completed pilot surveys in Illinois, Tennessee, and West Virginia. Agencies in 18 states began surveys, and another 27 sites will begin surveys in FY 1993. The Museum improved access to the Inventory of American Paintings by a series of user guides and an agreement to make the data base available through the Canadian Heritage Information Network. The library, shared jointly with NPG, acquired 4,500 volumes, including a collection donated by the Berryman Foundation and another gift of a major collection of caricature books. The photographic archives added another 10,000 images from the Peter A. Juley and Son Collection.

Publications - The Museum's scholarly journal, American Art, accepted Rizzoli International Publications as its new co-publisher for a four-year term. Such preeminent scholars and artists as Robert Coles, Chuck Close, and Joyce Carol Oates contributed articles in 1992.

Several books have been published or are now in production. Between Home and Heaven: Contemporary American Landscape Photography, Revisiting the White City: The World's Fair at the 1893 Chicago Exposition, American Wicker, and Free within Ourselves all accompany new exhibitions. Several other books will showcase various aspects of the NMAA collections including a book of 350 portraits of American artists from the Juley Collection, a coloring book, an anthology of poetry and art, and a book featuring portraits of women.

American Art received an award of distinction in the American Association of Museums publications competition, as did Li'l Sis and Uncle Willie, a children's book accompanying the William H. Johnson exhibition, and a postcard book from "Between Home and Heaven: Contemporary American Landscape Photography."

Education - Plans are currently under way for a nationwide outreach program including videos and curriculum materials to provide students throughout the United States with education about their artistic cultural heritage. Continued intensive efforts to reach a wider audience through outreach initiatives and interpretive programming have greatly increased

participation in Museum events by African Americans, Hispanics, Asian and Pacific students and adults. The video and accompanying curriculum material produced for the William H. Johnson exhibition drew 8,500 students and teachers for guided tours. The annual celebration of Chinese New Year on the Museum steps continued and brought increased attendance.

The Museum sponsored films, lectures, teacher workshops, and a reception for the Congressional Hispanic Caucus for the exhibition "Chicano Art: Resistance and Affirmation, 1965-1985," attracting far-reaching public response. A high school photography contest held in conjunction with the exhibition "Between Home and Heaven: Contemporary American Landscape Photography" concluded with an exhibition of 100 of the finalists' works and a reception for the students and their parents and teachers.

### EXPLANATION OF PROGRAM INCREASE:

Establishment of a National Arts and Humanities Educational Program (2 workyears and \$126,000) - Two education specialists will develop, evaluate, and disseminate printed and electronic educational materials on topics in American art with the disciplines of social studies, history, and language arts. This program will enable NMAA to become the Nation's art education service organization.

Strengthening of Cultural Pluralism Initiatives (1 workyear and \$52,000) - A minority curator will offer an area of expertise that will reverse the "art of exclusion" that has plagued American museums by helping to redefine the scope of American art and by assembling a collection that will represent the broadest ethnic, economic, and regional groups.

American Art and Portrait Gallery Facilities Management - The National Museum of American Art and the National Portrait Gallery share space in the Old Patent Office Building and an Office of Facilities Management. Together they make the following requests:

Improvement of Facilities Management (2 workyears and \$44,000) - One custodian and one laborer will perform routine cleaning and maintenance services to improve facilities management and keep pace with the expanded programs and activities that NMAA and NPG offer to the public.

Replacement of Museum Furnishings (\$165,000) - Requested funding will purchase new drapery, carpeting, and gallery seating for the Patent Office Building and Renwick Gallery and improve the maintenance of furnishings through a program of regular cleanings and repairs.

Establishment of Base Funds for a Safety Program (\$100,000) - Requested funds will allow NMAA and NPG to meet the requirements of mandated safety programs in hazardous waste removal and hazard communication as well as undertake staff training and numerous expensive corrective actions without being forced to reprogram funds away from other equally essential building maintenance functions.

## NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Annual allotments support costs of the director and special events. The Museum's Exhibition Sharing Fund, which generates income through fees charged to borrowers of touring exhibitions, financed the 1992 tours of seven exhibitions to 14 locations in the United States. Royalty income from museum publications was used to partially underwrite the costs of scholarly catalogues. The Smithsonian Institution's Special Exhibition Program provided funding for the Chicano Art exhibition and planning funds for several future exhibitions.

Restricted Funds - Private support of NMAA programs, especially exhibitions and publications, are increasingly important to accomplishing the Museum's goals. In FY 1992, gifts from UCLA and C&P Telephone provided funding for the educational programs associated with the Chicano and William H. Johnson exhibitions. A grant from the Elizabeth Cheney Foundation will support the publication of the catalogue for "Revisiting the White City: American Art from the 1893 World's Fair" in FY 1993, and a major grant was made by NYNEX to underwrite the Thomas Cole exhibition opening in February 1994. John Singleton Copley's Portrait of Mrs. Watson was purchased in part with funds raised from the Museum's collectors' group, and many other important objects were purchased with gifts from individuals. IBM provided funds for a book featuring NMAA's African-American collection, with more than 3,000 copies to be distributed free to schools.

## National Portrait Gallery

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
	FTE	Amount	General		Special		FTP	Amount	FTE	Amount
			FTP	Amount	FTP	Amount				
FY 1992 Estimate	90	4,711	-	35	-	101	-	400	-	-
FY 1993 Estimate	90	5,025	-	5	-	107	-	320	-	-
FY 1994 Estimate	93	5,195	-	5	-	111	-	400	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The National Portrait Gallery (NPG) is dedicated to the exhibition and study of portraits of people who have made significant contributions to American history and culture and to the study of the artists who created such portraiture. The Gallery sponsors a variety of scholarly and public activities for audiences interested in American art and American history.

For FY 1994, NPG requests an increase of 2 workyears and \$56,000 for curatorial support staff. A decrease of \$40,000 associated with the return of Columbus Quincentenary funding included in this line-item partially offsets this increase. As a joint request with the National Museum of American Art (NMAA), NPG also requests for the American Art and Portrait Gallery Building Manager's office 2 workyears and \$309,000 for facilities management staff (2 workyears and \$44,000); replacement of museum furnishings (\$165,000); and safety program (\$100,000). The Building Manager's requests are justified in the NMAA narrative.

**PROGRAM** - The National Portrait Gallery explores the heritage and accomplishments of the American people by collecting, researching, and exhibiting portraits in all media as both historical and artistic documents.

**Collections Acquisitions** - Major FY 1992 purchases include portraits of Thomas Jefferson by Charles Bird King, James Abbott McNeill Whistler by Walter Greaves, Gilbert Stuart by Sarah Goodridge, and Anne Green by Charles Willson Peale. Portraits of the football pioneer Walter Camp, President Dwight D. Eisenhower, and James Cardinal Gibbons came as gifts.

Major prints and drawings purchased include Paul Colin's Josephine Baker portfolio, Jacob Lawrence's print of Stokely Carmichael, a drawing of Alex Haley, a 1782 engraving of George Washington, and William Auerbach-Levy's watercolor of the Algonquin Round Table. Acquired as gifts were Miguel Covarrubias's drawing of Irving Berlin, Ralph Barton's gouache of Nickolas Muray, and 14 portrait drawings by Everett Raymond Kinstler.

NPG purchased photographic portraits of Clarence King, Helen Keller, Wilbur Wright, and Laszlo Moholy-Nagy. Other purchases include Claes Oldenburg and Frank Stella by Diane Arbus, Edward Weston by Ansel Adams, Gertrude Kasebier by Baron Adolph de Meyer, Robert Frank by Louis Faurer, and the actor Wallace Beery by Imogen Cunningham. As gifts the Gallery acquired its first holograph, a portrait of President Ronald Reagan, and three photographs from the family of photographer Nickolas Muray, including two portraits of Muray by Edward Steichen and a self-portrait.

NPG's library, shared jointly with NMAA, received a major collection of more than 500 caricature books from Raymond W. Smith, and from the Berryman Foundation more than 200 books that belonged to Washington Star art critic Florence S. Berryman and her father, Washington Star political cartoonist Clifford K. Berryman.

Collections Management - During FY 1992, 129 objects were on loan to 28 borrowers, including traveling exhibitions. The Gallery purchased a new filing system for the official object records and the staff began a project to capture all original acquisition documentation, with projected completion in FY 1995. The staff has completed a project to produce high-quality facsimile negatives from original glass negatives by Mathew Brady in the NPG Meserve Collection.

Research - With the assistance of a Women's Committee grant, the Catalog of American Portraits (CAP) completed its survey of portraits in New Mexico and continued to survey the major New York portrait collections at the Metropolitan Museum of Art and Columbia University. The CAP computer data base increased by more than 4,500 new portrait records.

After completing a pilot project using several commercial software systems, CAP successfully transferred 70,000 records to a multi-relational data base that will greatly enhance this facility's capabilities to serve researchers. The staff began implementing the local area network-based collections information system, which will incorporate images, text data, and comprehensive collections management features. NPG will move its CAP collections files from the Institution's old Honeywell mainframe computer to the new system in the fall of 1992.

The Peale Family Papers project continued work on volume 4 and on Charles Willson Peale's Autobiography (volume 5). Research also continues on the catalogue raisonne of Rembrandt Peale's work, under a three-year grant from the Walter I. Annenberg Foundation.

Exhibitions - Of the many exhibitions presented by NPG in FY 1992, several deserve special mention. "The Levy-Franks Family Colonial Portraits," organized by the Museum of

Fine Arts, Boston, Massachusetts, with participation and support from the American Jewish Historical Society, was on view from February to May 1992. "Arnold Newman's Americans," a retrospective exhibition of portrait photographs by Arnold Newman in celebration of the Gallery's recent acquisition of more than 100 of his works, will travel to five museums in the United States beginning in January 1993.

"Noble Heritage: Five Centuries of Portraits from the Hosokawa Family," features family portraits from the fourteenth to nineteenth century, and significant associative decorative objects belonging to this influential Japanese daimyo family. This is the latest in a series of cultural exchange exhibitions, and was on view from July to November 1992.

"The Spirit of Party: Hamilton and Jefferson at Odds," which opens in September 1992, celebrates the 250th anniversary of Thomas Jefferson's birth by exploring the interaction among Alexander Hamilton, Thomas Jefferson, and their circles of supporters, including John Jay, John Adams, George Washington, and James Madison.

"In Pursuit of Fame: Rembrandt Peale, 1778-1860," opens November 1992. Among the 75 paintings, letters, and publications that examine Peale's works as social and cultural documents of the early Republic are Patriae Pater, Peale's famous likeness of George Washington, and the White House portrait of Thomas Jefferson. Finally, "Lincoln and His Contemporaries: Mathew Brady Photographs from the Frederick Hill Meserve Collection," displays 60 modern albumen prints of notable Americans from the 1860s made from NPG's original glass-plate negatives. It will be circulated under the auspices of the Smithsonian Institution Traveling Exhibition Service beginning in FY 1993.

Publications - In FY 1992, Arnold Newman's Americans was published in association with Bulfinch Press/Little, Brown and Company. The Smithsonian Institution Press published The Presidents in its Treasury series and, with the Portrait Gallery, co-published Noble Heritage: Five Centuries of Portraits from the Hosokawa Family. The University Press of Virginia distributed NPG's The Spirit of Party: Hamilton and Jefferson at Odds. In Pursuit of Fame: Rembrandt Peale, 1778-1860, a definitive biography of the artist, will be distributed by the University of Washington Press. Publications in progress include Revisiting the White City: American Art from the 1893 World's Fair (working title). This co-sponsored Quincentenary publication with the National Museum of American Art will present the finest achievements of America's visual artists during the late 19th century.

Education - The Education Department interprets the Gallery's collections for its visitors through daily tours, elementary and secondary school programs, senior citizen outreach programs, and public programs such as "Cultures in Motion: Portraits in American Diversity" and "Tea Time Lectures."

In FY 1992, the Department presented a new film series in conjunction with "Time Covers the War: Personalities of World War II" and conducted photography and family art workshops. In celebration of Black History Month, NPG and the NMAA presented "A Tribute

to the 1940s" featuring the D.C. Youth Ensemble. The "Cultures in Motion" program premiered a highly successful theatrical presentation for children on Dr. Seuss.

Currently, the Education Department is involved in a Smithsonian accessibility study of NPG's second-floor galleries (conducted by the Institution's Office of the Assistant Secretary for the Arts and Humanities and the Institutional Studies Office). The docent appreciation luncheon held in June featured an interview with actress Julie Harris.

#### EXPLANATION OF PROGRAM INCREASE:

Curatorial Support Staff (2 workyears and \$56,000) - A research assistant and a secretary will allow NPG's curators to focus more efficiently on research projects and meet NPG's standards for collection documentation by delegating routine collections maintenance responsibilities.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Various sources, which include the Gallery's share of sales in the museum shop, sales of photographic reproductions of collection objects and publications, and fees from museums to which NPG loans objects, provide these funds. These funds help defray the costs of publications, public lectures, symposia, and special events for exhibition openings, loan exhibition development and management, and research.

Restricted Funds - Designated for specific purposes, these funds are in the form of gifts and grants from individuals, foundations, organizations, and corporations. Through the assistance of the Association for Japan-U.S. Community Exchanges, Tokyo, and the Agency for Cultural Affairs (Bunka-cho) of the government of Japan, financial support was provided by Japan Air Lines Company, Ltd., the Japan Foundation, Kokusai Denshin Denwa Company, Ltd., Matsushita Electric Industrial Company, Ltd., Nippon Cargo Airlines, OMRON Corporation, Pioneer Electric Corporation, Seiko Instruments, Inc., Sony Corporation and Suntory, Ltd., for the exhibition "Noble Heritage: Five Centuries of Portraits from the Hosokawa Family."

The Annenburg Foundation made a generous pledge in support of a project related to the important early 19th-century portraitist Rembrandt Peale. The Marpet Foundation, Incorporated, approved a grant to assist in the publication of a catalogue to accompany NPG's 1993 exhibition of self-portraits from the James Goode Collection. Jack Banning, Jack Rennert, Louis Bixenman, and Mrs. Mary Ellen Meehan combined their support for "Poster Portraits," an exhibition that featured posters from NPG's collection. In addition, the Gallery received gifts from a number of individual donors as well as substantial contributions for future activities and general support from Art Resource, the Barra Foundation, Incorporated, the Foundation for the National Capital Region, Leslie Goldberg, and the Ruth and Frank Stanton Fund.



## Hirshhorn Museum and Sculpture Garden

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	77	3,909	1	224	-	446	-	2,087	-	-
FY 1993 Estimate	77	4,121	1	206	-	455	-	2,100	-	-
FY 1994 Estimate	77	4,282	1	206	-	455	-	2,100	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - Public Law 89-788, signed on November 7, 1966, established the Hirshhorn Museum and Sculpture Garden (HMSG) as the Smithsonian's museum of modern and contemporary art. While the nucleus of the collection remains Joseph Hirshhorn's original gift, it has been greatly enriched by Mr. Hirshhorn's bequest of the art he had collected since 1966. Other benefactors, such as collectors and artists, continue to give works to the Museum. Purchases made from funds provided by Congress, the Smithsonian's Board of Regents, Mr. Hirshhorn, private donors, and deaccessioning have broadened the scope of the collection. The collection is the basis of an active program of exhibitions. The Museum staff conducts extensive research, prepares catalogues, and offers a variety of educational activities.

For FY 1994, the Hirshhorn Museum and Sculpture Garden requests an increase of \$210,000 for refurbishment of the exhibition galleries and public spaces (\$150,000) and replacement of conservation and photographic equipment (\$60,000). The FY 1994 estimate reflects a decrease of \$49,000 associated with the return of Columbus Quincentenary funding.

**PROGRAM** - In keeping with its status as a museum of modern and contemporary art, the Hirshhorn Museum and Sculpture Garden conducts programs of research, exhibitions, collections management, acquisitions, and educational activities involving audiences of all ages. Opened to the public on October 4, 1974, the Museum attracts nearly 1 million visitors a year, making it one of the most heavily visited contemporary art museums in the United States.

**Research** - The Museum's resources include more than 12,500 works of art, a curatorial file providing information on artists and works in the collection, and a library with more than 36,000 books and exhibition catalogues. The staff researches the provenance, exhibition history,

iconographic significance, and physical condition of each work of art in the permanent collection. Researchers and students can study works of art not on display. A new system will ultimately allow researchers to retrieve information concerning the collection through their computer terminals. In FY 1992, a pilot project, funded in part by a grant from the James Smithson Society, used works in the collection to analyze the experimental techniques of American painter Willem de Kooning.

Exhibitions - The Museum's active exhibition program draws upon its collection as well as outside collections. In FY 1992, the Museum began a major reinstallation of the permanent collection focusing in part on monographic and educational themes. In FY 1992, HMSG mounted three major exhibitions: "Recent Acquisitions: 1989 - 1991"; "Martin Puryear," organized for the Art Institute of Chicago by the Museum's newly appointed chief curator; and "Crosscurrents in Modernism: Four Latin American Pioneers" in celebration of the Columbus Quincentenary. The Columbus Quincentenary exhibition features some 90 works of art, mostly paintings by Diego Rivera, Joaquin Torres-Garcia, Wifredo Lam and Matta. The works on view reveal how these four artists fueled and ultimately enriched modern art with diverse themes and sources from Latin America. The Museum also organized smaller exhibitions from its collections, including "Robert Motherwell: Prints and Collages from the Collection," and "Frank Stella Prints from the Collection."

"Directions" is a series of one-gallery exhibitions of works by emerging artists and solo exhibitions of specific bodies of work by better-known artists. These small-scale shows strengthen the Museum's mission to present international modern and contemporary art. Artists featured in FY 1992 included Saint Clair Cemin, Francesc Torres, Thomas Struth, and Tim Rollins + K.O.S. HMSG's "Works" program integrates the Museum's building and grounds with the creative process by commissioning artists to visit the Museum and create temporary site-specific pieces. In FY 1992, the Museum presented an installation by Alfredo Jaar.

With funding appropriated in FY 1992, the Museum has been able to offset the rising shipping and insurance costs of large loan exhibitions.

Acquisitions - HMSG must maintain an active acquisitions program to fulfill its legislated function as a "museum in Washington, D.C. where modern art could be exhibited and studied [to] enrich the culture of the Nation." Among works of art acquired with private funds in FY 1992 were Christo's Storefront (1964), Sigmar Polke's Bunnies (1966), Tim Rollins + K.O.S.'s Amerika - A Refuge (1989), and Clyfford Still's Untitled (1948). Among works acquired in whole or in part with Federal funds were Magdalena Abakanowicz's Four on a Bench (1990), Tony Cragg's Subcommittee (1991), Ana Mendieta's La Vivificacion de la Carne (1983), and Judith Shea's Post Balzac (1990).

Gifts continued to increase with the extension, to June 30, 1992, of changes in the tax law. New donations included William Beckman's Study for "Diana IV" (1980), Larry Bell's SMS #216 (1991), Ernest Briggs's Untitled (1960), Zoran Music's We Are Not the Last (Non

siamo gli ultimi) (1974), Rufino Tamayo's The Solitary One (1970), and Herbert Gentry's The Flag (1990-91), among others.

Collections Management - HMSG inventories the collection on a three-year cycle with annual spot checks. The Museum annually reviews its permanent collection to reshape its formerly private collection by deaccessioning and disposing of works of art that are judged to be surplus, redundant or duplicates, or of lesser quality. The proceeds thus realized are accumulated in a fund for new acquisitions. As specified by law, nothing may be deaccessioned without approval by HMSG's Board of Trustees.

Education and Public Outreach - To increase visitor appreciation and understanding of specific exhibitions and of modern art in general, the Museum produces a variety of educational materials, including catalogues, wall labels, and brochures distributed without charge and ranging from a single page to illustrated minicatalogues. In addition, the staff develops other materials, such as posters, for sale in the Museum shop. Auditorium events in FY 1992 include concerts by the 20th Century Consort, film programs, and lectures by artists, critics, and art historians.

#### EXPLANATION OF PROGRAM INCREASE:

Refurbishment of the Exhibition Galleries and Public Spaces (\$150,000) - Requested funds will enable the Museum to reconfigure some galleries to accommodate the large size of contemporary artworks and increase the accessibility to all visitors of permanent exhibits and public presentations and to refurbish the second- and third-floor exhibition galleries.

Replacement of Equipment in Conservation and Photographic Laboratories and Staff Offices (\$60,000) - Requested funds will purchase equipment that will enable the staff to incorporate current techniques in caring for and exhibiting the collections and maintaining the building and grounds and will eliminate health and safety hazards associated with some of the aging equipment now in use.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Funds from the Museum's share of sales in the museum shop and plaza cafe and various annual allotments support the salary, benefits, and travel costs for the museum director, trustee travel expenses, and various special events.

Restricted Funds - HMSG has four endowment funds. One resulted from the \$1 million that Mr. Hirshhorn pledged at the signing of the initial agreement, and another from the monies left to the Museum in his will. A third endowment comes from deaccessioning works of art. Finally, the Museum received funds from the Holenia Trust, a Swiss trust established by Mr. Hirshhorn. The Museum can currently use these four funds only to purchase works of art. At the beginning of each prior year, the Museum's Board of Trustees has authorized 10 percent of the value of the endowment funds for use as a purchase fund for the current year.

## Arthur M. Sackler Gallery/Freer Gallery of Art

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	77	5,552	1	93	-	200	-	2,855	-	-
FY 1993 Estimate	77	5,248	1	77	2	254	-	4,605	-	-
FY 1994 Estimate	78	5,300	1	77	2	251	-	3,429	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Arthur M. Sackler Gallery, established in 1982, and the Freer Gallery of Art, established in 1906 as the Smithsonian Institution's first art museum, are the American national museums of Asian art. Both actively seek to stimulate interest in and increase knowledge about the artistic and culturally varied traditions of Asia through research, exhibitions and other public programs, publications, acquisitions, and collections management. In addition, the Freer Gallery contains a collection of American art by artists whose work was greatly influenced by Asian art. While the Freer Gallery neither lends its collections nor exhibits works borrowed from other museums or individuals, the Sackler Gallery exhibits its own collections and loaned objects, and the objects it owns can be loaned to other museums. Collections acquisition for the museums is coordinated so as not to be duplicative; together the galleries are an important resource on the cultural heritage of Asia. These two museums complement each other in all their activities and are jointly administered by one director and served by a single staff.

For FY 1994, the Freer Gallery of Art requests an increase of one workyear and \$52,000 to support a custodial position, cleaning supplies, and equipment for building management. The Smithsonian is not seeking additional funding for FY 1994 for the Arthur M. Sackler Gallery.

### **PROGRAM:**

**ARTHUR M. SACKLER GALLERY** - The Arthur M. Sackler Gallery opened in September 1987 as a national museum of Asian arts. In addition to exhibiting its permanent collection of Asian masterworks and a varied program of loans, the Gallery presents in-depth

public programs related to exhibition material. The goal of the Sackler Gallery is to expand knowledge about and appreciation of the arts of Asia and the cultural and physical contexts from which these works emerge. This goal is accomplished through exhibitions, educational programs, ongoing research, and a careful program of conservation and collections development.

Exhibitions - Exhibitions generally provide the initial point of reference for the public to experience the cultural diversity of Asia. The Sackler Gallery's exhibitions, some of which travel to other museums and institutions, draw from international public and private collections and from the Gallery's own collections. During FY 1992, five temporary exhibitions opened. These included three major installations: "Challenging the Past: The Paintings of Chang Dai-chien," "When Kingship Descended from Heaven: Masterpieces of Mesopotamian Art from the Louvre," and "Ancient Japan." Although these exhibitions made important scholarly contributions, they were presented with the general public in mind.

Education - Education activities at the Sackler Gallery center on outreach to the Washington metropolitan area and to the Nation as a whole through teacher workshops, the development of curriculum materials, and public programs. These programs focus on current exhibitions, but they include programs designed to expand the public's awareness of Asian cultures beyond the focus of specific exhibitions. Public programs provide a view of the diversity and dynamism of Asian art and culture through theater, film, lectures, concerts, storytelling, and family activities. The Gallery works closely with Asian and Asian-American communities both locally and nationally in developing its public programs. It also works closely with local and nationwide school districts through curriculum supervisors, administrators, and teachers to develop curricula and fashion workshops and in-service programs.

The Gallery's staff develops Learning Centers integrated into exhibitions when such a space fits the overall interpretive scheme. Examples include a full gamelan and shadow puppet performance, five days a week, as a component of "The Court Arts of Indonesia," and a gallery area that explained the processes of woodblock printing and its historical context as part of an exhibition of Japanese woodblock prints. Interpretive activities related to exhibitions are an important part of the educational mandate of the Sackler Gallery. In response, the Gallery's education staff prepare large print labels for the visually impaired, large print brochures, and children's guides for specific exhibitions.

Asian Art, a quarterly journal written for the general public, is a highlight of the Gallery's publications program. Recent issues have focussed on Indian crafts and ritual and cartography and art in Asia. Authors come from a variety of disciplines and include scholars, artists, poets, and essayists.

Research - Research provides the basis for exhibitions, publications, and collections acquisition. The research program of the Sackler Gallery involves both visiting scholars and the permanent curatorial and conservation staff. The Sackler disseminates research to the public through lectures, symposia, collection research files, exhibition catalogues, free gallery guides,

brochures, papers, articles, and the quarterly journal Asian Art. Other publications include catalogues for major exhibitions, such as Challenging the Past: The Paintings of Chang Dai-chien and Ancient Japan. The Sackler Gallery has entered into an agreement with the Museum Rietberg in Zurich to assist with the publication of Artibus Asiae, a major international journal of scholarly research in Asian art.

Conservation research during FY 1992 concentrated on the lead-isotope ratio analysis of Chinese bronzes in the Sackler and Freer Galleries as well as in other collections and on identification of organic colorants in East Asian paintings. As a joint effort, the Freer and Sackler Galleries received a Smithsonian Scholarly Studies grant for research on the ancient Iranian metalwork collections in both museums.

The Sackler Gallery attracts a large number of visiting research scholars, fellows, and interns, who work closely with staff curators on topics related to the collections. Scholarly grant programs advance the research and education programs based on Sackler collections and exhibitions.

Conservation - The Sackler conservation effort includes research to understand the origin and physical nature of objects and thereby to improve their care and treatment. A major expansion of the conservation facilities in the renovated Freer Gallery Building serves the Sackler's collection and exhibition programs as well. During FY 1992, the staff of the Conservation Department concentrated on objects for exhibitions, including contemporary Japanese prints and ceramics, Chinese furniture, Chinese paintings, Indonesian art, and Indian and Persian illustrations and illuminations.

Collections Acquisition - Although the Sackler Gallery does not have a base of Federal funding for the purchase of objects for the permanent collection, some Trust funds are available for collections acquisition. The Gallery collects art from all of Asia in its broadest sense. Objects acquired for the collection are of the highest quality in terms of aesthetic standards, cultural history, and physical condition. During the first three quarters of FY 1992, the Sackler Gallery acquired 50 objects by gift and bequest and four objects by purchase. Examples of acquisitions include an important group of Indian temple hangings from Nathadwara as a gift, a Chinese stoneware jar, a Japanese celadon-glazed jar, a significant gift of a Korean hanging scroll, a gift of 19 stone and bronze sculptures from Bangladesh, and an Indian silver necklace.

FREER GALLERY OF ART - The Freer Gallery of Art, which opened in May 1923, is the first art museum of the Smithsonian. The collections contain art from the many diverse cultures of West and East Asia. The Gallery also has a small collection of American art of the late 19th and early 20th century, including the largest collection of paintings by the American expatriate artist James McNeill Whistler. In addition to the program on American art and the interrelationship of American and Asian traditions, the goal of the Freer Gallery, like that of the Sackler Gallery, is to expand the knowledge and appreciation of works of art from Asia and the cultural and physical contexts from which works of art emerge through exhibitions, education, conservation, research, and acquisitions. The collections and combined resources of

the Sackler and Freer Galleries make them vital and important international centers for scholarly research and education in Asian arts and culture.

The Freer Gallery has been closed to the public for four years as it undergoes a multi-million-dollar federally funded construction and renovation project. With the reopening anticipated in May 1993, the Gallery has plans to present its art objects to the public with wall text panels and gallery guides that will provide a cultural context. The Gallery will also present a continuing calendar of public programs showcasing the living arts of Asia and the pluralism within individual Asian societies.

Exhibitions - During the renovation period, extensive planning has been under way for the reopening exhibitions. Both Federal funds and private funds raised by the Gallery are supporting the reinstallation of the Freer Gallery, which will present more than 600 objects from the collection. Nineteen separate gallery installations are being designed to provide barrier-free access to these National Collections. Conservation concerns, programmatic responsibilities, and the quality, quantity, and breadth of the collections all mandate continued rotation of exhibitions from the Freer Gallery's extensive collection of Asian and American art.

Education - When the Freer Gallery reopens in May 1993, the enhanced facilities for public and school programs, including the renovated Meyer Auditorium (made possible by a donation of private funds), will enable the Gallery to expand its educational outreach. There will be innovative theater, film, dance, music, and family programs, and local education, and the Gallery will invite community groups to assist in joint programming for schools and the general public. The Gallery will adopt new interpretive strategies, including children's guides to individual galleries, self-guided tours, thematic docent tours, and curricula devoted to specific aspects of Asian art. The Freer Gallery intends for the programs in the newly renovated auditorium to complement the visitors' experience in the galleries and extend their appreciation of the arts and cultures of Asia.

Research - The Freer and Sackler Galleries share research and support facilities that serve as an international center for advanced scholarship and education of Asian art and culture. These include the newly renovated and expanded conservation laboratories, scientific research facilities, and the library and archives.

Although the results of research are most visible in exhibitions, the Freer disseminates research through collections records, lectures, and published papers and books, activities that continue even while the galleries have been closed. Evidence of ongoing research by staff is the recently published book Japanese Collections in the Freer Gallery of Art: Seto and Mino Wares. Publications in progress include Ancient Iranian Metalwork in the Arthur M. Sackler Gallery and Freer Gallery of Art, and Freer: A Legacy of Art, the Freer's reopening publication. In addition, the Freer Gallery contributes financial and intellectual support to Ars Orientalis, the Asian art journal co-published with the University of Michigan.

