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DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1987

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

SECOND SESSION

SUBCOMMITTEE ON THE DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES

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Printed for the use of the Committee on Appropriations

FRIDAY, MARCH 21, 1986.

SMITHSONIAN INSTITUTION

WITNESSES

ROBERT McC. ADAMS, SECRETARY
DEAN ANDERSON, UNDER SECRETARY
DAVID CHALLINOR, ASSISTANT SECRETARY FOR RESEARCH
TOM L. FREUDENHEIM, ASSISTANT SECRETARY FOR MUSEUMS
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OPENING STATEMENT

Mr. MURTHA. The committee will come to order.

The chairman will be here shortly. He got tied up this morning.
Welcome, Secretary Adams.

We will give you an opportunity to summarize your comments.
The biography of Mr. Freudenheim will go in the record, since it is
the first time that he has appeared before the committee. Your
entire statement will go in the record, along with the Institution's
Gramm-Rudman-Hollings Implementation Plan.

[The biography and statement of Mr. Freudenheim follow:]

Biography of Tom L. Freudenheim

Tom L. Freudenheim, an art historian and museum administrator, became Assistant Secretary for Museums of the Smithsonian Institution in 1986, after serving for over three years as Director of the Worcester Art Museum. Prior to that time, he was Director of the Museum Program at the National Endowment for the Arts in Washington. There he administered the major grant-funding system for America's art museums, having previously served the agency as a grants panelist. His NEA service broadened his perspective and understanding of the museum field.

As Director of The Baltimore Museum of Art from 1971 through 1978, he led the museum into a greater level of community involvement, and developed its important contemporary art, decorative art and textile exhibition programs. He also initiated its successful \$20 million campaign for the recently completed renovation and expansion program. Under his direction, the museum began to play a leading role in Baltimore's recent and acclaimed civic revival.

Prior to his service in Baltimore, Mr. Freudenheim served for five years as Assistant Director of the University Art Museum, University of California, Berkeley, where he helped with its establishment and worked closely with the architects to develop plans for its new building. From 1962 to 1965, Mr. Freudenheim was first Assistant Curator, then Curator, of The Jewish Museum in New York.

He has written numerous articles and catalogues ranging from Islamic art through the decorative arts, modern art, and museums. He edited the guide to American art museums that was published by Macmillan in 1983. He has been awarded several State Department grants for travel abroad and under those auspices, has lectured at Leningrad's Hermitage Museum, the Pushkin Museum in Moscow, and at major universities and museums in Romania, Czechoslovakia, and Japan.

He is a member of the American Association of Museums, which he has served several times chairing Visiting Committees for museum accreditation. He has also appeared before colleagues at various annual meetings of the AAM and the College Art Association as a panelist and speaker. Other boards on which he serves include the Art Museum Association of America, the American Federation of Arts, and the Harvard Pierian Foundation. He has also been a member of the Association of Art Museum Directors (Secretary, 1976-77).

Mr. Freudenheim has also lectured widely on the various relationships between art and the Jewish tradition. He is a board member of The Jewish Publication Society of America and the National Foundation for Jewish Culture.

Mr. Freudenheim was born in Stuttgart, Germany, and was brought up in Buffalo, New York. He received his undergraduate degree from Harvard College, where he is currently a member of the Senior Common Room of Mather House, and his M.A. from New York University's Institute of Fine Arts. He has also studied at Hebrew Union College-Jewish Institute of Religion (Cincinnati) and the University of California, Berkeley. He has been awarded an honorary Doctor of Fine Arts degree from the University of Maryland. In 1982 he was invited to present the Walter W.S. Cook Alumni Lecture at the Institute of Fine Arts.

He lives in Washington with his wife Leslie, an architectural historian, writer, and lecturer, and their two sons, Alexander and Adam.

STATEMENT OF ROBERT McC. ADAMS, SECRETARY

SMITHSONIAN INSTITUTION

ON APPROPRIATIONS REQUESTED FOR FY 1987

Mr. Chairman and Members of the Subcommittee,

When I appeared for the first time before the Subcommittee a year ago I spoke of the strengths of the Smithsonian in defense of a budget request for Fiscal Year 1986 that, although nearly \$13 million above the FY 1985 level, was nonetheless carefully honed and deliberately focused. Designed to build on our strengths, the request embodied three important objectives of the priority of Institutional commitments: effective program operations, staffing and operation of two major new entities, the Museum Support Center and the Quadrangle, and improved research support.

Today I would share with you not only the Institution's aspirations for our FY 1987 request, but also the crucial importance of a regular appropriation. I do so in an atmosphere of extraordinary budgetary change and uncertainty, the implications of which are, perhaps, as disquieting to you as they are to me and my colleagues. Unchanged, however, are our objectives, which not only were unmet by the FY 1986 process, but were substantially diminished by it; a brief review of that process is illuminating.

A separate document submitted to the Subcommittee describes the details and the effects of the required Gramm-Rudman-Hollings reductions across the five Smithsonian appropriation accounts, as well as some forty line items in the Salaries and Expenses Account. It is sufficient here to state that those reductions were the latest in a series of retrenchments that included the .6 percent base reduction in the Continuing Resolution and earlier reductions by the Subcommittee and its Senate counterpart. The net effect has been that as of March 1, 1986 the Smithsonian had sustained reductions totaling more than \$20,000,000 from the request that had gone to Congress slightly more than a year earlier.

In the Salaries and Expenses Account for Fiscal Year 1986 the reductions exceed \$16,000,000, leaving an amount that is just over \$5,000,000 more than was provided for Fiscal Year 1985. Certainly we are grateful for it, but would note that it is about \$1,700,000 less than we had requested solely for uncontrollable increases such as legislated pay increases, utility costs, and the like.

The prospects for further cuts can only be viewed as chilling, for that would be their effect on the lifeblood of the Smithsonian. Automatic, mindless, across-the-board reductions for Fiscal Year 1987 in the range of 8.4%, as the Congressional Budget Office recently has suggested, against our already tattered FY 1986 base, would eliminate another \$16,000,000.

We have not explored the details of that application, but we remain dedicated to the principle that the Institution must preserve its core functions for research and for the care and conservation of the national collections and the structures that house them. At the same time, we also have important responsibilities for broad public and outreach services. It is not possible to say at this point what we would do, but it is certain that we would have to reduce hours of operation, perhaps to the point of closing museums one or two days a week; possibly eliminate whole programs; and generally furlough or otherwise reduce our staff. While staff costs constitute approximately 65% of our current budget and may seem an easy target, it is important to remember that the collections are of little value to the Nation unless they are housed, cared for, conserved, studied, documented, managed, exhibited, interpreted, and guarded by the people who are the Institution's most important resource.

A century and a half ago, on July 1, 1836, the Nation pledged its faith to the execution of the will of James Smithson for "...the purpose of founding and endowing at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men..." In a report that accompanied the legislation - and probably was written by John Quincy Adams - the House Committee stated that in accepting Mr. Smithson's bequest the Congress would

"...feel in all its power and plenitude the obligation of responding to the confidence reposed by him, with all the fidelity, disinterestedness and perseverance of exertion which may carry into effective execution the noble purpose..."

Mr. Chairman, that noble vision and the faith of the Nation have created and sustained a great Institution, but it is an Institution in need of sesquicentennial plenitude if it is to endure and continue to fulfill its noble purpose. I urge that an appropriate option exists in the form of our budget request for Fiscal Year 1987.

We recognize that in the present environment the Smithsonian request is anomalous. Its approval would, in effect, entail reappropriating the Fiscal Year 1986 Gramm-Rudman-Hollings reductions and provide a modest increase. This increased funding would be mainly for inflation-related items, Museum Support Center and Quadrangle operations, commemorative events of a national nature, and research support, the same objectives and commitments we had a year ago. Although the total request is nearly \$24 million above the current FY 1986 base, it is less than \$4,000,000 - only 1 1/2% - above our original FY 1986 request to Congress.

With regard to the specifics of our FY 1987 budget request, they include \$190.1 million for Salaries and Expenses, \$12.8 million for Restoration & Renovation of Buildings, \$4.9 million for Zoo construction, \$4.0 million for Quadrangle construction, and \$3.5 million for construction of a laboratory and conference center at the Smithsonian Tropical Research Institute in Panama. No funding is requested for the Special Foreign Currency Program for FY 1987.

Quadrangle

Our FY 1987 budget request provides critical funding for completing construction and developing programs for the Quadrangle complex. The final increment of funding for Quadrangle construction will provide for the construction of the public and staff facilities that will connect the Quadrangle building and the Freer Gallery of Art, as well as additional funding for equipment, construction management, and contingency costs. The Institution expects

to take beneficial occupancy of the 3rd level next month and the staff areas of the upper two floors about a month later. Work on exhibition space and the garden will continue into late summer.

In the Salaries and Expenses request, increases totaling \$4.2 million are sought to provide the staffing and program support essential to meet the scheduled public opening of the Quadrangle complex in mid-1987 and full operation of the facilities, including the annualization of the partial year funding of the positions approved in the FY 1986 budget for Quadrangle support. Of the total increase, a sum of \$934,000 is requested for the Sackler Gallery, \$638,000 for the National Museum of African Art; and \$ 2.0 million for security, building management, administration facility maintenance and operating support. A further amount of \$632,000 is requested for Quadrangle-related programs and support for the International Center, SI Libraries, Office of Exhibits Central, Traveling Exhibition Service, and Office of Public Affairs. If approved, the total federal operating budget for activities in the Quadrangle will be \$11.6 million in FY 1987. Trust funded activities will amount to about \$25.5 million.

Our plans for the public opening of the museums and programs in the Quadrangle complex call for a series of events and activities during May and June of 1987. There will be major inaugural exhibitions at the Sackler Gallery, the National Museum of African Art, and the International Center, along with a wide range of public events and other activities to mark the occasion, including three lectures series to coincide with the opening of the Sackler Gallery, the National Museum of African Art, and the International Center. At the Sackler Gallery, the collection of objects donated by Dr. Arthur M. Sackler will be displayed, with other major objects from his private collection on loan. The National Museum of African Art will present three important exhibitions: "African Art and the Cycle of Life," "African Textiles," and "African Art from the Permanent Collection." In the International Gallery, the exhibition "Generations: Birth Rituals and the Roots of Becoming" will provide a multi-disciplinary, multi-cultural investigation of the art and rituals associated with birth from ancient times to the present.

Research

The Smithsonian, by virtue of its staff, collections, data bases, and research facilities, is an unique international resource in basic research. Complementing industrial, Federal and university research, the Smithsonian's long-term research activities provide critical continuity to the Nation's research efforts in a number of disciplines. Expanded support for research has been identified as a major priority for the Institution over the next several years. In the FY 1987 budget, an increase of \$1.0 million is requested to augment the Smithsonian's current research capabilities in tropical biology, astrophysics, and art. An amount of \$330,000 is requested for the National Museum of Natural History to study biological diversity in the arc surrounding the Amazon Basin. The Smithsonian Astrophysical Observatory requests \$150,000 to initiate instrument development in the new field of submillimeter astronomy in order to maintain SAO's pioneering leadership in astrophysical research during the 1990s. A requested increase of \$345,000 for the Smithsonian Tropical Research Institute will permit the expansion of its ongoing research in tropical forest biology. Increases totaling \$175,000 are requested for the National Museum of American Art, the Hirshhorn Museum and Sculpture Garden, the Archives of American Art, and the Cooper-Hewitt Museum to reinforce the research programs related to their collections.

The FY 1987 budget also provides for the upgrading of research facilities. A sum of \$3.5 million in construction funding is requested to build a laboratory and conference center at the Smithsonian Tropical Research Institute in Panama; an additional amount of \$4.0 million has been provided by a donation from the family of the late Earl S. Tupper. In addition, the Restoration and Renovation of Buildings request for FY 1987 includes funding for important support facilities at STRI. The Zoo Construction request provides funding for the renovation of the old hospital and research building at Rock Creek.

The Smithsonian's Special Foreign Currency Program supports research conducted by United States institutions in excess currency countries. No further funding has been requested in FY 1987; funding provided in FY 1986 will be used to continue the program of grants to United States universities, museums, and other institutions of higher learning, primarily for research and advanced professional training in fields of traditional Smithsonian competence. Since the inception of the program in FY 1966, Special Foreign Currency grants have been made to 247 United States institutions to support more than 850 individual projects. Publications resulting from program grants total more than 1,450 to date.

Bicentennial of the Constitution

The year 1987 will mark a very significant milestone in the history of the United States -- the 200th anniversary of the signing of the U.S. Constitution. In order to observe this occasion appropriately and to commemorate not only the events of 1787 but also the events that have shaped the United States during the past 200 years, several Smithsonian museums and programs will present special exhibitions and public programs during 1987 and 1988. The National Museum of American History will mount a special exhibition, "The Japanese American Experience in World War II," as the centerpoint for an exposition on the Constitution as a living and unfolding document. The National Portrait Gallery will research and develop an exhibition on "Portraits of Distinguished Jurists," featuring a selection of the most historically enlightening portraits of individuals who have been pivotal interpreters and shapers of our legal institutions. The Office of Smithsonian Symposia and Seminars will sponsor a symposium on "Constitutional Roots, Rights and Responsibilities," in May 1987 and the Office of Elementary and Secondary Education will support a three-part program to highlight the meaning of the 200th anniversary of the U.S. Constitution and the Bill of Rights for elementary and high school students. An increase of \$376,000 is requested in FY 1987 for these exhibitions and public programs.

Columbus Quincentenary

Another significant international anniversary will be commemorated just a few short years from now -- the 500th anniversary of the landing of Christopher Columbus in the Americas. The Columbus Quincentenary will act as a catalyst for the discussion, investigation, and reinterpretation of the cultural interactions that have occurred in the Western Hemisphere between Native Americans and Europeans from 1492 to the present. The Quincentenary celebration will offer an opportunity to encourage public and scholarly consideration of the significance of Columbus' voyage and to promote better understanding of the Americas as a geographical entity with shared historical roots and concern for future life in this hemisphere.