Conservation - The Department of Conservation and Scientific Research carries out object conservation and analysis with a staff of conservators and conservation scientists. Beyond their roles as restorers and caretakers, members of the staff engage in primary research using scientific methods and technical equipment to learn dates and methods of manufacture, geographic origins, and materials. Asian paintings are remounted and conserved by specialists trained in traditional Japanese and Chinese methods. A special painting conservation program in Japan, completely supported by a private art research foundation, has begun to remount and restore Japanese paintings in the Freer collection. In addition to conservation and research, the Department is responsible for monitoring the temperature and humidity in the new permanent collection storage areas.

While the work related to the Freer collections and reopening exhibitions continues for the painting conservators in the newly expanded facilities of the East Asian painting conservation studio, the Gallery is planning a regular training program to help alleviate the critical shortage of persons skilled in this specialized field. The very few facilities in the United States capable of restoring and mounting rare Asian paintings and screens are fully occupied in treating the objects in their respective museums.

Collections Acquisition - In the first three quarters of FY 1992, the Gallery received 93 gifts, including ceramics from Thailand, Vietnam, Korea, China, and Japan and paintings from India, Japan, Korea, and China. In the same period, the Gallery purchased 17 objects with both Federal and private funds. Purchased objects included an exceptional Japanese lacquer box using donated funds, three unique Indian paintings, and blue-and-white Chinese porcelain for the Peacock Room.

#### EXPLANATION OF PROGRAM INCREASE:

Extension of Freer Building Management Services (1 workyear and \$52,000) - One additional custodial position, with cleaning supplies and equipment, will help the Freer Gallery to clean and maintain the new art conservation and technical study areas, collection storage facilities, and gallery space added during the Freer Building's major renovation.

#### NONAPPROPRIATED SOURCES OF FUNDING:

##### ARTHUR M. SACKLER GALLERY:

Unrestricted General and Special Purpose Funds - Annual allotments to the Arthur M. Sackler Gallery defray the travel costs for members of the Sackler's Visiting Committee and cover some staff costs. Modest proceeds from sales of Sackler items in the Sackler museum shop help support the purchase of acquisitions, the publication of exhibition catalogues and gallery guides, and the operation of the shop itself.

Restricted Funds - These funds are contributions in the form of grants and gifts from individuals, foundations, organizations, and corporations for specific purposes. Two grants were



received from the Japan Foundation in support of the catalogue and symposium associated with the exhibition "Ancient Japan." This exhibition also received substantial in-kind gifts from All Nippon Airways Co., Ltd., Japan Airlines, and NHK, the Japan Broadcasting Corporation. The membership program, Friends of Asian Arts at the Freer and Sackler Galleries, continued to increase its donations of funding for collections acquisition during FY 1992.

### FREER GALLERY OF ART:

Unrestricted General and Special Purpose Funds - Annual allotments to the Freer Gallery of Art defray the costs of special events associated with docent recognition and donor cultivation, cover the travel costs for members of the Freer's Visiting Committee, and support some staff costs. These funds also support the position of historian for the Freer and Sackler Galleries. Proceeds from sales of Freer items in the Sackler museum shop help support acquisitions and publications.

Restricted Funds - These funds are contributions in the form of grants and gifts from individuals, foundations, organizations, and corporations for specific purposes. A major gift was received from the Meyer family for the renovation of the Eugene and Agnes E. Meyer Auditorium in the Freer Gallery. The Mars Foundation provided a grant in support of conservation of the Peacock Room, for which the Gallery had already received a grant from the Getty Grant Program and the James Smithson Society. Substantial in-kind support was given by the Art Research Foundation in Japan for the conservation in Japan of ten paintings in the Freer collection.

The major portion of the nonappropriated Trust funds for the Freer comes from the Charles Lang Freer bequest, which restricts their use. These funds help finance the Freer's professional curatorial and administrative staff, acquisitions for the collection and the library, maintenance of the Freer's courtyard, and operation of the Freer museum shop. Income from the Harold Stern Memorial Endowment supports scholarly research in Japanese art. Funds from the Forbes Endowment support research in conservation.

## Archives of American Art

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	23	1,244	-	98	-	3	19	758	-	-
FY 1993 Estimate	24	1,352	-	65	-	2	17	750	-	-
FY 1994 Estimate	26	1,443	-	65	-	2	17	750	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Archives of American Art (AAA), a national research repository with regional centers in New York, Boston, Detroit, and Los Angeles, has the world's largest collection of archival materials relating to the history of the American visual arts, including original manuscripts, photographs, works of art on paper, and tape-recorded oral and video interviews. The collection is housed in Washington, D.C., with microfilm copies of many of the documents made available in the regional centers and through national and international interlibrary loans. The Archives actively seeks out, collects, and preserves original source materials for study by scholars, students, curators, collectors, and others interested in the history of art and encourages research in American art and cultural history through publications, symposia, lectures, and other public programs.

For FY 1994, AAA requests an increase of 2 workyears and \$91,000 for essential staff to manage the Archives' automated catalogue data base, catalogue new collections, and serve researchers across the country as well as in Canada and Europe.

**PROGRAM** - The Archives of American Art documents the art and cultural history of the United States and encourages its study by collecting, preserving, and making easily accessible the primary source materials that are essential to research.

**Collections Acquisitions** - During the first half of FY 1992, AAA added to its collections 66 new groups of papers containing more than 130,000 items, including original correspondence, sketches, diaries, unpublished manuscripts, and photographs. Among these papers are the painter George Yater's (b. 1910) photographs of other artists, including Hans Hofmann, Edwin Dickinson, and Blanche Lazzell, as well as additional correspondence, writings, and biographical

material of the noted photographer Imogen Cunningham (1883-1976). Other artists' papers that now enhance the collections are those of the painters John Haley (b. 1905), Yashui Tanaka (dates unknown), and writer Ira D. Glackens (1907-1991) relating to his father, the painter William J. Glackens (1870-1938). AAA also acquired the records of the Wilbur H. Burnham Studios (1920s-1991), stained-glass designers; the museum director, art historian, and educator Stanton Catlin (b. 1915); and the critic Gregory Battcock (1937-1980).

During this period, AAA conducted 16 tape-recorded oral and video interviews. Of particular note are those with Andrew Chin, WPA muralist and painter; the ceramist Beatrice Wood (b. 1893) on her 99th birthday; and the painters Carl Morris (b. 1911) and Willem de Looper (b. 1932).

Conservation and Collections Management - Microfilming helps to preserve original documents by eliminating the need for constant handling as well as making the material readily accessible to researchers around the world. AAA is concentrating efforts on processing new collections in preparation for microfilming. During the first six months of FY 1992, the staff completed microfilming of 244 linear feet of collections and organizing more than 240,000 documents. Through March 1992, 155 rolls of microfilm were produced, including 29 rolls of James McNeill Whistler material.

The Archives uses contract services to conserve, restore, and stabilize fragile or deteriorating documents. Work during this period began on a number of valuable photographs of artists, including an Arnold Newman image of John Sloan, a Carl Van Vechtan photograph of Romaine Brooks, and a Riess image of Alexander Archipenko. Several other images are also being conserved, including a Ben Shahn image entitled "14th Street" and a Weegee 1939 photograph of a tenement fire in Brooklyn, N.Y.

Research - AAA collections are now so extensive that it is impossible to do serious research in American art history without reference to them. During the first half of FY 1992, AAA centers received more than 1,386 research visits and responded to another 1,212 researcher inquiries. Scholars, students, curators, writers, dealers, and publishers studied more than 5,740 rolls of microfilm and borrowed 1,212 rolls through AAA's interlibrary loan program.

Public Programs - AAA sponsors a variety of programs every year to its more than 2,000 members including lectures, visits to private and corporate art collections, and both domestic and international art tours. In 1991, members traveled to Spain, Portugal, and Florida. In 1992, members made trips to the Rocky Mountains and Santa Fe, New Mexico.

In addition, the Archives produced two exhibitions of archival documents at its gallery in New York. One focused on the collaboration between the dealer Leo Castelli and the artist Roy Lichtenstein, and the other featured the American sculptor Hiram Powers. AAA loaned documents from the collections to exhibitions at the Florence Griswold Museum in Old Lyme, Connecticut (Oscar Fehrer Papers); the New Britain Museum of American Art in New Britain, Connecticut (John Haberle Papers); and Vose Galleries of Boston, Inc. (Charles Hopkinson

Papers). Papers from the Henry Ossawa Tanner (1859-1937) collection traveled in a major exhibition of his work to the Philadelphia Museum of Art, the Detroit Institute of Arts, the High Museum in Atlanta, and the Fine Arts Museum of San Francisco.

#### EXPLANATION OF PROGRAM INCREASE:

Improvement of Cataloguing and Researcher Services (2 workyears and \$91,000) - An archivist, a data input technician, and support costs will increase access to AAA collections by managing the automated catalogue data base, cataloguing new collections, and serving researchers across the country as well as in Canada and Europe.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Provided through annual allotments, these funds defray costs associated with special events recognizing donors to the Archives, supplement travel expenses incurred by the Archives' Board of Trustees, and provide partial support for basic program operations.

Restricted Funds - Fund-raising activities, gifts, foundation and corporate grants, the Board of Trustees, and AAA's membership program generate funds for the Archives. A substantial portion of this income supports AAA's general operating expenses, oral history program, and publication program.

A new foundation grant received from the Florence Gould Foundation during this period supports AAA's Paris Documentation Project, which is conducting a survey of papers on American artists in Paris. Continuing programs supported by foundation and Trust funds include the Philadelphia Documentation Project underwritten by the Pew Charitable Trusts and national collecting projects in the South, New Mexico, and the Northwest underwritten by the Henry Luce Foundation. A major grant from the Brown Foundation, an operating grant from the Times Mirror Foundation, and income from the Wellin-Taubman Reserve Fund established in 1986 by AAA's Board of Trustees also help to underwrite the costs of AAA's basic programs.

## Cooper-Hewitt Museum

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTE	Amount
FY 1992 Estimate	38	2,075	17	997	1	1,119	1	345	-	-
FY 1993 Estimate	38	2,164	17	954	1	768	1	395	-	-
FY 1994 Estimate	43	2,623	17	954	1	768	1	329	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - Cooper-Hewitt, National Museum of Design, located in New York City, explores the creation and consequences of the designed environment. The designed object may be as common as a paper cup, as distinctive as a crystal goblet, as complex as a city, or abstract as an economic system. Cooper-Hewitt investigates the structures and effects of these products of design and their roles as forces for communication and change. The Museum is interested in all aspects of design, including urban planning, architecture, industrial design, landscape design, interior design, textiles, theater arts, advertising, graphic arts, and crafts. As the National Museum of Design, Cooper-Hewitt strives to explain the design process, by recognizing the impact of design on society, the natural environment, and the individual, and acknowledging the interplay between culture and design.

For FY 1994, Cooper-Hewitt requests an increase of 5 workyears and \$483,000 for move and storage of collections (\$200,000); base operating support for five existing positions (5 workyears and \$233,000); and expansion of critical base operating support for buildings and grounds (\$50,000). The FY 1994 estimate reflects a decrease of \$24,000 associated with the return of Columbus Quincentenary funding included in this line-item.

**PROGRAM** - Cooper-Hewitt is the only museum in America devoted exclusively to historical and contemporary design. The Museum pursues its goal through exhibitions, publications, collections activities, research, and educational programs for professionals, the adult public, and schoolchildren. In addition, the Museum jointly offers with the Parsons School of Design a master's degree program in the history of decorative arts.

The Cooper-Hewitt raises 50 percent of its operating expenses annually--approximately \$2 million. Almost one-quarter of this amount is used to cover the salaries for 12 essential employees. Fund-raising continues to be a necessity for the Museum. Presently professional staff must divert their efforts from their Museum responsibilities to raise funds to support their positions. In the current economic climate, it has become increasingly difficult for the Museum to carry these costs. The Museum is in dire need of increased Federal base support.

Exhibitions - During FY 1992, Cooper-Hewitt is exhibiting "The Cooper-Hewitt Collections: A Design Resource," the Museum's first exhibition focusing entirely on its permanent collections in nearly 100 years. The show features close to 1,000 objects and represents the breadth and depth of the Museum's collection of almost 250,000 objects.

"The Power of Maps" will open on October 6, 1992. Designated as Cooper-Hewitt's Columbus Quincentenary commemoration, this exhibition will present more than 300 historic and contemporary maps dating from 1500 B.C. to the present and explore the significance of maps as instruments of communication, persuasion, and control. Despite an aura of scientific neutrality, all maps present information selectively, shaping our view of the world and our place in it.

Exhibitions currently in planning stages include a retrospective of the work of 20th-century American industrial designer Donald Deskey and an exploration of universal design and accessibility in the built environment. "Czech Cubism: Architecture and Design, 1910-1925" will open in 1993.

Publications - In FY 1992, the Smithsonian Institution Press published Conservation Concerns: A Guide to Collection Care, a compilation of scholarly articles about conservation and collection care edited by Cooper-Hewitt's paper conservator, Konstanze Bachmann. Also, the Museum will produce a brochure for "The Power of Maps" exhibition this year. With privately raised funds, work continues on several publications begun in FY 1991, including a scholarly study of Cooper-Hewitt Museum--its collections, philosophy, and definition of design--and a catalogue based on the work of Donald Deskey. The Museum is also preparing a guide to Deskey's archives housed at the Museum.

Collections Activity - For the first two quarters of FY 1992, Cooper-Hewitt acquired 715 additional objects for its collection. Among the most notable were two 19th-century British pattern books, an early 20th-century Scottish stenciled bedcover, a group of 80 American wallpapers from the Scalamandré Company circa 1910 to 1935, 15 pieces of Dutch art nouveau ceramics dating from the turn of the 20th century, and 231 drawings plus related printed material by William Hunt Diederich.

During the same period, the Museum loaned 33 objects to ten museums, borrowed eight objects, and conserved about 300 objects. Approximately 320 scholars, private individuals, designers, and representatives of corporate interests visited the collections for research purposes. Visitors to the four curatorial departments--Drawings and Prints, Decorative Arts,

Textiles, and Wallcoverings--and to the design archive included representatives from Scalamandré, Hallmark Cards, and Radio City Music Hall and scholars and researchers from museums and universities around the world. In addition, three groups of representatives of the newly formed Russian Republic visited the Museum. The Museum's specialized research library, which complements the collection, received 750 visitors.

Research - Notable research projects in progress during FY 1992 include the study of 18th-century drawloom woven silks; preparatory research for the future exhibition "Activities of Daily Living," which will focus on issues of accessibility in the built environment; research on Donald Deskey furniture, interiors, and industrial design; and the establishment of an African American design archive.

The third annual Peter Krueger-Christie's fellow will conduct research on European Renaissance marriage rituals during the 1992-93 academic year. In addition, Mr. and Mrs. Harvey Krueger supported a paid summer internship program that allowed six college students to gain firsthand experience with museum work. The master's degree program in the history of decorative arts has graduated 45 students.

Educational Programs - In FY 1992, Cooper-Hewitt received federally appropriated funds designated for use by the Education Department. These funds allowed the Museum to continue programs for children and free public programs. To date in FY 1992, the Museum has served approximately 6,600 people with a wide range of lectures, courses, symposia, workshops, gallery talks, and tours. An example of Cooper-Hewitt's innovative educational endeavors is the designer-in-residence program, which this year brought a notable industrial designer to Cooper-Hewitt for four months to teach school groups about design. Design Career Days for high school students was another highlight of the Museum's educational programming. Among the significant symposia held in FY 1992 were "The Edge of the Millennium," which explored the possible effects of the new millennium on the world of design, and "Universal Design: Access to Daily Living," a two-day conference that discussed design issues relating to people with a variety of abilities and the concept of universal design. As part of Cooper-Hewitt's outreach efforts, the Museum has sponsored a summer series of four free lectures and outdoor concerts. The series, "De Generacion a Generacion: Mexico's Living Traditions," celebrates the culture and traditions that give form and meaning to Mexican craft, ritual, music, film, and dance. Two thousand people have attended the first three evenings.

#### EXPLANATION OF PROGRAM INCREASE:

Move and Storage of Collections (\$200,000) - Requested funds will permit the Museum to move collections off site for the duration of the renovation of the Fox and McAlpin-Miller houses. This is the first phase of a Master Plan that will link the houses into one facility and make the entire Museum physically accessible to the public.

Base Operating Support - Staff (5 workyears and \$233,000) - Base support for an assistant curator of decorative arts position, an exhibition researcher position, two educator

positions, and a public information assistant position will allow the Museum to convert essential staff from Trust to Federal funding, with full retention of entitlements. This will permit these specialists to focus their efforts on Museum responsibilities instead of on fund-raising to support their positions and so strengthen the Museum's curatorial, research, education, and public affairs functions.

Expansion of Critical Base Operating Support for Buildings and Grounds (\$50,000) - Requested funds will strengthen base support, eroded by increasing salary and benefit costs for Federal personnel, for essential facilities maintenance and operational expenditures for the Museum's landmark properties.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Museum obtains these funds from a variety of sources, including museum shop sales, product development, individual and corporate memberships, admission fees, donations, fund-raising events, and annual allotments.

Restricted Funds - Designated for specific purposes, these funds are derived from grants, bequests, and donations from individuals, foundations, and corporations. During the first two quarters of FY 1992, Cooper-Hewitt received support from the Smithsonian Institution Special Exhibition Fund, General Electric Foundation, and Environmental Systems Research Institute, Inc., for "The Power of Maps" exhibition. Cooper-Hewitt received support for its summer lecture-concert series, "De Generacion a Generacion," from the Educational Outreach Fund administered by the Office of the Assistant Secretary for Education and Public Service.

Established to advance the understanding of design and decorative arts as it encourages and supports a promising young scholar, the Peter Krueger-Christie's fellowship provides a stipend of \$15,000 for a one-year period and a travel allowance of \$2,000 for research at Cooper-Hewitt. In addition, for the second consecutive year, Mr. and Mrs. Harvey Krueger have supported a paid summer internship program for college undergraduates.

Private support came from the Decorative Arts Association membership and programs, the Iris Foundation, Mr. and Mrs. Frank Hoch, the Hayden Family Foundation, and Cahners Publishing. The Helena Rubinstein Foundation again supported educational programming through scholarships for graduate students enrolled in the master's degree program in the history of decorative arts. These scholarships have been awarded since the program's founding in 1982. Additional funds were donated in memory of director emeritus Lisa Taylor to the Lisa Taylor Fund for Design Research.

Government Grants and Contracts - Various government agencies and departments provide these funds for specific program support. The Museum annually seeks funding from the New York State Council on the Arts, which in FY 1992 supported planning for the upcoming exhibition "Packaging the New: Donald Deskey and Modern Design in America, 1925-1975."



## National Museum of African Art

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	58	3,856	1	52	-	56	-	225	-	-
FY 1993 Estimate	58	4,084	1	30	-	74	-	377	-	-
FY 1994 Estimate	60	4,164	1	30	-	30	-	935	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The National Museum of African Art (NMAfA) is the only museum in the United States devoted solely to the collection, preservation, research, exhibition, and interpretation of the visual arts of sub-Saharan Africa. Although the Museum's primary emphasis is on the traditional cultures of the sub-Saharan region, it also studies and exhibits the arts of other African areas, including the arts of North Africa and the ancient and contemporary arts of the entire continent.

For FY 1994, the National Museum of African Art requests an increase of 2 workyears and \$80,000 to strengthen the education program (1 workyear and \$44,000); and to improve collections accessibility and management (1 workyear and \$36,000).

**PROGRAM** - The National Museum of African Art educates and instills an appreciation for the cultures and visual arts of Africa. These goals are accomplished through the acquisition, care, exhibition, and interpretation of works of art in the context of African history, cultures, and aesthetics.

**Collections Acquisitions** - During FY 1992, NMAfA acquired 51 works of art. Among the most important is an elaborate wooden bowl, one of the most famous Yoruba sculptures in the world; carved about 1925 and signed by the artist, Olowe of Ise, who died in 1938. A second major acquisition is a monumental bovine-shaped drum collected in Zaire in the 1930s. The Museum was exceptionally pleased to add several significant works of art by well-known contemporary artists. Among these are two paintings by the Ethiopian artist Alexander Boghossian (b. 1937) and two portfolios of etchings by the Sudanese artist Mohammad Omer Khalil (b. 1936).

During FY 1992, the Eliot Elisofon Photographic Archives acquired 15,000 original slides, 177 photographs, and more than 2,200 vintage postcards. Particularly significant are a collection of 19 albumen prints of peoples of South Africa in the 1880s and 34 postcards, dated about 1910, of Lower and Upper Egypt.

Collections Management - The Conservation Department devoted special attention in FY 1992 to the preservation of the Museum's growing collection of paintings and works on paper by modern African artists. In addition, conservation analysis and successful treatment of NMAfA's rare Benin head, dated late 14th-early 15th century, significantly advanced understanding of Benin metalwork. Tests by the Museum's conservators revealed that certain waxes and synthetic coatings applied by collectors and museums in the 19th and 20th centuries to protect Benin castings are deleterious and must be removed.

In FY 1992, the Registration Department completed the transfer of 8,754 object records from the Smithsonian Selgem program to NMAfA's computerized collections management program, which was developed in FY 1991. Completion of this work assures instantaneous retrieval of collections data.

The Eliot Elisofon Photographic Archives created a computerized collections management program in FY 1992. The first 2,000 field photographs of African life are now on the data base. The Archives also completed a conservation survey of its holdings of more than 250,000 images and films.

Research - Research and scientific analysis of decorative coatings applied to 22 ceramics in the Museum's permanent collection were completed by the Conservation Department staff. This study made it possible to determine how best to exhibit, preserve, store, and classify these fragile works made at the turn of the century.

NMAfA's Benin collection will be part of a larger research study conducted by the Smithsonian's Conservation Analytical Laboratory on the source of metals used in casting. Identification will aid in determining trade patterns and contribute to understanding the chronology of West African metal objects.

Exhibitions - In FY 1992, NMAfA opened a new permanent installation of 19th and early 20th century pottery from Central Africa. The Museum also redesigned and installed its collection of sculpture from the Western Sudan and Guinea Coast regions to accommodate new works acquired since 1987.

The exhibition "Recent Acquisitions/New Dimensions" opened in FY 1992, demonstrating the Museum's continuing commitment to the collection and exhibition of modern African art. Also in FY 1992, the Museum's gallery devoted to experimental temporary exhibitions of works from the permanent collection offered "Between Man and the Gods: Sacrifice and Ceremony on a Cast Metal Ring." The exhibition presented the results of curatorial research into the history, function, and iconography of a Yoruba ceremonial ring, one

of 12 known in the world. The final FY 1992 exhibition in this gallery, "Elmina: Art and Trade on the West African Coast," examined the history of Elmina, the 15th-century Portuguese trading fort in the region once known as the Gold Coast and its surrounding coastal town. The exhibition traced the history of the fort and its trade in gold and slaves and examined a rich variety of Akan art forms.

Publications - In FY 1992, the Museum's library staff completed Nigerian Artists [1920-1990]: A Who's Who and Bibliography, the first reference publication devoted to named African artists from 1920 to 1990. The two-volume Catalogue of the Library of the National Museum of African Art, Branch of the Smithsonian Institution Libraries, published in 1992, will serve scholars and the public throughout the world. The Museum published History, Design and Craft in West African Strip-Woven Cloth, a series of papers presented at NMAfA's 1988 textile symposium. An essay by one of the Museum's conservators on the decorative coatings on Kongo ceramics was published by the Materials Research Society in its Symposium Proceedings, volume 186.

Education - The Education Department informs the public about African art and culture through interpretive programs including tours, school and teacher-training programs, symposia, seminars, workshops, and demonstrations. In cooperation with the Smithsonian's Office of Elementary and Secondary Education, NMAfA developed a course for a summer institute on African art for secondary school teachers. During FY 1992, more than 1,300 public programs were offered by NMAfA, serving 36,000 individuals. The Museum also expanded its services to the hearing-impaired through captioned videos and sign language interpreters.

#### EXPLANATION OF PROGRAM INCREASE:

Strengthening of the Education Program (1 workyear and \$44,000) - A senior-level education specialist will use the Museum's excellent collection and research resources to develop curriculum materials and teacher-training workshops that will be offered locally and, in the summer, nationally.

Improvement of Collections Accessibility and Management (1 workyear and \$36,000) - A collections management technician will enter and maintain data in the Museum's new automated collections management system to make the Museum's rich collections of objects and the Eliot Elisofon Photographic Archives fully accessible to the public and to scholars for research, curriculum development, teacher training, exhibition planning and design, imaging, and interactive displays.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - These funds come from the Museum's share of net proceeds from the museum shop, courses conducted in cooperation with Washington, D.C., metropolitan area public education institutions, and allotments. NMAfA

uses these funds to provide additional support for its education and collections acquisition programs, exhibition openings, publications, and travel costs associated with the Museum's Commission meetings. The Museum used funds available from the Institution's Collections Acquisition Fund in FY 1992 to assist in the purchase of an important Zairian Ubangi slit gong. A grant from the Institution's Special Exhibition Fund supported the planning phase for an exhibition titled "Astonishment and Power: Kongo Minkisi and a New World Resonance." Funds from the Scholarly Studies, Educational Outreach Program, and Research Opportunities Fund are also available to support research and education projects.

Restricted Funds - Individuals, foundations, organizations, and corporations contribute these funds in the form of grants and gifts for specific purposes. The Museum receives income from a collections acquisition endowment established in FY 1988. Using a grant from the Shell Oil Company Foundation received in FY 1991, the Museum published an exhibition catalogue accompanying the Elmina exhibition. A grant from the Aga Khan Trust for Culture, awarded jointly to the Arthur M. Sackler Gallery and NMAfA in FY 1991 and administered through the Smithsonian's Office of Sponsored Projects, supports the continuation of planning for an exhibition project on the art and culture of the Islamic world.

## Anacostia Museum

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	20	1,119	2	167	-	-	-	-	-	-
FY 1993 Estimate	21	1,221	2	171	-	-	-	-	-	-
FY 1994 Estimate	25	1,481	2	171	-	-	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Anacostia Museum is a national resource for African American history and culture, community-based museology, and the examination of contemporary social issues and their impact on the African American population. The Museum's research, collecting, exhibition, and educational outreach activities focus on Washington, D.C., and the Upper South, a region that includes Virginia, Maryland, North Carolina, South Carolina, and Georgia. The Museum's activities and projects offer scholars and the public a unique opportunity to study black history and culture from both scholarly and constituent perspectives.

For FY 1994, the Anacostia Museum requests an increase of 4 workyears and \$260,000 for the expansion of the education program (2 workyears and \$105,000); the expansion of the collections management program (1 workyear and \$38,000); and the expansion of its research/curatorial program (1 workyear and \$67,000). The Museum is also requesting \$50,000 for the establishment of the Anacostia Museum Partnership Program, a technical assistance program for museums and cultural organizations in the Upper South.

**PROGRAM** - The Anacostia Museum serves as a national model for community-focused museums across the country. Additionally, the museum plays a significant flagship role for African American museums and cultural organizations in the Upper South. Devoted to the interpretation of the black experience in Washington, D.C., Virginia, Maryland, North Carolina, South Carolina, and Georgia, the Museum's unique and multi-faceted program of applied research, collections development, documentation, exhibits, educational activities, and outreach projects provides local, regional, national, and international audiences with greater understanding of African American contributions to American society. The Museum's research

and outreach projects, while local and regional in focus, are designed to serve as models with potential for replication in the national and international arenas.

Research and Collections - A new collections management policy has placed the Museum in the vanguard of collecting local and regional patrimony. Significantly increased collecting activity is expected to be the major focus of the Museum for the next five to ten years. During FY 1992, materials added to the collections included those reflecting the lives of Ethel Payne, an internationally known journalist; Ben Layton, a community and civil rights leader; Leslie Payne, a nationally collected folk artist; and a variety of materials related to the Anacostia community and Washington, D.C. During FY 1993, the Museum will begin its innovative approach to collecting by hosting workshops and seminars throughout the metropolitan region while continuing to develop an interactive exhibit on the process of collecting African American material culture. Topics for exhibit-related research include African American theater and dance and the contemporary international resident communities of the African diaspora.

Exhibits - In FY 1992, the Museum mounted three exhibits, all of which gained positive public and press reviews: "To Achieve These Rights: The Struggle for Self-Determination and Equality in the District of Columbia," "Kaleidoscope: African American Photography in Washington D.C.," and "Affirmations: Assemblages by Schroeder Cherry." In FY 1993, as part of the observance of its 25th anniversary, the Museum will host a series of nationally significant traveling exhibits. The Museum's groundbreaking examination of cultural diversity, "Black Mosaic," will open in FY 1994. A long-range exhibit schedule continues to guide research and collecting efforts.

Education and Outreach - Building on its tradition of innovative educational and outreach activities, the Anacostia Museum continues to develop and present a variety of tours, seminars, workshops, and lectures. In FY 1992, the Museum gained recognition in two new areas of endeavor. Its film on collecting African American church histories, "Climbing Jacob's Ladder," premiered at the American Film Institute and will be used as the cornerstone for future collection development in this important area. The Museum also produced a series of highly successful outdoor performances and activities, including its annual Juneteenth celebration, which attracted more than 5,000 people.

To expand its outreach efforts, the Museum has begun a multi-phase Youth Services Program. This project will increase teenage awareness of museum careers as well as help address one of Washington's major social issues--at-risk youth. During FY 1992 and FY 1993, the Museum will hold a series of discussions throughout the region about the Museum and its collecting efforts. A major new outreach initiative began in FY 1992 with the operation of scheduled bus service from the National Mall. This service will also be used to transport community groups to the Museum during morning hours.

In FY 1992, outreach and educational activities together constituted more than 200 programs and reached more than 65,000 people. As part of its outreach efforts, the Museum has continued publication of a newsletter that began in FY 1990.

Future Development - The Smithsonian Institution remains strongly committed to the continued development of the Anacostia Museum. This unique African American and community-based facility within the system of national museums is in the midst of carefully planned growth. Feasibility studies have begun for a new site to replace the Fort Stanton facility. In addition to the new collections management policy, the Museum produced several policy and position papers in FY 1992. A major focus is constituent services to museums and cultural organizations in Washington and the Upper South as well as two international collaborations in England and the Bahamas.

#### EXPLANATION OF PROGRAM INCREASE:

Expansion of the Education Program (2 workyears and \$105,000) - Two education specialists will help meet the demands of increased visitation and a commitment to more diverse programming by organizing seminars on collecting and protecting African American cultural materials, producing educational materials for regional and national distribution, and providing services to at-risk youth.

Improvement of Collections Management (1 workyear and \$38,000) - A collections specialist will catalogue and conserve the Museum's collection, now growing rapidly as a result of a new collections management policy and a nearly 100 percent increase in acquisition activity.

Expansion of the Research/Curatorial Program (1 workyear and \$67,000) - A curator specializing in archival and photographic materials will enhance the Museum's ability to attract major collections and increase public access to and knowledge of the Museum's unique holdings.

Implementation of the Anacostia Museum Partnership Program (\$50,000) - This new technical assistance program will firmly establish the Museum's regional focus through a series of workshops and a special newsletter.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Annual allotments support the salary and benefit costs for the director and an exhibit specialist as well as trustee expenses and routine staff business expenditures. Additional funds derived from donations and traveling exhibit rental fees support the Museum's outreach programs.

Restricted Funds - Gifts and grants are donated for specific projects.

## Office of Exhibits Central

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
	FTE	Amount	General		Special		FTP	Amount	FTP	Amount
			FTP	Amount	FTP	Amount				
FY 1992 Estimate	46	2,110	-	-	-	111	-	-	-	-
FY 1993 Estimate	46	2,250	-	-	-	100	-	-	-	-
FY 1994 Estimate	46	2,250	-	-	-	100	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Office of Exhibits Central (OEC) is the Smithsonian Institution's single largest exhibit producer, providing Smithsonian organizations with comprehensive exhibition services. OEC is expert in the specialized needs of traveling and temporary exhibitions as well as permanent installations. The OEC exhibit specialists form teams with curators and subject-matter specialists to prepare effective visual displays of content ideas that meet educational and accessibility requirements. OEC's state-of-the-art facilities handle all aspects of Smithsonian exhibitions, including design, graphics, models, and fabrication. This program is also involved in object selection, recommendations to seek conservation assistance, and product research, evaluation, and testing. OEC provides training in exhibit design and production.

For FY 1994, OEC is not seeking additional funding for programmatic increases.

**PROGRAM** - The Office of Exhibits Central welcomed a new director in FY 1992 who brings new management approaches to an organization whose services are well known throughout the Institution. A minor staff realignment has improved services to Smithsonian organizations. OEC now consists of two major exhibition-related departments: the Design, Editing, and Graphics Department; and the Production Department.

The Design, Editing, and Graphics Department works with a curator's preliminary concepts and exhibition aims to develop an overall exhibition plan. Exhibit designers are responsible for all aspects of visual presentation. OEC's exhibit editors work closely with designers and with subject specialists to ensure that words and visuals are carefully paired to tell the exhibit's "story" while meeting the accessibility and didactic aims of the Smithsonian.



This department also provides the services of an illustrator. The Graphics Shop provides silk-screening, typesetting, photograph mounting, conservation matting and framing, and other graphic art services.

The Production Department translates the design into a three-dimensional exhibition. The Model Shop creates scientifically and historically accurate dioramas, models, and mannequins and brackets artifacts for display. It also offers taxidermy services. The Fabrication Shop constructs fine cabinetry and display casework as well as customized crating. Sheet plastics work is a specialty.

The Fabrication, Model, and Graphics shops also install, strike, and pack exhibitions. The designers and production teams of OEC work with installation teams of building tradespeople, art handlers, conservators, registrars, security personnel, lighting specialists, building managers, and others to bring an exhibition to the public.

During FY 1992, OEC completed more than 100 projects, supporting nearly every Smithsonian office and bureau. A sampling of projects completed or in progress are:

- OEC's Model Shop produced custom mannequins and many food models for the "American Encounters" exhibit within the National Museum of American History.
- OEC produced the exterior Renwick sign and plexiglas cases for the "McQueen Basket" exhibit in the National Museum of American Art/Renwick Gallery.
- OEC is editing scripts, fabricating exhibit pedestals, and sculpting mannequins for the "Pathways of Tradition" and "Points of View" exhibits for the National Museum of the American Indian.
- OEC is now designing the "Kid's Bridge" exhibit and installation for the Experimental Gallery. "Kids's Bridge" will also travel for the Smithsonian Institution Traveling Exhibition Service.
- OEC created models and dioramas and edited script for the "Seeds of Change" exhibit in the Evans Gallery of the National Museum of Natural History.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Proceeds from the sale of the OEC book, A Freeze-Dry Manual, through the Smithsonian Institution Press, and reimbursements from internal Smithsonian units provide these funds. OEC uses the funds to purchase supplies, materials, and services in support of OEC activities; to defray costs associated with special events; and to supplement travel expenses.

## Smithsonian Institution Traveling Exhibition Service

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	44	2,462	8	352	24	925	-	737	-	1
FY 1993 Estimate	44	2,558	8	351	4	525	-	905	-	2
FY 1994 Estimate	44	2,504	8	351	4	525	-	920	-	2

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Smithsonian Institution Traveling Exhibition Service (SITES) expands the Smithsonian's presence beyond Washington, D.C., by circulating exhibitions to public audiences in museums large and small and in schools, libraries, science centers, historical societies, zoos, aquariums, and community centers. SITES exhibitions reach nearly 11 million people annually in the United States and abroad. A commitment to audience access drives the development of all SITES programs. SITES's top priority is increasing the availability of Smithsonian-created exhibitions among people who cannot see them firsthand by visiting the Institution's museums. Facilitating the sharing of exhibitions created outside the Smithsonian--SITES's second priority--is another way SITES works to respond to diverse program needs and interests.

For FY 1994, SITES is not seeking additional funding for programmatic increases. The FY 1994 estimate reflects a decrease of \$54,000 associated with the return of Columbus Quincentenary funding.

**PROGRAM** - The Smithsonian Institution Traveling Exhibition Service reconfigures and packages for widespread circulation exhibitions developed by Smithsonian museums and program offices and by institutions and organizations outside the Smithsonian. SITES tailors the form and content of these exhibitions to meet the program needs and technical capabilities of museums and cultural and educational facilities worldwide.

In developing exhibitions for audiences of all ages and backgrounds, SITES strives to do more than present artifacts. SITES exhibitions represent a broad range of human perspectives; they pose questions, communicate abstractions, and challenge visitors to make connections

among objects, people, places, events, and ideas. By emphasizing diverse viewpoints and by using inquiry as a means of interpreting exhibition themes and images, SITES hopes to encourage people to explore the full breadth of possibilities about themselves, others, and the world around them.

Smithsonian Exhibitions - SITES's FY 1994 program schedule includes seven new Smithsonian exhibitions. Among the most ambitious is "Ocean Planet," a large-scale, multi-media presentation that highlights the importance of ocean conservation. Developed jointly by the Smithsonian's Office of Environmental Awareness and the National Museum of Natural History, the exhibition will travel under SITES's auspices to natural history museums, science centers, and aquariums in major U.S. cities. Low-cost, portable versions will be available for schools and rural communities.

A collaborative exhibition between SITES and the National Museum of American History will survey music of the "swing" era. This FY 1994 project, the second in a multi-year outreach initiative to bring America's rich jazz heritage to cities and towns across the country, will feature computerized audio programs, original scores, photographs, archival documents, live performances, and school curriculum guides.

More than 30 Smithsonian-created exhibitions will circulate during FY 1994. Covering a range of subjects as diverse as spiders, volcanoes, maps, classical architecture, labor history, space exploration technology, World War II victory posters, and African American invention, SITES's exhibitions will provide visitors worldwide with a rich picture of the Smithsonian's scope and vitality.

Exhibition Partnerships - Partnerships with institutions and organizations outside the Smithsonian enable SITES to meet more fully the program needs and interests of the diverse audiences it serves. In FY 1994, for example, 12 SITES exhibitions will explore facets of the African American experience. One such exhibition, "Songs of My People," is a stirring photographic portrait of African American life created in partnership with New African Visions and the Corcoran Gallery of Art. The itinerary for "Songs" includes museums and cultural centers in 36 states.

Together with the National Geographic Society, SITES developed and is circulating "Where in the World," an aggressive instructional exhibition designed to help reduce geographic illiteracy among school-aged youth. Even before SITES established a final itinerary for this project, more than 100 museums signed up to host it. "Altered States," another FY 1994 exhibition aimed at younger audiences, is the result of a SITES partnership with the Strong Museum in Rochester, New York. The exhibition examines the history and implications of substance abuse. A third children's exhibition, "The Kid's Bridge," looks at racism and what each of us can do to combat its harm. SITES adapted "The Kid's Bridge" for national circulation from an exhibition developed by the Children's Museum, Boston.

Hispanic audiences, long underrepresented in museum programs, will have a fuller range of programs in which to participate with the inclusion in SITES's FY 1994 program of "Mexico: A Landscape Revisited," a collaborative project with the Mexican Cultural Institute. "Mexico: A Landscape Revisited" brings to five the number of Spanish/English exhibitions available from SITES.

To expand its services to resource-poor institutions, SITES creates low-cost exhibitions in partnership with State Humanities Councils and the American Library Association. Producing exhibitions about the American Indian experience will dominate SITES's partnership agenda with these organizations in FY 1994.

SITES is a high-visibility outreach arm of the Smithsonian. Its more than 100 exhibitions tour museums and cultural centers in all 50 states. SITES hopes that its expanded service capabilities in FY 1994 will enable more Americans than ever before to experience the rich variety of exhibition programs available from the Smithsonian. Between FY 1990 and FY 1992, SITES exhibitions traveled to 367 communities in all 50 states and the District of Columbia. Outside the United States, 15 communities hosted SITES exhibitions.

Alabama	21	Montana	2
Alaska	8	Nebraska	8
Arizona	5	Nevada	7
Arkansas	16	New Hampshire	4
California	63	New Jersey	15
Colorado	27	New Mexico	15
Connecticut	17	New York	81
Delaware	1	North Carolina	20
District of Columbia	10	North Dakota	2
Florida	36	Ohio	42
Georgia	29	Oklahoma	11
Hawaii	6	Oregon	13
Idaho	14	Pennsylvania	28
Illinois	37	Rhode Island	4
Indiana	23	South Carolina	8
Iowa	12	South Dakota	2
Kansas	35	Tennessee	14
Kentucky	11	Texas	39
Louisiana	15	Utah	7
Maine	3	Vermont	3
Maryland	23	Virginia	21
Massachusetts	33	Washington	16
Michigan	43	West Virginia	20
Minnesota	10	Wisconsin	11
Mississippi	6	Wyoming	2
Missouri	28		

## NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - SITES's annual operating budget comes partly from rental fees collected from museums and other recipients of traveling exhibitions. These fees, supplemented by an allotment for salaries and benefits, support design and production, publications, materials, outside specialists, and contractual services.

Restricted Funds - Individuals, organizations, and corporations donate gifts and foundation grants for specific SITES projects. During FY 1992, SITES received support from Time Warner, Inc., for "Songs of My People"; from the Nature Conservancy for "Two Eagles"; and from the Lila Wallace-Reader's Digest Fund for "America's Jazz Heritage," a ten-year initiative aimed at bringing jazz to public audiences across the nation.



**PUBLIC SERVICE AND EXTERNAL AFFAIRS**





## Assistant Secretary for Education and Public Service

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	6	391	5	245	-	-	-	6	-	-
FY 1993 Estimate	6	450	5	255	-	-	-	6	-	-
FY 1994 Estimate	6	450	5	255	-	-	-	6	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Office of the Assistant Secretary for Education and Public Service (OASEPS) encourages program initiatives that advance the Institution's objectives in education, research and documentation of living cultures, facilitation and advocacy of cultural diversity in employment and programs, the development of wider audiences, and celebrations focused on the achievements and contributions of women and ethnic minority groups. The Office advises Smithsonian management on public service policy issues in the central planning, development, and oversight of all education and public service programs and activities of the Institution. This line-item includes the Wider Audience Development Program (WADP), which advises and assists Smithsonian managers on policy issues as they relate to minority audience participation in exhibitions and other public programs. As a result of the reorganization the Smithsonian conducted in 1992, the Office of Telecommunications and the Visitor Information and Associates' Reception Center, which now report to the Assistant Secretary for External Affairs, have been transferred to that line-item. The Office of Public Affairs, which now reports directly to the Under Secretary, has been transferred to the Administration line-item.

For FY 1994, OASEPS is not seeking additional funding for programmatic increases.

### **PROGRAM:**

I. Office of the Assistant Secretary for Education and Public Service - With base funding of 5 workyears and \$381,500, the Office of the Assistant Secretary for Education and Public Service focuses on the critical issues of education, cultural diversity, and cultural equity. The Office and the units it oversees serve as central channels for the diffusion of educational information and assistance programs inside and outside the Institution. They disseminate

information on the Smithsonian to broad national audiences, plan and execute formal and informal educational outreach efforts, and engage in research and documentation of living cultures. The Office maintains liaison with the Smithsonian African-American Association, Asian-Pacific American Heritage Committee, Latino Working Committee, American Indian Council, and other internal and external ethnic and advocacy committees and collaborates with Smithsonian bureaus, offices, and other assistant secretaries to develop and execute outreach programs that bring diverse cultural communities and professional sectors to the Institution. The units reporting to the Assistant Secretary include the Wider Audience Development Program, Center for Folklife Programs and Cultural Studies, Office of Elementary and Secondary Education, and National Science Resources Center.

II. Wider Audience Development Program - With base funding of 1 workyear and \$68,500, the Wider Audience Development Program (formerly Smithsonian Office of Wider Audience Development) coordinates initiatives throughout the Institution to promote cultural diversity and equity. WADP plans federally designated observances of ethnic and women's heritage and other special events. The Program also provides technical assistance to Smithsonian bureaus and offices to strengthen ties with nontraditional audiences and conducts local and national outreach to culturally diverse organizations. WADP serves as the primary liaison to the Smithsonian Institution's Cultural Education Committee and staff advocacy groups in their efforts to enhance the presence and presentation of underserved communities.

During FY 1992, approximately 18 public programs were produced to enhance the Institution's knowledge of and contact with the diverse audiences that constitute the American public. Examples include an address by the former Bronx Museum of the Arts Director Luis Cancel on the role of Latinos in mainstream museums, a lecture and demonstration by Dr. Wyatt Tee Walker on the African roots of black American spiritual music, a speech by the Honorable Elijah Harper on public policy issues confronting the native peoples of Canada, and a series of programs to mark the 50th anniversary of the Japanese-American internment camps, including a screening of the Academy Award-winning documentary Days of Waiting and remarks by the film's director Steven Okazaki.

#### NONAPPROPRIATED SOURCES OF FUNDING:

##### I. Office of the Assistant Secretary for Education and Public Service:

Unrestricted General and Special Purpose Funds - An annual allotment provides for the salary, benefits, and support costs of four staff members assigned to the immediate Office. A special purpose fund provides for the Educational Outreach Program, which supports innovative and experimental educational programs that demonstrate thoughtful approaches and creative methods for inclusion of diverse audiences, especially groups traditionally underserved. While the projected expenditures appear under this Office, actual expenditures will appear under the recipient organizations.

## II. Wider Audience Development Program:

Unrestricted General and Special Purpose Funds - Annual allotments provide salary and benefits for a program assistant and support costs for wider audience initiatives, including the Cultural Education Committee, which fosters pan-Institutional outreach efforts to promote inclusion of diverse cultural expertise in research, collections, exhibitions, educational programs, and staffing in senior and administrative positions.

Restricted Funds - In FY 1992, a grant received from the Kellogg Foundation provided a three-year fellowship program for the director. The Kellogg National Fellowship Program (KNFP) is a multi-disciplinary leadership development program that provides fellows non-traditional educational experiences outside of their academic and professional assignments. In addition to mandatory KNFP seminars, fellows design individual learning plans which allow them to investigate selected topics and attend relevant conferences, workshops, meetings, and classes.

## Center for Folklife Programs and Cultural Studies

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	11	1,248	15	780	-	275	-	150	-	700
FY 1993 Estimate	13	1,240	15	802	1	275	-	150	-	700
FY 1994 Estimate	14	1,657	15	802	1	300	-	150	-	750

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Center for Folklife Programs and Cultural Studies (formerly the Office of Folklife Programs) engages in cultural studies and conservation activities--scholarly research, public programs, archival collections, and exhibitions that promote the understanding and continuity of grass-roots regional, ethnic, minority, tribal, and occupational cultures both in the United States and abroad. The Center performs research in collaboration with academic and community scholars, produces the annual Festival of American Folklife, collaborates on traveling exhibitions, maintains the Smithsonian/Folkways Recordings Collection, produces documentary films, videos and publications; initiates educational programs and materials; and provides fellowship and training programs for cultural studies.

For FY 1994, the Center for Folklife Programs and Cultural Studies requests an increase of 3 workyears and \$624,000 for infrastructural production costs for the Festival of American Folklife (\$250,000), establishment of a Cultures of the Americas Program (2 workyears and \$210,000), improvement of curatorial services for Folkways Archives (1 workyear and \$64,000), and installation of security and telephone systems (\$100,000). The FY 1994 estimate reflects a decrease of 2 workyears and \$207,000 associated with the return of Columbus Quincentenary funding.

**PROGRAM** - The Center for Folklife Programs and Cultural Studies conducts scholarly research and public programs that promote the understanding and continuity of grass-roots regional, ethnic, minority, tribal, and occupational cultures both in the United States and abroad. The Center performs research in collaboration with academic and community scholars and produces the annual Festival of American Folklife; Smithsonian/Folkways Recordings; documentary films, videos, and print publications; educational programs and materials; traveling

exhibits; and programs for the Columbus Quincentenary. It also maintains the Folkways Archives and Collections. The Center cooperates with Federal and state agencies to advance the Nation's interest in cultural matters.

Research - Research projects study the continuing practice of local grass-roots traditions among diverse cultural communities in contemporary society. Major current projects examine cognate cultures of the United States and the Commonwealth of Independent States, the changing musical culture of American Indians, the cultures of U.S. borderlands, African immigrant culture, and the musical and verbal arts of Indonesia. Center scholars and fellows pursue research on Indian lacrosse, African narrative, music and technological change, urban U.S. Latino culture, and African American dance.

Festival of American Folklife - The Festival of American Folklife, held annually on the National Mall since 1967, educates a broad public to human cultural diversity and encourages tradition bearers by giving national recognition to their artistry, knowledge, and wisdom. The Festival has provided a national and international model for the research-based presentation of cultural traditions. The 1992 Festival featured programs on New Mexico, the culture of Maroon communities in the Americas, White House workers, and the changing musical culture of American Indians. Future programs will examine the culture of borderlands, the relationship between culture and development, American immigrant groups, and others.

Smithsonian/Folkways Recordings - Folkways produces documentary recordings of American and worldwide music, performance, and verbal arts. Recent releases, such as "Music of the Rainforest," "Music of New Mexico--Native American Traditions and Hispanic Traditions," Ella Jenkins' children's recordings, and "Roots of the Blues," indicate the breadth of subject matter. Recordings in the form of compact discs, cassettes, videos and even computer discs with booklets and/or linear notes, are available to general audiences. Archival and scholarly recordings serve researchers, while children's and educational recordings reach classrooms across the nation. Major current projects include American Indian recordings, a world music and dance video encyclopedia, collaboration on educational computer software, and a series on Indonesian music. Future projects include a "Music of Americas" series, instructional videos, and a multi-media computer-based encyclopedia of American culture.

Publications - The Smithsonian Folklife Studies series consists of monographs coupled with documentary films, generally released to colleges and universities and also seen on public television. Recent releases include a film on District of Columbia firefighters and another on Korean potters. A current project traces the transformation of Muslim identity and celebration from the Middle East to India and then to the Caribbean and to New York City.

Educational Programs and Materials - The Center develops curriculum materials and offers teacher training for understanding American cultural traditions. Teacher and student guides, recordings, and videotapes on Woody Guthrie, Leadbelly, and American folk music were developed in cooperation with the Music Educators' National Convention. The Center is working closely with the U.S. Virgin Islands Department of Education on folklife materials

growing out of a program of the 1990 Festival of American Folklife and with other school systems on American Indian and African American Maroon cultures growing out of Festival programs in 1991 and 1992. The Center also uses its Summer Folklore Institute as a training ground for community scholars and annually hosts some two dozen interns from American universities.

Traveling Exhibits - The Center produces modest traveling exhibits developed from research and Festival programs. Current exhibits include "The Grand Generation" on the folklore of the elderly, "Stand by Me" on African American urban life, and "Taking to the Streets" on Latino urban identity. In 1993, the Center will produce "Making the White House Work." Based upon a 1992 Festival of American Folklife program on the occupational culture of the White House domestic staff, the exhibit will be mounted in presidential libraries.

Quincentenary Programs - The Center has hosted several symposia and produced Festival and other public programs examining the encounter of cultures occasioned by the Columbian voyages. Publications currently in process include Seeds of the Past: Continuities of Native American Agriculture, Seeds of Commerce: Cultural Consequences of Plantation Society, and Seeds of Industry: Cultural Transformations of Manufacturing.

Archives - The Folkways Archives contains audiotapes, records, videotapes, photographic images and film, and paper files documenting folklife traditions from all parts of the United States and most regions of the world. Highlights include collections relating to American and world music, occupational lore, family folklore, immigration stories, and a variety of ethnic and regional performance traditions.

Public Service - The Center collaborates with states to develop Festival of American Folklife programs and remount them "back home." Recent projects with Hawaii, Michigan, New Mexico, and the U.S. Virgin Islands also extend to the development of educational materials and the sharing of archives. The Center works with the National Endowment for the Arts, the National Endowment for the Humanities, and the Library of Congress to develop ways of conserving America's cultural heritage.

#### EXPLANATION OF PROGRAM INCREASE:

Infrastructural Production Costs for the Festival of American Folklife (\$250,000) - The Center will use the requested funds to reimburse the National Park Service for resodding of the National Mall, to pay for Festival security services, to pay the Red Cross for first aid coverage, and to cover the costs of trash removal, communications, local transportation, sign fabrication, and technical infrastructural services. Many of these services were formerly offered free of charge.

Establishment of a Cultures of the Americas Program (2 workyears and \$210,000) - A coordinator and clerk-typist with funds for travel, printing, equipment, and other services, will undertake research and development for a new program that will build on the linkages to

institutions and communities developed during the Columbus Quincentenary to produce Festival of American Folklife programs, Folkways projects, symposia, and publications examining cultural processes in the western hemisphere.

Improvement of Curatorial Services for Folkways Archives (1 workyear and \$64,000) -

An assistant curator, with funds for travel, materials, supplies, and services, will improve collection archiving, data base management for scholarly uses, and the development of products for broad educational uses.

Installation of Security and Telephone Systems (\$100,000) -

Requested funds will allow for the installation of a code box security system for the Center and for the installation of new telephone cabling that will improve the security of the Center's holdings and enhance communications with the public and other Smithsonian offices through an up-to-date system.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds -

Trust fund allotments, along with a return from concessions at the Festival of American Folklife, provide funds that help support personnel costs, program costs, and research and development costs of the Festival. The Smithsonian Educational Outreach, Special Exhibition, Research Opportunities, and International Exchange Programs help support educational projects, museum exhibitions, travel to scholarly meetings, and international research.

Restricted Funds - Grants and gifts from foundations, corporations, and individuals provide funds in support of Festival programs, Smithsonian Folkways Recordings, and other projects. In FY 1992, the Ford Foundation continued its major support of an Indonesian recording and training project. Smaller gifts and grants from the Music Performance Trust Funds, Camille and Bill Cosby, New Mexico Tourism Association, Laura Bolton Foundation, and others indicate the range of support for the Center projects.

Government Grants - Various state and local governments provide these funds to support programs at the Festival of American Folklife. In FY 1992, the State of New Mexico provided funds to support the New Mexico program at the Festival.

## Academic and Educational Programs

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	12	667	6	454	-	-	-	-	-	-
FY 1993 Estimate	13	780	6	483	-	-	-	-	-	-
FY 1994 Estimate	15	912	6	483	-	-	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - Research and education are among the principal objectives of the Smithsonian. To attain these goals, the Institution promotes scholarly and academic ties with other learned institutions and offers resources to the public as well as the academic community. Scholarly and academic ties develop and flourish through programs in higher education, outreach, and learning opportunities at the elementary and secondary levels. This line-item includes the Office of Elementary and Secondary Education (OESE) and the National Science Resources Center (NSRC). The staff of the Office of Interdisciplinary Studies, formerly included in this line-item, was transferred to other programs in the Institution in May 1992.

For FY 1994, the Office of Elementary and Secondary Education requests an increase of 2 workyears and \$147,000 for professional development for teachers nationwide. The FY 1994 estimate reflects a decrease of \$15,000 associated with the return of Columbus Quincentenary funding.

### **PROGRAM:**

I. **Office of Elementary and Secondary Education** - With base funding of 9 workyears and \$508,000, the Office of Elementary and Secondary Education is the Smithsonian's central policy-setting unit for educational initiatives at the prekindergarten through twelfth-grade levels. The Office draws on resources from across the Institution to reach schoolteachers and administrators, as well as students, in the Washington, D.C., area and nationwide. It also serves as a clearinghouse of information about Smithsonian educational materials and programs and develops frameworks for communication and collaboration among Smithsonian education units and between those units and outside educational organizations. In addition, OESE represents



the Institution on the Federal Coordinating Council on Science, Engineering, and Technology's (FCCSET) Committee on Education and Human Resources (CEHR).

An important goal of the Office is to educate young people and their teachers about the value of museums and related institutions (such as historic sites, science centers, and zoos) as learning resources. The Office seeks to expand use of these resources and the primary source materials they contain to acquire factual knowledge and analytical skills. Involving collaboration with schools, school systems, universities, and other museums, these efforts reach thousands of teachers and millions of students each year in communities across the country.

Central to Institution-wide efforts to help address critical problems in the Nation's schools, OESE programming is designed to give students practice in asking questions, in determining where and how to seek the answers, in formulating and testing hypotheses from direct evidence, and in articulating the results of their inquiry. Textbooks do not provide this kind of practice and few teachers have the time, expertise, or resources to shape these experiences for their students. Thus the Office seeks to fill an important need by bringing together scholars, teachers, and appropriate outside experts to create materials and programs based on Smithsonian collections that are not only rich in content but that teach students how to think. Further, through its teacher education programs, the Office models these teaching methods so that classroom teachers can use them with their students.

The Office of Elementary and Secondary Education's programs include:

- Professional Development for Teachers: Workshops, courses, conferences, symposia, and internships for Washington, D.C., metropolitan area teachers are offered in collaboration with the Smithsonian Institution museums. In communities nationwide, regional workshops and summer institutes offered in collaboration with national and regional organizations improve teachers' content knowledge and pedagogical skills and strengthen ties between museums and school systems by acquainting teachers with the learning resources of their local museums. Approximately 2,000 teachers were reached through these programs in FY 1992.
- Curriculum Materials for Schools: OESE's quarterly journal for elementary school teachers, Art To Zoo, reaches approximately 90,000 teachers in 20,000 schools. The Office also produces multimedia kits targeted to students and teachers at different grade levels and a range of materials based on the Office's conferences and symposia. In FY 1992, a curriculum package on political protest in American history, developed in collaboration with the National Museum of American History, was sent to more than 15,000 high school teachers nationwide. The Office's first in a series of multimedia curriculum kits for high school teachers was published by Jackdaw Publications.

- **Programs and Materials for Children and Teenagers:** OESE conducts national and local internship programs for high school students and produces books, computer software, and other educational materials for children of various ages. For example, in FY 1992, the Office completed the manuscript of a children's guide to the Smithsonian, to be published by the Smithsonian Institution Press. In addition, the Office's series of Art To Zoo books for young readers was begun in collaboration with an outside publisher.
- **Clearinghouse Services:** OESE provides information about Smithsonian-wide educational materials and programs that are available to schools and teachers nationally. In FY 1992, the Office began exploring ways to disseminate materials through Internet and other electronic means.

II. National Science Resources Center - With base funding of 4 workyears and \$272,000, the National Science Resources Center is a joint effort of the Smithsonian Institution and the National Academy of Sciences to improve the teaching of science in the Nation's schools. NSRC serves as a dissemination center, to provide teachers, science educators, and scientists with current information about science teaching resources, program improvement strategies, and sources of expertise and assistance. NSRC also develops innovative science curriculum materials and sponsors outreach activities to focus attention on important issues in science education, encourage the sharing of exemplary materials and programs, introduce new teaching methods and technologies, and develop the leadership needed to bring about science curriculum reform at the local level.

All NSRC programs stress the involvement and collaboration of teachers and scientists, and place a special emphasis on increasing the numbers of underrepresented minorities and women engaged in the study of science. Oversight of NSRC's programs is provided by an Advisory Board appointed by the Smithsonian and the National Academy of Sciences that includes eminent scientists, executives from several major U.S. corporations, and educational leaders from across the country.

Because there is a special need to increase the scientific and technological literacy of young children, NSRC has undertaken several projects to improve the teaching of science in the Nation's elementary schools. The NSRC's Information Dissemination Program has developed a comprehensive collection and information data base of elementary science teaching resources. NSRC has published a resource guide, based on this data base, entitled Science for Children: Resources for Teachers. In addition to information about the materials in the elementary science resource collection, the guide includes a directory of science museums and other organizations across the country that provide science teaching resources and assistance to elementary school teachers.

Science and Technology for Children (STC) is a NSRC elementary science curriculum development project that is developing a complete science program for grades 1-6. Focused on topics in physical science, life science, earth science, and technology, the STC curriculum units

use simple, inexpensive materials to teach science and link science to the broader elementary school curriculum of mathematics, reading, writing, art, and social studies. Teachers across the country field-test STC units to refine and validate them.