The Smithsonian will undertake a wide range of programs, exhibitions, and research projects related to the Columbus Quincentenary that synthesize disciplinary perspectives through the reexamination of the history and development of the "New World." The development of these Quincentenary programs will be coordinated throughout the Institution and will be presented in accordance with an Institutional theme entitled, "Quincentenary: The Americas 1492-1992--Exploration of the Past - Encounter with the Present - Discovery of the Future." For FY 1987, initial funding of \$245,000 for the planning and research of these programs is requested.

MSC Equipping & Move

The Museum Support Center, located in Suitland, Maryland, provides the Smithsonian with a state-of-the-art facility for the storage, conservation, and study of museum collections. The move of Smithsonian collections to the MSC, a move unprecedented in the museum community in terms of volume, characteristics, and variety of collections, is scheduled to continue through fiscal year 1991. As a result of the reevaluation undertaken last year to solve the problems that developed with the initial design for the collections storage equipment, the installation of equipment in the storage "pods" will continue in FY 1987 with the construction of new concrete decks and the purchase of premanufactured storage cabinets. A total of \$4.6 million, an increase of \$1.3 million over the FY 1986 base, is required to continue the purchase and installation of collections storage equipment for the Museum Support Center. In addition, funding of \$712,000 (an increase of \$150,000 over the FY 1986 base) will be needed in FY 1987 to continue preparation and transfer of the collections to the MSC.

Uncontrollable Costs

An amount of \$4.5 million is required for the increased costs of current staff, utilities, postage, communications, and space rental in FY 1987. In addition, a sum of \$1.6 million is requested to compensate for the effects of inflation in other nonsalary areas of expense.

Zoo Construction

For FY 1987, funding of \$4.9 million is requested for construction and improvements at the National Zoological Park. The Zoo's facilities include 163 acres in the Rock Creek Valley of Washington, D.C. and a 3,150-acre Conservation and Research Center located in Front Royal, Virginia. The FY 1987 Zoo Construction request will support the renovation of the old hospital and research building at Rock Creek into a modern research facility (\$2.5 million); the second phase of the renovation and improvement of Olmsted Walk (\$600,000); and renovation, repairs, and improvements at Rock Creek (\$1.4 million) and at the Conservation and Research Center (\$351,000).

Restoration and Renovation of Buildings

For FY 1987, funding of \$12.8 million is requested to continue the Institution's important long-term program to maintain, upgrade, and renovate its museum, research, and support facilities. The R&R request for FY 1987 reflects efforts to plan the orderly completion of a number of major initiatives begun in previous years to improve the condition of existing facilities and to provide creative solutions to future facilities' requirements. In addition, funds sought in this budget will continue a wide range of ongoing essential repair and improvement projects.

The R&R funding requested for FY 1987 includes \$2.9 million for repairs to building facades, roofs, and terraces; \$1.2 million for fire detection and suppression systems; and \$1.9 million for repair and improvements to utility systems. Other projects, totaling \$5.7 million, have been proposed as facilities improvements in support of programmatic objectives, the most notable of which include major renovation at the Freer Gallery of Art and construction of facilities in support of research at the Smithsonian Tropical Research Institute in Panama. Finally, an amount of \$1.1 million is requested for general repairs and for improvements in safety and security of collections, staff, and the public; correction of hazardous conditions; and access for the disabled.

Mr. Chairman, as you will understand, long range planning in times such as these is difficult at best. Our guidance from the Office of Management and Budget suggests that we can anticipate funding for future years only in terms of increases for inflation. We have, as you know, a number of construction projects in mind, virtually all of which are being deferred while we study the effects of delay or explore various alternative sources of funding.

SMITHSONIAN INSTITUTIONGRAMM-RUDMAN-HOLLINGS IMPLEMENTATION

The Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99-177) requires spending reductions of 4.3 percent in each of the Institution's appropriation accounts and against each of approximately 40 line items within the Salaries and Expenses account. This amounts to a reduction of \$8.6 million which follows a 2.6 percent base reduction and earlier cuts in funds requested. Thus reductions totaling over \$20 million, as shown in the following table, have been made in the Smithsonian's budget for FY 1986.

(\$000)

<u>Account</u>	<u>FY 1986 Request</u>	<u>FY 1986 Appropriation</u>	<u>Sequestration (4.3 percent)</u>	<u>FY 1986 Reduced Appropriation</u>	<u>Comparison with Request</u>
Salaries & Expenses	\$185,590	\$176,995	\$7,611	\$169,384	(\$16,206)
Special Foreign Cur- rency Program	2,500	2,485	107	2,378	(122)
Construction and Improve- ments, NZP	4,851	5,518	237	5,281	430
Restoration and Renova- tion of Buildings	14,875	11,009	473	10,536	(4,339)
Construction	<u>4,000</u>	<u>3,976</u>	<u>171</u>	<u>3,805</u>	<u>(195)</u>
TOTALS	\$211,816	\$199,983	\$8,599	\$191,384	(\$20,432)

On January 10, 1986, the Office of Management and Budget advised the Smithsonian of the amounts that would be sequestered. Following advice to the Secretary from the Councils of Bureau Directors, Information and Education Directors, and Administrative Officers and from the Management Committee, bureau, office, and program managers were asked to prepare plans describing how they would make the 4.3 percent reduction. Subsequent to the receipt of their plans (over 60 in number) a review process was established with three objectives: (1) to determine that the proposed actions would achieve the required reductions; (2) to see if the plans would result in acceptable degrees of consistency in continuing services, albeit at reduced levels, to the full range of the Smithsonian's constituency from the general public to the scholar; and (3) to look for unacceptable reductions that should be examined further for possible corrections through reprogrammings.

While "tuning" of the reductions will no doubt take place over the balance of the year, bureau and office actions appear to be adequate to achieve the required reductions; the Institution as a whole has maintained a balance of program capability. The Gramm-Rudman-Hollings reductions will slow the progress in important ongoing programs that has been achieved during the past several years, especially in the areas of collections management, research support in the form of replacing and upgrading equipment, and security. These programs, which need to maintain the FY 1984 - FY 1985 level of funding in order to continue the required level of work, are being hurt quite severely by the GRH cut. Reductions have been made with attention to the priority of important commitments that must be made in the immediate future: equipping the Museum Support Center to house and conserve the national collections and preparing to occupy and open the Quadrangle which will house the National Museum of African Art, the Sackler Gallery, and other important education programs. In commenting on these plans the Secretary stated, "In making the necessary budgetary reductions, the Smithsonian sought to minimize the impact on the public while meeting its central responsibilities to conduct research and to maintain the national collections, in art, history and science, held in trust for the American people. The cutbacks will, however, inevitably affect all facets of the Smithsonian's federal operations.

"Although their effects may appear marginal since they are necessarily widely scattered, the impact on the contents of many programs will in fact be substantial. Particularly vulnerable are innovative and experimental activities that we would otherwise be in a position to carry forward. Some of these, unfortunately, are precisely the activities that could contribute most importantly to the Smithsonian's future strength and vitality."

Details of the reductions by S&E line items and other appropriation accounts are shown in the attachment. Within the S&E account, activities related to research are being reduced by \$1.7 million; collections management work by \$1.3 million; exhibitions and other public programs by \$1.2 million; and building and facilities management and general administration by \$3.4 million for a total of \$7.6 million. The steps taken include selective hiring freezes; curtailment of equipment purchases for research and collections management; postponement or cancellation of a number of planned exhibitions; elimination of several free public programs; cutbacks in travel, supplies, and services in a number of units; and a reduction in the Institution's publication program for scholars and the general public. The Institution also found that it is not possible to have extended summer hours in 1986.

Other appropriation accounts include the Special Foreign Currency Program, Construction and Improvements, National Zoological Park, Restoration and Renovation of Buildings, and Construction. Overall, these accounts received appropriations of \$22.9 million with a resulting GRH cut of \$988,000. Of this total, the Special Foreign Currency Program took a reduction of \$107,000 in its program of grants to U.S. institutions. The National Zoological Park will realize its reduction of \$237,000 by eliminating the purchase of equipment and support items for the veterinary hospital now under construction and by scaling back the contract design effort on a proposed aquatic exhibition. Within the Restoration and Renovation of Buildings account, the required reduction of \$473,000 will be obtained by trimming planned work on the replacement of windows in the Castle building, space improvements in the Arts and Industries building, and on master planning efforts. The Construction account absorbed a \$171,000 reduction within the funds planned for equipping and furnishing the Quadrangle complex now under construction on the Mall.

Looking ahead to FY 1987, potential required reductions to the Institution's operating and other accounts could amount to several times those experienced in FY 1986. Further curtailment (or elimination) of Institutional programs and support activities would be certain, and inevitably there would have to be heavy reductions to staff in all areas. This is because the Smithsonian's work is people intensive with some 65 percent of its operating budget allocated to salaries and benefits. It is doubtful that attrition will be able to neutralize potential furloughs or reductions-in-force particularly where whole programs are eliminated.

SMITHSONIAN INSTITUTIONEFFECTS OF THE GRAMM RUDMAN HOLLINGS REDUCTION ON THE FY 1986 PROGRAM

	<u>FY 1986</u> <u>Appropriation /1</u>	<u>G-R-H</u> <u>Reduction</u>
<u>SCIENCE</u>		
<u>Asst. Secretary for Science</u>	589,000	(25,000)
Eliminate two planned hires (\$10,500) and purchase of automation and communications equipment (\$4,500); reduce travel, supplies, and materials and terminate participation in the Wau Ecology Institute in Papua, New Guinea, limiting research access to an important biological station in the tropics (\$10,000).		
<u>National Museum of Natural History</u>	21,179,000	(911,000)
Institute freeze on federal hiring (\$421,100); significantly reduce research equipment replacement (\$100,000); cut back on Caribbean Coral Reef and Global Volcanism and several other small research projects (\$56,900); provide only half the former level of publications support (\$62,700); cut travel and other allotments for departments and other programs by 5% (\$60,300); delay conservation and copying of the Human Studies Film Archives anthropological films (\$100,000); reduce supply budget for the Oceanographic Sorting Center (\$20,000); delay the design for a new marine hall and the completion of the refurbished hall of dinosaurs and other fossils (\$90,000).		
<u>Astrophysical Observatory</u>	8,724,000	(375,000)
Reduce replacement and upgrading of research equipment (\$375,000).		
<u>Tropical Research Institute</u>	3,807,000	(164,000)
Implement a temporary furlough for some employees (\$29,200); reduce replacement of research equipment (\$67,500); reduce publications (\$3,900) and other research support (\$63,400).		
<u>Environmental Research Center</u>	3,535,000	(152,000)
Will not fill two current vacancies in FY 1986 (\$23,600); reduce replacement of research equipment (\$128,400).		

	<u>FY 1986</u> <u>Appropriation /1</u>	<u>G-R-H</u> <u>Reduction</u>
<u>National Air and Space Museum</u>	8,538,000	(367,000)
<p>Will not fill nine current vacancies (\$97,600); reduce research support (\$15,000); cancel purchase of computer equipment for research and records management (\$51,000); reduce videodisc project (\$15,000) and new equipment for the advanced technology projects (\$20,000); delay some collections restoration work at the Garber facility (\$20,000); delay installation of a fire suppression system for 8 mm film and slide projection (\$23,000); cancel several small exhibitions and reduce other exhibition support (\$53,000); reduce number of public information brochures (\$10,000); reduce travel (\$27,400), supplies (\$15,000), and audio-visual support for exhibitions (\$20,000).</p>		
<u>National Zoological Park</u>	<u>11,539,000</u>	<u>(496,000)</u>
<p>Freeze all federal hiring (\$496,000).</p>		
SUBTOTAL, SCIENCE	57,911,000	(2,490,000)
<u>HISTORY AND ART</u>		
<u>Asst. Secretary for History and Art</u>	443,000	(19,000)
<p>Delay hiring (\$6,000) and reduce research support for Joseph Henry Papers (\$4,000); reduce program support for Office of Asst. Secretary (\$9,000).</p>		
<u>National Museum of American History</u>	11,852,000	(510,000)
<p>Continue current hiring freeze, eliminate overtime and merit awards (\$215,000); reduce support for curatorial departments and national collections (\$30,000); cut funding for collections acquisition (\$15,000); eliminate specialized conservation contract work and reduce registrarial services, shipping costs, and purchase of collections storage cabinets (\$49,000); reduce program support for Silver Hill asbestos clean-up (\$40,000); postpone "Engines of Change" exhibition and cancel all temporary exhibitions except "Case-of-the-Month" exhibits (\$66,000); cancel music performances (\$11,000); curtail publications program, eliminate free museum brochures and educational packets (\$20,000); reduce building maintenance, eliminate guard and labor overtime, reduce public affairs support (\$64,000).</p>		

	FY 1986 <u>Appropriation /1</u>	G-R-H <u>Reduction</u>
<u>National Museum of American Art</u>	4,807,000	(207,000)
<p>Cut funding for collections acquisition (\$100,000); cancel Post Office mural exhibition and minor renovations (\$31,300); cancel seminar, symposium, and lecture (\$9,700); eliminate or delay exhibit brochures and publications (\$33,000); cancel purchase of computer equipment and benches for public galleries (\$13,000); reduce building maintenance support (\$20,000).</p>		
<u>National Portrait Gallery</u>	3,601,000	(155,000)
<p>Reduce purchase of research photographs and travel (\$12,000); defer replacement of conservation and photographic equipment (\$11,000); reduce funding for collections acquisition (\$16,000); cancel purchase of collections storage screens (\$35,000); defer Patent Office exhibition (\$30,000); reduce printing of public information and educational brochures (\$4,000); reduce purchase of office equipment, furniture and supplies (\$10,000); eliminate exterior banners and signs (\$17,000); reduce building maintenance support (\$20,000).</p>		
<u>Hirshhorn Museum and Sculpture Garden</u>	3,119,000	(134,000)
<p>Will not fill current vacancies (\$84,000); defer contractual services for exhibition scheduled for 1987 (\$50,000).</p>		
<u>Center for Asian Art</u>	3,078,000	(132,000)
<p>Delay hiring of new staff for Sackler Gallery (\$18,000); cancel purchase of computer equipment (\$6,000) and introduction of the Research Library Information Network computer system in the library (\$15,500); substitute purchase of a less expensive camera instead of a specialized camera for the photography studio (\$1,400); cut Sackler Gallery inaugural exhibition planning (\$52,000); reduce Freer Gallery exhibition costs (\$7,100); eliminate introductory booklet for the Sackler Gallery (\$12,000); delay printing Freer catalogue (\$20,000).</p>		
<u>Archives of American Art</u>	897,000	(39,000)
<p>Lapsed personnel savings (\$21,900); reduce purchase of collections management equipment and printing and reproduction (\$17,100).</p>		

	FY 1986 <u>Appropriation /1</u>	G-R-H <u>Reduction</u>
<u>Cooper-Hewitt Museum</u>	943,000	(40,000)
Defer filling one position and eliminate one position in exhibition design and production (\$29,500); reduce building operating and maintenance costs (\$10,500).		
<u>National Museum of African Art</u>	2,626,000	(113,000)
Simplify design of inaugural exhibition (\$90,000); eliminate free exhibition brochures (\$20,000); reduce travel (\$3,000).		
<u>Anacostia Neighborhood Museum</u>	<u>890,000</u>	<u>(38,000)</u>
Lapsed personnel savings (\$38,000).		
SUBTOTAL, HISTORY & ART	32,256,000	(1,387,000)
<u>PUBLIC SERVICE</u>		
<u>Asst. Secretary for Public Service</u>	1,243,000	(53,000)
Lapsed personnel savings (\$16,100); reduce support and purchase of computers for the Office of Public Affairs (\$16,900); reduce support for VIARC (\$7,000), Office of Telecommunications (\$4,000), and the immediate Office of the Asst. Secy. (\$9,000).		
<u>Smithsonian Institution Press</u>	<u>1,126,000</u>	<u>(48,000)</u>
Delay filling two vacancies and hire at lower level (\$31,000); reduce printing costs (\$15,000); eliminate travel (\$2,000).		
SUBTOTAL, PUBLIC SERVICE	2,369,000	(101,000)
<u>MUSEUM PROGRAMS</u>		
<u>Asst. Secretary for Museum Programs</u>	735,000	(32,000)
Lapsed personnel savings from the Office of Museum Programs and Office of the Asst. Secretary (\$30,300); reduce travel and contractual services for the Office of Museum Programs (\$1,700).		
<u>Office of the Registrar</u>	99,000	(4,000)
Lapsed personnel savings (\$4,000).		

	FY 1986 <u>Appropriation /1</u>	G-R-H <u>Reduction</u>
<u>Conservation Analytical Laboratory</u>	2,033,000	(88,000)
Lapsed personnel savings (\$35,500); cancel equipment purchase (\$10,000); reduce contractual services for the development and implementation of advanced conservation courses and delay the publication of the proceedings of the 1984 International Archaeometry Symposium (\$40,000); reduce travel, supplies and materials (\$2,500).		
<u>Smithsonian Institution Libraries</u>	4,655,000	(200,000)
Reduce funding for retrospective conversion, cataloguing, online document ordering, and other contractual services (\$46,000); cut acquisition of monographs and journals (\$60,000); reduce binding, photocopying, and conservation materials (\$48,000); reduce other supplies, materials, and equipment (\$46,000).		
<u>Office of Exhibits Central</u>	1,613,000	(70,000)
Reduce exhibition support (\$70,000).		
<u>Traveling Exhibition Service</u>	379,000	(16,000)
Defer hirings (\$12,000); reduce workshop supplies (\$4,000).		
<u>Smithsonian Institution Archives</u>	541,000	(23,000)
Lapsed personnel savings (\$18,000); reduce transfer of nitrate film negatives to safety film and reduce training for staff and interns (\$5,000).		
<u>National Museum Act</u>	<u>772,000</u>	<u>(33,000)</u>
Reduce NMA grant funding (\$20,700) and admin. support costs (\$12,300).		
SUBTOTAL, MUSEUM PROGRAMS	10,827,000	(466,000)
<u>DIRECTORATE OF INTERNATIONAL ACTIVITIES</u>	461,000	(20,000)
Postpone development of International Center exhibition-related inaugural public programs (\$10,000); reduce other areas of international activities support services (\$10,000).		
<u>SPECIAL PROGRAMS</u>		
<u>American Studies & Folklife Programs</u>	712,000	(31,000)
Reduce publications projects in Office of Folklife Programs (\$27,000); reduce personnel compensation in Office of American Studies (\$4,000).		

	FY 1986 <u>Appropriation /1</u>	G-R-H <u>Reduction</u>
<u>International Environmental Science Program</u>	728,000	(31,000)
Reduce research support for all IESP projects (\$31,000).		
<u>Academic & Educational Programs</u>	771,000	(33,000)
Lapsed personnel savings (\$31,000); reduce number of editions of the publication "ART to ZOO" distributed to teachers nationwide (\$2,000).		
<u>Collections Management/Inventory Program</u>	1,121,000	(48,000)
Delay filling temporary museum technician positions (\$39,000); reduce supplies, materials, and contractual services needed for the collections management/inventory process (\$9,000).		
<u>Museum Support Center</u>	4,891,000	(211,000)
Delay filling administrative and maintenance positions and temporary museum technician positions for the MSC move (\$127,000); reduce program support for MSC move and administration & maintenance (\$84,000).		
<u>J. F. Kennedy Center Grant</u>	348,000	(15,000)
Reduce amount of JFK Center grant (\$15,000).		
SUBTOTAL, SPECIAL PROGRAMS	8,571,000	(369,000)
<u>ADMINISTRATION /2</u>	11,949,000	(514,000)
Lapsed personnel savings (\$208,000); reduction in Workers' Compensation funding (\$23,000); reduction in Unemployment Compensation funding (\$17,000); cut back on development of automated management information system (\$89,000); reduce administrative support costs in the Office of Supply Services (\$43,000), the Office of Printing and Photographic Services (\$50,100) and other administrative offices (\$83,900). Actions being taken will reduce essential support services to all other Smithsonian units; half the replacement or acquisition of office automation and other necessary equipment; delay the availability of improved computer systems for simplified and strengthened administrative processing, control and accountability and cut back on the efficiencies and economies normally available from the centralized consolidated purchase of copy paper and office machine repairs for the Institution.		

	FY 1986 <u>Appropriation /1</u>	G-R-H <u>Reduction</u>
<u>FACILITIES SERVICES</u>		
<u>Office of Design and Construction</u>	2,099,000	(90,000)
<p>Defer hiring until later in FY 1986 (\$11,000); cut back architectural and engineering contracts for facilities projects, purchase and rental of word processing and computer equipment, printing, supplies and materials (\$79,000). These actions will delay some projects and cause deferral of a much needed automated system for management of the Restoration and Renovation of Buildings Program to include project tracking.</p>		
<u>Office of Protection Services</u>	18,145,000	(780,000)
<p>Will not fill 25 guard vacancies (\$396,900); cut back security upgrading system (\$300,600); reduce travel, printing, supplies and materials, equipment, and contractual services (\$82,500). While every effort will be made to maintain current security by careful deployment of protection forces, the reductions will hamper efforts to make needed strengthening of overall guard coverage and electronic and other security systems.</p>		
<u>Office of Plant Services</u>	32,407,000	(1,394,000)
<p>Defer filling current vacancies and replacement of vehicles and essential maintenance supplies for OPlants (\$553,000); lapsed personnel savings for South Group Bldg. Manager (\$33,700) and Horticulture (\$39,000); reduction in funding for utilities costs (\$671,000) and space rental costs (\$58,000); reduce bldg. management supplies, equipment and contractual services for South Group Bldg. Manager (\$10,300), Horticulture (\$22,000), and the Quadrangle Bldg. Manager (\$7,000). These actions will result in delayed maintenance of buildings and grounds and loss of flexibility in responding to emergency requirements and an increase in future repairs for the motor vehicle fleet. Utility and rent deficits will be covered by further reductions to the support organizations thereby exacerbating shortages and problems in these areas.</p>		
SUBTOTAL, FACILITIES SERVICES	52,651,000	(2,264,000)
<u>SALARIES & EXPENSES, TOTAL</u>	176,995,000	(7,611,000)

	<u>FY 1986</u> <u>Appropriation /1</u>	<u>G-R-H</u> <u>Reduction</u>
<u>SPECIAL FOREIGN CURRENCY PROGRAM</u>	2,485,000	(107,000)
Reduce SFCP grant funding for research by U. S. institutions in "excess currency" countries (\$107,000).		
<u>CONSTRUCTION AND IMPROVEMENTS, NATIONAL ZOOLOGICAL PARK</u>	5,518,000	(237,000)
Eliminate purchase of equipment and support items for the veterinary hospital and scale back the contract design effort on a proposed aquatic exhibition (\$237,000).		
<u>RESTORATION & RENOVATION OF BUILDINGS</u>	11,009,000	(473,000)
Trim planned work on the replacement of windows in the Smithsonian Institution Building, space improvements in the Arts and Industries Building, and on master planning efforts (\$473,000).		
<u>CONSTRUCTION</u>	3,976,000	(171,000)
Reduce funding for equipping and furnishing the Quadrangle complex (\$171,000).		

Notes:

/1 Does not reflect the distribution of the OMB Grade Target Reduction for FY 1986 and other reorganizations and reprogramming that have occurred subsequent to the submission of the FY 1986 budget request to Congress (January 1985).

/2 Includes the offices of the Secretary, Under Secretary, Assistant Secretary for Administration, General Counsel, Treasurer, Audits and Investigations, Congressional Liaison, Equal Opportunity, Facilities Services, Financial Management, Accounting, Information Resource Management, Management Analysis, Personnel Administration, Printing and Photographic Services, Programming and Budget, Special Events, Supply Services and Travel Services.

SECRETARY'S STATEMENT

Mr. MURTHA. If you will introduce the supporting witnesses, we will go forward.

Mr. ADAMS. Thank you, Mr. Chairman.

On my right is John Jameson, Assistant Director of Administration. Dean Anderson, on my left, is the Under Secretary. Mary Rodriguez is the Acting Director of the Smithsonian Office of Programming and Budget. And Ann Leven is our Treasurer.

There is a formal statement, as you indicate, that is part of the record. I had a somewhat differently oriented short statement that I would like to read. I will reduce that somewhat in the interest of saving time, but would like the slightly extended version of the short statement to be the one used in the record, if I may, sir.

Mr. MURTHA. Without objection.

Mr. ADAMS. Before I return to the details of my statement, I would like to outline some of the difficulties under which it has been prepared, and maybe an informal request.

Our principal focus is on the assembling, study and exhibiting of systematic national collections in many fields, in any case, on basic research, whose contribution to the advancement of knowledge and human welfare take place over time and are, in many cases, unpredictable.

To some, cutbacks or postponements in these activities might well seem simple. Given the relatively small magnitude involved, some might even hope they would be unnoticeable. I can assure you they are neither simple nor unnoticeable.

It is impossible to make coherent plans to meet our fundamental purposes when we are faced with potentially significant, but undefined reductions in the overall level of our operations.

Nor is knowledge a commodity that can be turned on and off with a tap. It withers when its acquisition is interrupted through dispersal of teams of investors, the deterioration of collections, and the noncirculation and wider use of information about them.

In the absence of an enacted appropriation, the Smithsonian might be faced next fall with reductions which, given the impact of those we have already sustained for fiscal year 1986, would make the Smithsonian a significantly smaller and different place.

I do want to invite your consideration of an alternative way of managing the Smithsonian budget in the event there are further Gramm-Rudman-Hollings mandated reductions.

As you know, we have, for many years, presented our operating budget to you by line item, with each museum or other program described in substantial detail.

This procedure has served us both well, and I have the impression that today it leaves this committee virtually as familiar as we are with our activities.

We will continue with the same procedure in our presentation today. Potentially, however, there is a grave disadvantage to this procedure because of the inflexibilities placed upon me as manager by the Gramm-Rudman-Hollings requirement that uniform percentage cuts be taken at the program project activity level in the operating budget.

To be sure, the legislation allows for reprogramming with this subcommittee and the equivalent body in the Senate, but my basic point is we will need to act quickly, decisively, perhaps courageously, and in the framework of a comprehensive reconfiguration of the Smithsonian's program at a significantly reduced scale.

I do not see how this difficult and time critical exercise in planning can be imaginatively and effectively carried out in a process of negotiations that must proceed independently from each of the forty or so separate line items in our present budget, and with both houses of Congress.

As you report on our budget, may I suggest that you consider making provision for aggregating a number of line items in order to increase the flexibility that we will need in the event of another Gramm-Rudman-Hollings mandated reduction.

One possible frame work might be the seven functional categories which correspond reasonably well to the internal organizational scheme that the Smithsonian is putting into place: Museums, Research, Public Service, Directorate of International Activities, Special Programs, Administration, and Facilities Services.

Another possibility would involve even a higher level of aggregation, the appropriation of the entire salaries and expense account as a lump sum.

This may seem excessively risky from your point of view, and perhaps even an abdication of the responsibilities of congressional oversight. However, I think this drawback might be overcome with arrangements for timely interim reporting, and, of course, with a final accounting for your review at the following budgetary hearings.

But in any case, the specific mode of aggregation rests with your subcommittee. Needless to say, my staff is prepared to work closely with you in developing a strategy along these lines in anticipation of the 1987 appropriation.

Let me now turn to my regular statement.

When I appeared for the first time before the subcommittee a year ago, I spoke of the strengths of the Smithsonian in defense of a budget request for fiscal year 1986 that, although nearly \$13 million above the fiscal year 1985 level, was nonetheless carefully honed and deliberately focused.