In FY 1992, NSRC embarked on a large-scale project, the National Elementary Science Leadership Initiative (NESLI), to engage educators and scientists in improving the teaching of science in the Nation's elementary schools and in increasing the access of all students to effective elementary science instruction. The NESLI project sponsors leadership institutes to prepare teams of teachers, science supervisors, school system administrators, and scientists to spearhead efforts to improve elementary science education in their school districts. These institutes help school systems design effective in-service education programs, establish science materials support systems for teachers, and develop the community support needed to improve their science programs. Through the NESLI initiative, NSRC also provides technical assistance to school districts across the country that are working to reform their elementary science programs. In addition, NESLI is enabling the NSRC to sponsor a series of working conferences to help scientists and engineers become effectively involved in the improvement of science education in the schools.

#### EXPLANATION OF PROGRAM INCREASE:

Expansion of Professional Development for Teachers (2 workyears and \$147,000) - Two education specialists, with funds for travel, printing, and computer services, will expand the Regional Workshop Program sites of the Office of Elementary and Secondary Education from two to eight annually and establish a Summer Institute at each site as well as create networks that will allow participating teachers across the nation to share lessons and teaching strategies.

#### NONAPPROPRIATED SOURCES OF FUNDING:

##### I. Office of Elementary and Secondary Education:

Unrestricted General and Special Purpose Funds - OESE's internship programs for young people are supported by annual allotments. Trust funds also support OESE's publications program as well as its Columbus Quincentenary early childhood development project on "The Peoples of the Americas." The major effort of the publishing program is a series of curriculum kits for teachers to be published by Jackdaw Publications.

Restricted Funds - Corporate grants support OESE efforts for teachers. For example, in FY 1992, a grant from Brother International Corporation supported the development, publication, and distribution of curriculum materials for schools; and a grant from an anonymous donor funded summer institutes conducted at sites around the country in collaboration with the National Faculty for Humanities, Arts and Sciences.

## II. National Science Resources Center:

Unrestricted General and Special Purpose Funds - An allotment from unrestricted funds provides partial funding for the core operations of the National Science Resources Center. These resources provide support for salaries and the core support necessary to develop, with the assistance of the National Academy of Sciences, program initiatives to attract further support from the private sector.

## Assistant Secretary for External Affairs

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	10	732	51	2,559	-	455	-	580	-	5
FY 1993 Estimate	10	782	49	2,794	-	428	-	540	-	11
FY 1994 Estimate	10	782	49	2,794	-	423	-	503	-	11

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Office of the Assistant Secretary for External Affairs (OASEA) was established in 1988 to coordinate the Institution's external affairs activities and advise the Secretary and senior management officials on membership policies and programs, media activities, visitor information, and issues affecting the Institution's public activities and their impact on external constituencies, both national and international. This new line-item includes the immediate Office of the Assistant Secretary for External Affairs, formerly included in the Administration line-item; the Office of Telecommunications (OTC), formerly included in the Assistant Secretary for Public Service line-item, which produces programs for radio, film, and television relating to Smithsonian research activities; the Visitor Information and Associates' Reception Center (VIARC), formerly included in the Assistant Secretary for Public Service line-item, which coordinates and provides Institution-wide information and assistance programs for the public, Associate members, Smithsonian staff, and volunteers; and the Office of Special Events (OSE), formerly included in the Administration line-item, and the Office of Conference Services (OCS), formerly included in the International Center line-item, which coordinate and provide special events and conference-planning services sponsored and co-sponsored by the Smithsonian Institution.

For FY 1994, the Smithsonian is not seeking additional funding for programmatic increases for the offices included under the Assistant Secretary for External Affairs.

### PROGRAM:

I. Office of the Assistant Secretary for External Affairs - With base funding of 1 workyear and \$147,000, the Office of the Assistant Secretary for External Affairs focuses on

matters relating to the Institution's many external constituencies and their needs and concerns. The Office oversees the Institution's impact beyond the National Mall through supervision of its component units individually and collectively, through its own outreach efforts, and through addressing the role of the Smithsonian in national and international affairs. The offices reporting to the Assistant Secretary include the Office of Telecommunications; the Visitor Information and Associates' Reception Center; the Office of Special Events and the Office of Conference Services, which are in the process of a merger; the Smithsonian Institution Press; the Office of International Relations; and the Smithsonian Associate Programs.

II. Office of Telecommunications - With base funding of 5 workyears and \$292,000, the Office of Telecommunications collaborates with Smithsonian research and professional staff to produce video, film, and radio programs relating to a wide range of the Institution's activities. Through national and international distribution, these programs expand the Institution's audiences and support its outreach objectives.

In FY 1992, OTC produced a variety of videos for exhibitions in the Washington museums and for traveling exhibitions. Notable among these were five complementary programs for the National Museum of American History's (NMAH) Columbus Quincentenary exhibition, "American Encounters." The videos explore the richly plural society of New Mexico by looking at American Indian, Hispanic, and Anglo-American traditions over the past 450 years.

A 12-minute video on the making of English silver will travel to 12 cities in Canada and the United States with an exhibition organized by the Smithsonian Institution Traveling Exhibition Service (SITES) on work by turn-of-the-century silversmith Omar Ramsden. OTC helped to create two short videos for "The World of Ecosystems," a new experimental exhibition at the National Museum of Natural History (NMNH). One defines an ecosystem; the other shows how and why scientists simulate natural ecosystems in the laboratory. At the Anacostia Museum, an OTC video epilogue concluded the exhibition "To Achieve These Rights: The Struggle for Equality and Self-Determination in the District of Columbia, 1791-1978."

Field production has begun on two videos for major exhibitions on American music. One OTC crew did videotaping in New York and California for "Beyond Category: The Musical Genius of Duke Ellington," which will open at the National Museum of American History (NMAH) in April 1993. Another crew journeyed to Memphis to shoot footage for an exhibit on the roots of rock 'n roll, scheduled to open at NMAH in 1994. In connection with another NMAH exhibition, OTC is managing development of an interactive video program for the Science in American Life curriculum project. Also in production is a compact disc-interactive (CD-I) project on "The Story of the Blues."

Short, professionally produced videos are proving their value as a way to preview and assist in fund-raising efforts for planned exhibitions. OTC filled requests for a 5-minute tape for the National Postal Museum, a short video of excerpts from Smithsonian Jazz Masterworks

Orchestra concerts to promote the orchestra and raise money for future seasons, and a pilot program for the National Portrait Gallery (NPG) on "Journalists of World War II."

In FY 1992, "Dream Window: Reflections on the Japanese Garden," a film produced with broad international support that explores the centuries-old aesthetic traditions of Japanese gardens, had its world premier at the Smithsonian. It will air nationally on PBS in late November and will also be distributed to the home and educational markets.

The second full season for new initiatives from Radio Smithsonian has been extremely rewarding. Beginning in January 1992, "Spirits of the Present: The Legacy from Native America" aired on 410 stations in North America -- 207 in the United States and 203 in Canada -- making it the most widely broadcast special series ever distributed by American Public Radio (APR). The 13-program series will be repeated over APR stations in fall 1992. "Spirits of the Present" is also available on audiocassette.

The original "Folk Masters" radio series jointly produced by Radio Smithsonian, WETA-FM, and Carnegie Hall, won the Gold Award for 1992 in the music performance category from the Corporation for Public Broadcasting. Originally broadcast by more than 175 stations nationwide, the first year's series was redistributed by APR for repeat broadcasts. The second season of "Folk Masters" -- recorded this year at the Barns of Wolf Trap -- will be broadcast on APR from September through December 1992.

Also on radio, "Speakers Corner with Roger Mudd," a weekly series co-produced by Radio Smithsonian and the William Benton Broadcast Project, brought provocative lectures by some of the best thinkers of our times to listeners nationwide. Jazz enthusiast Julian Bond hosted a special produced by Radio Smithsonian based on the 1991 concerts of the Smithsonian Jazz Masterworks Orchestra. The program aired over National Public Radio during Black History Month.

III. Visitor Information and Associates' Reception Center - With base funding of 2 workyears and \$195,000, the Visitor Information and Associates' Reception Center operates the Smithsonian Information Center, located in the Castle, as well as 16 museum information desks and two Associates' reception desks. It also answers the Institution's public inquiry telephone lines and provides a variety of 24-hour recorded information, including Dial-a-Museum. Additional information services include responding to the Institution's public inquiry mail, observing research and referral functions, and producing appropriate printed materials; administering a pan-Institution exterior graphic information system; conducting tours of the Smithsonian Institution Building; and, when feasible during the summer months, operating mobile information units on the Mall. Other central support services include the registration, recruitment, and placement of volunteers to assist with projects behind the scenes and the sponsorship of outreach activities with the local, national, and international tour and travel industry that promote previsit education and the Institution as a primary tourist destination in the Nation's Capital.

An Information Resource Division maintains computer-based information systems and compiles, coordinates, and produces the variety of reference materials, information aids, and publications that support VIARC activities. This division is also charged with the prepublication review of visitor-oriented materials prepared by other Smithsonian offices and outside organizations.

In less than three years of operation, the Smithsonian Information Center has served more than 4 million visitors. Created with nonappropriated funds, the Center provides a multi-faceted information and orientation program to assist visitors in planning their Smithsonian agenda and touring other popular Capital attractions. Open daily at 9:00 a.m., the Center offers two orientation theaters featuring an award-winning, 20-minute video overview of the Institution; interactive touch-screen video programs on the Smithsonian in seven languages; scale models of Washington's monumental core; electronic wall maps and interactive touch-screen programs highlighting popular Capital attractions; printed guides in seven languages; and volunteer information specialists to answer questions and provide direction. To assist hearing-impaired visitors, a public TDD, the Institution's first, was installed in August 1991.

In all, in FY 1991 some 600 volunteer information specialists provided visitor assistance seven days a week at museum information desks and the Smithsonian Information Center. During the popular Annie Leibovitz exhibition, double and late staffing was implemented at the National Portrait Gallery. Communications workshops for volunteer information specialists focus on sensitivity issues affecting minority constituencies, including the disabled and mentally challenged; another series of workshops is aimed at improving customer service. As a result of recruitment efforts to broaden the ethnic base of the volunteer corps, 19 percent of all new volunteer information specialists in FY 1992 represented minority constituencies.

In FY 1991 docent-led tours of the Castle were extended to include Fridays, tours in Spanish during Hispanic Heritage Month, and spring and fall tours of the Enid A. Haupt Garden. Additionally, VIARC continued to promote previsit education through active participation in local, national, and international tour and travel marketplaces, meetings, and conferences.

Automated office systems continue to streamline response to mail and telephone inquiries. Some 41,000 pieces of correspondence and 320,000 telephone inquiries were handled in FY 1991 by VIARC staff and volunteers. VIARC's expanded on-line research tools are now available to multiple users. Recorded information on ethnic celebrations and events at the Smithsonian as well as selected exhibitions supplement daily Dial-a-Museum and Dial-a-Phenomenon recordings. In cooperation with the Office of Public Affairs, VIARC added a daily recording of events in Spanish.

VIARC's upgraded software programs and enhanced graphics capabilities have increased the efficiency and productivity of the Information Resources Division. In FY 1991, the Division produced some 20 publications in addition to monthly pan-Institutional Calendars of Events and Exhibitions Directories. The Division also reviewed 15 publication drafts produced by other



Smithsonian bureaus and outside organizations. The staff introduced a new technique for assuring greater durability and longer life for outdoor orientation pylons and updated the interactive components and the electronic maps at the Information Center to reflect the most current information.

VIARC's Behind-the-Scenes Volunteer Program continued registering, recruiting, and placing volunteers throughout the Institution for a myriad of independent projects and translation services. In FY 1991, 324 volunteers were placed and 234 documents were translated. Altogether VIARC documented that 4,797 volunteers contributed 478,419 hours of service to the Smithsonian during FY 1991.

IV. Office of Special Events/Office of Conference Services - Under the Institution's reorganization plan, these offices will be merged in the next few months.

With base funding of 2 workyears and \$81,000, the Office of Special Events arranges luncheons, receptions, and dinners associated with exhibition and museum openings, seminars, lectures, and meetings sponsored and co-sponsored by the Institution. The Office also provides expertise to Smithsonian bureaus and offices on issues of domestic and international protocol. Nearly 1,000 requests are received, screened, and answered by the Office annually.

With base funding of \$67,000, the Office of Conference Services plans and coordinates the logistical arrangements for Smithsonian-sponsored seminars and conferences initiated by Smithsonian scholars and staff. The Office functions as a clearinghouse for information on off-campus and on-campus conference facilities and support services and maintains a strong network with Washington-based conference support organizations. The Office publishes a quarterly calendar of future Smithsonian conferences and maintains a record of past conferences. During FY 1991, the Office managed 17 varied symposia and conferences ranging in size from 15 to more than 500 persons.

#### NONAPPROPRIATED SOURCES OF FUNDING:

##### I. Office of the Assistant Secretary for External Affairs:

Unrestricted General and Special Purpose Funds - An annual allotment provides for the salary, benefits, and support costs of nine staff members assigned to the immediate office.

Restricted Funds - Individual gifts and grants from private foundations and corporations provide funds for specific research programs.

Government Grants and Contracts - In FY 1992, the U.S. Man and the Biosphere Program under the Department of State provided a grant to support expenses for meetings of the Program at the Institution.

## II. Office of Telecommunications:

Unrestricted General and Special Purpose Funds - An annual operating allotment provides support for ten full-time staff members and costs associated with the production of educational and informational materials for the electronic media. The sale of film, video, and audio programs provides additional funds.

Restricted Funds - Individual gifts and grants from private foundations and corporations provide these funds, used by OTC for specific programs. In FY 1992, a consortium of Japanese companies, including Kajima Corporation, Hitachi Limited, and the American Family Life Assurance Company, provided grants for a major film on the cultural significance of Japanese gardens. Funds from the Lila Wallace-Readers' Digest Fund and the Ruth Mott Fund supported production of the radio series, "Folk Masters," featuring live performances of a wide range of traditional music. The Corporation for Public Broadcasting provided funding for two radio specials following up on the successful series "Spirits of the Present: The Legacy from Native America."

## III. Visitor Information and Associates' Reception Center:

Unrestricted General and Special Purpose Funds - An annual operating allotment supports VIARC's work as the public service office responsible for Institution-wide information and assistance activities.

## IV. Office of Special Events/Office of Conference Services:

Unrestricted General and Special Purpose Funds - Annual operating allotments provide for the salary, benefits, and support costs for these offices.

## Smithsonian Institution Press

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	30	1,566	41	19,073	-	-	-	-	-	-
FY 1993 Estimate	30	1,658	41	21,704	-	-	-	-	-	-
FY 1994 Estimate	30	1,658	41	25,113	-	-	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - A member of the Association of American University Presses since 1966, the Smithsonian Institution Press (SIP) is a multi-media publisher that contributes to the Smithsonian mission by creating and distributing high-quality books, recordings, and videos reflecting the Institution's research, collections, and interests as prepared by Smithsonian scientists, historians, curators, and scholars from around the world. SIP aims to contribute to the Trust funds of the Institution by balancing publications directed to specialists and broad audiences.

For FY 1994, SIP is not seeking additional funding for programmatic increases.

**PROGRAM** - The Smithsonian Institution Press has six programmatic divisions: the University Press, Series Section, Development Division, Smithsonian Collection of Recordings, Video Division, and Smithsonian Books. While it is possible to separate some activities under Federal funding and others under Trust funding, the programs themselves are intertwined and cross-marketed so that total productivity is more than the sum of the parts.

**University Press Division** - This division publishes works of scholarship and general interest, which are sold to the academic community, libraries, and the public through retail trade distribution. Subject areas include art, archeology, anthropology, aviation, folklore, history, material culture, music, and science. The University Press also publishes Smithsonian Year, the Institution's annual report and supplementary volumes, for free distribution throughout the Institution and to Congress, depository libraries, and the international scholarly community. It also publishes the American Historical Association's annual report and the bylaws of the Board of Regents of the Smithsonian. In FY 1991, Smithsonian Year was

published in a shorter, highlighted version. The accompanying supplement was published for the first time directly from electronic files prepared by the bureaus and offices, producing a uniform format half as long as previous editions.

In FY 1992, Hail to the Candidate: Presidential Campaigns from Banners to Broadcasts, by Keith Melder, showcased the Becker Collection of the National Museum of American History. Other notable titles published by the University Press in FY 1992 include Rural Japan: Radiance of the Ordinary, by Linda Butler; Uncommon Ground: The Archaeology of Colonial African America, by Leland Ferguson; On the Translation of Native American Literatures, edited by Brian Swann; Blueprint for Space: Science Fiction to Science Fact, edited by Frederick Ordway and Randy Liebermann; and Venomous Reptiles of North America, by Carl Ernst.

Series Section - This division, supported solely by Federal funds, reports research in the Smithsonian Contributions and Smithsonian Studies Series, distributed free to depository libraries and throughout the scholarly community. Monographs published in FY 1992 include A New Genus and Species of Boxfish from the Oligocene of Moravia, the Second Fossil Representative of the Family, by James C. Tyler and Ruzena Gregorova (Smithsonian Contributions to Paleobiology, 171); Demography and Natural History of the Common Fruit Bat, *Artibeus jamaicensis*, on Barro Colorado Island, Panama, by Charles O. Handley et al. (Smithsonian Contributions to Zoology, 511); and Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, by Bruce B. Collette et al. (Smithsonian Contributions to Zoology, 525).

Development Division - This division publishes popular books for adults and children. Developed with Smithsonian museums and frequently written by curators, these books are directly related to Smithsonian research interests and collections and are sold by the Press to Smithsonian markets and by commercial publishers to the general public. In FY 1992 lead titles included three books in the Smithsonian Treasury series, co-published with Random House, and The Dream Is Alive, a nonfiction science book based on the IMAX film. Backlist titles generating steady sales include a Smithsonian picture tour and museum guidebook series in English, French, German, Japanese, and Spanish. Current project development includes a continuity series of children's books undertaken in collaboration with the Library of Congress and the American Library Association.

Smithsonian Collection of Recordings - This division, financed entirely with nonappropriated Trust funds, publishes popular and scholarly recordings primarily suitable for marketing by direct mail as well as selectively through retail distribution. During FY 1992, the first volumes in the American Songbook continuity series on American 20th-century songwriters--on Harold Arlen, Irving Berlin, George Gershwin, Jerome Kern, Cole Porter, Rodgers and Hart--were released. A four CD/cassette box set entitled From This Moment On: The Songs of Cole Porter also released in FY 1992, presents 84 of Porter's compositions recorded by various artists from 1928 to 1986. This anthology received a highly favorable review in Time magazine. In a joint effort with the Center for Southern Folklore in Memphis,

the Smithsonian Collection of Recordings is co-producing a CD tentatively entitled Memphis Rocks: Rockabilly Music in Memphis, 1950s-Present. Mastering is also in progress for a Rock and Roll continuity series, and market tests are being conducted on Love Songs of World War II, The Smithsonian Collection of Classic Blues, and Great American Orchestras.

Video Division - This new division, financed with nonappropriated Trust funds, plans to acquire and distribute videotapes of special interest to Smithsonian collections and the Press's mission. They will be for sale to the general public as the Smithsonian Video Library. Titles are being developed in American and world history, air and space, anthropology, archeology, ethnic cultures, literature, nature, and the performing arts. In FY 1992, the Video division produced Benjamin O. Davis, Jr.: American and completed work on the Samuel Beckett project Endgame in collaboration with the Visual Press of the University of Maryland.

Smithsonian Books - This division, financed entirely with nonappropriated Trust funds, publishes books for the Smithsonian Associates on subjects relating to the Institution's collections and research interests. Marketed primarily by direct mail to the Associates and other lists, these books are also available to the general public through licensing arrangements with several trade publishers. In FY 1992, the division published The Smithsonian Book of Books, a notable volume about the history of books; Washington, D.C., A Smithsonian Book of the Nation's Capital; and Fossils. These widely diverse titles join an impressive and popular list that includes: In the Age of Mankind: The Smithsonian Book of Human Evolution; The Smithsonian Book of Flight; Lords of the Air: The Smithsonian Book of Birds; The Smithsonian Book of North American Indians: Before the Coming of the Europeans.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - The Smithsonian Institution Press has three divisions financed with nonappropriated Trust funds: Smithsonian Books, Smithsonian Collection of Recordings, and the Video Division. The sale of Trust-funded books, recordings, videos, and royalties thus derived provide the resources that support development, editorial, design, production, marketing, warehousing, and distribution expenditures as well as supply additional resources to the general Trust funds of the Smithsonian Institution.



**INTERNATIONAL CENTER**





## International Center

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	13	972	9	667	-	73	-	54	-	46
FY 1993 Estimate	13	1,045	9	642	-	53	-	45	-	38
FY 1994 Estimate	13	1,260	9	642	-	53	-	45	-	38

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The International Center (IC) monitors, coordinates, and fosters the Smithsonian's international activities and interests through the work of independent divisions including the Office of International Relations (OIR), International Gallery (IG), Institute of the Americas (IA), the Institution's proposed successor to the Office of Quincentenary Programs (OQP), Smithsonian Institution/Man and the Biosphere Biological Diversity Program (SI/MAB), and Office of Environmental Awareness (OEA). Through the International Center, the Smithsonian also supports international research programs such as the Council of American Overseas Research Centers (CAORC). As part of the reorganization of the Institution, the Office of Conference Services, formerly included in this line-item, is included in the line-item for the Office of the Assistant Secretary for External Affairs.

For FY 1994, the International Center requests an increase of 2 workyears and \$350,000 for continued development of the Institute of the Americas (2 workyears and \$300,000) and for the expansion of the Smithsonian Institution/Man and the Biosphere Program (\$50,000). The FY 1994 request reflects a decrease of 2 workyears and \$135,000 associated with the return of Columbus Quincentenary funding.

**PROGRAM** - The International Center was established in 1983 to coordinate the Institution's international interests and facilitate its work abroad with a global network of collaborators and research material. Beyond this, the International Center has sought to place the Institution's scholarly work at the service of the general public, assisting the Institution's constituents around the world in understanding an ever-expanding body of information. Located in the S. Dillon Ripley Center of the Quadrangle Complex, the International Center

provides facilities for display and discourse on a wide range of international matters. International Center programs generated from both within and outside the Smithsonian include scholarly symposia and public forums, exhibitions, lectures, performances, and workshops. Policy guidance and oversight of the Center and its individual offices, as well as the broad range of international programs undertaken throughout the Institution, are provided by an International Activities Council composed of the Assistant Secretaries for the Sciences, for the Arts and Humanities, for Education and Public Service, and for External Affairs.

Office of International Relations - The Office of International Relations, which reports to the Assistant Secretary for External Affairs, provides basic liaison support and coordination for the international aspects of Smithsonian research and museum programs. This responsibility includes:

- coordinating Smithsonian international interests;
- guiding Smithsonian staff in the conduct of international relations and providing information on foreign affairs that affects Smithsonian work abroad;
- providing expert advice on or management of international projects in the general interests of the Smithsonian;
- increasing access to international organizations and agencies in support of efforts by the Assistant Secretary for External Affairs to draw on nontraditional resources;
- facilitating participation by Smithsonian staff in meetings abroad by helping with communications and the logistical details of international research;
- drafting official correspondence and negotiating agreements with international cooperative programs;
- assisting foreign colleagues and officials who visit the Smithsonian or participate in its programs in the United States; and
- providing travel documentation, including passports and visas, for Smithsonian travelers as well as visa sponsorship for foreign colleagues traveling to the Smithsonian.

The Office also manages two grant programs--the Smithsonian Foreign Currency Program and the International Exchange Program--that facilitate international cooperation for Smithsonian work abroad.

International Gallery - The International Gallery, which reports to the Assistant Secretary for the Arts and Humanities, presents exhibitions with disciplinary points of view or

cultural perspectives that either complement the work of Smithsonian bureaus or represent areas outside the scope of the National Collections. Exhibitions recently presented in or planned for the International Gallery include "Degenerate Art: The Fate of the Avant-Garde in Nazi Germany," an examination of modern works condemned by the authorities in Nazi Germany; "Art as Activist: Revolutionary Posters from Eastern Europe," a Smithsonian Institution Traveling Exhibition Service show; and "Imperial Austria: Treasures of Art, Arms and Armor from the State of Styria," an exhibition from the largest historic armory in the world. Public and scholarly programs are planned in conjunction with International Gallery exhibitions.

Institute of the Americas - In FY 1994, the Smithsonian will have the results of a needs assessment for the Institute of the Americas. Its intended purpose will be to foster understanding of the challenges faced by the western hemisphere. A multi-disciplinary and multilateral research center focused on cultural and scientific issues of importance for the Americas, the Institute has evolved from programming developed for the Columbus Quincentenary, which emphasized the need to address concerns of constituencies previously not well represented at the Smithsonian. The Quincentenary created a network of collaborators, both scholars and institutions, throughout the Americas, and the Institute will continue service as a forum for scholarly and institutional exchanges.

The Institute of the Americas will report to the Assistant Secretary for the Arts and Humanities. Its work will be directed by an Advisory Council of prominent scholars and other individuals from the United States, Latin America, and the Caribbean. The Council will help establish the Institute's goals, identify problems or issues for the Institute's attention, and secure additional funding.

Smithsonian Institution/Man and the Biosphere Biological Diversity Program: The Smithsonian Institution/Man and the Biosphere Biological Diversity Program (SI/MAB) was established in 1986 with two major objectives:

- to provide biodiversity sampling protocols for protected areas and other highly diverse ecosystems of the world so that data from diverse sites can be compared;
- to strengthen the professional short-term training capabilities of host countries so that an increasing number of managers and scientists in these developing countries can address their conservation priorities.

SI/MAB reports to the Assistant Secretary for the Sciences. SI/MAB works to give biologists, conservationists, nature reserve managers, and related professionals from developing countries the skills to conduct their own research in biodiversity conservation. The Program has initiated valuable institutional linkages, and several of its researchers have subsequently undertaken fieldwork with their Smithsonian counterparts. SI/MAB has organized training workshops for more than 450 participants in more than 20 countries in Latin America, the Caribbean, and the United States, and it is currently expanding its workshop program to Asia and Africa. UNESCO's Man and the Biosphere Program, the World Heritage Fund, the

United States Agency for International Development (USAID), the United States Man and the Biosphere Program (US-MAB), the World Wildlife Fund, and Conservation International have helped fund SI/MAB's training activities over the last five years.

Office of Environmental Awareness - The Office of Environmental Awareness (OEA), which reports to the Assistant Secretary for the Sciences, was established in 1990 to address growing concern about the world's environment. The Office provides a bridge between science and policy by gathering and disseminating information about a wide range of environmental issues. OEA is administered by the International Activities Council and works with Smithsonian bureaus and outside groups to reach the general public and professional audiences across the country through exhibitions, publications, conferences, and workshops. In addition to programs the Office initiates, it responds to public inquiries and participates in projects planned by other groups.

In FY 1992, OEA initiated a three-year project on ocean conservation issues that includes a public symposium, the publication of a scholarly book, and the circulation of a traveling exhibition. Each segment of the project explores a wide variety of marine-related environmental issues affecting near-shore and open oceans, including loss of biological diversity, pollution, use of natural resources, coastal development, and global change.

To encourage more accurate and informed news coverage of environmental issues, OEA continues to produce informational programs for the news media. In FY 1992, OEA co-sponsored a series of briefings for national news media in preparation for the United Nations Conference on Environment and Development held in June 1992. The Office continues to distribute free copies of "A Better World Starts at Home," a colorful poster that provides information on environmental issues and tips for becoming an environmentally responsible household. Following a major study on environmental programs and exhibits in the Nation's museums, OEA continues to answer requests for information and advice on museum-based environmental education.

Council of American Overseas Research Centers - American overseas research centers are the recognized extensions of the advanced foreign research programs of major American universities and museums. They constitute an important channel through which current research about other countries invigorates American institutions. Centers located in Italy, Greece, Turkey, Cyprus, Tunisia, Morocco, Iran, Egypt, Jordan, Israel, Yemen, India, Pakistan, and Hong Kong have provided fellowship funds, access to local research resources, logistical support, liaison with host-country officials, and library and housing facilities to thousands of American academics. Their physical facilities serve as the principal point of contact for U.S. scholars and their host-country colleagues, and publication and seminar programs disseminate research results abroad and throughout the United States. While the centers differ greatly from each other in size, program, and tradition, their private structure and the scholarly research produced through their sponsorship make them respected focuses of American academia in the countries in which they operate.

The Council of American Overseas Research Centers (CAORC) facilitates and coordinates the work of its 14 member institutions. Founded in 1981, the Council serves as the forum through which member centers identify and address common concerns. It fosters collaboration among research centers to strengthen academic programs and administrative procedures, and it sponsors international research projects. The Council undertakes the establishment of new centers in countries and regions where research exchange opportunities are lacking.

#### EXPLANATION OF PROGRAM INCREASE:

Expansion of the Smithsonian Institution/Man and the Biosphere Program (\$50,000) - Resources will allow SI/MAB to improve its organization of research data, data analysis, publication of research results, and to expand its training programs to five additional countries in the next three years.

Establishment of the Institute of the Americas (2 workyears and \$300,000) - A director and an executive officer will oversee initial planning for the Institute of the Americas and provide the administrative, budgetary, and procedural support necessary to establish this new program of scholarly and institutional exchange on issues affecting the Americas. This request constitutes a net increase of \$165,000 over the 2 workyears and \$135,000, previously supporting the Office of Quincentenary Programs.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Allotments provide funds to support planning and development of research and exhibition programs for the International Center. Proposed annual allotments will provide for the salary and benefits costs for staff to support the Institute of the Americas.

Restricted Funds - Restricted funds consist of gifts, grants, and other donations from individuals, foundations, organizations, and corporations for specific purposes, such as undertaking research abroad, supporting exchanges of researchers and collections, mounting exhibitions and staging performances, screening of films, and other public presentations in the International Center.



## **ADMINISTRATION**





## Administration

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTE	Amount
FY 1992 Estimate	398	26,425	217	14,083	2	81	-	102	-	-
FY 1993 Estimate	419	30,272	210	13,753	2	495	-	103	-	-
FY 1994 Estimate	420	31,053	210	13,753	2	508	-	100	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - Administration includes executive management and related functions provided by the Offices of the Secretary, Under Secretary, Assistant Secretary for Finance and Administration, and Assistant Secretary for Institutional Initiatives. Offices reporting to the Under Secretary include the Office of the General Counsel, Government Relations, Information Resource Management, and Public Affairs. The Assistant Secretary for Finance and Administration oversees a range of administrative and service offices, including Accounting and Financial Services, Contracting and Property Management, Equal Employment and Minority Affairs, Financial and Management Analysis, Human Resources, Ombudsman, Planning and Budget, Printing and Photographic Services, Risk Management, Sponsored Projects, Travel Services, and Treasurer. The Office of Facilities Services also reports to the Assistant Secretary for Finance and Administration and is responsible for Architectural History and Historic Preservation, Environmental Management and Safety, Design and Construction, Plant Services, and Protection Services (the latter three offices appear in the Facilities section of the budget). The Assistant Secretary for Institutional Initiatives oversees the Office of Development, included in this line-item, and the National Campaign of the National Museum of the American Indian (NMAI), included in the NMAI line-item. The Office of Inspector General is also included in the administration line-item. The Office of Public Affairs, formerly included in the line-item for the Assistant Secretary for Public Service, now reports directly to the Under Secretary and is included in this line-item. Administrative units receive both appropriated funds and nonappropriated Trust funds for their operating expenses in approximate balance to the overall funding of the Institution. Currently, some offices, such as Sponsored Projects, are entirely supported with Trust funds. The Office of the Assistant Secretary for External Affairs and the Office of Special Events, formerly included in the Administration line-item, are now included in the new line-item for the Assistant Secretary for External Affairs.

For FY 1994, the requested increase for administrative units totals 1 workyear and \$707,000. The requested increase will allow the Office of Information Resource Management to replace the Institution's aging personal computer equipment (\$600,000), permit the Office of Development to maintain the Institution's constituency information and development system (\$44,000) and enhance Asian-American outreach by the Office of Public Affairs (1 workyear and \$63,000). The FY 1994 estimate reflects a decrease of \$15,000 associated with the return of Columbus Quincentenary funding for the Office of Public Affairs.

**PROGRAM** - The Office of the Secretary, in concert with the Office of the Under Secretary, oversees the Smithsonian Institution. The following offices report to the Under Secretary.

The Office of the General Counsel (OGC) provides legal advice and services to the Smithsonian Board of Regents, Secretary, and other managers on the administration of programs; coordinates and oversees litigation and other adversarial proceedings to which the Institution is a party; disposes of administrative claims against the Smithsonian; and monitors developments in the law generally for application to Smithsonian programs. The Office also provides legal advice and services to the Woodrow Wilson International Center for Scholars, an affiliated organization. Significant projects in FY 1992 have been the continued negotiation of agreements with the State and City of New York concerning the funding and renovation of the U.S. Custom House for use by the National Museum of the American Indian; the Institution's participation in biological diversity research and conservation programs and debt-for-nature agreements; and the negotiations for the establishment of the Mpala Ranch Project in Kenya, Africa. In the past fiscal year, OGC handled 25 lawsuits and processed 46 claims filed under the Federal Tort Claims Act and the Military Personnel and Civilian Employees' Claims Act.

The Office of Government Relations (OGR) maintains the Institution's relationships with Congress; presents Smithsonian policies, programs, and plans to Congress; and develops and clears legislative proposals and supplemental materials. It also coordinates and oversees Smithsonian participation at legislative hearings; serves as liaison with Federal agencies and organizations with related interests; and provides constituent services for Congress and the Administration.

The Office of Information Resource Management (OIRM) provides leadership in information technology throughout the Institution in planning, systems development, training, communications, and support activities. OIRM recently published the Smithsonian's first information resource management strategic plan and established working partnerships with program-based task forces to coordinate information technology plans. Supporting the Institution's research program, OIRM has helped advance the development of multi-media monographs and data bases in the Institution's biology curriculum development program. In FY 1992, additional data bases were added to Smithsonian Collections Information Systems (CIS) within the National Portrait Gallery, and significant enhancements were made to existing collection systems at the National Museum of Natural History. OIRM continued improving the functions and data bases of the Smithsonian Institution Bibliographic Information System

(SIBIS), which now supports more than 3,000 on-line inquiries per day. Other significant accomplishments include enhancing communications access to the Institution's backbone data communications network; extending high-speed data communications services to the Smithsonian Environmental Research Center in Edgewater, Maryland; and integrating the electronic mail system to include access to INTERNET, which offers Smithsonian research and scientific staff electronic access to many of the Nation's computers at various research and academic institutions.

The Office of Public Affairs (OPA) coordinates and oversees public affairs, publicity, promotion, publications, advertising, and other information programs of the Smithsonian in conjunction with bureaus and offices. The Office develops programs to advance the Institution's objectives by acquainting the public with research, exhibitions, public programs, and other activities. OPA coordinates pan-Institutional publicity campaigns and undertakes publicity for those Smithsonian units that do not have a public affairs specialist. In addition, OPA does weekly radio interviews about current Smithsonian events and exhibits. OPA's publications include a monthly events highlights calendar, Research Reports (a quarterly research bulletin), Smithsonian Runner (a bi-monthly newsletter for Native Americans), The Torch (the employee newspaper), and a wide variety of visitor and special resource publications. The Smithsonian News Service is a free monthly package of four feature-style articles on art, history, science, technology, and contemporary life. OPA uses multi-media advertising to encourage culturally diverse audiences to take advantage of the many resources of the Smithsonian. Targeted groups include African-American, Latino, Native-American, and Asian-American audiences.

The Assistant Secretary for Finance and Administration oversees financial, administrative, and facilities services. In FY 1992, under the direction of the Assistant Secretary, Total Quality Management (TQM) concepts and practices were introduced throughout all Finance and Administration (F&A) offices. TQM will change the way F&A offices perform their functions with "quality" being the number one priority. TQM methods will not only continually improve the quality of customer services but will also reduce wasted efforts and hassles in the workplace. The following organizations, listed alphabetically, report to the Assistant Secretary for Finance and Administration.

The Office of Accounting and Financial Services (OAFS) reports on the Smithsonian's assets by collecting, authenticating, classifying, and recording the financial transactions of the Institution. OAFS reports financial information to the various levels of Smithsonian management and to external organizations.

The Office of Architectural History and Historic Preservation (OAHP), under the Office of Facilities Services, researches the architectural history of the Smithsonian buildings and publishes scholarly articles and books. The Office oversees the Smithsonian's obligations for historic preservation.

The Office of Contracting and Property Management (OCPM) is the principal acquisition office for the Smithsonian Institution. OCPM contracts for the majority of goods

and the variety of sophisticated and specialized services used to support Smithsonian programs, projects, and facilities. The Office provides acquisition policy guidance, contract administration and property management to all Smithsonian activities. OCPM also oversees the procurement authority delegated to various Smithsonian bureaus and Offices. The Office provides logistical support to all units through a judiciously expanding program of purchasing in bulk common-use supplies and forms for central storage and redistribution. In addition, OCPM coordinates major projects that benefit Smithsonian programs.

The Office of Environmental Management and Safety (OEMS), part of Facilities Services, monitors environmental management, fire protection and prevention, and occupational and visitor safety programs. OEMS also disseminates and implements the requirements of all new fire protection, safety, occupational health, and environmental laws, regulations, and standards. In FY 1992, OEMS completed comprehensive fire protection, safety, and environmental program evaluations at 23 Smithsonian facilities, including the National Zoological Park. OEMS monitored design and remediation requirements for the upgrade of underground storage tanks pursuant to pending regulatory requirements. Hazardous waste minimization continued to be promoted through training and technology transfer. The Office produced waste-minimization guidelines for the Smithsonian's Asbestos Management Program and continued work on the Institution-wide Asbestos Assessment Survey, revision of contractor removal specifications, and development of an operations and maintenance plan for asbestos-containing building materials. In addition, OEMS provided ergonomic consultation to Smithsonian staff and volunteers.

The Office of Equal Employment and Minority Affairs (OEEMA, formerly the Office of Equal Opportunity) plans, conducts, and monitors a positive action program to ensure equality in employment practices and program activities. Major accomplishments during FY 1991 included the establishment of a Hispanic and Disabled persons applicant supply file and tracking system, establishment of a Smithsonian Equal Opportunity network to promote equal opportunity and affirmative action programs, presentations of sexual harassment prevention training, and preparation of a proposal for a Small Business Utilization Program.

The Office of Facilities Services (OFS) is responsible for the Smithsonian's facilities management program, creating the physical environment that enables the Institution to accomplish its mission. The Office provides leadership and oversight for physical plant operations, maintenance, repair, and improvement; protection services, including physical security; medical services and occupational health; safety, fire protection, industrial hygiene, and management of the environment; planning, design, and construction of new facilities; mail services; transportation management; grounds maintenance and horticultural services; and architectural history and historic preservation. In executing the responsibilities associated with its mission, the Office integrates the activities of the Offices of Architectural History and Historic Preservation, Design and Construction, Environmental Management and Safety, Plant Services, and Protection Services. These offices are known as the Facilities Services Group (FSG). Advocates of a strong vision of quality service to the Institution and the public and of continuous improvement, OFS staff analyzes trends, assesses productivity, promotes

development of a diverse and professional work force, fosters staff pride and teamwork, and evaluates program effectiveness and service delivery.

The Office of Financial and Management Analysis (OFMA) assists Smithsonian management in increasing the efficiency and effectiveness of the Institution through studies and reviews, dissemination of policy and procedural directives, coordination of the Internal Controls Review Program, and design and control of official Smithsonian forms.

The Office of Human Resources (OHR) plans and directs a comprehensive program of human resources management for the Smithsonian's diverse employee population. Within the framework of public policy, law, and regulation, the Office provides leadership for a range of personnel services and program activities responsive to the work force needs of the Institution. Among the numerous areas of responsibility assigned to OHR are recruitment and staffing, employee orientation, position management and classification, the merit promotion program, pay and performance systems, benefits administration, technical policy guidance, employee and labor management relations, training and development, advisory services, employee counseling, and personnel program evaluation. Additionally, OHR oversees such programs as worker's compensation and unemployment insurance as well as automated personnel processing and record-keeping systems.

The Ombudsman serves as a neutral party to whom employees can bring any work-related problem, concern, or complaint. In addition to the approximately 200 cases handled each year, the Ombudsman oversees the Smithsonian Emergency Assistance Fund, which provides loans to employees in emergency situations.

The Office of Planning and Budget (OPB) coordinates Institution-wide planning and budgeting. It produces the five-year plan, Choosing the Future, and conducts supporting analytical studies as appropriate. The Office formulates the Institution's Federal and nonappropriated Trust fund budgets for approval by the Secretary and the Board of Regents and prepares justifications for approved budgets for submission to the Office of Management and Budget and to Congress, subsequently interacting with each on related matters. OPB also monitors established budgets to ensure that spending plans advance planning goals and comply with pertinent limitations. During FY 1992, OPB activities emphasized planning improvements and better management information, and the Office improved upon and provided training for the personnel cost projection system.

The Office of Printing and Photographic Services (OPPS) has one of the broadest Smithsonian-wide customer bases of any service organization in the Institution. OPPS's responsibilities include taking photographs, processing photographic materials, and archival preservation of photographs. The Office has developed one of the finest environmental storage units in the world. By combining these advanced storage capabilities with new videodisc technologies, this unit will pioneer many techniques for the preservation of photographic images while making them simultaneously and universally available.

The Office of Risk Management (ORM) assists and advises the Smithsonian in identifying and controlling risks. ORM is responsible for disaster preparedness planning, assessing the need for insurance, and handling liability claims against, and made by, the Smithsonian.

The Office of Sponsored Projects (OSP) is the primary point of administrative interface between the Smithsonian bureaus, offices, and research institutes and the public and private organizations from which grants and contracts are sought. OSP provides a range of administrative and financial services and resources. These services include pre-award review and approval, award acceptance, regulatory compliance, financial management, audit liaison, and indirect cost calculation.

The Treasurer is responsible for the safety and integrity of the financial assets of the Institution. Components of this overall responsibility include, management of the endowment by transfer and investment of funds, investment of the Institution's short term funds, and management of financing for Institution projects. In addition, the Treasurer provides assistance on real estate transactions, coordinates with the Comptroller to maintain appropriate controls over cash, and furnishes advice and recommendations on a range of financial issues to central management.

The Travel Services Office (TSO) makes travel arrangements in the most economical and effective manner consistent with Smithsonian and Federal travel regulations. The staff makes reservations and issues tickets for both airlines and trains as well as obtains reservations for hotels and car rentals. The director is responsible for monitoring changes to travel regulations and disseminating these changes as appropriate.

The Assistant Secretary for Institutional Initiatives has the principal responsibility for development activities at the Institution. The Office of Development and the National Campaign of the National Museum of the American Indian report directly to the Assistant Secretary for Institutional Initiatives. In addition, the Assistant Secretary undertakes special studies on behalf of the Institution.

The Office of Development provides fund-raising services and support in the pursuit of private funds for Institution-wide priorities and selected bureau projects and programs. The Office also manages the Smithsonian Corporate Membership Program and is responsible for the Smithsonian Benefactor's Circle (a group of highest-level donors) as well as several volunteer organizations, including the Smithsonian National Board, the Women's Committee, and the Smithsonian Luncheon Group. By securing gifts, planned giving bequests, and pledges, the Office achieves its goal of assisting in the increase of restricted and unrestricted funds. In addition to fundraising, the Office manages the pan-Institutional constituency information and development system, records and maintains all gifts donated to the Institution, and attends to the stewardship of grants.

The Office of Inspector General (OIG) is empowered by the United States Congress, under the Inspector General Act of 1978 as amended in 1988, to provide policy direction and to conduct, supervise, and coordinate audits and investigations; to promote economy, efficiency, and effectiveness; and to prevent and detect fraud, waste, and abuse in Institution programs and operations. The OIG has an FY 1992 Federal base of 18 workyears and \$976,000. During FY 1991, OIG issued 11 internal audit reports and 25 external (contract) audit reports as well as 30 investigative reports.

#### EXPLANATION OF PROGRAM INCREASE:

##### Office of Information Resource Management:

Replacement and Reutilization of Personal Computers (\$600,000) - Requested funds will provide a resource pool to address the Smithsonian's aging personal computer equipment centrally by developing a program of cyclical replacement and reuse that will help fulfill the Institution's explicitly information-intensive mission in the most effective and cost-efficient way possible.

##### Office of Public Affairs:

Expansion of Outreach to Asian-American Audiences (1 workyear and \$63,000) - A public affairs specialist for Asian-American outreach, with support costs for travel, training, and equipment, will coordinate and plan pan-Institutional media coverage to communicate Asian-related issues to Asian Americans, the fastest-growing minority in the United States.

##### Office of Development:

Maintenance of an Institution-wide Constituency Information System (\$44,000) - Requested funds will maintain and improve an information system that will enhance fundraising throughout the Institution by cross-referencing constituency information between and among Smithsonian offices and maintain accurate and current data about an individual's involvement at the Institution.

#### NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - Funding of these centralized management and administrative services from both appropriated and nonappropriated sources reflects a ratio of Federal- and Trust-fund support approximately in proportion to the operating program expenditures of the Institution as a whole. The amounts shown under unrestricted general Trust funds represent administrative expenditures for those units that are organizationally under Administration. Other units that receive Trust fund administrative allotments appear in the appropriate section of the budget. For example, administrative costs for the Smithsonian Astrophysical Observatory appear within its nonappropriated Trust funds section. The Office of Printing and Photographic Services generates sales income to help defray

special purpose expenditures for producing, distributing, and marketing photographic material and slide sets. The Office of Equal Employment and Minority Affairs receives a program allotment that supports community outreach through exhibits and publications specifically aimed at women and minorities. Funds also provide for the identification and implementation of new financial and administrative management systems. Other anticipated expenditures in the special purpose category include support of studies in ornithology, computer conversion costs, a computer cost center, and small amounts used for legal seminars and research.

Trust-fund allotments provide for public outreach activities of the Office of Public Affairs, including advertising and other initiatives in the African-American, Latino, Native-American, and Asian-American media; radio advertisements; "Welcome" brochures for museum visitors in several languages; monthly newspaper advertisements of general Smithsonian events; and the Smithsonian employee newsletter.

Restricted Funds - This category includes foundation grants for scientific research publications, general research projects, and expenditures against investment income earned on endowment bequests.



## **FACILITIES SERVICES**



## Office of Design and Construction

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	50	3,346	9	544	-	-	-	-	-	-
FY 1993 Estimate	50	3,504	8	528	-	-	-	-	-	-
FY 1994 Estimate	50	3,504	8	528	-	-	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The work of the Office of Design and Construction (ODC) involves every part of the Smithsonian Institution. ODC administers projects for the repair and improvement of the Smithsonian's physical plant by providing architectural, engineering, and facility-planning services such as short- and long-range feasibility analyses, master plans, design and engineering studies, design development, contract document preparation, project management, contract administration, and preparation of cost estimates for construction. ODC staff reviews designs, plans interior design and space renovations, provides technical consulting support, and operates construction field offices. Not only does ODC design, build, and repair the Institution's buildings and facilities, it also provides technical support and expertise in the design and construction of exhibits such as, in recent years, "Seeds of Change" at the National Museum of Natural History, the Experimental Gallery in the Arts and Industries Building, the exhibit of First Ladies' gowns at the National Museum of American History, and the Gem Hall at the National Museum of Natural History, where the Hope diamond is displayed.

For FY 1994, ODC is not seeking additional funding for programmatic increases.

**PROGRAM** - The Office of Design and Construction plans, designs, constructs, and provides project and financial management for all new construction, renovation, restoration, and repair projects for Smithsonian Institution facilities. Projects are currently located in the Washington, D.C., metropolitan area, Arizona, Florida, Maryland, New York, Massachusetts, and Panama.

**Project Management** - ODC provides project management and professional assistance to Smithsonian bureaus to guarantee a safe, proper environment for visitors, staff, and the

National Collections. ODC also oversees projects and manages financial resources for the Repair and Restoration (R&R) program, which preserves, repairs, rehabilitates, and ensures code compliance for the Smithsonian's aging physical plant and for the Construction program for new facilities. In addition to repairs and construction, ODC provides professional assistance related to exhibit construction and other space modification projects. Primary services include orchestration of planning, design, and construction activities; financial management of all projects; and review of exhibit designs to ensure compatibility with existing building systems and compliance with safety, health, and accessibility requirements.

Facilities Planning - Facilities planners at ODC provide planning services for master plan studies and related analyses. They also develop funding and construction strategies for overall R&R and Construction programs. These services include defining preliminary facility requirements in detail, collecting data for future projects, and providing advice on construction priorities. Examples of FY 1994 projects include:

- planning for the National Museum of the American Indian facilities on the Mall and at Suitland, Maryland;
- renovation of the Cooper-Hewitt Museum in New York City;
- planning and programming for a possible new administrative support center;
- continued work on an automated Smithsonian-wide facilities inventory;
- planning for the Suitland Collections Research Center.

Design and Construction - The design and construction staff of ODC administers architectural, engineering, and construction contracts; reviews exhibit installation projects; and supervises the execution of interior design and new construction projects. As the Smithsonian is one of the most frequently visited facilities in the world, its buildings and grounds require constant repair, ideally without closings, so that the public has maximum safe access and programs can continue with minimum disruption. In addition, the design and construction staff is responsible for executing the Smithsonian's extensive Repair and Restoration program, which preserves the Institution's historic architecture. Many Smithsonian structures are protected under the National Historic Registry Act as part of the national heritage.

Normally about 400 projects are in progress each year in ODC. Of these, 100 are construction contracts, and the rest are in a planning or design phase. In addition, approximately 100 exhibits are reviewed annually to ensure that they meet code and life safety requirements. Major projects planned for FY 1994 include:

- National Museum of the American Indian Custom House;

- implementation of a Smithsonian-wide accessibility program to bring the Institution into compliance with the Americans with Disabilities Act of 1990 (Public Law 101-330);
- National Museum of the American Indian, Suitland facility;
- roof repair and renovation of building systems at the Natural History Building;
- renovation of building systems at the Arts and Industries Building;
- renovation of building systems at the American History Building;
- construction of the East Court Building within the Natural History Building;
- repair of the facade and renovation at McAlpin Miller/Fox Houses at the Cooper-Hewitt Museum in New York City;
- implementation of the Mall Master Plan.

NONAPPROPRIATED SOURCES OF FUNDING:

Unrestricted General and Special Purpose Funds - An annual allotment provides salary and partial support costs because ODC services both Trust and federally funded programs.

## Office of Protection Services

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOVT GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	805	28,199	-	23	-	90	-	-	-	-
FY 1993 Estimate	805	29,708	-	23	-	242	-	-	-	-
FY 1994 Estimate	805	29,708	-	23	-	245	-	-	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Office of Protection Services (OPS) protects the visitors, staff, collections, and facilities of the Smithsonian Institution by providing guards, physical security, and medical services. For FY 1994, OPS is not seeking additional funding programmatic increases.

**PROGRAM** - The Office of Protection Services's mission is twofold:

- ensure that the National Collections and other properties entrusted to the Institution are protected and secured, while permitting an appropriate level of public access to them;
- provide a proper level of occupational medical services to the staff and emergency medical services to staff and visitors.

The first aspect of OPS's mission entails assessing the protection requirements of Smithsonian facilities and addressing them through a guard force, an alarm network, and other security devices. The second aspect of the mission entails planning and providing occupational health services for employees, taking appropriate action to eliminate health hazards from the workplace, and supplying emergency medical treatment for the injuries and sudden illnesses of visitors and staff. To accomplish its two-part mission, OPS employs a large force of security officers and a staff of administrators, training specialists, alarm systems specialists, technicians, investigators, museum security specialists, a medical officer, nurses, and other professional medical staff.

The security force operates 24 hours a day, every day of the year. It patrols and provides access control at the major Smithsonian facilities in and near Washington, D.C., the Cooper-Hewitt National Museum of Design and the National Museum of the American Indian in New York City, and the Smithsonian Tropical Research Institute in Panama. Uniformed security guards are stationed at entrances and patrol in and around Smithsonian galleries and buildings.

Since Smithsonian security guards have to respond to emergencies and signals of the alarm network that serves all Smithsonian facilities, as well as provide constant routine scrutiny of all public areas, it is essential for the Institution to maintain the adequate number of guard positions necessary to provide this level of protection. Over the past several years, this has become increasingly more difficult, especially as new facilities come on-line, or as new galleries are constructed or opened to the public. Accordingly, the provision of adequate funding to close the gap between the number of guards required and the number that has been authorized will remain a high priority.

An extensive network of locks, alarms, and other devices is necessary to control access to and protect Smithsonian facilities and properties. OPS advises curators and exhibitors on appropriate security systems, conducts security management surveys to determine the protection requirements of Smithsonian facilities, investigates alleged and actual violations of the law occurring on Smithsonian premises, and escorts many shipments of valuable objects to and from the Smithsonian.

The investigative program is designed to resolve collection losses, thefts, and other serious internal matters. Successful resolution of collection losses and thefts requires coordination with the United States Attorney, the Department of Justice, and the court system.

OPS provides occupational medicine services and an employee assistance program. The medical officer, occupational health nurses, employee assistance counselors, and emergency medical technicians identify hazardous work environments, monitor the health of employees exposed to certain occupational hazards, and provide first aid for on-the-job injuries of employees. Major program elements include medical surveillance of employees exposed to various hazards; employee assistance counseling and referral for treatment related to substance abuse and emotional problems; training programs for management personnel in dealing with impaired employees; immunizations for employees on official travel orders; health education; major disease screening programs; and stringent monthly inspections of all Smithsonian food service facilities.

OPS staff is involved in a number of outreach activities both with other American museums and communities and with international organizations. For example, OPS conducts a national conference on the protection of cultural property every year, attracting participants from across the United States, Europe, and Canada. Staff members serve on several international security committees, and the OPS medical officer is a representative on several committees, including local and national occupational medical organizations and specialized groups involved with Smithsonian concerns such as the medical aspects of scientific diving. On

a regular basis, OPS provides advice to museums, libraries, churches, historic sites, and corporations throughout the United States on security systems for facility, exhibit, and collection protection.

**NONAPPROPRIATED SOURCES OF FUNDING:**

**Unrestricted General and Special Purpose Funds** - These funds are provided by an allotment and reimbursements for the use of guard services at special events and lectures at Smithsonian facilities. These funds are used to purchase supplies, materials, and equipment.



## Office of Plant Services

(Dollars in Thousands)

Fiscal Year	APPLICATION OF FUNDS									
	FEDERAL FUNDS		UNRESTRICTED FUNDS				RESTRICTED FUNDS		GOV'T GRANTS & CONTRACTS	
			General		Special					
	FTE	Amount	FTP	Amount	FTP	Amount	FTP	Amount	FTP	Amount
FY 1992 Estimate	494	42,324	5	932	9	561	-	3	-	-
FY 1993 Estimate	494	46,287	5	911	8	640	-	7	-	-
FY 1994 Estimate	494	48,327	5	911	8	651	-	7	-	-

FTE = Full-time equivalent

FTP = Full-time permanent

**ABSTRACT** - The Office of Plant Services (OPlantS) operates, maintains, and repairs 14 museum and art gallery buildings and many other work and collection storage areas located in the Washington metropolitan area and New York City. In support of research, exhibitions, education, and other public programs, OPlantS provides utilities, transportation, mail services, exhibits renovation, and other program services. OPlantS also provides technical assistance to several Smithsonian units located outside the Washington metropolitan area, including the Smithsonian Tropical Research Institute in Panama, the Fred L. Whipple Observatory in Arizona, and the Smithsonian Environmental Research Center in Edgewater, Maryland.

The South Group Facilities Management and Quadrangle Facility Management are also part of this line-item. South Group Facilities Management offers a range of maintenance services for the Arts and Industries Building and Smithsonian Institution Building. Quadrangle Facility Management offers similar services for the Arthur M. Sackler Gallery, the National Museum of African Art, and the S. Dillon Ripley Center, all located in the Quadrangle Complex.

For FY 1994, OPlantS requests an increase of \$750,000 to enable it to fill approximately half of its vacant authorized positions and to restore lost purchasing power for supplies and materials. An increase of \$1,290,000 justified in the Uncontrollable Increases section of this budget will support the Institution's central utilities and rent.

## PROGRAM:

I. Office of Plant Services - The Office of Plant Services operates, maintains, and repairs more than 5 million square feet of space. The Office maintains building interiors and exteriors, elevators, escalators, and mechanical and electrical equipment. Additionally, OPlantS maintains lighting and refrigeration components and oversees emergency property repairs. The Office provides trade and craft support for the Institution, including plumbing, electrical, woodcrafting, painting, and plastering efforts. In addition to supporting Smithsonian research projects and office relocations and modifications, OPlantS supports exhibition installations and public events in all Smithsonian facilities.

OPlantS's automated Facility Monitoring System continually analyzes and controls mechanical equipment throughout the Institution. This system monitors building areas that require stable humidity and temperature control and alerts a control center when deviations from normal conditions occur. Since this automated system identifies abnormalities so quickly, immediate adjustments by OPlantS's staff avoid costly repairs and prevent damage to the National Collections.

OPlantS's automated Preventive Maintenance System schedules regular preventive maintenance on building operating systems, ensuring increased reliability, reduced repair costs, and longer life. This system schedules preventive measures for fire detection/prevention systems, and automatic lighting as well as for roofing systems and heating, ventilating, and air conditioning systems in all museums and the Smithsonian Environmental Research Center.

The Office operates a supply warehouse to stock and distribute frequently used building maintenance and custodial supplies and materials. To obtain the best prices, OPlantS purchases these materials in bulk. In addition to supporting office relocations and modifications, OPlantS offers packing, crating, warehousing, and moving services for museum objects and collections. The Office also provides a full range of transportation services for the Institution as well as mail services and postage monitoring.

The Horticultural Services Division (formerly the Office of Horticulture) in the Office of Plant Services maintains the Smithsonian grounds and applies the discipline of horticulture in educational, scientific, research, exhibition, and display activities throughout the Smithsonian. Garden furnishings from the collections and plants propagated and grown at the Smithsonian greenhouse-nursery are used in landscape design and interior and exterior displays. Exterior pest control, removal of trash from the gardens, and snow and ice removal are also the responsibility of this Division.

In FY 1992, OPlantS provided trade and craft support to Smithsonian museums and organizations, including preparation of space for new exhibitions. Notable among these exhibitions were "Degenerate Art" at the International Gallery; "Cross Currents" and "Martin Puryear" at the Hirshhorn Museum and Sculpture Garden; "Seeds of Change" at the National

Museum of Natural History; "Star Trek" and "Where Next, Columbus?" at the National Air and Space Museum; "Hampton Throne" and "Chicano Art" at the National Museum of American Art; "Albert Paley" at the Renwick Gallery; and "To Achieve These Rights" at the Anacostia Museum. OPlantS craftspersons renovated office space to accommodate changing needs in various locations; completed energy conservation projects at the American Art and Portrait Gallery Building, Smithsonian Institution Building, and the Hirshhorn Museum and Sculpture Garden; and continued installing automated exhibit lighting systems. The Facilities Inspection Program identified and estimated additional facility repair needs to be performed by OPlantS and/or contract personnel under the Repair and Restoration of Buildings program. Unfunded requirements identified by the inspection program form the basis of the annually compiled backlog of essential maintenance and repair.

In 1992, the Potomac Electric Power Company commended the Office of Plant Services for continued participation in the electrical Load Curtailment Program, the New Building Design Program, and the Commercial Lighting Program.

II. South Group Facilities Management - South Group Facilities Management is responsible for cleaning, minor maintenance, labor services, lamping, craft services, shipping and receiving, and special events for the Arts and Industries and Smithsonian Institution buildings. This office also contracts and coordinates maintenance, trash removal, pest control, and renovation projects for these buildings.

III. Quadrangle Facility Management - Quadrangle Facility Management provides a wide variety of support services to the Education Center of the S. Dillon Ripley Center, National Museum of African Art, Arthur M. Sackler Gallery, Resident Associate Program, National Associate Program, Smithsonian Institution Traveling Exhibition Service, and International Center. These services include space scheduling, custodial and labor services, rigging, minor maintenance, lamping, shipping and receiving, and related services. The automated scheduling and maintenance program enhances the reliability and effectiveness of housekeeping, public events, and related support services.