BUDGET REDUCTIONS

As I share with you an overview of the Institution's aspirations for our 1987 request, I must say that unchanged are our objectives which not only were unmet by the fiscal year 1986 process, but were substantially diminished by it; a brief review of that process is illuminating.

A separate document submitted to the subcommittee describes the details and the effects of the required Gramm-Rudman-Hollings reductions across the five Smithsonian appropriation accounts, as well as some forty line items in the Salaries and Expenses account.

It is sufficient here to state that those reductions were the latest in a series of retrenchments that included the .6 percent base reduction in the Continuing Resolution and earlier reductions by the subcommittee and its Senate counterpart.

The net effect has been that as of March 1, 1986, the Smithsonian had sustained reductions totaling more than \$20,000,000 from the request that had gone to Congress slightly more than a year earlier.

In the Salaries and Expenses account for fiscal year 1986 the reductions exceed \$16,000,000, leaving an amount that is just over \$5,000,000 more than was provided for fiscal year 1985.

Certainly we are grateful for it, but would note that it is about \$1,700,000 less than we had requested solely for uncontrollable increases such as legislated pay increases, utility costs, and the like.

Across-the-board reductions for—

Mr. MURTHA. Say that again. It is \$1.7 million less than the uncontrolled—

Mr. ADAMS. Uncontrollable increases, yes.

Across-the-board reductions for fiscal year 1987 in the range of 8.4 percent, as the Congressional Budget Office recently has suggested, against our already tattered fiscal year 1986 base, would eliminate another \$16,000,000.

A century and a half ago, the Nation pledged its faith to the execution of the will of James Smithson for "the increase and diffusion of knowledge among men * * *" The House Committee stated that in accepting Mr. Smithson's bequest, the Congress would, "* * * feel in all its power and plenitude the obligation of responding to the confidence reposed by him, with all the fidelity, disinterestedness and perseverance of exertion which may carry into effective execution the noble purpose * * *"

Mr. Chairman, that noble vision and the faith of the Nation have created and sustained a great Institution, but it is an Institution in need of sesquicentennial plenitude if it is to endure and continue to fulfill its noble purpose.

Our budget request for 1987 has to be considered in this light. It is somewhat anomalous. Its approval would, in effect, entail reappropriating the fiscal year 1986 Gramm-Rudman-Hollings reductions and provide a modest increase.

This increased funding would be mainly for inflation-related items, Museum Support Center and Quadrangle operations, both new facilities coming on line, commemorative events of a national nature, and research support.

Good morning, Mr. Chairman. If I may continue with my statement.

Mr. YATES. Please do.

Mr. ADAMS. Although the request is nearly \$24 million above the current fiscal year 1986 base, it is less than \$4,000,000—only 1.5 percent—above our original fiscal year 1986 request to Congress.

Our guidance from the Office of Management and Budget suggests we can anticipate funding for future years only in terms of increases for inflation.

Within whatever resources are available, we would hope to reinforce areas of traditional Smithsonian expertise, such as systematics, tropical biology, and American cultural history, while also trying to develop means for sharing the richness of the Institution more widely here and abroad.

We welcome the counsel and support of the subcommittee as we guide the Institution in these extraordinary times.

[The short statement of Robert McC. Adams follows:]

SHORT STATEMENT DELIVERED BY
ROBERT MCC. ADAMS
SECRETARY, SMITHSONIAN INSTITUTION

BEFORE THE SUBCOMMITTEE ON THE DEPARTMENT
OF THE INTERIOR AND RELATED AGENCIES
COMMITTEE ON APPROPRIATIONS
U. S. HOUSE OF REPRESENTATIVES

Thursday, March 20, 1986

Thank you, and good morning, Mr. Chairman.

With your permission, before I turn to the details of my statement, I would like to outline some of the difficulties under which it has been prepared, and to make an informal request.

I need not deal at length with the burden of concern over national deficits under which we are all laboring, but would remind you that we exist solely for the "increase and diffusion of knowledge." Our principal focus is on the assembling, studying, and exhibiting of systematic national collections in many fields, and in any case on basic research whose contributions to the advancement of knowledge and human welfare take place over the long term and are in many cases unpredictable. To some, cutbacks or postponements in these activities might well seem simple. Given the relatively small magnitudes that are involved, some might even hope they would be unnoticeable.

I can assure you that they are neither simple nor unnoticeable. It is impossible to make responsible and coherent plans to meet our fundamental purposes when we are faced with potentially significant but undefined reductions in the overall level of our operations. Nor is knowledge a commodity that can

be turned on and off with a tap. It withers when its acquisition is interrupted -- through inversions of research priorities, the dispersal of teams of investigators, the deterioration of collections, and the non-circulation and wider use of information about them. As my colleague Daniel Boorstin put it to the Legislative Appropriations Subcommittee just over a month ago, "Any willful cut in our resources of knowledge is an act of self-destruction."

Our reading of the GRH legislation makes it seem not unlikely that, in the absence of an enacted appropriation, the Smithsonian might be faced next Fall with reductions which, given the impact of those we have already sustained for FY 1986, would make the Smithsonian a significantly smaller and very different place. In the present atmosphere of uncertainty it is dauntingly difficult even to begin to plan for the wide variety of specific circumstances with which we may be confronted.

Further deepening my concern are uncertainties over the duration of these reductions. I believe the only prudent outlook is the one expressed by Frank Press in the current issue (21 March 1986) of Science. His view is that

the scientific community, rather than think that the budgetary crisis was short-lived, must operate on the assumption that it will endure for years, perhaps to the end of the century. I think we must assume in our planning that past real growths in basic research budgets are now history and that future growth is likely to be almost flat or, in some areas, negative.

Applied to the Smithsonian, with uncontrollable increases in its costs as a result of new facilities coming on-line, rising utilities bills, and the like, negative growth would clearly be our lot if Press' projection is at all accurate.

Mr. Chairman, I do not want to speak further in this context before you have had an opportunity to examine, and we to defend, our FY 1987 budget which has been carefully crafted and, we believe, is fully justified. All federally-supported activities may face an absolutely imperative scaling-back of commitments and activities they have come to regard as essential, and the Smithsonian naturally cannot be excluded from that process. But I do want to invite your consideration of an alternative way of managing the Smithsonian budget in the event that there are further GRH-mandated reductions.

As you know, we have for many years presented our operating budget to you by line item, with each museum or other program described in substantial detail. This procedure has served us both well, and I have the impression that today it leaves you virtually as familiar as we with our activities. We will continue with the same procedure in our presentation today.

Potentially, however, there is a grave disadvantage to this procedure because of the inflexibilities placed upon me as a manager by the GRH requirement that uniform percentage cuts be taken at the program-project-activity level in the operating budget. To be sure, the legislation allows for re-programming with this Subcommittee and the equivalent body in the Senate. But my basic point is that we will need to act quickly,

decisively, perhaps courageously, and in the framework of a comprehensive re-configuration of the Smithsonian's program at a significantly reduced scale. I do not see how this difficult and time-critical exercise in planning can be imaginatively and efficiently carried out in a process of negotiation that must proceed independently from each of the forty or so separate line items in our present budget, and with both Houses of Congress.

As you report on our budget may I suggest that you consider making provision for aggregating a number of line items in order to increase the flexibility that we will need in the event of another GRH-mandated reduction? One possible framework might be the seven functional categories, which correspond reasonably well to the internal organization scheme that the Smithsonian is putting into place: Museums, Research, Public Service, Directorate of International Activities, Special Programs, Administration, and Facilities Services.

Another possibility would involve even a higher level of aggregation: the appropriation of the entire Salaries and Expense account as a lump sum. From your viewpoint this may seem excessively risky, perhaps even an abdication of the responsibilities of Congressional oversight. However, I think this possible drawback might be overcome with appropriate arrangements for timely interim reporting, and of course with a final accounting for your review at the following budgetary hearing. But in any case, the choice of specific mode of aggregation rests with your Subcommittee. Needless to say, my staff is prepared to work with you closely in developing a

strategy along these lines in anticipation of the 1987 appropriation.

Permit me now, Mr. Chairman, to turn to my regular statement. When I appeared for the first time before the Subcommittee a year ago I spoke of the strengths of the Smithsonian in defense of a budget request for Fiscal Year 1986 that, although nearly \$13 million above the FY 1985 level, was nonetheless carefully honed and deliberately focused. Designed to build on our strengths, the request embodied three important objectives of the priority of Institutional commitments: effective program operations, staffing and operation of two major new entities, the Museum Support Center and the Quadrangle, and improved research support.

As I share with you an overview of the Institution's aspirations for our FY 1987 request, I recognize doing so in an atmosphere of extraordinary budgetary change and uncertainty -- the implications of which are, perhaps, as disquieting to you as they are to me and my colleagues. Unchanged, however, are our objectives, which not only were unmet by the FY 1986 process, but were substantially diminished by it; a brief review of that process is illuminating.

A separate document submitted to the Subcommittee describes the details and the effects of the required Gramm-Rudman-Hollings reductions across the five Smithsonian appropriation accounts, as well as some forty line items in the Salaries and Expenses Account. It is sufficient here to state that those reductions

were the latest in a series of retrenchments that included the .6 percent base reduction in the Continuing Resolution and earlier reductions by the Subcommittee and its Senate counterpart. The net effect has been that as of March 1, 1986, the Smithsonian had sustained reductions totaling more than \$20,000,000 from the request that had gone to Congress slightly more than a year earlier.

In the Salaries and Expenses Account for Fiscal Year 1986 the reductions exceed \$16,000,000, leaving an amount that is just over \$5,000,000 more than was provided for Fiscal Year 1985. Certainly we are grateful for it, but would note that it is about \$1,700,000 less than we had requested solely for uncontrollable increases such as legislated pay increases, utility costs, and the like.

The prospects for further cuts can only be viewed as chilling, for that would be their effect on the lifeblood of the Smithsonian. Automatic, mindless, across-the-board reductions for Fiscal Year 1987 in the range of 8.4 percent, as the Congressional Budget Office recently has suggested, against our already tattered FY 1986 base, would eliminate another \$16,000,000.

We have not yet explored the details of a 1987 reduction, but we remain dedicated to the principle that the Institution must preserve its core functions for research and for the care and conservation of the national collections and the structures that house them. At the same time, we also have important responsibilities for broad public and outreach services. It is

likely that we would have to reduce hours of operation, perhaps to the point of closing museums one or two days a week; possibly eliminate whole programs; and generally furlough or otherwise reduce our staff. While staff costs constitute approximately 65 percent of our current budget and may seem an easy target, it is important to remember that the collections are of little value to the Nation unless they are housed, cared for, conserved, studied, documented, managed, exhibited, interpreted, and guarded by the people who are the Institution's most important resource.

A century and a half ago, on July 1, 1836, the Nation pledged its faith to the execution of the will of James Smithson for ". . . the purpose of founding and endowing at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men . . ." In a report that accompanied the legislation - and probably was written by John Quincy Adams - the House Committee stated that in accepting Mr. Smithson's bequest the Congress would

" . . . feel in all its power and plenitude the obligation of responding to the confidence reposed by him, with all the fidelity, disinterestedness and perseverance of exertion which may carry into effective execution the noble purpose . . ."

Mr. Chairman, that noble vision and the faith of the Nation have created and sustained a great Institution, but it is an Institution in need of sesquicentennial plenitude if it is to endure and continue to fulfill its noble purpose. I urge that

the option of appropriating our budget request for Fiscal Year 1987 be pursued vigorously.

We recognize that in the present environment the Smithsonian request is anomalous. Its approval would, in effect, entail re-appropriating the Fiscal Year 1986 Gramm-Rudman-Hollings reductions and provide a modest increase. This increased funding would be mainly for inflation-related items, Museum Support Center and Quadrangle operations, commemorative events of a national nature, and research support, the same objectives and commitments we had a year ago. Although the total request is nearly \$24 million above the current FY 1986 base, it is less than \$4,000,000 - only 1-1/2 percent - above our original FY 1986 request to Congress.

With regard to the specifics of our FY 1987 budget request, it includes \$190.1 million for Salaries and Expenses, \$12.8 million for Restoration & Renovation of Buildings, \$4.9 million for Zoo construction, \$4.0 million for Quadrangle construction, and \$3.5 million for construction of a laboratory and conference center at the Smithsonian Tropical Research Institute in Panama. No additional funding is requested for the Special Foreign Currency Program for FY 1987.

The written statement submitted to the Subcommittee highlights the specific program requirements for which additional funding is requested for FY 1987. Let me just indicate here that the budget request before you, developed with the full participation of bureau and program directors throughout the Institution, represents the funding required to move ahead with our most

important programs and initiatives, including the realization of the programs planned for the Quadrangle; the reinforcement of the Institution's research capabilities; the commemoration of significant historical milestones (such as the bicentennial of the U. S. Constitution and the upcoming quinqucentenary of the landing of Christopher Columbus in the New World); and the continuing process of preparation and transfer of the collections to the Museum Support Center. Funding is also required to continue the Institution's critical long-term program to maintain, upgrade, and renovate its museum, research, and support facilities, including the museum buildings on the Mall, the buildings and grounds of the National Zoological Park, and research facilities from Edgewater, Maryland, to Mt. Hopkins, Arizona, to Panama. Even with the current economic environment and the need to hold the line on Federal spending, we believe that the funding requested for the Smithsonian for FY 1987 is essential in order to allow us to meet our responsibilities to the Nation and to the Institution's mandate as set forth in James Smithson's bequest.

Mr. Chairman, as you will understand, long-range planning in times such as these is difficult at best. Our guidance from the Office of Management and Budget suggests that we can anticipate funding for future years only in terms of increases for inflation. We have, as you know, a number of construction projects in mind, virtually all of which have been deferred while we study the effects on delay or explore various alternative sources of funding.

Within whatever resources are available we would hope to reinforce areas of traditional Smithsonian expertise such as systematics, tropical biology, and American cultural history, while also trying to develop means for sharing the richness of the Institution more widely here and abroad. We welcome the counsel and the support of the Subcommittee as we engage in these efforts and guide the Institution in these extraordinary times.