EXPLANATION OF PROGRAM INCREASE - For FY 1994, OPlantS requests an increase of \$750,000 to enable it to fill approximately half of its vacant authorized positions and to restore lost purchasing power for supplies and materials. An increase of \$1,290,000 justified in the Uncontrollable Increases section of this budget will support the Institution's central utilities and rent.

Fill Vacancies/Purchase Supplies/Materials (\$750,000) - Additional funding to cover half of the \$1.5 million base deficiency that has been evolving since 1985 will allow OPlantS to fill some positions already appropriated by Congress and to purchase the supplies required for the quality of maintenance and repair that will keep the Smithsonian's aging facilities in good operating condition.

NONAPPROPRIATED SOURCES OF FUNDING:

## Unrestricted General and Special Purpose Funds:

I. Office of Plant Services - Allotments provide unrestricted Trust funds to cover salaries and support costs in OPlantS. These allotments also provide the Trust share of space rental costs for administrative activities located at L'Enfant Plaza. Reimbursements from Trust-funded client organizations provide Special Purpose Funds for support services offered by OPlantS. These funds purchase supplies, services, equipment, and landscaping materials.

II. South Group Facilities Management - Reimbursements for special events are the primary source of Trust funds. The amount varies depending upon the nature of the events and the requirement for overtime. This money has been used to purchase equipment for special events, computer hardware and software, and supplies.

III. Quadrangle Facility Management - Trust funds are generated through reimbursements from special events. The amount varies each year depending on the nature of the events and the overtime required. The funds assist in purchasing supplies, services, and equipment for special events.





**National Zoological Park  
Construction and Improvements**

1992 Appropriation.....	\$7,899,000
1993 Estimate.....	\$7,900,000
1994 Estimate.....	\$8,500,000

Appropriations to this account provide funding for:

- repairs, alterations, and improvements to plant property;
- additions to existing facilities and minor new facilities, including exhibits;
- plans and specifications for construction;
- renovation, restoration, and construction of new facilities outlined in the Master Plan.

The Zoo contracts for most construction and improvement projects. If the contractor's estimates are above acceptable cost levels, it is more economical to hire permanent or temporary laborers to accomplish the work. The account also funds related expenses such as relocation of animals during the renovation or construction of facilities and major grounds maintenance resulting from storm damage.

In keeping with the 1889 charter, the National Zoological Park endeavors to "administer and improve" the Zoo for "the advancement of science and instruction and recreation of the people" (20 U.S.C. 81). The National Zoological Park (NZP) complex includes 163 acres in the Rock Creek Valley of Washington, D.C., and a 3,150-acre Conservation and Research Center (CRC) located near Front Royal, Virginia. Since 1890, exhibition and public education functions have been centered in the Rock Creek Valley portion of the National Zoological Park. Conservation, training, research, and breeding are conducted at both Rock Creek and the Conservation and Research Center. Since 1975, CRC has assumed primary responsibility for Zoo programs to save threatened and endangered animal species.

The composition of the FY 1994 request is as follows:

<b>Rock Creek Master Plan:</b>	
Aquatic Trail - Living in Water (Phase II)	\$4,000,000
Grasslands and Forest Exhibit (Phase II)	1,000,000
<b>Conservation and Research Center Development Plan:</b>	
Maintenance Facility (design)	400,000
<b>Renovation, Repair, and Improvements:</b>	
Rock Creek	2,100,000
Conservation and Research Center	<u>1,000,000</u>
<b>TOTAL REQUEST</b>	<b>\$8,500,000</b>

**ROCK CREEK MASTER PLAN** - The National Zoo's Rock Creek facilities have been undergoing major renovation and improvements through implementation of the Master Plan. Congress has appropriated a total of \$65,735,000 from FY 1974 to FY 1992 to carry out major portions of the Master Plan. Full implementation of the Master Plan, as revised in 1986, will place the National Zoological Park among the world's finest zoos.

**Aquatic Trail - Living in Water, Phase II (\$4,000,000)** - Funds anticipated in FY 1993 (\$2,100,000) will allow for design and begin construction of a cluster of new habitat exhibits as part of the Aquatic Trail. Funding of \$4,000,000 for FY 1994 will allow the Zoo to complete the Aquatic Trail - Living in Water phase of the Zoo's Aquatic Habitats. The remaining exhibit clusters will be constructed with funding requested in the following two years.

The Living in Water exhibit, the focal point for the complex, will introduce the basic concepts. The interpretive emphasis will be on the relationship of water to living things, on the physical and chemical properties of water, and on the specific adaptations that plants and animals have made to meet their needs for water. The exhibit will focus on the development of single biological groups living in fresh water, presenting their adaptation and their extraordinary evolutionary radiation. Employing a full spectrum of media, including 2- and 3-D static displays, video and film programs, live aquatic animal displays, and live demonstrations, the exhibit will emphasize specialization in reproduction, social signaling, respiration, and prey capture. It will serve as a prelude to the more complex, mixed species communities that will follow in the additional exhibit clusters.

With funding provided in this request, the Zoo will complete construction on the Living in Water exhibit in 1995. Final construction on the total Aquatic Habitats facility is scheduled for late 1997.

**Grasslands and Forest Exhibit, Phase II (\$1,000,000)** - With funds anticipated in FY 1993 (\$1,300,000), the Zoo will complete design and initial site preparation for the Grasslands and Forest Exhibit. Once completed the complex will include three new exhibits, each representing a distinct ecological and geographic area: African Grasslands, American Grasslands, and Forests. Actual construction on the African Grasslands Exhibit will begin with funding requested in FY 1994.

The African Grasslands Exhibit will be adjacent to the Education Building and can be approached from either direction along the Zoo's Olmsted Walk. The exhibit will be subdivided into two major habitats, the African Savannah Grassland and the African Desert Grassland. In each of the two subdivisions, pedestrian loop trails will lead the visitor off Olmsted Walk and into the habitats. Screening and specimen plantings will create the illusion of being in Africa. Animal species such as cheetah, zebra, ostrich, wildebeest, flamingo, spotted hyena, blesbok, gerenuk, and dwarf mongoose will inhabit the grassland. The exhibit will include a nocturnal segment that will include animals such as the zorilla, aardvark, fenne fox, cobra, and insects.



The funding requested in FY 1994 will allow the Zoo to construct the African Grasslands Exhibit. It is the first of three habitats that will constitute the Grasslands and Forest Exhibit complex. The remaining two exhibits, the American Grasslands and the Forest habitats, will be constructed with funds anticipated in FY 1995 and FY 1996.

Construction of the African Grasslands Exhibit will provide the Zoo with the first in a series of exhibits that will represent a distinct ecological and geographic area. In the exhibits, the Zoo will stress the BioPark theme by highlighting the manner in which animals and plants adapt to their specific environment and to each other.

CONSERVATION AND RESEARCH CENTER DEVELOPMENT PLAN - At the Conservation and Research Center, the Zoo has established a plan that will meet the Center's conservation, research and public education needs well into the next century. This Development Plan results from an extensive analysis of the CRC's operations and its facilities, both as they exist today and as required in the future. The Plan focuses on more efficient use of existing space and facilities, and future program needs. An important aspect of the Plan is a built-in flexibility for growth that accommodates expansion of research and conservation programs at minimal costs.

Design of Consolidated Maintenance Facility (\$400,000) - At the Conservation and Research Center, Front Royal, Virginia, the Zoo plans to construct a new, prefabricated building that will consolidate maintenance, grounds, transportation, supply, and commissary operations into a single location. Design of the new facility will be accomplished with the funding requested in FY 1994. Actual construction will begin in FY 1995. Total cost of the maintenance facility (including design) will be \$3,700,000.

The maintenance operations at the Center are currently housed in ten separate buildings located throughout the property. The existing shops do not provide adequate workspace and ventilation, and their scattered distribution hampers effective traffic flow and security. The new consolidated maintenance facility will allow the Center to:

- improve personnel supervision and efficiency, worker safety, and security;
- eliminate unnecessary traffic and traffic-related disturbances in the animal propagation areas within the central portion of the Center;
- permit expansion of the Center's research and training facilities.

The requested funding of \$400,000 will be used for the design phase of this project.

In keeping with the Center's Development Plan, this construction project will result in the demolition of four dilapidated buildings dating from the early 1920s. Eight other buildings vacated by the consolidation will be renovated, over the next five to seven years, into research

laboratories, office, and equipment storage areas. This new maintenance facility will add to the Center's infrastructure in a way that will meet its operational needs well into the next century.

### RENOVATION, REPAIR, AND IMPROVEMENTS:

Rock Creek (\$2,100,000) - The National Zoological Park is responsible for the repair and preventive maintenance of its facilities. The Zoo strives to maintain a safe environment for its visiting public and staff, provide ecologically suitable and comfortable enclosures for the animals, and maintain all buildings in good condition. The FY 1994 funding will help ensure that the Zoo's preventive maintenance program will not include a large backlog of major repair projects.

The Zoo's Rock Creek facilities, located on 163 acres, include almost 500,000 square feet of buildings and more than 160,000 square feet of roofs. Along with the Park's perimeter fence, measuring 10,564 linear feet, the Zoo's in-ground utility distribution system includes more than 4,600 linear feet of high-voltage electrical lines, approximately 4,000 linear feet of medium-voltage electrical lines, 16,000 linear feet of water mains, 6,000 linear feet of gas mains, 28,000 linear feet of sewer lines, and 14,000 linear feet of storm drains. The Park's preventive maintenance program includes the care of these systems to ensure safe operation of the total facility.

The major repair and renovation projects planned for the Rock Creek facility in FY 1994 include:

- removing asbestos (ongoing program);
- reroofing one major Zoo building;
- bringing fire protection and prevention systems up to code requirements;
- renovating the auditorium in the Education Building;
- renovating the interior of two exhibit buildings;
- continuing preventive maintenance of heating, ventilating, and air conditioning (HVAC) systems (ongoing program);
- renovating and replacing interpretive signage (ongoing program);
- repaving some interior Zoo roadways.

The Zoo requests \$2,100,000 to continue its annual program of renovation, repair, and preventive maintenance for its Rock Creek facility. This level of funding for FY 1994 will enable the Zoo to provide the required level of general maintenance to all the plant property.

Conservation and Research Center (\$1,000,000) - The Zoo's Conservation and Research Center at Front Royal is a nonpublic facility devoted to the conservation of endangered wildlife through programs in propagation, research, and international training. The 3,150-acre facility includes more than 89 structures ranging from animal shelters to research laboratories and

residences. The property has more than 2 1/2 miles of roads, 20 miles of jeep trails, and 30 miles of fences.

Funding requested in FY 1994 will enable the Center to continue the required maintenance and upkeep of these diverse facilities. The major projects scheduled for FY 1994 include:

- repairing and replacing roofs on three buildings and one animal barn;
- renovating the exteriors of three residences, the Administration Building, and buildings 4, 8, and 9;
- converting a large shed into a storage facility for large equipment;
- renovating an unused barn for ungulate pre- and postshipment quarantine;
- constructing an ungulate barn in Meade Pasture to provide winter shelter;
- replacing and installing overhead wire on Hardy Bird Yard breeding complex;
- renovating the maned wolf breeding and rearing enclosure.

The \$1,000,000 in this request will support the Center's preventive maintenance program and help reduce costly repairs at this important facility in the future.

The following summary chart lists the Zoo's construction and improvement projects and outyear estimates. These projects are not listed in priority order.

**National Zoological Park  
Construction and Improvements  
FY 1994 – FY 1998**

<u>Summary:</u>		PROJECT TITLE AND ESTIMATED COSTS	PRIOR FUNDING Federal	OUTSIDE FUNDING Non-Fed	FY 1994 REQUEST Federal	FUTURE FEDERAL REQUESTS				Out Year Costs	
						FY 1995 Total	FY 1996 Total	FY 1997 Total	FY 1998 Total		
	<b>Title:</b>	<b>Rock Creek:</b>									
	<b>Cost:</b>	<b>Master Plan Projects</b>									
<i>Authorized:</i>		Design: 7,360,000	1,700,000	1,300,000	700,000	735,000	1,950,000	575,000	400,000	0	
<b>Yes</b>		Construction: 71,995,000	1,700,000	3,700,000	4,300,000	15,695,000	17,450,000	15,000,000	12,400,000	6,250,000	
		<b>TOTAL: \$79,355,000</b>									
	<b>Title:</b>	<b>Renovations &amp; Repairs</b>									
<i>Authorized:</i>		Design: 355,000	0	0	60,000	70,000	70,000	75,000	80,000	0	
<b>Yes</b>		Construction: 11,520,000	0	0	2,040,000	2,280,000	2,280,000	2,350,000	2,570,000	0	
		<b>TOTAL: \$11,875,000</b>									
	<b>Title:</b>	<b>Front Royal:</b>									
<i>Authorized:</i>		Development Plan Projects									
<b>Yes</b>		Design: 1,288,000	0	0	400,000	263,000	450,000	100,000	75,000	0	
		Construction: 11,430,000	0	0	0	3,300,000	2,630,000	4,500,000	0	1,750,000	
		<b>TOTAL: \$12,718,000</b>									
	<b>Title:</b>	<b>Renovations &amp; Repairs</b>									
<i>Authorized:</i>		Design: 65,000	0	0	10,000	12,500	12,500	15,000	15,000	0	
<b>Yes</b>		Construction: 5,235,000	0	0	990,000	987,500	987,500	1,135,000	1,135,000	0	
		<b>TOTAL: \$5,300,000</b>									
	<b>Title:</b>	<b>TOTAL:</b>									
<i>Authorized:</i>		Design: 9,068,000	1,700,000	1,300,000	1,170,000	1,080,500	2,482,500	765,000	570,000	0	
<b>Yes</b>		Construction: 100,180,000	1,700,000	3,700,000	7,330,000	22,262,500	23,347,500	22,985,000	16,105,000	8,000,000	
		<b>TOTAL: \$109,248,000</b>									





## Repair and Restoration of Buildings

1992 Appropriation.....	\$23,599,000
1993 Estimate.....	\$24,400,000
1994 Estimate.....	\$39,000,000

Smithsonian facilities include 15 museums and gallery buildings in Washington, D.C., and New York City and total more than 5.5 million square feet of building space. These museum buildings house research and collections management activities and a wide range of exhibitions in the fields of science, history, technology, and art. The Institution also operates and maintains restoration, storage, and aircraft and spacecraft display facilities in Suitland, Maryland, and New York City; centers for biological research, conservation, and education in Panama and on the Chesapeake Bay near Edgewater, Maryland; a center for astrophysics in Cambridge, Massachusetts; and the Whipple Observatory on Mt. Hopkins in Arizona. These facilities range in age from new to more than 140 years old, and many are on registers of historic landmarks.

The Repair and Restoration of Buildings (R&R) account pays the cost of repairs, corrective measures to meet life safety and health regulations, and replacement or renovation of major building components or equipment. The repairs and renovations at the National Zoological Park are covered under the Construction and Improvements, National Zoological Park, appropriation account.

The heavy public use of buildings and the demand for constant temperature and humidity levels to protect the National Collections accelerate the natural aging process of building materials, equipment, and systems. The Smithsonian now achieves longer-than-average predicted life for most equipment. It is a measure of the effectiveness of the Smithsonian's preventive maintenance program that this longevity is accomplished in the face of a 24-hour operation that places the equipment under a more severe duty cycle than normal. Eventually, however, even effective preventive maintenance and regular repair programs are not sufficient to keep the equipment components of building systems operating. The Institution must overhaul heating, ventilating, and air conditioning (HVAC) systems and electrical and plumbing systems periodically to replace deteriorated equipment, wires, ducts, and pipes. It must repair the effects of weather on the exteriors of buildings and guard against interior damage. In addition, the enactment of new codes and regulations calls for building modifications to ensure a safe and healthful environment and access for visitors and staff with disabilities.

Funding levels for maintenance, repair, and preservation of buildings are not keeping pace with the rate of deterioration. A substantial backlog of essential repair work exists and continues to grow. These repairs are vital to ensure the continued reliable functioning of building equipment and systems, long-term preservation of buildings, and compliance with life safety and health codes and standards. The most recent (January 1992) estimate of the backlog of currently unfunded projects is \$221 million. This figure represents an increase from the January 1991 level (\$216 million) for which Congress appropriated \$23.6 million in FY 1992

(\$8 million less than requested). The funding request for FY 1993 will apply only an additional \$24.4 million against this backlog of repairs.

Despite annual increments of funding, many factors contribute to the continual growth of the problem. The backlog is not a static list of repair projects. Every year problems that did not previously exist must be added. Newly promulgated life safety and health codes and heightened sensitivity to environmental hazards require work not formerly recognized as needed. In addition, cost estimates for repairs already in the backlog continue to increase. In some cases, additional deterioration or damage caused by delay increases the cost of individual projects. More detailed studies of previously identified problems and the inflationary effect of project delays also contribute to higher cost estimates for the work. Only a sustained commitment to increased funding will allow the Institution to reduce the backlog in an orderly manner to ensure preservation of its buildings for continued use by future generations.

The Smithsonian separates projects under the R&R program into two categories and accordingly requests funding in two subaccounts. The first subaccount, Major Capital Renewal, includes funds for the cyclical replacement of major building systems and equipment and major renovation projects required to ensure long-term preservation of the buildings. These projects are different in magnitude, expense, and planning complexity from routine, ongoing restoration work, repair projects, or replacements undertaken when a piece of equipment fails. More than half the identified backlog consists of these major replacement requirements for HVAC and electrical systems at the Air and Space, American Art and Portrait Gallery, American History, Arts and Industries, Natural History, Renwick Gallery, and Smithsonian Institution buildings.

The second R&R subaccount is Repairs, Restoration, and Code Compliance. Funding requested through this subaccount will reduce, over a period of time, the backlog of repairs and other work needed to meet safety and health requirements. This subaccount encompasses six categories of routine maintenance and repair projects. This budget request presents an aggregate amount for each of the six categories, with a description of the kinds of work planned.

The composition of the FY 1994 R&R budget request follows:

MAJOR CAPITAL RENEWAL	\$8,950,000
REPAIRS, RESTORATION, AND CODE COMPLIANCE	
General Repairs	\$6,245,000
Facade, Roof, and Terrace Repairs	4,920,000
Fire Detection and Suppression Projects	1,955,000
Access, Safety, and Security Projects	9,360,000
Utility Systems Repairs	5,450,000
Advanced Planning and Inspection	<u>2,120,000</u>
Subtotal	<u>\$30,050,000</u>
TOTAL REQUEST	\$39,000,000



**MAJOR CAPITAL RENEWAL** - Projects in this category involve replacing major building systems and components. Complete replacement ensures long-term operation and preservation of the building. Modifications to the building also improve energy efficiency, meet fire detection and suppression requirements, and correct hazardous conditions. By coordinating these, the Institution saves money and avoids repeated disruption to activities in the building. The Smithsonian achieves operating efficiencies as well by designing new building systems and components to work together. For example, by installing multiple-paned windows and increasing insulation, the Smithsonian can select heating and cooling equipment with lower capacity. The equipment costs less to purchase and install, and long-term operating costs are lower. The impact of renovation work on programmatic activities is a key factor in planning a major project. Work of this magnitude causes serious disruption to activities in the building. The Institution must relocate staff and collections from the areas under construction to prevent damage, allow staff to continue working during the construction period, and ensure continued public access and safety.

For FY 1994, the Smithsonian requests \$8,950,000 for the projects described below:

**Air and Space Building (\$1,950,000)** - Construction of the Air and Space Building was started in 1974, and it opened to the public in the summer of 1976. Almost from the beginning, the National Air and Space Museum has experienced a variety of environmental problems. With funding expected in FY 1993 (\$150,000), the Institution will complete a physical survey of all major building components, analyze the interactions of present and future physical plant modifications, and evaluate the impact of proposed programmatic changes on the overall operation of the building. The staff will then develop a phased implementation plan for physical plant renovation to provide an appropriate environment for museum operations in an energy-efficient manner. The work will include replacing outdated HVAC components, increasing ventilation to comply with new code requirements, improving temperature and humidity controls, and lowering dust and dirt contamination. The Smithsonian requests \$1,950,000 in FY 1994 to begin implementation of the plan.

**American History Building (\$1,000,000)** - A 1982 study of the HVAC system of the American History Building, now 27 years old, recommended replacement of the deteriorated HVAC and refrigeration equipment systems and controls. Replacement of these systems will ensure continuous provision of required environmental conditions in an energy-efficient manner. The study also recommended modifications to the building envelope to increase energy efficiency. The Institution completed the required window and roof replacement and facade repairs using previously provided funding.

The 1986 Master Coordination Plan established a detailed schedule for replacing the HVAC and related systems. This plan also incorporated anticipated life safety and fire protection improvements and asbestos-removal work so that workers could isolate vertical portions of the public areas of the building and accomplish all work required in each segment at the same time. This scheduling of complex but interrelated tasks results in less disruption to the National Museum of American History's activities and saves money through a single

contract for each vertical portion. This phase of the project will incorporate all work required in the office areas of the fourth and fifth floors. A final follow-on project will perform similar work in the basement.

Work in each vertical quadrant includes replacing the air-mixing boxes, controls, and air-handling equipment; installing new sprinkler, smoke detection, and emergency lighting systems; constructing new fire walls and other fire protection improvements originally outlined in the Fire Protection Master Plan; installing conduit and cabling to support the security and communications networks; and removing asbestos present in mechanical rooms and other areas of the building. The Museum is coordinating this project with its exhibit renewal program. The project includes the cost of relocating artifacts and personnel displaced in the course of the work.

The Institution has now completed the first three phases of the work in the American History Building. The first phase of this project began with funding received in FY 1987 (\$1.2 million) and FY 1988 (\$1.6 million) and included all work required in the east quadrant of the building. Work on Phase II, in the west central quadrant, and Phase III in the west quadrant, used funding received in FY 1989 (\$2.1 million) and FY 1990 (\$3,675,000). The \$3,790,000 received in FY 1991 is funding Phase IVa construction in the east central quadrant, which began in October 1991. The FY 1991 funds are also being used to design the final phase of work (Phase IVb), which will include construction on the fourth and fifth floors. The Institution will use \$5,800,000 expected in FY 1993 for Phase IVb construction, which will be completed in FY 1995. The Smithsonian will also use \$400,000 in FY 1993 funding for relocation requirements associated with this phase. The Institution requests \$600,000 in FY 1994 to complete fire protection modifications in this area of the building and to allow the Museum to return collections and staff displaced during the project.

The Smithsonian also requests \$400,000 in FY 1994 to relocate staff and collections that will be affected by the HVAC replacement and related work in the basement of the Museum. Problems over the past several years associated with air circulation and exhaust fumes and the deterioration of HVAC and electrical equipment make it imperative that the systems be replaced with equipment of sizes and types suited to present and projected use of the space. During the replacement procedure, the Museum will remove asbestos from existing equipment. The Institution received \$250,000 in FY 1992 and expects \$240,000 in FY 1993 to prepare design documents for the first phase of the basement work and to begin the relocation of staff and collections affected by the construction.

Arts and Industries Building (\$2,300,000) - The Arts and Industries Building is one of the finest examples of Victorian architecture in the Nation. Originally designed to house representative artifacts from the Philadelphia Centennial Exposition, the building was started in April 1879 and completed in March 1881. The last major renovation of the HVAC system took place in the 1960s, with some additional work done in the mid-1970s to prepare for the opening of the "1876 Centennial Exhibition." The HVAC equipment and electrical and other utility systems are at the end of their useful life and must be replaced. Most spaces are heated and

cooled by antiquated mechanical systems. Pressurized steam pipes, chilled water pipes, and electrical conduits are located in utility trenches under the first floor. These trenches contain asbestos and are filled with abandoned pipes and conduits, which make access for inspection, maintenance, and repair disruptive, difficult, and costly. In addition, the building envelope has substantial deficiencies, and its HVAC system cannot maintain optimum environmental conditions required for museum collections. With the recent decision to use the building to house the proposed African American Museum, this problem becomes critically important to correct.

Over the past several years, the Smithsonian has performed a series of studies concerning physical plant improvements and utility tunnel replacement for the building. The staff has contracted with an architectural and engineering firm to evaluate these studies and develop recommendations for the sequencing of work. On the basis of these recommendations, the Institution will use funds anticipated in FY 1993 (\$200,000) to begin design of the first phase of work. The amount of \$2,300,000 is requested in FY 1994 to implement this initial phase of construction. The phased replacement of all mechanical, electrical, plumbing, fire protection, and vertical transportation and communications systems in the building will extend its useful life and improve its operating efficiency.

Natural History Building (\$3,500,000) - Over the past several years the Institution undertook a number of separate studies of the Natural History Building to address energy conservation, fire detection and suppression, communications, security upgrading, asbestos abatement, and other remedies to building deficiencies, especially in the HVAC and electrical systems. As a result of these studies, the Institution realized the magnitude of the work required and initiated a Master Implementation Plan to ensure that the Natural History Building is maintained in an effective manner. The Institution will schedule the renovation project to minimize disruption within the building, reduce costs by grouping tasks, and coordinate with the exhibit reinstallation program. The Institution will fill in the East Court space with a new building to provide permanent space for expansion of the Museum's current activities. During the renovation project this East Court building will increase the staging space for temporary relocation of staff and collections affected by the Major Capital Renewal renovation work. Construction of this building will require relocation of the current chiller plant to a new vault under the parking lot as well as accommodation for other functions now in the East Court space. The Construction section of the budget request includes a justification for the East Court Building.

Guided by a Fire Protection Master Plan developed in 1979 and a recently completed asbestos survey, fire protection improvements and asbestos removal and containment work are well under way. However, the replacement of the HVAC and critical electrical equipment is the most significant aspect of this project and thus governs the overall work schedule. The majority of the HVAC equipment is now more than 25 years old and requires replacement. The automatic temperature control system is obsolete and does not operate satisfactorily. Ninety percent of the electrical lighting and power panels in the building exceeds 20 years in age. Some of the electrical panels date from 1910 and present a potential safety hazard. Other

panels installed in the 1960s, which met standards at the time, would not earn a UL (Underwriters' Laboratory) listing for today's established safety standards, and replacement circuit breakers are no longer available. The main high-voltage switchgear equipment, which serves all the transformers for the Natural History, Arts and Industries, and Smithsonian Institution Buildings, is approximately 40 years old. The Smithsonian must completely replace these components and other related electrical equipment because repair parts are no longer available.

The Institution completed a detailed plan for the replacement of building systems at the Natural History Building in fall 1989. The plan spreads the work over a number of years to provide the most cost-effective construction sequence with the minimum disruption of programs and no Museum closings. The scope of work includes:

- replacing the HVAC system with a new centralized system located in new mechanical rooms over the east and west wings;
- replacing the chiller plant with updated equipment in a new vault beneath the southeast corner of the parking lot;
- modifying the building envelope, specifically by replacing the roof over the wings and installing roof insulation, replacing single-glazed windows in the wings with double-glazed windows, replacing roof rain leaders, and installing air locks or vestibules at entrances and loading docks;
- centralizing laboratories with new exhaust air systems;
- improving the automatic temperature control system;
- connecting the equipment to a central control and monitoring system.

The project will incorporate remaining fire protection work originally conceived under the Master Plan. Work will also include removing or encapsulating asbestos insulation located in the attics and attached to equipment, ductwork, and piping throughout the building.

The Institution has received a total of \$27,630,000 through FY 1992 for this project. These funds will cover the cost of project planning and design of early phases of the work, start-up of the renovation work, and initial relocation of staff and collections. Construction of the new underground chiller plant began in late summer 1991 and will be complete in spring 1993. Design of the roof mechanical rooms and window restoration is finished, and the Smithsonian will begin replacing the wing windows using currently appropriated funds. The Smithsonian has also made interim repairs to the existing systems. Asbestos removal projects in the East and West Court mechanical towers were completed in FY 1991, and similar projects in the utility tunnels and east wing mechanical room of the building were finished in FY 1992. The funds available through FY 1992 and expected in FY 1993 (\$3,500,000) will also construct

and partially equip the mechanical rooms over the wings; replace and reinsulate the roof systems over the wings; continue window restoration, asbestos removal, and interim equipment repairs; design the next stage of construction; and prepare for the relocation of staff and collections affected by future phases of work.

The Institution requests \$3,500,000 in FY 1994 to complete equipping the roof mechanical rooms, make interim repairs of failing equipment, and repair or replace the windows in the central portion of the building (\$3,000,000); and prepare staff and collections for relocation during future construction (\$500,000).

Smithsonian Institution Building (\$200,000) - The Institution's first building is now more than 140 years old. The last renovation of the major building systems took place in the 1960s. The mechanical (HVAC) and electrical systems are near the end of their projected lifespans. In addition, the new Smithsonian Information Center and the proliferation of computers and other office equipment have greatly changed the heating and cooling loads of the building. New, modern equipment, sized to meet the needs of current and projected activities, will provide more effective climate control and ensure continued operation and long-term preservation of the building. Energy efficient equipment will provide future savings in operating and maintenance costs. During renovation, the Institution will install sprinklers in the Great Hall, a project previously deferred because of the major disruption it would have caused to the Woodrow Wilson Center immediately above.

With funds provided in FY 1991, the Institution recently completed an energy audit that identified utility system replacement requirements, energy conservation opportunities, and associated architectural modifications. The Smithsonian will use \$200,000 expected in FY 1993 to begin design and seeks an additional \$200,000 in FY 1994 to continue design. Actual construction will be coordinated with the relocation of the Woodrow Wilson Center to new quarters in another building in 1995 or 1996.

REPAIRS, RESTORATION, AND CODE COMPLIANCE - Projects in this category include:

- minor, unscheduled, but essential repairs to sidewalks, roads, parking lots, waterproofing, electrical and lighting systems, and plaster walls;
- repairs to facades, roofs, skylights, terraces, and windows;
- installation of heat and smoke detection systems, sprinkler and chemical suppression systems, fire doors and fire-rated walls, and lightning protection and improvement of exit capability;
- improvements to ensure access for people with disabilities, asbestos abatement, renovations to elevators, correction of exhaust or ventilation problems,

implementation of life safety and health code modifications, and security modifications and lighting;

- repairs and energy conservation improvements to HVAC, plumbing, electrical, and communications systems and improvements to rest room facilities;
- advanced design of future-year projects and long-range planning for repair and restoration of Smithsonian facilities and feasibility studies of specific problem areas.

For FY 1994, the Smithsonian requests \$30,050,000 for the projects listed below:

General Repairs (\$6,245,000) - Funds requested in this category support a wide variety of projects. These funds provide resources for minor, unscheduled, but essential repairs that the Institution cannot anticipate specifically or that do not fit into one discrete category. For FY 1994, the Institution requests \$6,245,000 for such projects as:

- repairing sidewalks, parking lots, garages, and roads at various locations;
- replanting areas around road construction and mountain buildings at the Whipple Observatory to restore the natural habitat;
- repairing walls and restoring interior finishes in several locations, including the Rotunda and north lobby area of the Natural History Building, the attic of the Freer Gallery Building, the McAlpin-Miller and Fox Houses at the Cooper-Hewitt Museum, and the basement corridor of the Smithsonian Institution Building;
- replacing the dock storage sheds and installing a fuel tank at the Smithsonian Environmental Research Center;
- installing permanent weather enclosures around the stairwells on the garage level of the Air and Space Building;
- installing a means of access to the ceiling over the pavilion stairwells in the Quadrangle Complex to facilitate relamping and other maintenance activities;
- repairing deteriorated structural components on the Naos pier, interior and exterior repairs to Building 235 in Ancon, and painting of structures at several locations at the Smithsonian Tropical Research Institute;
- studying and designing necessary flood control modifications at the American History, Natural History, and Air and Space Buildings to supplement U.S. Army Corps of Engineers work in the Mall area;

- making general repairs to off-Mall facilities;
- handling emergency repairs required throughout the Smithsonian.

In addition, the requested funds will allow improvements to Smithsonian properties to provide consistent public amenities and visual cohesion among buildings on the Mall, such as pedestrian and vehicular movement, signage, disabled access, and rest areas.

Facade, Roof, and Terrace Repairs (\$4,920,000) - Maintaining the integrity of the exteriors of all Smithsonian buildings is critical. This maintenance will prevent major structural and interior damage and deterioration due to age, water intrusion, and weathering. Proper care will ensure a safe environment for visitors, staff, and collections. In addition, energy conservation and environmental control demand weather-tight exteriors. Work in this category includes a variety of projects accomplished cyclically according to the life of the materials used. For example, roofs need replacing nearly every 20 years; facade joints need recaulking and repointing about every ten years; and window frames and other exterior trim need repainting every five years. Several Smithsonian buildings now require large-scale restoration. The Institution plans to offer additional protection for building exteriors through an enhanced preventive maintenance and repair program.

For FY 1994, the Institution requests \$4,920,000 for facade, roof, and terrace repairs. Planned projects include:

- repairing or replacing windows, exterior doors, and skylights at the Cooper-Hewitt Museum, the Air and Space Museum, the Research Branch of the Museum of the American Indian, the Paul E. Garber Facility in Suitland, Maryland, and the Arts and Industries Building;
- repairing or recaulking stonework at the Smithsonian Institution Building, the Air and Space Building, and the McAlpin-Miller and Fox Houses at the Cooper-Hewitt Museum;
- repairing or replacing roofs at the Museum Support Center, the McAlpin-Miller House at the Cooper-Hewitt Museum, and the Paul E. Garber Facility;
- repairing perimeter fences at the Research Branch of the Museum of the American Indian and the Renwick Gallery Building;
- repairing terrace and garage leaks, installing or resetting pavements and handicapped ramps, and repairing the fountain and below-pavement ice melting equipment around the American History Building;
- repairing and rewaterproofing the fountain at the Hirshhorn Building;

- repairing and painting wooden and metal facades and building elements at a variety of locations.

**Fire Detection and Suppression Projects (\$1,955,000)** - A major Institutional priority is to use state-of-the-art technology for the best fire protection and safety measures available under today's standards. Every major Smithsonian facility has a fire protection master plan. The Institution has now completed much of the required work, and additional modifications will be incorporated into the Major Capital Renewal projects in several buildings. For FY 1994, the request of \$1,955,000 will continue fire protection master plan work in the McAlpin-Miller House of the Cooper-Hewitt Museum, the American Art and Portrait Gallery Building, the Air and Space Building, and the Hirshhorn Building. The Institution will also make fire protection improvements at the Museum Support Center, the Paul E. Garber Facility, the Smithsonian Environmental Research Center, and the Smithsonian Tropical Research Institute. Work will include the installation of heat and smoke detection systems, sprinkler and chemical suppression systems, fire doors and walls, and the improvement of exit capability. The Institution will also continue installation of lightning protection at the Mall museum buildings.

**Access, Safety, and Security Projects (\$9,360,000)** - The Institution continues to emphasize providing better access to its facilities for persons with disabilities, improving environmental conditions for the health and safety of visitors and staff, and correcting facility conditions that threaten the security of the National Collections.

For FY 1994, the Institution requests \$9,360,000 for a number of important projects in these areas. Among plans to correct unsafe or hazardous conditions in its buildings are the continuation of several projects, including the asbestos abatement program throughout the Institution, repair of the exterior emergency doors at the American History Building to provide safe egress routes in the event of evacuation, and modifications to the McAlpin-Miller and Fox Houses of the Cooper-Hewitt Museum to improve access and egress capability to meet life safety codes. Other projects planned for correction of hazardous conditions are:

- installing emergency exit hardware on exterior doors and emergency lights and signage in several buildings, installing containment and waste water treatment facilities for chemical cleaning of large artifacts, and decontaminating artifacts and removing asbestos insulation from Building 17 at the Paul E. Garber Facility;
- replacing worn and inoperable emergency exit doors at the Hirshhorn Building;
- modifying the ventilation equipment serving laboratories in the Museum Support Center and the paint spray booth and carpenter shops at the Sackler Gallery in the Quadrangle Complex to eliminate air quality problems.

The Smithsonian will continue a multi-year project to correct a number of deficiencies that impede accessibility to public spaces and amenities by persons with disabilities. The work will include improving entry by wheelchair, eliminating obstructions and overhead hazards,



correcting elevator deficiencies, changing placement of drinking fountains, improving emergency warning systems, and providing seating space for wheelchair users and listening systems for the hearing impaired. Several specific projects will also improve public access to the American Art and Portrait Gallery Building, modify rest rooms and make other accessibility improvements in several buildings at the Paul E. Garber Facility, and install an elevator in Pod 4 of the Museum Support Center to extend access to the upper levels to persons with disabilities. In addition, the Institution will repair and modify elevators at the Natural History and Smithsonian Institution Buildings and Quadrangle Complex to ensure they meet applicable life safety and accessibility codes.

Projects for FY 1994 to improve security of the collections, staff, and visitors include:

- continuing the project to improve illumination around buildings and in parking lots for more effective surveillance on the Mall and at the American Art and Portrait Gallery Building;
- installing closed circuit television cameras (CCTV) and monitors in the Museum of American History's Archives area;
- installing new security doors, card access, and surveillance equipment between public and nonpublic areas on the ground floor and in the wings of the Natural History Building;
- providing a security access bridge over Muddy Creek and perimeter fencing and fire lanes at the Smithsonian Environmental Research Center;
- installing a card access system to limit and record staff entry to and departure from the high security areas of the Hirshhorn Building;
- providing two radio towers with repeaters to improve security communication capability within the Barro Colorado Nature Monument at the Smithsonian Tropical Research Institute;
- installing security barriers and detection equipment to isolate special Smithsonian Institution Libraries collections.

In addition, a multi-year project planned for the Research Branch of the Museum of the American Indian in New York will begin repair and refurbishment of the freight elevator to correct code deficiencies and installation of emergency interior lights and exterior lighting and surveillance equipment to improve safety and security of the building.

Utility Systems Repairs (\$5,450,000) - Funds in this category will maintain, repair, and upgrade the heating, ventilating, and air conditioning systems and plumbing, electrical, and communications systems throughout the Institution's facilities. Ongoing renovations, repairs,

and replacement of deteriorated equipment components are essential for ensuring reliable and energy-efficient operation of utility systems. The long-term preservation of the National Collections and the Institution's historic structures depends on stable temperature and humidity conditions.

Energy management remains a high priority at the Smithsonian. Opportunities to conserve energy by adjusting equipment and modifying operations have already been implemented. The most significant energy savings opportunities that remain will result from upgrading HVAC systems, replacing obsolete equipment, and extending central automated controls for existing systems. The Institution modifies existing HVAC systems to accommodate programmatic growth, changes in the use of buildings, and the environmental needs of collections as they become better understood. The Institution uses an integrated approach to renovations and modifications to plan for long-range, systematic HVAC improvements that will meet museum environmental requirements in an energy-efficient manner.

Comprehensive HVAC studies and energy audits for most of the buildings facilitate planning of other improvements. The data gathered by these studies provide a basis for determining redesign or replacement needs of existing HVAC systems; developing construction cost estimates; identifying favorable payback opportunities; and establishing priorities for the repair, replacement, or modification of equipment components. At the same time, energy audits investigate all factors relating to energy use, such as power-consuming equipment and building conditions (doors, windows, insulation, floors, and partitions). After identification of energy conservation opportunities and evaluation of costs and potential energy savings, plans will guide the renovation and improvement work. This process identified a number of major system replacements that the Major Capital Renewal subaccount will fund in addition to minor repairs and renovations requested in the Utility Systems Repairs category.

Funding of \$5,450,000 requested in FY 1994 in this category will support routine repair, replacement, and modification projects. These projects include:

- repairing electrical systems at the Research Branch of the Museum of the American Indian, the American History Building, the Museum Support Center, the Paul E. Garber Facility, and the greenhouses used by the Smithsonian at the U.S. Soldiers' and Airmen's Home (USSAH);
- repairing plumbing systems at the Smithsonian Institution Building, the McAlpin-Miller and Fox Houses of the Cooper-Hewitt Museum, and American History Building;
- modifying the interior lighting system at the Hirshhorn Building to improve energy efficiency;

- repairing or replacing mechanical (HVAC) equipment at the Paul E. Garber Facility, the Smithsonian Environmental Research Center, and the Carnegie Mansion of the Cooper-Hewitt Museum;
- renovating the rest rooms in the north lobby of the Natural History Building;
- continuing installation of a communications raceway system serving the staff offices in the Smithsonian Institution and Natural History Buildings;
- designing the renovation of the utility tunnels serving the Natural History Building to prepare for installation of new electrical, steam, and plumbing services as part of the Major Capital Renewal project.

Advanced Planning and Inspection (\$2,120,000) - Funds in this category support projects to identify and analyze long-range repair and restoration needs and to design future-year projects in advance of funding requests. The amount of \$2,120,000 requested in FY 1994 will allow the Smithsonian to contract for planning and design of projects in the backlog of essential maintenance and repair.

The funding requested in this category reflects the Institution's commitment to reduce the backlog more quickly by improving planning and cost estimating in the R&R program. The ability to identify, in advance of funding requests, the precise requirements and costs of individual projects is key to the success of this effort. Thorough planning and development of design concepts will provide detailed estimates and identify logistical considerations that will allow staff to plan repair strategies and establish immediate and long-range budget requirements. In addition to improving the accuracy of cost estimates, design of projects in advance of funding will save the Institution in escalation costs by enabling the staff to award construction contracts as soon as resources are appropriated. Needed repairs will also be accomplished much sooner, thus preventing further deterioration and ensuring faster compliance with codes.

The funding level requested for FY 1994 will allow Smithsonian staff to complete planning and design in advance of appropriations for a greater portion of the projects to be included in the FY 1995 R&R program and will permit preliminary design of some of the projects expected to be in the FY 1996 program as well. The Institution will gradually increase the amounts requested in future fiscal years for advanced planning and design to allow preliminary design of the majority of projects in the R&R program prior to budget request. Greater advanced planning and design capability will improve significantly the overall cost effectiveness of the R&R program and will speed reduction of the backlog of essential maintenance and repair work.

The following summary chart lists the Repair and Restoration of Buildings projects and outyear estimates.

# Repair and Restoration of Buildings FY 1994 – FY 1998

PROJECT TITLE AND ESTIMATED COSTS	FY 1993 FUNDING Federal	OUTSIDE FUNDING Non-Fed	FY 1994 REQUEST		FUTURE FEDERAL REQUESTS							
			Federal	Out Year Costs	FY 1995 Total	FY 1996 Total	FY 1997 Total	FY 1998 Total				
Title: Major Capital Renewal			8,950,000									
Cost:	10,490,000			8,950,000	20,250,000	20,500,000	26,920,000	30,900,000	79,540,000			
<b>TOTAL:</b>				<b>\$8,950,000</b>								
Title: General Repairs			4,060,000	6,245,000	4,385,000	5,695,000	3,325,000	1,960,000	3,295,000			
Cost:	4,060,000			6,245,000								
<b>TOTAL:</b>				<b>\$6,245,000</b>								
Title: Facade, Roof and Terrace Repairs			2,010,000	4,920,000	8,125,000	6,790,000	2,365,000	670,000	200,000			
Cost:	2,010,000			4,920,000								
<b>TOTAL:</b>				<b>\$4,920,000</b>								
Title: Fire Detection and Suppression			350,000	1,955,000	450,000	450,000	665,000	250,000	50,000			
Cost:	350,000			1,955,000								
<b>TOTAL:</b>				<b>\$1,955,000</b>								
Title: Access, Safety and Security			3,055,000	9,360,000	4,325,000	4,475,000	4,235,000	3,680,000	3,625,000			
Cost:	3,055,000			9,360,000								
<b>TOTAL:</b>				<b>\$9,360,000</b>								
Title: Utility System Repairs			2,905,000	5,450,000	2,200,000	1,780,000	780,000	305,000	1,300,000			
Cost:	2,905,000			5,450,000								
<b>TOTAL:</b>				<b>\$5,450,000</b>								
Title: Advanced Planning and Inspection			1,530,000	2,120,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000			
Cost:	1,530,000			2,120,000								
<b>TOTAL:</b>				<b>\$2,120,000</b>								
Title: TOTAL	24,400,000			39,000,000	41,735,000	41,690,000	40,290,000	39,765,000	90,010,000			
<b>TOTAL:</b>				<b>\$39,000,000</b>								





## Construction

1992 Appropriation.....	\$19,156,000
1993 Estimate.....	\$21,400,000
1994 Estimate.....	\$38,850,000

The FY 1994 appropriation request for Construction represents an investment in the Institution's long-range program goals. The Institution has growing requirements for physical plant expansion and modification to support existing and future programs. The Smithsonian staff has assembled these requirements into a comprehensive long-range capital improvement program that will be phased over the next decade. The FY 1994 Construction request addresses some of the most urgent components of this program. Funding of these projects is essential to maintain vitality in the Institution's far-reaching programs of research, collections management, public exhibitions and education, and other services.

This year's Construction request is as follows (projects are not listed in priority order):

### MAJOR CONSTRUCTION

#### Planning/Design:

African American Museum	\$ 300,000
General Post Office Building	1,300,000
Suitland Collections Research Center	4,500,000
National Museum of the American Indian:	
Mall Museum Building	5,000,000
Suitland Building	5,200,000

#### Construction:

National Museum of the American Indian:	
Suitland Building	10,800,000
Natural History East Court Building	<u>5,000,000</u>

Subtotal, Major Construction \$32,100,000

GENERAL CONSTRUCTION PLANNING 750,000

MINOR CONSTRUCTION, ALTERATIONS, AND  
MODIFICATIONS 6,000,000

TOTAL \$38,850,000

## MAJOR CONSTRUCTION

### Planning/Design:

African American Museum (\$300,000 planning) - In 1990, the Institution convened an advisory committee to guide the Smithsonian's study of the potential form and substance of a museum dedicated to the study and exposition of African American history, art, and culture. Interest in such a museum has been expressed since the early 1980s by Members of Congress as well as by a number of influential citizens and museum associations. The Smithsonian's Board of Regents has indicated its support in principle for the recommendation presented in the African American Institutional Study Advisory Committee's report stating the advisability of a freestanding African American museum at the Smithsonian and that the museum should be housed in the Arts and Industries Building.

In its report, the committee noted that "there currently exists no single institution devoted to African Americans which collects, analyzes, researches, and organizes exhibitions on a scale and definition comparable to those of the major museums devoted to other aspects of American life." The committee also cited the rapid disappearance of African American cultural material due to lack of resources and trained professionals engaged in preservation. Museums have only recently acknowledged the need to collect African American material. Many small African American museums have inadequate storage and conservation facilities. More established museums are just beginning to identify and properly conserve African American material in their collections.

As currently envisioned by the Institution, the proposed African American Museum would be dedicated to the collection, preservation, research, and exhibition of African American historical and cultural material reflecting the breadth and depth of the experiences of persons of African descent living in the United States. The Museum would embrace broad perspectives, such as exploring diversity within the African American experience and the historical and cultural roots of racial perceptions that would contribute to a more accurate understanding of the total American experience. Through research, exhibitions, and formal and informal educational programming, the Museum would play a strong role in public education. The Museum would provide a central focus to collaborative collecting efforts across the country through a shared collections data base to document museum collections and make them more accessible to scholars and the public.

The staff is currently studying various issues related to the establishment of a new museum and will use \$200,000 requested in FY 1993 to define short- and long-term objectives and study population and visitation potentials for the proposed museum. The Smithsonian requests an additional \$300,000 in FY 1994 to continue planning for the Museum. The requested funding will allow the Institution to develop space requirements, establish cost criteria, and prepare schedules for possible implementation in conjunction with the renovation of the utility systems in the Arts and Industries Building. This information will allow the Institution to begin to give shape and form to the vision of the African American Museum.



General Post Office Building (\$1,300,000 design) - The General Post Office Building is bounded by 7th, 8th, E, and F Streets in Northwest Washington, D.C. Its original wing (on the E Street side of the building) is the work of America's first native-born professional architect, Robert Mills of South Carolina. Mills also designed the Patent Office Building, the original plan for the Washington Monument, and the Treasury Building. The General Post Office Building is the fifth oldest public building in Washington and has never been renovated or restored. Its fine architectural detailing, however, is for the most part still intact and unchanged from the original and thus warrants full restoration. The Pennsylvania Avenue Development Corporation, within whose area the building lies, supports the timely, well-executed renovation of this significant building, as do the Government of the District of Columbia and the National Capital Planning Commission.

On October 19, 1984, the President signed Public Law 98-523 authorizing transfer of the General Post Office Building from the General Services Administration (GSA) to the Smithsonian Institution without reimbursement. The legislation also authorized appropriations of up to \$40 million to the Institution for the renovation of the building. GSA is currently using the building for temporary housing of a number of Federal agencies. Custodianship of the building will transfer to the Smithsonian when renovation funding is available.

The Institution proposes to use the General Post Office Building to support the research and collections activities of the three principal Smithsonian bureaus directly engaged in the field of American art--the National Museum of American Art, the National Portrait Gallery, and the Archives of American Art. Each of these units has a serious need for additional space for archives, study and storage of collections, offices for existing staff and visiting researchers, and public use. The building's architectural configuration will limit the extent of climate-controlled areas that can serve for exhibitions or collections storage. However, the Institution will renovate the subbasement under the courtyard to provide a combination of collections storage space and non-climate-controlled general storage. The Institution will use most of the building to house the Archives of American Art and nonpublic functions of the National Museum of American Art and National Portrait Gallery as well as to meet the office space requirements of other Smithsonian organizations. Studies undertaken by a number of architectural and engineering firms, including a January 1991 study, indicate that the General Post Office Building can be used effectively for the purposes described. However, extensive repairs, restoration, and building modifications are needed to make the building ready for continued use.

The proposed renovations will preserve the building for future generations and will provide an energy-efficient, safe, and secure environment for collections, staff, and visitors. Congress authorized \$40 million for building renovation in 1984. The Institution will use \$1.7 million received in FY 1992 for the initial design phase, which will provide a detailed cost estimate for renovation of the building. The Smithsonian requests \$1.3 million in FY 1994 to complete the design. The Institution will request funding in future years for phased construction in the building.

Postponement of this project will result in further deterioration of the building and increase the risk of irreparable damage. Moreover, each year's additional deterioration and inflation increases the cost of renovation and repairs. Failure to undertake the most urgent improvements will prevent the Smithsonian from making full use of the building. Under current plans for beginning the design phase in FY 1993 and initiating construction in FY 1998, it will be 2000 before the Smithsonian can complete the renovation. Continued delay will adversely affect the Institution's ability to conduct core programs in American art (presently housed in inadequate facilities in the Patent Office Building). The need to provide these units with sufficient space is critical. The reuse of space in the Patent Office Building depends on the timing and sequencing of events in the General Post Office Building. Larger programmatic issues affecting the future direction of American art at the Smithsonian depend on the resolution of the General Post Office facility.

Suitland Collections Research Center (\$4,500,000 design) - The Institution's museums have long ago exhausted storage spaces for collections and related research activities. Often existing conditions are unsafe and inaccessible, including deteriorating and contaminated areas for collections which present difficulties in present and future collecting initiatives and plans. It is estimated that over 20 bureaus and offices will need approximately 3 million square feet by 2010 and nearly 2 million square feet is needed by 1995. In order to provide for the Institution's urgent need to store, document, research, and conserve its collections, the Institution proposes to house a collections complex on its 110-acre site in Suitland, Maryland located 6.5 miles and 25 minutes from the Mall.

The Museum Support Center (MSC), which opened in 1983, and a proposed Extension to the National Air and Space Museum will provide space to solve the most immediate storage needs for natural history and aerospace collections. However, the Institution urgently needs space to ensure the continued preservation of the collections and the vitality of the collection-based research and collections management programs of other Smithsonian museums and bureaus. Present conditions endanger long-term preservation of the collections, limit access by research staff and scholars, retard dissemination of knowledge to the public, and inhibit the orderly acquisition of significant additions. The Institution has made concerted efforts to limit the growth of collections by carefully screening offers of donation, deaccessioning marginal items collected in the past, and encouraging extensive loan programs. Despite these efforts, the Smithsonian's collections have, of necessity, continued to expand.

The Institution has documented its immediate and long-term needs for additional space to house growing collections in history and art as well as important archival and library collections that currently are inadequately housed and conserved. Based on the initial phase of the Suitland Master Plan, the Institution will require approximately 3 million square feet of new collections management, conservation, and research support space over the next two decades.

The space problem is exacerbated by the age and condition of the present storage buildings at the Smithsonian's facility in Suitland, Maryland. Among the structures at Suitland are temporary metal buildings that provide approximately 115,000 square feet of storage space

for the National Museum of American History (NMAH). Most of these buildings are beyond their expected useful life and are simply inadequate. Since half of NMAH's collections, exclusive of stamps and coins, reside there, it is essential to have facilities ready in the next decade to ensure that the National Collections have proper housing. Other Smithsonian museums, as well as archival and library units, also have serious shortages of appropriate collections storage space. Space in Mall museums is severely overcrowded, and several museums and bureaus have moved collections into leased space in off-Mall locations to avoid damage and deterioration of artifacts from excessive compression. Many of these locations, however, including most of the Suitland buildings, do not provide the environmental conditions necessary for long-term preservation of collections.

A study completed in 1990 determined that buildable land is available on the Smithsonian's Museum Support Center property in Suitland to accommodate most of the identified requirements. Additional space will also be available, after the Paul E. Garber Facility is replaced, for growth of the National Collections and support services well into the next century. The Institution's experience with MSC indicates that the Suitland properties are the convenient and logical site for development of a center for the research and study of collections.

The Smithsonian plans to sequence construction of a new collections research center on the MSC site at Suitland over the next ten to 20 years. The Institution contracted late in 1991 for the final phase of the Suitland Master Plan, using Construction Planning funds. The study will determine the appropriate placement of structures, roads, infrastructure, and landscaping that will form an integrated complex of buildings and services to support management of and research in the National Collections. The location of bureaus and their functions on the site, as well as a construction-phasing plan and an environmental analysis, are also part of the study.

The Institution will use \$500,000 requested in FY 1993 to carry the planning process into the next stage. This planning will develop more specific program and facility requirements, refine estimates and schedules for construction, identify and analyze logistical issues, and establish operating cost estimates for the initial structure or structures on the site. The Smithsonian plans to request authorization of the project in FY 1993. For FY 1994, the Institution requests \$4,500,000 to begin design of the initial structure. Funding of this project will allow the Institution to resolve a number of serious and long-standing collections storage space problems.

National Museum of the American Indian (\$10,200,000 design) - On November 28, 1989, President George Bush approved Public Law 101-185 establishing the National Museum of the American Indian. The basis of the new museum is the Heye Foundation Collection, which includes more than 1 million Native American objects and artifacts from all parts of the western hemisphere. The New York State Supreme Court approved the transfer of the Foundation's collection to the care and custody of the Smithsonian, effective June 24, 1990. The agreement between the Smithsonian Institution and the Museum of the American Indian, Heye

Foundation, signed in May 1989, also provides for transfer of the Foundation's endowment and most of its other property, including a 100,000-item archives.

The creation of this new national Museum is the culmination of almost a decade of negotiations among the Foundation, the City and the State of New York, and, more recently, the Smithsonian Institution. When the new Museum opens to the public at the turn of the century, it will stand as a tribute to the many and varied contributions of American Indians, Eskimos, Aleuts, native Hawaiians, and other Native American cultures. In Congressional testimony describing the prospective of the Museum, Secretary Robert McC. Adams said, "It is likely to alter beyond all expectation public understanding of American Indian people."

Public Law 101-185 authorizes the Institution to provide facilities for the Museum in three locations:

- a major museum building to be constructed on the Mall in Washington, D.C., on land reserved for Smithsonian use by Congress in 1975;
- an exhibition and education facility located in a portion of the Alexander Hamilton U.S. Custom House in lower Manhattan, to be known as the George Gustav Heye Center;
- a collections study, reference, and support facility on the same site as the Museum Support Center in Suitland, Maryland.

The Institution anticipates four major sources of funding for construction of these facilities: New York City, the State of New York, Federal appropriations, and private donations. The Institution received an appropriation in FY 1990 for programming and planning for all three facilities and for design of the Custom House conversion (\$1,620,000). For FY 1991 and FY 1992, the Smithsonian received \$7,391,000 and \$2,370,000, respectively, to prepare the Custom House space, begin design of the Suitland building and the Mall museum, and complete planning and programming for the new Museum as a whole. The \$1 million requested in FY 1993 will continue design of the Suitland collections research building. The Smithsonian requests \$21,000,000 (\$10,200,000 for planning and design and \$10,800,000 for construction) for FY 1994 to continue development of these facilities. The details of this request follow:

- Mall Museum Building (\$5,000,000 design) - The Institution will construct a new building on the National Mall near the foot of Capitol Hill, adjacent to the world's most frequently visited museums. The location will provide excellent exposure for Native American artifacts and related museum activities centered on Native American culture. The Institution expects that this facility will house permanent and changing exhibitions, reference and resource areas, an auditorium and conference center, integrated performance and retail areas, and space for other public programs.

The Institution projects the total cost of construction of the Mall building to be approximately \$110 million, assuming a construction start in the late-1990s. The Smithsonian plans to fund two-thirds of the cost from Federal sources and expects that the balance will result from a national fund-raising campaign. Initial planning efforts will define the program requirements and refine the construction and equipment estimate as well as relevant logistical and operating requirements and costs. The National Museum of the American Indian recently completed a series of consultations with Native American communities to define the programs of the new Museum and to generate ideas about the physical characteristics of the building. With \$720,000 and \$430,000 received in FY 1990 and FY 1991, respectively, the Institution will complete overall programming and planning for the new Museum and detailed planning for the Mall Museum building. The detailed planning will incorporate considerations identified by Native American groups. The Institution will use \$970,000 received in FY 1992 to begin conceptual design of the Mall building. The Institution requests \$5,000,000 in FY 1994 to continue design. The Smithsonian expects the total design effort to take up to three years, with construction scheduled to begin in FY 1997. The current schedule calls for completion of the building in FY 2000 and its full public opening in the year 2001, with a partial opening in the year 2000.

- Suitland Building (\$5,200,000 design) - The Institution plans to construct a facility adjacent to the Museum Support Center in Suitland, Maryland, to provide proper housing and study for the collections of the National Museum of the American Indian. In addition to conservation, preservation, and collections-related research activities, the Suitland building will provide space for exhibits preparation and other nonpublic functions, thus freeing space in the future Mall Museum for public activities. The Institution currently expects the initially constructed facility to cost approximately \$63 million to design, build, and equip, based on a construction start in 1994. A final phase of construction is projected to begin in FY 1998 and will cost an additional \$23 million. While the total cost exceeds the Institution's original projections of \$44 million, the Institution believes that the building as now planned will incorporate more fully the needs expressed by Native Americans for a facility dedicated to the care and use of the material artifacts reflecting these diverse cultures and to tribal and international outreach programs. These needs were defined in the series of consultations with Native Americans that formed the backbone of the program planning process. It is clear that the building as it was originally envisioned by Smithsonian staff would not provide an appropriate setting for the new Museum's collections-related activities and tribal programs. Original projections for the facility also did not take into consideration the need to move certain Mall facility functions and staff to Suitland to make maximum use of the Mall facility for public space.

The Smithsonian used \$300,000 appropriated in FY 1990 to complete preliminary planning. This planning has identified a specific site and building configuration, details such as geotechnical data, and construction cost estimates and schedules. The Institution has selected an architectural and engineering firm to design the building. Design will begin in late FY 1992, using \$961,000 appropriated in FY 1991 and \$1,000,000 expected in FY 1993. The Smithsonian requests \$5,200,000 in FY 1994 to complete design and \$10,800,000 to fund the initial increment

of construction. Upon completion of the first phase of the building in FY 1997, the Institution will begin relocating the Heye Collection from its New York storage site.

Construction:

National Museum of the American Indian - Suitland Building (\$10,800,000 construction) - As described under the design section of this narrative, the Institution requests \$10,800,000 in FY 1994 to begin the first increment of construction for the Suitland collections study, reference, and support facility of NMAI. The Smithsonian expects to be ready to award a contract for the site preparation by spring 1994. The work will include relocation and demolition of existing structures, rough grading, and installation of utilities to prepare for beginning construction of the building in 1995. Funding of this request will keep the projected completion of this key building on schedule and allow the Museum to begin moving the Heye Collection into the building in 1997.