ACQUISITION PROGRAM AT AMERICAN HISTORY

Mr. ADAMS. Mr. Chairman, there are a number of objects that have been brought to the committee room here, and at some appropriate time in the schedule, I think, reflect the kinds of activities in which we have been engaged during the course of the year, and I leave it to you—

Mr. YATES. This, I think, is probably the best time, before we start on the details of the budget. What are the objects?

Mr. ADAMS. There is a whole series. I would prefer if the museum directors who have made these selections were to say just a word about each of them.

Roger, do you want to start off?

Mr. KENNEDY. We have here a compass of 1879 used to survey a wide range of American boundaries.

Mr. YATES. Should we join you there?

Mr. KENNEDY. We can bring it over to you, I think.

This represents the continuing process of acquisition with Federal funds, in this case \$1,600. This was built by a colleague of Rittenhouse and was used widely to delineate the contours of the beginnings of America.

Mr. YATES. Why is this a white glove affair?

Mr. KENNEDY. If I touch that without gloves on, I am going to leave a smear of my perspiration on it, and the curators would shoot me at sunrise. We always touch our objects with care.

Mr. YATES. Why must it be white gloves?

Mr. KENNEDY. To show the committee we take this very seriously, Mr. Chairman.

We have a flute here, which comes by donation. The primary point here is that we have a wide spread of things that we do. Some come by donation and some come by—I am not going to pull that one apart.

Ms. MORRIS. There are two little levers on each side. Push them out.

Mr. KENNEDY. This comes by gift. It is a flute. It is a band flute used for military bands, and it is—this simply means we got this by gift. We got the compass by purchase.

We need both means of acquisition, and we are very grateful for the purchase funds.

Mr. YATES. How does Gramm-Rudman affect that?

Mr. KENNEDY. The purchase funds essentially get knocked out for next year.

Mr. YATES. Don't you have a pool, an acquisitions pool that gives you a right over your colleagues during certain years, or is that only for objects of art?

Mr. KENNEDY. On the Federal side, the National History Museum asked for \$80,000. With Gramm-Rudman and other reductions, we have had to make cuts to about half that, so that the entire acquisition budget from Federal resources is, I believe, approximately \$40,000 to \$50,000 at the end of our Gramm-Rudman planning.

We have \$27,000 left, I know, to spend this year of the \$80,000, which, of course, is an absurdly small sum.

Mr. YATES. What do you want to buy that you can't buy, and why is it important for you to have it?

Mr. KENNEDY. I think the best way to answer that, because of the enormous diversity of stuff we collect, is to give you, for the record, a list of what we did buy this year and next to that a list of things we got by gift, which would indicate the range and the kinds of costs.

[The information follows:]

FY 1986 ANNUAL REPORT
COLLECTIONS COMMITTEE

PURCHASES

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF SOCIAL AND CULTURAL HISTORY</u>		
<u>CERAMICS & GLASS</u>		
10/1/85	19th c glass garden bell	1820-60, 16", used as portable greenhouses covering delicate plants for protection and forcing, unknown American manufacturer. (\$750.00)
02/6/86	Ceramic pitcher	1853. Edwin Bennett's Baltimore pottery. 13" tall. Experimental piece. Only known example of Bennett's use of flint-enamel glazing. (\$3,800.00)
<u>COMMUNITY LIFE</u>		
11/07/85	116 greeting cards and postcards portraying Blacks	To be used in Index of Afro-American project. (\$300.00)
02/20/86	Pressbooks from movies and Broadway shows	<u>Pressbooks</u> : "Rocky", "Grease", "Dr. Strangelove", "A Man Called Adam", "My Fair Lady", and "Porgy and Bess" (\$90.00)
03/06/86	Sheet music and pressbooks	<u>Sheet music</u> : "Spring Parade", "Davy Crockett", "Sunday", "Carry Me Back", "Underground Railroad", among others, and <u>Pressbook</u> : "Damn Yankees". (\$71.00)
<u>COSTUME</u>		
08/30/85	Lot children's clothing (2 blue dresses, 1 pair of short pants)	1870-80, Cora Ginsburg. Clearly document how differently boys were raised in 19th century. (\$300.00)
02/06/86	15 Items of clothing (men's, women's and children's)	1805-1950, Fay Knicely. Document appearance of Americans from 19th century to present (\$435.00)
<u>DOMESTIC LIFE</u>		
12/18/85	2 Iron box locks	18th c, English. To be used in 18th c LIA exhibit (6" x 4"). (\$730.00)

PURCHASES

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF SOCIAL AND CULTURAL HISTORY</u>		
<u>GRAPHIC ARTS</u>		
11/07/85	6 Intaglio Prints and 1 lithograph	<u>Intaglio prints</u> : 21 x 27"; <u>lithograph</u> : 11 x 15". Both are innovative, technical methods employed in their production and also represent an insider's view of subject. (\$1,260.00)
11/22/85	4 Letterpress cuts and 1 negative	Washington Engraving, zinc wood mounting. (PRIVATE FUNDS: \$95.00)
12/26/85	2 Pamphlets	(1) 1856 Government document on Adams press; (2) Chauncey Wright Wood engraving specimens (incl. Scott's printing machine). (\$80.00)
<u>MUSICAL INSTRUMENTS</u>		
11/07/85	8 Letters: 3 of Joseph Servais; 5 of Francois Servais; 1 photograph of Francois Servais with cello & end pin; 1 lithograph of Servais (signed and dedicated to Joseph Fishoff)	Material relates to Servais Stradivarius violincello and photograph of Francois Servais shows proof of using an endpin on cello. (\$1,300.00)
03/18/86	1 Metal E ^b clarinet	19th century, 44.3 cm. long, manufactured by John Pfaff, Philadelphia, either brass with a trace of nickel or nickel silver; excellent condition; fine example of Yankee craftsmanship. (\$850.00)
<u>PHOTOGRAPHIC HISTORY</u>		
<u>POLITICAL HISTORY</u>		
08/30/85	32 Posters - Westinghouse WWII production and incentive posters	Westinghouse Corp., WWII era (J. Howard Miller collection). (\$2,400.00)
10/18/85	Videocassette "The People Ask the President"	1956 Eisenhower re-election campaign television program (30 minutes); 3/4" U-Matic. (\$350.00)
<u>TEXTILES</u>		
12/4/85	Stencilled bedcover & companion dust ruffle	1820-1840, New England bedcover: 94 3/4" sq; <u>dust ruffle</u> : 20 5/8" h and 18' long. Stencilled bedcovers are very rare, especially with a companion dust ruffle. (\$6,500)

PURCHASES

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF SOCIAL AND CULTURAL HISTORY</u>		
<u>TEXTILES</u> (cont'd)		
01/8/86	Paisley-type shawl & receipt of same	Shawl: Lady's woven, 11'4" x 5'5", wool, 8 colors in pattern, ca 1870, Paisley, Scotland. Receipt: 1870, New York City store. (\$250.00)
<u>DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY</u>		
<u>ARMED FORCES HISTORY</u>		
10/10/85	Restrike of Royal Mint medal (founder's medal with King William IV's picture)	Additional funds needed for restrike. Medal used in the Wilkes exhibit, MNH. (\$500.00)
11/26/85	1 Ledger, 2 folders, 2 booklets, 1 manuscript volume	1880's. Recounts the beginnings of the steel Navy. \$203.60)
<u>ELECTRICITY & MODERN PHYSICS</u>		
12/27/85	Catalogs, documents, magazines	E.R. Beers Electrical Wholesalers collection, Bloomsburg, PA. Unique opportunity to obtain documentation on a medium-sized typical electrical wholesaler operating in a very important period, particularly for electrical appliances. (PRIVATE FUNDS: \$386.00)
<u>AGRICULTURE & NATURAL RESOURCES</u>		
<u>MATHEMATICS</u>		
<u>ENGINEERING & INDUSTRY</u>		
10/25/85	Bond Astronomical Regulator	1850, Wm. Bond & Son, Boston, 5' x 2' x 2'; case style most unusual (made for Alvan Clark). Firm was one of country's leading chronometer and clockmaking firms. (FEDERAL FUNDS: \$10,000/PRIVATE FUNDS: \$12,500)
12/9/85	Two photographs of pipe-laying in the Seine River (Paris)	1865. Laying of an underwater pipeline (gas or water supply. (\$250.00)

PURCHASES

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY</u>		
<u>ENGINEERING & INDUSTRY (cont'd)</u>		
1/8/86	Holland Tunnel silver-print photograph	1925, 15 1/2" x 19 1/2", silver-print photograph showing cross-section of Holland Tunnel for vehicular traffic compared to cross-section of small Hudson & Manhattan railroad tunnel. (PRIVATE FUNDS: \$175.00)
<u>MEDICAL SCIENCES</u>		
11/26/85	Dental vulcanizer	ca. 1867, Buffalo Dental Company (BT Whitney), 11 1/2" h; 5 lbs. Used to head a cast for making artificial dentures. (\$480.00)
1/16/86	10 3-D Wax anatomical models	19th c., Joseph Towne. Models are 3-D, of contagious diseases prevalent in U.S. in last few centuries: leprosy, TB, syphilis and cholera. (\$4,000)
03/05/86	Early aircraft first-aid kit	ca. 1920s or 1930s, manufactured by <u>Borroughs Wellcome & Co., NY.</u> "No. 2 First Aid Kit for Aircraft carrying 5 to 25 passengers. 'Tabloid' first-aid 16 unit pac-kit." These kits accompanied Teddy Roosevelt up the Amazon, the explorers to the North and South Poles, and the climbers who first scaled Mt. Everest. The kit would make a very nice addition to collection. (\$125.00)
<u>PHYSICAL SCIENCES</u>		
10/24/85	Surveying Instrument	Roland Houghton 1730-1744, Boston. Earliest American surveying instrument. (\$1,100.00)
1/8/86	Engineer's transit, 1930	1930, W. & L.E. Gurley, Troy, NY, 7 1/2" x 10" x 13 1/2", 9 1/2 lbs, aluminum construction ("novel" material). (\$175.00)
<u>TRANSPORTATION</u>		
12/18/85	NY Central Container	1921, American Car & Foundry Co. Large metal box used to ship merchandise by rail car and truck. (\$1.00)

PURCHASES

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
	<u>NATIONAL PHILATELIC COLLECTION</u>	
11/26/85	Reproduction Pony Express Saddle	Robert Mooney & son of Bill's Saddlery. Craftsmen are descendent of original saddlers who produced the riding equipment used over a century ago to carry mail between Missouri and California. (NPC FUNDS: \$575.00)

NATIONAL NUMISMATIC COLLECTION

NO PURCHASES AT PRESENT

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF SOCIAL AND CULTURAL HISTORY</u>		
<u>CERAMICS & GLASS</u>		
12/9/85	4 Ceramic items & 19 stereographs	Whiteware covered dish: Thomas Maddock & Sons, Trenton, NJ, late 1870s. Maddock introduced sanitary ware to America. Collection welcomes addition of sanitary jar specimen. <u>Stoneware footwarmer</u> : 1912, Dorchester Pottery Works, Boston, MA. Utilitarian household and industrial stoneware. Footwarmer is best-known example from Dorchester Works' earlier years (in later years, 1940-65, factory made trendy, hand-made blue-decorated table stoneware. <u>Stoneware jug with brown glaze on neck and collar</u> : 1882, Whitmore, Robinson & Co., Akron, OH. Significance to collection is patent mark. Patent and jug are work of important Ohio factory. Jug is good, documented example relating to evolution of mass production in American pottery industry. <u>Stoneware jug</u> : Baltimore, Md/Philadelphia, PA, ca. 1850-1900. Jug illustrates symbiotic connection that existed between druggists and potters. <u>Set of 19 stereographs</u> : Underwood & Underwood, 1st quarter of 20th c. Shows stages in making of cylinder windowglass from batch mixing and storage of glass ingredients through blowing of cylinders by compressed air, cutting, and flattening, to packing the panes in straw for shipment.
12/31/85	6 Stereographs	donor: Robert Vogel
03/18/86	Collection of pottery, documents and potters' tools.	19th-20th century. Made by Edwin Bennett of Baltimore at the Edwin Bennett Pottery Company, Chesapeake Pottery and at the Severn Clay Co., and Severn Studios; donor is a descendant of Mr. Bennett. Rare opportunity to document the output of a series of family commercial ware potteries.

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF SOCIAL AND CULTURAL HISTORY</u>		
<u>CERAMICS & GLASS (cont'd)</u>		
03/18/86	Gillinder glass collection	Made at the Philadelphia Gillinder Glass Works. Examples include: Gillinder cameo glass (ca. 1880s); pressed glass. Gillinder is one of the major figures in American glass history. Family remained in business until 1964.
<u>COMMUNITY LIFE</u>		
10/01/85	1 Pew	1859, St. Aloysius Church (Gonzaga) Washington, DC. 79" l x 39" h x 20" d. Pine and cherry woods.
11/07/85	43 Pieces of sheet music	1897 - mid 20th c. 9" x 12" (stacked: 2" or so). Popular American music and entertainment by Victor Herbert, Oscar Hammerstein II, Richard Rogers, Vincent Youmans, Meredith Wilson, Irving Berlin and others
12/18/85	1 Shop Sign	Painted wood (gold, black, red). 1 1/4" x 39" x 17". For Chinese-American collection.
12/18/85	10 Stereographs	"Public Helpers"
12/31/85	Lidded, carved oak & iron box	1750-1800, Finland, 12.7 cms x 28.2 cms x 23.7 cms. Carved elements include pinwheel, circle, six-point star, chip-carved leaves and hearts (late Medieval style).
02/06/86	12 German-American immigration objects	19-20th c. Documents, photographs, commonplace and highly decorated objects will add to Division's collection of largest single American immigrant group.

GIPTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF SOCIAL AND CULTURAL HISTORY</u>		
<u>COMMUNITY LIFE</u> (cont'd)		
03/05/86	Chalice	1955, gilded silver with ivory and diamonds, Roman Catholic, manufactured by Creviston & Son, St. Joseph, MO. Made for the personal use of Joan Creviston Otto's uncle, Monsignor Lawrence Creviston (1904-1959) who was a Navy Chaplain through WWI and then returned to Missouri. Community Life, therefore has full documentation of both production and use of superbly crafted object.
<u>COSTUME</u>		
10/15/85	20 Pieces of clothing, sketches, and accessories	Designed by Rudi Gernreich, 1950s & 1960s. Early evidence of clothing that depended on nude body for shaping. Avant-garde styles. Unisex clothing.
<u>DOMESTIC LIFE</u>		
12/06/85	98 Pewter objects	17th-19th c. Dishes, plates, tankards, mugs, etc. American origin. Exceptionally good condition.
03/18/86	Bedsprings	c. 1930's. Manufactured by Simmons. 72 1/2' x 37 1/2' x 6", 75 lbs. Has original label: "SIMMONS/Spring/BUILT FOR SLEEP/SIMMONS COMPANY. Relates to metal technology and spring design. Help bring collection into the 20th century.
03/18/86	Dishwasher	c. 1940. 2 x 2 x 3 feet, 300 lbs. General Electric; white enamel, good condition, original basket and other parts. Relates to women and advertising; countertop model.

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF SOCIAL AND CULTURAL HISTORY</u>		
<u>GRAPHIC ARTS</u>		
1/7/86	3 Early typesetting machines (2nd Band, Clephane, rotary stereotype)	Mergenthaler Linotype Company, Germany. 2nd Band: 1884. Immediate predecessor of Linotype. James Clephane: 1876. Experimental machine that started Mergenthaler thinking about typesetting problems and solutions. Rotary stereotype: 1879. Mergenthaler's improvement on the machine.
<u>MUSICAL INSTRUMENTS</u>		
11/07/85	Violin by Leopold Widholm	1782, Nurnberg. In stable, playing condition.
11/07/85	Square Piano	Knabe, 1860, Baltimore. 4' x 6' x 4'. No previous examples of this type. In good condition (hand-painted metal plate).
1/21/85	Chickering objects: graphics, books, action models, workbench	<u>Graphics (framed)</u> : oil portrait of Jonas Chickering (unsigned). U.S. and foreign patents, trade catalogs, sales register. Portraits, engravings, photographs of Chickering factory interiors, medals, work bench (belonging to J. Chickering) with drawers and 2 vises (7'3" x 3'4" x 2'10", 210 lbs. Aeolian-American Piano Co., Rochester, NY.
12/4/85	Steinway parlor grand piano (Model M)	1936. Incredible condition and fine document of Steinway work of its period. Premier parlor grand. Have no previous examples of Steinway work after 1891 instrument. Plan to use it for "events."
<u>PHOTOGRAPHIC HISTORY</u>		
NONE AT PRESENT		
<u>POLITICAL HISTORY</u>		
10/01/85	41 Posters - WWI	2' x 3' each. Posters relating to activities on the American home front.

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF SOCIAL AND CULTURAL HISTORY</u>		
<u>POLITICAL HISTORY</u> (cont'd)		
10/01/85	Collection of political campaign bunting	19th c. 18" x 24" each. Finest most well-preserved examples in collection: <u>James G. Blaine</u> ; <u>Grover Cleveland</u> ; and <u>John A. Logan and James G. Blaine</u> .
12/18/85	200 Stereographs of Washington, DC	(federal government buildings)
<u>TEXTILES</u>		
01/23/86	Tape Loom (1984 Acquisition No.)	Floor-based single heddle model with squirrel cage. 63 1/2" x 9 3/8" x 30 3/4". Eastern U.S. origin (either MD or PA). Mid-19th c. Nothing like it in collection.
<u>DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY</u>		
<u>ARMED FORCES HISTORY</u>		
10/01/85	25 WWI posters	Recruitment posters. 2' x 3' each.
<u>ELECTRICITY & MODERN PHYSICS</u>		
10/16/85	39 Specimens	Teletype equipment from AT&T, Chicago. Approx. 3 cu. ft., 30-40 lbs. each.
12/18/85	1 Telephone pole	Pacific Bell. 14 ft. long, 1 ft. sq. in cross-section. One of 4 poles that were set near Utah-Nevada border, connecting the trans-continental telephone line in 1914.
12/18/85	Hologafacet laser scanner	(Holographic Scanner). 1960s. Incorporates high speed laser scanning techniques to achieve picture resolutions of great definition. 10 1/2" x 7 1/2" x 5 1/2".

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY</u>		
<u>ELECTRICITY & MODERN PHYSICS (cont'd)</u>		
01/23/86	300 Items	Texas Instruments: Examples of different types of crystals, transistors, and integrated circuits, plus examples of specific types. These will help division determine state of quality control, deterioration over time, and details of electrical characteristics of microstructure.
<u>ENGINEERING & INDUSTRY</u>		
12/31/85	3 Time-locks	8" x 5" x 3", 1870, 1920, 1966. Movements - Swiss; mechanisms - Canton, OH and Philadelphia, PA. Manu.- Diebold, Inc. All are in working condition (glass broken on 1920 lock and glass replaced with plexiglass on 1870 lock). These three time-locks are from a demolished bank in Baltimore, MD, and show the lack of development of time-locks over 100 years. Each lock shows the name of building of clock mechanism, lock mechanism, and safe maker.
12/31/85	754 Stereographs; 91 photographs	Photographs: bridges under construction

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY</u>		
<u>ENGINEERING & INDUSTRY (cont'd)</u>		
02/06/86	1 Shelf clock with ceramic case, 1 shelf clock with bicycle rider, 1 shelf clock with figure of Franklin Roosevelt	Shelf clock with ceramic case: ca. 1900, 9" x 10 3/8" x 5", Ansonia Clock Co., NY. Will enhance clock collection in examples of turn-of-the century domestic pieces. <u>Shelf clock with bicycle rider:</u> ca. 1900, 6 1/4" x 3 1/2", British United Clock Co., Ltd., Birmingham, England. Have very few English clocks from 19th & 20th c. Examples of domestic timepieces. Novelty clock. <u>Shelf clock with figure of Franklin Roosevelt at the wheel of a ship, marked with the slogan "At the Wheel of the New Deal:"</u> ca. 1940, 9 1/2" x 13 1/2" x 4", clock case manufacture: Gibraltar Electric Clock Co., Jersey City, NJ; clock movement manufacture: Jerger Clock Co., Germany. Clock is a marriage of a German mechanical movement to a cast-aluminum case. Nothing identical to this clock in Political History. Novelty clock.
<u>MEDICAL SCIENCES</u>		
12/18/85	179 Pharmaceutical artifacts 220 advertising materials for archives	<u>Artifacts:</u> Patent medicines (114), bandages & plasters (4), clamps (3), container (1), cosmetics (16), disinfectants (2), display stands (2), herbicides (1), insecticides (4), and vitamins (12). <u>Advertising materials:</u> ads for pharmaceuticals and medical products, tobacco products, Coca-Cola and Kodak products together with labels, trade literature, photographs, etc. Most of above from 1920s to 1960s. Sherman Pharmacy in Sherman, NY, est. 1895. Excellent condition.

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY</u>		
<u>MEDICAL SCIENCES (cont'd)</u>		
01/23/86	NMR Scanner	Nuclear Magnetic Resonance Imaging Device "The Indomitable." 1977, 103" x 72" x 144"; 1,500 lbs. Dr. Raymond Damadian, Fonor Corp. Used for whole body scanning of a human subject. Diagnostic value: early cancer detection, lack of potential harmful radiation and ability to gather quickly quantitative biochemical information from tissue.
02/06/86	Soda fountain and accessories	<u>Soda fountain: "The Monitor Crystal Spa." John Matthews firm in NY, 1878. Fountain was in operation from 1890 until 1959. Soda dispenser with glass dome and wooden base (150.5 x 66 x 42 cm); mixing tank and tank rocker, CO₂ tank, 8 drinking glasses, 12 syRup bottles with etched labels and pewter and aluminum caps, some photographs and correspondence</u>
02/06/86	185 Pharmaceutical products, manufacturing records, and advertising files, trade catalogs, and photographs	1920-1980, Norwich Eaton Pharmaceuticals Company, Norwich, NY. Research-based manufacturer. Will help division document tremendous growth and development of pharmaceutical industry in 20th century.
<u>PHYSICAL SCIENCES</u>		
10/15/85	96 Pieces of microanalytical chemical glassware	22" x 13 3/4" x 2". Mid 20th c. Excellent condition. Good sampling of types of glassware used in microanalysis.

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY</u>		
<u>TRANSPORTATION</u>		
10/15/85	33 Stone sleepers	From railroad on which John Bull operated. 225 lbs, 2' x 2' x 1'. Early 19th c. Blocks of rough-hewn stone (granite or "bog iron") directly supporting two parallel rails in earliest form of railroad track construction in England and U.S. Part of very first section of Camden & Amboy Railroad to open with horse cars between Hightstown & Bordentown, NJ, in September 1832.
11/26/85	Gasoline locomotive & spare parts, dump car, small quantity of rail	Gasoline locomotive: 1919, 3 1/2 tons, 5' x 7' x 10', Plymouth, OH. Early example of internal combustion engine. Goal of division is to bring railroad collection into 20th century. <u>Spare parts</u> : 3 ⁹ box. <u>Dump car</u> : Watt Car & Wheel Co., Barnesville, OH. 1953, 1/2 ton, 80" x 60" x 51". Basic, fundamental prototypical industrial railroad car. User for <u>spare parts</u> and <u>dump car</u> : Hyper-Humus Co., Newton, NJ. <u>Small quantity of rail</u> : 60' 1, 500 lbs., 1/2 ton.
12/18/85	Steel container	1931, 14'8" x 8'2" x 7'6", weight empty: 3,720 lbs; weight full: 13,000 lbs. American Car & Foundry Co. Steel furniture container for international shipments. Ties together road, rail, water and air transportation since containers are intermodal.

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>DEPARTMENT OF HISTORY OF SCIENCE AND TECHNOLOGY</u>		
<u>TRANSPORTATION (cont'd)</u>		
03/05/86	Model of NY Class "ECONSHIP" container ship	Model of ship c, 1982, built by Daewoo Shipbuilding & Heavy Machinery Ltd., South Korea. Model size: 45 x 13 1/2 x 11 1/2 inches to be received from U.S. Lines, Inc., Washington, DC. Container ships, the floating counterparts of the piggyback freight trains, are an American innovation that has revolutionized the world's shipping industry. The model is a representation of 12 identical ships, the largest and most modern of their kind in the world. The design to which they were built embodies the latest achievements in naval engineering, metallography, and hydrodynamics.
03/05/86	Model of stern wheel steamer "Duquesne"	1946-69; 80" long. Donor and model builder: Robert D. Latta, Pittsburgh, PA, Model represents a stern wheel, coal burning, steam-powered tow or push boat, long a familiar sight on the rivers. Fits very nice in HAME inland waterway section. No boats of this vintage and use are currently represented.
<u>NATIONAL PHILATELIC COLLECTION</u>		
10/15/85	Swiss Stamps & covers	Specialized collection, 1843-1979. Singles, pairs, blocks of four, tete-beche (pair of stamps, one upside down in relation to the other), se-tenant (two or more different stamps joined together), as well as covers showing different uses.
02/06/86	2,218 Postage stamps of Turkey	Collection of Turkish stamps contained in 10 stock cards and on approximately 110 album pages.

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
<u>NATIONAL NUMISMATIC COLLECTION</u>		
11/27/85	1 Bronze medal with silver insert	1975, Kauko Rasanen, Finland. Entitled "L.M. Ericsson 1876-1976, Telephone, Sweden 100 Years." Artist is one of foremost medallists in Europe and known for his contemporary multi-part medals.
12/18/85	111 U.S. financial documents	19th-20th c. Fine to very fine condition. Greatly augments NNC's U.S. banking section collection according to city and state.
12/18/85	58 Ancient Greek coins	5th-3rd c. B.C. Ancient Greece and Roman Imperial colonies. Very fine condition, extremely rare and scarce. Unique representation of Southern Italy cities.
12/18/85	40 Sudanese seige notes	1884, Khartoum, Gen. Charles G. Gordon. Very good condition; most complete by demoninations and serial numbers.
12/18/85	14 Ancient Greek silver coins	5th-4th c. B.C. Ancient Greece, Roman Imperial colonies, Asian Ancient Empires. Fine condition, very rare.
<u>ARCHIVES CENTER</u>		
11/07/85	7,500 Cards, posters, scrap-books and photographs	18th, 19th, and 20th c. Norcross Greeting Card Co. (now Windsor Communications). Newspaper clippings, salesmen's sample books, films of sales meetings, slides detailing operation of company, glassplate negatives picturing Louis Prang Co. and staff, color separations for printing of a Prang greeting card. These items will improve the collection by adding unique examples of historic greeting cards, illustrations of printing of cards during Prang era and examples of complete process of manufacturing, advertising and selling greeting cards by Norcross.

GIFTS

<u>DATE</u>	<u>ITEM/DEPT/DIV</u>	<u>DESCRIPTION</u>
	<u>ARCHIVES CENTER</u> (cont'd)	
01/23/86	21 Glassplate negative photographs of Washington, DC, and vicinity	1875-1885. Scenes: Capitol, "Panorama" building near Washington Monument. Fairly good condition, images are sharp and clear.
03/05/86	Records of Chickering & Sons 50 volumes & 1 box	1823-1985, piano manufacturers. Approx. 20 linear feet, from Wurlitzer Company of DeKalb, IL. Chickering & Sons was earliest major piano manufacturer in America. This acquisition would form an important nucleus of records documenting the manufacture and sale of musical instruments in America.

Mr. KENNEDY. Our materials do not tend to be very costly relative to art museum materials, but they do represent such an enormous range of interest and activities and they are so fragile—that is to say, they will go away. They will disappear, in many cases.

Mr. YATES. Can you give us a for instance?

Mr. KENNEDY. Sure. We are acquiring this year a group of pamphlets and letters from a black family in Philadelphia which they have been keeping around which go back a very long way.

They have no particular sense of their historical value. They have little monetary value, but to them that monetary value is very significant.

We do not have, as many art museums do, a group of donors lying around to buy those things for us. That is just not a part of the history museum business.

You don't say, "I want to buy a Rubens," and go to your favorite donor.

Unless we have some Federal funds, we won't be able to stop the deterioration and loss of many significant items associated often with obscure people.

Mr. YATES. Is that being hurt by Gramm-Rudman, too?

Mr. KENNEDY. Yes. That budget, because everything has had to give, has lost about half for next year than what we would have this year.

Mr. YATES. How critical is it? How critical is it that you get the money this year rather than next year?

Mr. KENNEDY. It is important to have available funds to buy things that would otherwise disappear, and since the sum of money here is in the tens of thousands, not in the hundreds of thousands, that restoration would be very important to us.

Mr. YATES. Why don't you take it out of the earnings from your store? You have such a wonderful store.

Mr. KENNEDY. We do.

Mr. YATES. Then you have enough money to take care of everything.

Mr. KENNEDY. No, we don't. There is a Regent's acquisition fund which applies both to us and the others, which the Secretary can tell you about, but we use the store's revenue, as well.

Mr. ADAMS. I would like to correct the record in one small respect. I wish it were true, but the Smithsonian does not have donors lying around waiting to buy things for us.

Mr. KENNEDY. Sorry, I didn't want to imply that.

Mr. ADAMS. I wish we did. Other museums may do better in that respect than we do. They are not lying around to do that.

Mr. YATES. I had the impression donors were standing in line with gifts, and you don't want them. Is that a misapprehension?

Mr. ADAMS. I think that is a misapprehension.

BUDGET NEEDS AT AMERICAN HISTORY

Mr. YATES. Roger, what are your needs and problems of the American History Museum. We saw those lovely items. It is too bad you couldn't have brought the Paderevski piano with you, which I found a wonderful exhibit.

Mr. KENNEDY. We should take this hearing on location, Mr. Chairman.

Mr. YATES. That is a good idea. What were you hoping to do? What will Gramm-Rudman stop you from doing, and how will you be hurt?

Mr. KENNEDY. The cuts, so far, have a much deeper consequence to the operation of our bureau and, I think, other bureaus than appears just by a survey of percentages.

Because of the impact of civil service salaries upon our aggregate budget, which in our case represents about 90 percent of the money that comes in and goes out every year, if you take 4.3 percent plus .6 percent and an unrestored 2 percent of our budget off of the top, it means that, essentially, the money we have to do all of our education, all of our outreach, all of our exhibits, all of our acquisitions, and anything new that would affect the public in terms of "diffusion"—that amount is cut in half by the first round of Gramm-Rudman.

And if I could give you just a little detail as to what that means to the operations of a national museum, it may eliminate some of the needs the other brethren around here have got.

We talked to you for years about trying to get control of our collections through an inventory process.

Mr. YATES. I assume you have that now.

Mr. KENNEDY. We have not. Because each year, we have been coming back to you for the continuing sums necessary both to catch up with the past and also to keep track of what comes in the door every year.

INVENTORY PROGRAM AT AMERICAN HISTORY

We acquire, as we did this year, nearly 73,000 items, but many of them are very small. But some of them are very significant.

What happens here is that we will begin to lose control of that inventory process this year again.

It means that the amount of money that you have given us in the past—to catch up—will now, in a sense, be imperiled, because we aren't going to be able to have enough to finish it up. We will begin to lose control again of our national collection.

Mr. YATES. How will this stop you?

Mr. KENNEDY. We won't be able to hire the people that are necessary simply to keep track of what we own.

There are something like—a thousand objects backed up in our objects processing facility right now not yet in the record.

ASBESTOS CONTAMINATION

And in a place like ours, where we have nearly a million artifacts in our storage facility that are asbestos contaminated—some of them are significant research collections—that material, as a result of the first round of Gramm-Rudman, will not be cleaned up.

It will just stay there, inaccessible to the Nation, though its donors and acquirers went to considerable trouble to get it for the Nation, and we won't be able to clean it up.

We will deal with our asbestos much, much more slowly.

And, the fact of the matter is we are not going to be—we are simply going to have deteriorating material on our hands, because we can't cope with it because it is asbestos contaminated.

Mr. YATES. What does that mean, "asbestos contaminated"?

Mr. KENNEDY. It means anybody who deals with it, who tries to research it, and in some cases—

Mr. YATES. Give me an example of the type of material you are talking about.

Mr. KENNEDY. There is a very, very important collection of glass negatives that, if you dealt with them in their current condition, would be cancer producing, because they have asbestos all over them.

There is the Morgan-type collection—

Mr. YATES. How do you know it has asbestos all over it?

Mr. KENNEDY. That is relatively easy to detect. There are machines.

Mr. YATES. Have you detected it?

Mr. KENNEDY. Yes. We know they are contaminated. There is no question about it.

Mr. YATES. How many such rooms do you have?

Mr. KENNEDY. That is part of the much larger Silver Hill decontamination process. There are, I think, as I recall, five buildings still out there that are still heavily contaminated with asbestos, containing very important national collections.

You just can't do everything, and what we will do is to put that material, so to speak, off limits as long as we have to, because we can't clean it up, and therefore, we can't use it.

Mr. YATES. How many objects are there?

Mr. KENNEDY. About a million.

Mr. YATES. All contaminated.

Mr. KENNEDY. Yes.

Mr. YATES. What will it cost to clean them up?

Mr. KENNEDY. The budgets—I can't give you a boxcar number. If we started right now and hired everybody we needed to do it—

Mr. YATES. Do you have a plan to clean it up?

Mr. KENNEDY. Oh, yes. The asbestos clean-up was in process, and we have line item requests for it.

In this case, we will cancel the hiring of two more people. We will cut and paste. We will cut down the computerization of that process. It just means that is one thing we won't be able to do.

I referred earlier to the acquisitions process—

Mr. YATES. Before you leave that, is asbestos pollution an ongoing matter where if you do not clean it up, will your place suffer so much it will be unusable in the future?

Mr. KENNEDY. Some of those materials will deteriorate because we can't get at them to conserve them.

That will be true of paper items and other things that deteriorate. Those glass negatives were received, in many cases, cracked and they are abrading each other, and we ought to get at them and save them, but we can't because we can't work through the health hazards.

The same process affects everything we do.

Mr. YATES. Yes. How prevalent is this throughout the Smithsonian? This is the American History Museum. Are the other museums—

Mr. ADAMS. You might ask Mr. Tyler about conditions in Natural History.

Mr. YATES. I will.

There is \$400,000 in this budget for that?

Mr. KENNEDY. Yes.

Mr. YATES. That is not enough?

Mr. KENNEDY. No.

Mr. YATES. How much do you need?

BUDGET CUTS AT AMERICAN HISTORY

Mr. KENNEDY. There is about another \$100,000 if they let us keep going. Each of these items has a price tag on it, and there are about eight or ten of them for each of the museums. We will simply, under the first round of Gramm-Rudman, cease service to other museums around the country of shipping items to them, participating in their exhibits. We will not have funds to ship and process the lending of national collection items to other museums around the country, period. We will not—that means, of course, that rich museums—and there are some around the country—will be able to pay for that, the poorer ones won't.

We will terminate all the specialized conservation of the national collections. Anything that we can't take care of and fix with staff in the place—anything that would normally go out to somebody to take care of, and that includes a very, very large collection of prints, drawings and, of course, the kinds of things you think of in the American History Museum, that won't be done. There is no way to contract for specialized conservation service.

You mentioned in a previous discussion the condition of the exhibits programs. Let me run down what Gramm-Rudman will do to us. We will eliminate three small exhibits fully researched, fully prepared and fully scripted. They would have dealt with some aspects of American domestic life, part of the history of American typography, and another small show that bears on the Constitution. It has to do with political history. They are not enormously important, but they belong in a National History Museum. We will have cancelled them. The 442 combat team exhibit—discussing the Bicentennial through the celebration of the heroism of the Japanese community—will get a cut. We will just cut that out of our budget unless you tell us not to.

Mr. YATES. We will tell you not to. I think the 442nd deserves it. Don't you?

Mr. MURTHA. Absolutely.

Mr. KENNEDY. We have already cut \$100,000 out of a major program called "Engines of Change", which has to do with the origins of the American industrial process, due this year. We will try to replace it with private funds, and we are obviously seeking to replace all these cuts with private funds.

As it now sits, the depiction of America as a developing country and the origins of industrial process in this country, which complements our existing show which we call "After the Revolution",

which deals with the domestic or the home aspects of American life, that show will lose \$100,000. It means that is roughly a third to a quarter of its total value and its total potency as a record of the American people.

Cracked glass in the First Ladies' hall will not be fixed, there will be no carpet replacements. We don't have the dough to replace broken glass.

Mr. YATES. How did it get broken?

Mr. KENNEDY. Over time, in a museum, things get broken. We will be closing portions of exhibits that deal with journalism and reporting because we will not be able to spend the thousand bucks a week it costs us to replace light bulbs in our museum. That is a lot of money, and when you can't replace light bulbs, it gets to be unsafe, it gets dark, and when your carpets are deteriorating, people whose heels will get caught will not be able to see the holes in the carpet. That is why we will be closing two primary areas on the third floor of the museum.

Mr. YATES. What flooring is under the carpets?

Mr. KENNEDY. Some of it is marble, but when your heel sticks in it, you don't—

Mr. YATES. Heels don't stick in marble, do they?

Mr. KENNEDY. No, but when there is carpet—

Mr. YATES. Take the carpets off.

Mr. KENNEDY. The Carmichael Auditorium—well, actually we will be taking carpets out.

Mr. YATES. Not in the director's office certainly.

Mr. KENNEDY. We may even take the director's carpet out.

Mr. YATES. Okay. Go ahead.

Mr. KENNEDY. We do not have funds to replace holes and cracks in carpeting in some of our other primary public areas.

Mr. YATES. You are not trying to tell me that all this is a result of Gramm-Rudman cuts.

Mr. KENNEDY. Sure. Because we have been running a very tight ship. We haven't been asking for extra dough here and there to slop around and push around to meet these problems. We are cutting everything across-the-board. But in some cases, where we know we can get our hands on cash, taking it out of a major show, we will take it out. May I proceed with the others?

Mr. YATES. Please do.

Mr. KENNEDY. These are fairly typical. We have a pretty dirty building as it is, it will get dirtier because we won't hire four custodians in our budget and won't hire 12 temporary summer janitors to clean up after the public as it goes through. It is going to look shoddy.

MUSEUM SECURITY

Mr. YATES. Are the guards cut?

Mr. KENNEDY. The regular guards that keep our place safe will not be affected by the Gramm-Rudman cuts. That is the kind of thing, if we had to put the whole thing in cold storage, we will have to make sure the national collections are safe, but we won't be able to make it clean, which is different.

Mr. YATES. Shall I ask you at this point if you have lost any articles to vandalism or theft in the last year?

Mr. KENNEDY. Not this year, sir.

[COMMITTEE NOTE.—The Museum subsequently reported that in the last year, there was a theft from a storeroom of a pocket TV worth \$350 and a manufacturer's label from a tape drive machine on display. Two items were stolen off site: Connie Carpenter's racing suit and a radium dial watch.]

Mr. YATES. Do we know about previous years?

Mr. KENNEDY. Yes. We reported to you on previous years, sir. We are going to be canceling heavily in our performance programs two Smithsonian series and publications, meaning publications intended for general readership. Both the manuscripts are ready. We will cancel all the music programs for the rest of this spring and summer. Our education programs, our interaction with the school system in the District of Columbia will be cancelled, our floor plans distributed to the public will be cancelled.

COLLECTIONS OF STAMPS AND COINS

With respect to the numismatics, the stamps and coin collection, they will stay in purgatory. We will not hire a maritime curator who would have dealt with patterns of trade in shipping, with particular relationship to Latin America, which would have helped us considerably get ready for the Columbus Centennial unless we can raise that dough privately.

Mr. YATES. Where is purgatory?

Mr. KENNEDY. Purgatory means we will not be able to present those collections to the public as they require because we can't staff them for that purpose. In general, we are going to—

Mr. MURTHA. Could I ask, you mean you are cutting back on staff, is that why you can't staff for that purpose?

Mr. KENNEDY. We will not be able to complete the staff positions we would fill in order to bring those collections—

Mr. MURTHA. You are losing people through attrition of some sort, and you are not going to replace them, that is the way you will reduce—

PRIVATE FUNDRAISING

Mr. KENNEDY. That is right. Unless we can do that on the private roll side. I want to assure you we are breaking our backs to raise money for each of these essentially Federal functions by the private fund raising, all the way across-the-board.

Mr. MURTHA. Are you having success?

Mr. KENNEDY. Yes, sir, we are having considerable success. And we would be glad to give you a report on the private side as to what we are raising. I want to make this point, however, as vigorously as I can. This description I offer you of the condition of one national museum, which is typical, I am sure, of all the others, represents just the first round. If there are further rounds, there is no escaping reductions-in-force or furlough. If that occurs, we are going to force our good people out the door, even with furloughs, because they will be able to be hired elsewhere, and we will be impacted by civil service regulations which means our best people

will go, irreplaceably, and the quality of service we offer to the public, both in research and in exhibits, is going to continue to deteriorate.

Mr. YATES. A grim picture.

Now, let's turn to Ms. Carr from the National Portrait Gallery.

MATHEW BRADY PHOTOGRAPH

Ms. CARR. Actually, I did not bring any object, per se, because they are both on exhibition at the moment.

However, I did bring two photographs to give you an idea of some of our important things.

Mr. YATES. Can you pass it forward? My glasses don't go that far. We need one of your telescopes.