Natural History East Court Building (\$5,000,000 furnishings and equipment) - The Natural History Building on the Mall houses more than 1,200 employees of the Smithsonian Institution and several Government agencies engaged in related biological research, including 159 scientists and their associated staff. Each year these specialists, along with more than 2,000 visiting scientists, conduct basic collections-related research in a broad range of subjects critically important for advancing scientific knowledge related to humankind and the environment. In addition to the large force of scientific staff and other personnel, the building also houses substantial collections, numbering well over 120 million biological specimens and anthropological artifacts, and 30 public exhibition halls with space for associated educational and outreach activities. A number of other Smithsonian organizations also occupy the building, including the Smithsonian Institution Libraries and the Office of Plant Services.

The National Museum of Natural History (NMNH) faces two significant challenges regarding space for the immediate future: accommodating a total building renovation of the heating, ventilating, and air conditioning (HVAC) system, and relieving severe overcrowding. After weighing its options, the Museum settled on the East Court Building proposal to resolve both its overcrowding and renovation-related space problems. The new in-fill building will interconnect directly with the existing building and ultimately become an integral part of the Natural History Building.

The estimated cost of design and construction of the East Court Building is \$25 million. This estimate includes the cost of relocating the greenhouse, osteology preparation laboratory, building trades shops, and hazardous waste storage located in buildings presently in the East Court. The estimate for furnishing and equipping costs is an additional \$5 million. In 1990, Congress enacted Public Law 101-455 authorizing the Institution to construct the new building and authorizing appropriations totaling \$30 million.

The Institution completed the necessary planning for the new building in early FY 1991, using Construction Planning funds, and is using \$1,500,000 appropriated in FY 1991 for design.

The current schedule calls for design completion in FY 1993. The \$9,874,000 appropriated in FY 1992 and the \$13,500,000 anticipated in FY 1993 will allow award of the construction contract in spring 1993 to meet the critical path schedule for the HVAC renovation project. The Institution requests \$5,000,000 in FY 1994 to furnish and equip the building. In addition to collections storage equipment, the Museum will use these funds to purchase office furnishings and fixed laboratory equipment to make the new building fully functional.

Completion of the East Court Building will allow the Institution to proceed with its plans to renovate the Natural History Building and at the same time provide valuable permanent space for the Museum's programs.

GENERAL CONSTRUCTION PLANNING (\$750,000) - An essential part of effective program management is the ability to assess requirements and priorities and develop long-range plans. To maintain the appropriate balance between existing programs and opportunities for new or expanded activities, the Institution must continue to define the physical plant requirements for accomplishing its mission. Comprehensive long-range facilities planning provides Smithsonian management with basic information on the physical aspects of existing or proposed programmatic activities in sufficient detail to be able to make meaningful decisions about competing priorities.

The Institution initiated an improved long-range planning capability with funds received in FY 1989 through FY 1992 and requested for FY 1993. The comprehensive long-range planning program identifies major issues affecting each potential expansion project, including program needs, spatial ideas, operating logistics and costs, and preliminary construction cost estimates. A strong planning program will assist Smithsonian management in determining priorities from among projects essential to the continued success of the Institution's programs.

For FY 1994, the Smithsonian requests \$750,000 to continue long-range capital improvement planning. The planning process will result in better-defined plans and better cost estimates for future-year construction projects prior to authorization and budget requests. The Institution is currently considering a variety of capital projects for facilities needed for existing programs and initiatives. Consistent annual resources will ensure continued feasibility studies, planning, and concepts upon which to base precise designs and more accurate cost estimates for construction of these and other emerging requirements. With these resources, the Institution will also establish operating and logistical support requirements, make required environmental assessments for critical capital improvement projects, and develop materials for review commission and Congressional approval.

MINOR CONSTRUCTION, ALTERATIONS, AND MODIFICATIONS - Projects in this category include:

- minor new construction (under \$1 million in estimated cost);
- alterations and modifications to buildings to meet programmatic objectives in the areas of research, collections management, exhibitions, and public services.

For FY 1994, the Smithsonian requests \$6,000,000 for the projects described below.

Air and Space Building (\$250,000) - The National Air and Space Museum uses a public address system to announce events in the Museum to the visiting public and as a backup system to notify building occupants of emergency situations. The existing system is inaudible in parts of the building and can be operated only from the Security Office. The Smithsonian requests \$250,000 to update the system to improve the clarity of voice announcements and allow the Museum to make prerecorded and live announcements from several locations during emergencies, special events, and routine operations.

American Art and Portrait Gallery Building (\$415,000) - The Institution requests \$415,000 in FY 1994 for two projects at the American Art and Portrait Gallery Building: continuing renovation and installation of storage racks in the attic for collections storage, and reconfiguration of administrative office space within the building.

The National Museum of American Art's collections are growing, but space is no longer available in the building to house additional objects in an appropriate climate-controlled and secure environment without renovations to accommodate compact storage arrangements. Off-site leased storage is very costly and impractical, and space in other Smithsonian-owned storage facilities is either full or reserved for the collections of other museums. Accordingly, with \$390,000 appropriated in FY 1992, the Museum began modifying space occupied by the Office of Research and Fellows by installing a mezzanine level and a materials handling lift between the levels. An additional \$165,000 is requested in FY 1994 to consolidate existing storage screens and install new ones in the space. The new arrangement of art storage screens will allow more effective use of the space while preserving convenient access to the paintings by staff and researchers. The Museum will request future funding to complete art storage improvement by renovating an adjacent attic space.

In addition, the Museum must now modify the physical layout of space to accommodate significant changes in staff size and configuration. A 1990 reorganization of the Museum resulted in consolidation of 14 offices into nine offices. Sections of the consolidated offices remain in separate locations, however, impeding intraoffice communications. In addition, some office spaces are overcrowded, while others are underutilized. Physical consolidation of these new offices will streamline Museum operations and make more efficient use of the available space. The Institution requests \$250,000 in FY 1994 to make modifications to office space to



accommodate the new staff configuration. The work will include moving walls and doors, relocating electrical and HVAC service, and installing data network systems.

American History Building (\$150,000) - For FY 1994, the Institution requests funding for two projects for the National Museum of American History (NMAH): renovation and installation of compact shelving in the Numismatics storage area, and space modifications in the basement.

The vault now housing the Museum's valuable National Numismatics Collections is filled to capacity. However, an adjacent security vault will be vacated by the move of the National Philatelic Collection to the National Postal Museum near Union Station. The Institution expects \$250,000 in FY 1993 to install compact shelving in this area and to connect the two vaults. The Institution requests an additional \$50,000 in FY 1994 to relocate the collections into the new compact storage equipment. Funding of this project will alleviate crowded conditions and increase storage capacity for this important and valuable collection.

NMAH currently stores a number of collections items in the basement of its building. However, because the building is in the flood plain of Tiber Creek, the Museum is concerned about the vulnerability of these collections to potential flood water damage. Despite U.S. Army Corps of Engineers and Smithsonian plans to improve flood control provisions in the area, the Museum believes that the additional risk of storing collections below the building's flood level is inappropriate. The Museum plans to relocate the majority of collections from the basement to leased space in Newington, Virginia, the Museum Support Center in Suitland, Maryland, and other areas of the building once the Major Capital Renewal project is completed on the upper floors. The Museum will then use the basement space to consolidate exhibits and registrarial functions now scattered throughout the building. The Institution requests \$100,000 in FY 1994 to begin relocation of collections from the basement. The Museum will request funding in future years to modify the basement space to accommodate the new staff functions. Funding of this project will eliminate an unnecessary risk of damage to collections and make more efficient use of the basement space for staff activities.

American Indian Museum, Research Branch (\$75,000) - The Research Branch Building, in the Bronx, New York City, currently has a small paved parking area within the perimeter fence for use by staff and visiting researchers. The proposed increase in facility staff needs to be accommodated by an increase in parking spaces. Staff parking outside the fence is inappropriate because of the high incidence of automobile theft and damage in the surrounding neighborhood. The Institution requests \$75,000 to pave a graveled area within the perimeter fence. In addition to expansion of parking, paving of the lot will improve drainage and reduce future maintenance costs.

Anacostia Museum (\$400,000) - The Smithsonian plans to construct a mezzanine above the education offices to accommodate expanding staff, collections study and storage, and museum programs. The work will involve architectural, structural, electrical, and mechanical alterations. The project will also include installation of an elevator to provide access for

persons with disabilities to the new mezzanine as well as to other levels of the building. The Institution anticipates \$200,000 in FY 1993 for construction of a collections storage addition, but the Museum has determined that incorporating its collections storage requirements into the mezzanine space will be more efficient. The FY 1993 funds will therefore be used to initiate the mezzanine project. For FY 1994, \$400,000 is requested to continue this renovation. A future-year request will complete the project. Funding of this request will provide needed collections study and storage space, room for staff expansion, and disabled access throughout the building.

Arts and Industries Building (\$250,000) - The Arts and Industries Building (A&I) houses four major exhibition halls. It also houses essential program and administrative activities on the Mall, including some requiring public access, such as the Offices of Public Affairs, Museum Programs, and Elementary and Secondary Education. Other central support organizations located in this building include the Offices of Protection Services, Information Resource Management, and Planning and Budget. There is an immediate and continuing need to renovate space to offer more functional work areas for current administrative and program requirements. The Institution has used funds provided through FY 1992 and will use similar funding expected in FY 1993 to continue renovation of space and acquisition of modular furniture to increase future flexibility. For FY 1994, the Smithsonian requests \$250,000 to modify additional space in the building. Funding for this ongoing project will support the Institution's efforts to use staff space in the Arts and Industries Building efficiently.

Natural History Building (\$200,000) - The Institution requests \$200,000 in FY 1994 for demolition of Halls 9 and 10, which currently house the North American Indian exhibit. The exhibit is very old and does not reflect contemporary scholarship and understanding about Native American peoples and their cultures. The Museum will use its base resources in the Salaries and Expense account to reconstruct the exhibit as part of its long term goal to revitalize exhibits. Funding of this project will allow this work to proceed.

Garber Facility (\$600,000) - The Smithsonian requests funding in FY 1994 for two projects to improve storage conditions at the Paul E. Garber Facility: renovation of Building 17, and construction of temporary storage space for Air and Space collections.

Building 17 at the Paul E. Garber Facility in Suitland, Maryland, provides critical collection storage for the National Museum of American History. The artifacts stored in the building do not require precisely controlled climatic conditions. The building, however, needs some modifications to ensure secure storage in a relatively stable environment. Moreover, the building's asbestos insulation has contaminated the objects stored there. The artifacts must be decontaminated and the asbestos removed from the building. The Institution used \$325,000 provided in FY 1990 for planning and contract document preparation. The Institution will use \$150,000 expected in FY 1993 to construct a decontamination chamber outside the building, where Museum staff (requested in the Salaries and Expenses portion of this budget) will clean asbestos from the artifacts. Funds requested in the Repair and Restoration of Buildings account will relocate the artifacts and remove the asbestos from the building itself. The

Institution requests \$200,000 in FY 1994 to begin the modifications. The proposed work involves repairing and insulating walls and roof, upgrading electrical wiring and fixtures, and installing new space heaters and smoke detection and sprinkler systems. Funding of this project will improve the storage conditions of the Museum's collections and allow access by staff and scholars to artifacts now contaminated by asbestos.

Over the next several years, the Institution will complete a number of comprehensive repairs to buildings at the Paul E. Garber Facility. These repairs are essential to correct accessibility and life safety deficiencies and to ensure continued operation of the buildings over the next ten years of expected use by the Institution. Some of these repairs, however, cannot be accomplished while the artifacts are in the buildings and the Institution does not have temporary space for them. The Smithsonian requests \$400,000 in FY 1994 to construct a 5,000-square-foot pre-engineered building to serve as temporary storage space. The building will include heating, ventilation, air conditioning, and lighting as well as appropriate security and fire protection systems. Funding of this project will allow necessary repairs to existing buildings to go forward.

Smithsonian Astrophysical Observatory (\$230,000) - For FY 1994, the Institution requests funding for installation of a fiber optic network for the Cambridge, Massachusetts, headquarters, and for miscellaneous modification projects at all Smithsonian Astrophysical Observatory (SAO) locations.

The data-processing network used by researchers at SAO's Cambridge facilities is based on copper wire interconnections. The ability of the existing system to move large amounts of data is rapidly nearing maximum capacity, while the amount of data produced by experiments continues to grow. Effective processing of the information requires increased capacity. The Institution requests \$100,000 in FY 1994 to replace the existing copper wire system with a technologically advanced fiber optic network linking individual workstations. Installation of this network will increase the speed of data transmission, make data handling more efficient, and lower overall processing costs by reducing transmitting time.

The Institution also requests \$130,000 in FY 1994 to provide funding for necessary but unanticipated modification projects at all SAO locations. Examples of these projects are local engineering design assistance for small programmatic renovations, laboratory space conditioning, upgrading of voice and data transmission systems, and material handling and storage modifications at telescope facilities. With funding in this category, SAO can continue to provide appropriate space for its research programs.

Smithsonian Environmental Research Center (\$710,000) - For FY 1994, the Institution requests funding to continue expansion of the Mathias Laboratory to consolidate its programs at the Rhode River site, and to complete construction of a new visitor center at the Smithsonian Environmental Research Center (SERC) in Edgewater, Maryland.

Beginning in FY 1991, the Institution received funding in the Construction account to add a series of four laboratory modules that will connect the new wing of the Mathias Laboratory to the renovated library. These four modules are needed to provide critically needed laboratory and support space for several of SERC's research programs, including the solar radiation/photobiology and estuarine ecology/parasitology and global change groups. Funds appropriated (\$450,000) will complete the design of the modules and related support space and construct one module. \$600,000 anticipated in FY 1993 will provide funding to construct a second module. This phase of the project will include construction of necessary utilities and support space, such as a walk-in cold room, laboratory equipment room, and janitor closet to serve this and future modules. The Institution requests \$660,000 in FY 1994 for construction of a third laboratory module. Funds to construct the fourth module will be requested in FY 1995.

SERC presently conducts a series of very popular and informative educational activities on the shoreline of the Rhode River. Currently, only an old house trailer is available to provide public rest rooms, offices for docents, and storage for program materials. SERC plans to use \$250,000 expected in FY 1993 and a private donation in the same amount to construct a 2,800-square-foot building to receive, orient, and support visitors to ongoing and developing public programs. The Institution requests \$50,000 in FY 1994 to complete the project. Funding of the request will improve SERC's ability to explain to the public the important scientific and conservation issues surrounding the Chesapeake Bay region.

Smithsonian Institution Building (\$100,000) - The Smithsonian Institution Building houses the Office of the Secretary and other senior management of the Institution. Recent and continuing changes in staff organization require minor modifications to the building to provide the necessary support facilities for staff activities. The Institution began alterations to staff offices with funds received in FY 1991 (\$100,000). Along with funds appropriated in FY 1992 (\$50,000) and expected in FY 1993 (\$70,000), the Institution will use the funds requested for FY 1994 (\$100,000) to continue this work, thereby ensuring the efficient operation of these key offices.

Smithsonian Institution Libraries (\$500,000) - The Smithsonian Institution Libraries (SIL) provides a vital resource for the research and public programs of the Institution. SIL's holdings include an extensive collection of rare books in the natural sciences and related areas. The present rare book storage area in the Arts and Industries Building is completely filled and awkward to service due to its location away from research users. The Institution requests \$500,000 in FY 1994 to renovate space in the Natural History Building made available by construction of the East Court Building to house the rare book collection. Work includes interior modifications and design, fabrication and installation of compact shelving, and purchase of special library furnishings. This new facility will protect rare books valued at several million dollars and make them more accessible to scholars.

Smithsonian Tropical Research Institute (\$1,550,000) - The Institution requests funding in FY 1994 for two projects at the Smithsonian Tropical Research Institute (STRI) in Panama: installation of a prefabricated building to serve as a maintenance shop, and renovation of the space in the Naos Laboratory building now occupied by the present maintenance shop.

The final major project outlined in STRI's Facilities Master Plan is construction of a new maintenance facility at the Tivoli site in Panama City. With the construction of new facilities, STRI has more than doubled its previous square footage. A new, modern maintenance facility will allow adequate levels of maintenance support for STRI's physical plant and its fleet of vehicles and boats. The current maintenance shop, which serves all STRI sites throughout the Isthmus, is located on the ground floor of Building 359 on Naos Island, Fort Amador. Marine research laboratories and offices are located directly above the shop. High noise levels, vibration, dust, and traffic associated with normal shop operations are disruptive to sensitive experiments. Extra loads on the electrical power in the shop have occasionally caused computer malfunctions in the laboratories upstairs. The distance from STRI's main center of operations, at Tivoli, and from commercial suppliers is also a significant obstacle to efficiency. STRI must transport shop personnel, supplies, and materials to the site daily. The remote location delays response to emergency situations, especially during nonduty hours, as public transportation is not available. The Institution requests \$850,000 in FY 1994 to purchase and install a prefabricated building to house the maintenance facilities at a site near the newly completed Tupper Laboratory and Conference Center. Because of its central location and proximity to suppliers, the Tivoli site is more appropriate for this operation than the current shop at Naos Island.

STRI is the world's premier center for basic research in tropical biology. Since space adjacent to the ocean is limited, the space in Building 359 at Naos, now occupied by the maintenance shop, is needed as laboratory space for the expanded Marine Sciences Research Program, including the recently approved program in molecular biology. The Institution requests \$700,000 to construct a mezzanine and convert the ground floor into laboratories and offices. The requested resources will allow important marine research programs to continue.

Alterations and Modifications Planning and Design (\$570,000) - For FY 1994, the Smithsonian requests \$570,000 to plan and design future Minor Construction, Alterations, and Modifications projects. As in other categories of construction activities, such as Major Construction and Repair and Restoration of Buildings, planning is essential for an effective facilities management program. The requested resources will allow the Institution to assess future requirements for changes to existing facilities to accommodate programmatic growth and changes in program direction. Planning studies will include evaluation of space requirements and engineering analyses. Staff also will prepare concept designs for buildings and sites and estimate total project costs. Careful research and early design of future needs will result in more accurate cost estimates in advance of budget requests and more timely obligation of construction funds once received.









**FY 1994 SALARIES AND EXPENSES  
INFRASTRUCTURE INCREASES  
(\$000'S)**

Bureau/ Office	Description of Increase	FTE	Amount
<b><u>SPECIALIZED AND TECHNICAL STAFF AND SUPPORT COSTS:</u></b>			
SAO	Operation of Advanced X-Ray Astrophysics Facility Science Center	2	196
STRI	Support of Research Vessel Operations	0	552
NPG	Curatorial Support Staff	2	56
AAA	Improvement of Cataloguing and Research Services	2	91
CHM	Base Operating Support Staff	1	57
AM	Expansion of the Research/Curatorial Program	1	67
CFPCS	Infrastructural Production Costs for the Festival of American Folklife	0	250
<i>Subtotal, Specialized and Technical Staff and Support Costs</i>		<i>8</i>	<i>1,269</i>
<b><u>INFORMATION SYSTEMS:</u></b>			
OAS/S	Institutional Memberships in Internet, RILIN, and CNI	1	300
NMNH	Improvement of the Collections and Research Information System	0	300
OD	Maintenance of an Institution-wide Constituency Information System	0	44
OIRM	Replacement and Reutilization of Personal Computers	0	600
<i>Subtotal, Information Systems</i>		<i>1</i>	<i>1,244</i>
<b><u>MANAGEMENT CONTROLS AND AUDIT DEFICIENCIES:</u></b>			
OASAH	Expansion of Accessibility Program Services	0	61
<i>Subtotal, Management Controls and Audit Deficiencies</i>		<i>0</i>	<i>61</i>
<b><u>FACILITIES MAINTENANCE DEFICIENCIES:</u></b>			
NZP	Support of Facilities Maintenance for New Exhibits	5	249
NMNH	Establishment of Evolutionary Systematics Greenhouse Facility	2	150
NMNH	Expansion of Facilities Planning and Coordination	3	194
NASM	Replacement of Carpeting and Equipment	0	150
NMAH	Improvement of Building Management and Safety	0	73
AA&PG	Improvement of Facilities Management	2	44
AA&PG	Replacement of Museum Furnishings	0	165
HMSG	Refurbishment of Exhibition Galleries and Public Spaces	0	150
HMSG	Replacement of Equipment in Conservation and Photographic Labs	0	60
FGA	Extension of Freer Building Management Services	1	52
CHM	Expansion of Critical Base Operating Support for Buildings and Grounds	0	50
CFPCS	Installation of Security and Telephone Systems	0	100
OPLANTS	Fill Vacancies/Purchase Supplies/Materials	0	750
<i>Subtotal, Facilities Maintenance Deficiencies</i>		<i>13</i>	<i>2,187</i>

**FY 1994 SALARIES AND EXPENSES  
INFRASTRUCTURE INCREASES  
(\$000'S)**

Bureau/ Office	Description of Increase	FTE	Amount
<b><u>HEALTH/SAFETY OF STAFF/VISITORS (INCLUDING ASBESTOS CLEANUP):</u></b>			
STRJ	Establishment of an Occupational Safety and Health Program	2	137
NZP	Correct Audit Deficiencies in Fire Protection	1	119
NMNH	Expansion of the Safety Management Program	2	242
MSC	Accelerate Asbestos Decontamination	6	275
NMAH	Completion of Asbestos Removal	0	100
AA&PG	Base Funds for a Safety Program	0	100
<i>Subtotal, Health/Safety of Staff/Visitors (Including Asbestos Cleanup)</i>		<i>11</i>	<i>973</i>
<b><u>COLLECTIONS MANAGEMENT:</u></b>			
MSC	Accelerate Move of Objects	0	1,052
NASM	Strengthening of Collections Management	1	150
CHM	Move and Storage of Collections	0	200
CHM	Base Operating Support Staff	1	57
NMAfA	Improvement of Collections Accessibility and Management	1	36
AM	Improvement of Collections Management	1	38
CFPCS	Improvement of Curatorial Services for Folkways Archives	1	64
<i>Subtotal, Collections Management</i>		<i>5</i>	<i>1,597</i>
<b><u>MAJOR SCIENTIFIC INSTRUMENTATION:</u></b>			
MSI/SAO	Staff Support for the Submillimeter Telescope Array	3	208
MSI	Construction of Submillimeter Telescope Array	0	550
MSI	Instrumentation for the Converted MMT	0	400
<i>Subtotal, Major Scientific Instrumentation</i>		<i>3</i>	<i>1,158</i>
<b>TOTAL, INFRASTRUCTURE</b>		<b>41</b>	<b>8,489</b>

**FY 1994 SALARIES AND EXPENSES  
PROGRAM INITIATIVE INCREASES  
(\$000'S)**

Bureau/ Office	Description of Increase	FTE	Amount
<b><u>EDUCATION:</u></b>			
OFG	Establish Programs to Improve Science Literacy	1	52
SAO	Improvement of the Science Literacy Program	2	113
NMNH	Expansion of Natural Science Education Programs	2	128
NASM	Expansion of Cultural Diversity in Education Programs	1	75
NMAH	Expansion of Education Programs	3	146
NMAA	Establishment of a Nationwide Educational Program	2	126
CHM	Base Operating Support Staff	3	119
NMAfA	Strengthening of the Education Program	1	44
AM	Expansion of the Education Program	2	105
OESE	Expansion of Professional Development for Teachers	2	147
<b><i>Subtotal, Education</i></b>		<b>19</b>	<b>1,055</b>
<b><u>GLOBAL CHANGE:</u></b>			
OFG	Establishment of the Molecular Evolution Fellowships	0	100
STRI	Strengthening of the Molecular Evolution Research Program	5	450
NMNH	Strengthening of Global Change, Earth History Research Program	0	350
NMNH	Strengthening of Global Change, Biodiversity Research Program	0	350
MAB	Expansion of the Smithsonian Institution/Man and the Biosphere Program	0	50
<b><i>Subtotal, Global Change</i></b>		<b>5</b>	<b>1,300</b>
<b><u>CULTURAL PLURALISM:</u></b>			
STRI	Establishment of a Human Ecology Program	2	150
NZP	Cultural and Ethnic Diversity in Professional Staff	3	300
SIL	Postgraduate Residency for Minorities in Library Information Sciences	0	42
NMNH	Collaborative Research Project Studying Cultural Diversity in Africa	2	200
OASAH	Expansion of the African American Institutional Study Program	3	200
OMP	Establishment of a Museum Internship Cooperative Program	2	200
NASM	Expansion of the Upward Mobility Program	2	80
NMAH	Strengthening of Cultural Pluralism Efforts	4	160
NMAA	Strengthening Cultural Pluralism Initiatives	1	52
AM	Implementation of the Anacostia Museum Partnership Program	0	50
CFPCS	Establishment of a Cultures of the Americas Program	2	210
IA	Establishment of the Institute of the Americas	2	300
OPA	Expansion of Outreach to Asian-American Audiences	1	63
<b><i>Subtotal, Cultural Pluralism</i></b>		<b>24</b>	<b>2,007</b>
<b>TOTAL, PROGRAM INITIATIVES</b>		<b>48</b>	<b>4,362</b>

**Smithsonian Institution  
Museum Programs and Related Research  
(Special Foreign Currency Program)**

**PROGRAM OF GRANTS FOR RESEARCH**

The Smithsonian Institution, through its Special Foreign Currency Program, makes grants to United States universities, museums, and other institutions of higher learning, including the Smithsonian itself, primarily for research and advanced professional training in fields of traditional Smithsonian competence.

Excess currencies appropriations directly funded the Program through FY 1986. Outlays from the budget authority appropriated through FY 1986, including the Forward-Funded Reserve for the American Institute of Indian Studies, will continue through the 1990s. In addition, since FY 1986 the Smithsonian has received allocations of U.S.-owned Indian rupees from the funds appropriated to the Department of State in FY 1985 for the establishment of the U.S.-India Fund for Educational, Cultural, and Scientific Cooperation. (OMB Bulletin 92-02 issued on November 16, 1991, indicates that for FY 1992 and FY 1993 no supplies of currency are in excess of the U.S. Government's normal requirements.)

For the past 26 years, the Special Foreign Currency Program has been a major source of support for research carried out by United States institutions in those countries for which excess foreign currencies are available. The full responsibility for the design, execution, and publication of research results rests with a scholar working within the program of a United States institution. Smithsonian foreign currency grants strengthen the fundamental research and training activities of collaborating institutions abroad, since most projects directly involve host country institutions and scholars. Enduring professional ties, which result from joint efforts and scholarly exchange, contribute to the strongest form of United States cultural relations with other nations. These ties also contribute to the global integration of research data in the sciences. As a result of this interaction, the gap between industrial and developing nations' scholars has narrowed. Moreover, research sponsored by the Program aims, in part, at improving understanding of the environment and the management and conservation of scarce natural and cultural resources that are threatened by the rapid growth of world population and technological development.

In FY 1992, ongoing research supported by these grants included the following projects of special interest:

- archeological and geomorphic studies at Harappa in Pakistan that are enhanced with studies of present-day traditional bead makers in Khambhat, India;
- the development of analytic models for the propagation of radio jets to determine the nature of giant radio galaxies;

- studies of urban leadership in the context of India's modernization;
- documentation of Mughal gardens of Pakistan that provides not only heretofore unknown scholarly information but lays the foundation for the authentic restoration of these important sites;
- studies of the beliefs and rituals of the Islamic celebration of Shia Muharram that use art and architecture for interpretation.

Further, with emphasis on the exchange of information through small workshops, symposia, and field conferences, the Program encourages international research in specialized areas. In FY 1992, for example, U.S. scholars received support for participation in exchanges on the subjects of Rajasthani studies, solar radio astronomy, and the history of science and information technology.

### FORWARD-FUNDED RESERVE FOR THE AMERICAN INSTITUTE OF INDIAN STUDIES

Since 1967, the Smithsonian has provided annual funding through the Special Foreign Currency Program to the American Institute of Indian Studies (AIIS) for its fellowships, research, symposia, and publications programs, as well as its administrative costs. The Smithsonian has helped sustain this Institute and other American research centers abroad for the last 25 years because of their significant contributions to scholarship and science without regard for national boundaries and because of their special service to American scholars.

With Special Foreign Currency Program funding received from FY 1980 through FY 1985, the Smithsonian established a forward-funded reserve of \$7,170,000 equivalent in rupees. This reserve enabled the AIIS to sustain its programs after the removal of India from the excess currency list in 1985. Since FY 1986, AIIS, with oversight from the Smithsonian, has drawn upon the funds from this reserve for its fellowship program and administrative costs in India. The Institution continues to examine annual proposals through its peer review system before releasing funds from the reserve account to AIIS. The reserve should support AIIS programs through the 1990s in conjunction with continued support from the U.S.-India Fund. In 1990, the U.S. Congress authorized the deposit of the reserve in interest-bearing (rupee) accounts, a plan that will help to continue the viability of the fund for many years.

### U.S.-INDIA FUND FOR EDUCATIONAL, CULTURAL AND SCIENTIFIC COOPERATION

In FY 1985, Congress appropriated \$100 million equivalent in U.S.-owned Indian rupees to the Department of State to establish the U.S.-India Fund for Educational, Cultural, and Scientific Cooperation. Since FY 1986, the Smithsonian has received allocations from this fund

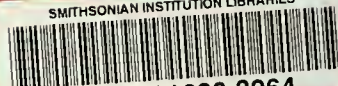
to continue programs in India similar to those administered under the Special Foreign Currency Program, which would otherwise have ended when India lost excess currency status in 1985. The Institution has received a total of \$12.4 million from FY 1986 through FY 1992 and expects to receive \$1.6 million in FY 1993 through the U.S.-India Fund. Based on current usage, the fund will be totally liquidated by 1997.

**U.S.-INDIA FUND SUMMARY**  
(millions)

<u>Fiscal Year</u>	<u>Funding Received</u>	<u>Funding Anticipated</u>
1986	\$1.40	--
1987	1.50	--
1988	1.80	--
1989	1.75	--
1990	2.50	--
1991	1.85	--
1992	1.60	--
1993	<u>--</u>	<u>\$1.60</u>
<b>TOTAL</b>	<b>\$12.40</b>	<b>\$1.60</b>



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