Ms. CARR. The first photograph is actually a photograph of a daguerreotype we were able to purchase at auction. It is the only known portrait of the photographer Mathew Brady.

It shows Brady with his wife and her sister, Mrs. Handy. We were particularly pleased to have this. Not only is Brady a major 19th century photographer, but the Portrait Gallery has an extensive collection of his works.

THOMAS EAKINS PAINTING

The other portrait is of a man—

Mr. YATES. I recognize it. It is an Eakins. Go ahead.

Ms. CARR. The other is a portrait of Talcott Williams by Thomas Eakins, who, is a major 19th century painter. We are delighted to have it.

Mr. YATES. How did you get it? Did you buy it, or was it given to you?

Ms. CARR. There is a complicated statement as to how we acquired that. It is a donative purchase, which means that the owner of the item contributed a great deal toward the purchase price.

We also acquired \$25,000 from the Smithsonian Society. We were able to add to it.

Mr. YATES. What is the total cost of the painting?

Ms. CARR. Well, the value was—the painting was appraised at \$280,000, and the donor contributed approximately \$130,000. We paid approximately \$150,000. Twenty-five thousand came from the Smithsonian Society, and we used \$125,000 in Federal funds.

GIFT APPRAISALS

Mr. YATES. Do you still get in trouble with IRS on your appraisals?

Ms. CARR. I hope not.

Mr. YATES. I hope not, too. But my question is based upon the experiences of the Smithsonian with the gem collection. You don't boost these in order to attract gifts? When I say you don't "boost" this, you don't boost the appraisal.

Ms. CARR. I understand exactly what you are saying. We have no relationship with the appraiser in the sense that the owner of the painting is one who is to acquire the appraisal.

What we know is the amount that we have to contribute toward the acquisition. We are, however, clearly aware of the appraisal.

ACQUISITIONS PROGRAM AT NATIONAL PORTRAIT GALLERY

Mr. YATES. Are you of a mood to buy other paintings or in the mood to obtain other acquisitions you know about and cannot acquire?

Ms. CARR. Well, let me give you an example. There are two things—one that came up we would have liked to have bid on, a painting by Peale of Edgar Benson, and we had only limited Federal funds, and the—

[COMMITTEE NOTE.—The witness misspoke and should have said Gilbert Stuart instead of Peale.]

Mr. YATES. What was the cost of the Peale?

Ms. CARR. The painting went for \$90,000. We were only able to bid \$30,000.

We would like to bid on the David Rittenhouse coming up, and we do not have any Federal funds to do that.

Mr. YATES. Have you tried to find donors?

Ms. CARR. Yes. In all cases.

Mr. YATES. For this purpose?

Ms. CARR. Yes. Unfortunately, the timing of things is such that it makes it very difficult to do this.

Mr. YATES. This is one of those times?

Ms. CARR. Yes.

Mr. YATES. Could you find a donor if you could put up a part of the purchase price, as you did for the Eakins?

Ms. CARR. Well, it depends. In this particular case, the time between our knowledge of the painting and the time that it is going to be made available to the public makes that somewhat difficult.

I think in other circumstances, where it would be in a private collection, we would certainly look. But I think everyone agrees that acquiring—

Mr. YATES. What does everybody agree on?

Ms. CARR. I think the Secretary said that donors are not standing in line. That is, one has to go and look for them. They certainly are out there, but they are not always—

Mr. YATES. In other words, you don't have a pool of donors you could tap for each of these.

Ms. CARR. Precisely.

Mr. YATES. What is your acquisition fund? Do you draw your money for acquisitions out of the same fund Mr. Kennedy does? How do you do it?

Mr. Anderson wants to volunteer and answer.

Mr. ANDERSON. I might be able to clarify that a bit. Each of these museums has from this subcommittee and from the Congress, generally, a line item appropriation the committee has made available.

Within that there is an object class break down of types of expenditures: salaries, contracts, things of that sort. One of those is "purchases for the collection." So, it is controlled down—

Mr. YATES. The collection or collections?

Mr. ANDERSON. For the collection of the bureau in question.

Mr. YATES. This is a budget that is applicable to each of your museums?

Mr. ANDERSON. That is correct.

Mr. YATES. How do you reconcile that with what I thought your testimony was, that you have a pool out of which one year one of your museums may get a major—

Mr. ANDERSON. In addition to what the subcommittee and the rest of the Congress has been able to do with regard to acquisition funding for the Smithsonian, we have our own trust fund that we also make available to ourselves, if you will, through internal allotments, for the purpose of purchases.

Mr. YATES. Carolyn gets \$363,000, doesn't she, this next year?

Mr. ANDERSON. Gramm-Rudman-Hollings notwithstanding.

Mr. YATES. Is this budget prepared with Gramm-Rudman in mind for 1987?

Mr. ANDERSON. It shows the reduced figures for 1986.

Mr. YATES. That is for 1986. What about 1987?

Mr. ANDERSON. It assumes Gramm-Rudman-Hollings will no longer be in place for fiscal year 1987.

Mr. YATES. Oh, my, what an optimist. So that Carolyn's \$363,000 may well be reduced by as much as 10, 12, or 15 percent if Gramm-Rudman—

Mr. ANDERSON. Considerably more, sir, yes. It is one of the few areas, unfortunately, in the museum's budget where there is flexibility, the dollars in question are not encumbered by payroll expenses.

Mr. YATES. Carolyn, is there anything else you want to tell us?

Ms. CARR. No.

Mr. YATES. Is \$363,000 enough for you?

Ms. CARR. I don't think any museum director would ever feel that an acquisitions budget is adequate.

Mr. YATES. That is the same as you had for 1986.

Ms. CARR. No, actually, it is less than that. We are working with \$347,000, that is the amount we have to spend.

Mr. YATES. Why is that?

Ms. CARR. Because of the 4.3 percent cuts.

Mr. YATES. Would you like to expand on that?

Ms. CARR. I would like to very much. First, I will begin with the impact of the 4.3 cuts—

CONSERVATION EFFORTS AT AMERICAN HISTORY

Mr. YATES. I want to ask Mr. Kennedy one further question. What is the effect of Gramm-Rudman on conservation measures? You did touch on it. Would you lose control of your objects in any respect?

Mr. KENNEDY. Yes, we will.

Mr. YATES. I don't mean inventory.

Mr. KENNEDY. I understand.

One thing is what you do with your own staff, the folks you have in the house. Because that isn't a big staff, they tend to be fairly generalized, they do the best they can. But what you do when you have a particular problem requiring a particular skill that is

beyond that that you can muster in your house, you send it out. Those are contracted services.

We will simply not be able to do that. Important items will, therefore, not be conserved and will slip. One year, okay. Two years not so okay. More years than that, important aspects of the American past will be lost to the future, and that process commenced this year.

BUDGET CUTS AT PORTRAIT GALLERY

Mr. YATES. Carolyn.

Ms. CARR. The first of the \$155,000 that we were asked to take out of our other budget consists of \$12,000 that we had allotted to the purchase of research photographs for the Catalog of American Portraits and for research travel in that department.

We also deferred replacement and conservation of photographic equipment; we reduced funding for the collections, which is the discrepancy between the \$363,000 and the \$343,000 that we anticipate spending. We deferred an exhibition that is related to the history of building; and we have reduced printing of public information. If you come and want a brochure about the Portrait Gallery, you will have to negotiate with the volunteer at the desk for the few that are remaining.

We have reduced purchases of office equipment; we have eliminated exterior banners and signs indicating the current exhibitions and images that focus on major items in our collection; and we have also reduced building support maintenance.

Mr. MURTHA. In the long-term, when you cut out building support maintenance, isn't that counterproductive?

Ms. CARR. There is no question about that. And in Gramm-Rudman, we are talking about day-to-day kinds of things. There are also items that were denied us, larger in scope, by OMB. For instance, the tile in the Great Hall, a space which is used by not only the Portrait Gallery, but also by American Art and the Resident Associates Program. We had a request for \$120,000 of maintenance to be done there, and that will not be done.

Mr. MURTHA. It seems to me, even not keeping the place clean, some of the objects will deteriorate and you would have to at some point paint before you would normally. I don't know where else you could cut, but I hate to see maintenance cut back.

Ms. CARR. You can become a little shabby, and it no longer has appeal to the public.

Mr. MURTHA. Not only that, in the long run you have to repair it, and it costs more.

CONSERVATION EFFORTS AT PORTRAIT GALLERY

Mr. YATES. What happens to your portraits? Are you able to conserve and preserve them?

Ms. CARR. We had requested in last year's budget another person for conservation. What not having that person does is, it slows down the process of maintaining and caring for our collections.

Mr. YATES. What is the process of conservation of your portraits? You have all of these 200 and 300-year old portraits. I assume that with the passage of time, they deteriorate unless, of course, the

conditions in which they are shown are so perfect that that process doesn't take place.

Ms. CARR. It continues to happen, particularly when we acquire new works. They very often come from private collections, and there has been no maintenance of these objects for 200 or 300 years. We also have a backlog of items that have been in the collection that need to be lined, to have surface cleaning done, to be re-stretched, etc. They are just there, and sometimes not presentable to the public.

Mr. YATES. How many people do you have in your conservation department now?

Ms. CARR. We have one paintings conservator and one paper conservator in the whole collection.

Mr. YATES. How many objects do you have?

Ms. CARR. Altogether, we have over 15,000 objects in terms of paintings, sculptures, prints and photographs.

Mr. YATES. I take it, then, your one paper and one painting conservators are kept fairly busy.

Ms. CARR. Absolutely. They have an extensive backlog.

Mr. YATES. How do you keep on top of something like that? That is an enormous task. Is it your objects are in such perfect condition, you don't need conservation?

Ms. CARR. No. We have a whole list of things that need to be done and we would like to have done. What we have to do is prioritize those.

Mr. YATES. How many of them need to be done, and how many are placed on your priority list? I hate the word "prioritize".

Ms. CARR. I would like to come back with specific information on that. I think it is somewhere between 25 and 50 items that have very high priority.

[The information follows:]

CONSERVATION NEEDS

The National Portrait Gallery (NPG) acquires many things from private collections that have not been properly cared for. With limited staff, attention is given first to those items that are in immediate need of care to prevent further loss and deterioration. There are, however, many items in NPG's collection that have been stabilized, but still need additional conservation measures to make them exhibitable.

For instance, approximately 40 paintings, 50 drawings, an equal number of prints, and at least 20 sculptures could use conservation measures of one sort or another. Each year NPG acquires more than 100 original works of art that were the basis for Time magazine covers. Usually these works all need new housing and nearly 50% of them need additional treatment. In the photography collection, 36 daguerreotypes are tarnished and need cleaning. Also, facsimile quality preservation negatives should be made of more than 5,000 Mathew Brady photographs in the Meserve Collection.

Two conservators on the staff are responsible not only for treatment of works of art, but also must give condition reports on all works of art loaned from the gallery (Last year more than 300 objects were loaned to other museums.) They also spend a great deal of time giving advice to the design staff about the mounting and display of works of art on loan to the museum for temporary exhibitions.

Mr. YATES. I suppose you can't say it takes so long to do a conservation job on a painting. It all depends on the condition of the painting.

Ms. CARR. It very much depends on the condition of the painting. In fact, we look very carefully—one does not want to make judg-

ments about what has come into the collection based on whether you can actually care for it or not, but that is a consideration.

Mr. MURTHA. If the place gets dirty, don't your paintings get worse? If you cut back on cleaning the place, it seems everything will get worse and deteriorate to the point where you can't restore it.

Ms. CARR. Yes. Our system, in terms of heating and air conditioning, is antiquated, which means things do need to be surface treated.

CONSERVATION AT AMERICAN HISTORY

Mr. YATES. Roger, what is happening to your objects? I meant to ask you this question. How big of a conservation department do you have?

Mr. KENNEDY. Five professionals, one unfilled paper conservation position which we can't fill. We have, as you know, a large collection. The numbers are not terribly useful in our case because we have 14 million postage stamps, but beyond postage stamps, there are 3.5 million objects to be conserved.

Mr. YATES. Is there a priority list you have?

Mr. KENNEDY. Sure.

Mr. YATES. Is there such a thing as a critical priority list you have? Will you be sending them out for conservation because you don't have the ability to do it yourself?

Mr. KENNEDY. We will not be able to send them out for conservation because we don't have money for the contracts.

Mr. YATES. This is the drive of this administration, too, to let private enterprise take care of it rather than have an in-house conservation.

Mr. KENNEDY. That is wonderful if someone will write us a check to write the contracts with.

Mr. YATES. Where are you going to send them? Aren't you, in the Smithsonian, the place where objects are sent for conservation?

Mr. KENNEDY. That is correct, Mr. Chairman. The fact of the matter is the Conservation Analytical Laboratory at the Smithsonian is the place where other people would send their stuff, and so, of course, would we. But the fact of the matter is that our materials are deteriorating, they are not being conserved. It will be vastly more expensive, and in some cases impossible to restore them in the future, and, therefore, we are in a situation where, not only are the buildings deteriorating, but so are the objects which are not only economic—

Mr. YATES. How many objects do you have on your priority list for conservation, and what are they like?

Mr. KENNEDY. It doesn't—

Mr. YATES. You don't want to put that in the record.

Mr. KENNEDY. Sure. But it doesn't break readily—there is a spectrum, obviously, of things that you would do if you had this much money, this much money or this much money. We can give you such a list of what is on our conservation list right now.

Mr. YATES. What I am trying to find out is, are any of your very fine objects in jeopardy? Will these be able to be passed on when you and I and Mr. Adams and everybody who is now trying to take

care of them go? What condition will they be in when your successors come there? Will they be in such a condition as future generations will be able to enjoy them?

Mr. KENNEDY. The answer to that is yes, they are in jeopardy, and as I suggested earlier, for two reasons. First, the customary conservation necessities, which will go unmet, and, secondly, because some of them are, so to speak, off limits for health reasons. There are two reasons they are deteriorating.

BUDGET CUTS AT PORTRAIT GALLERY

Mr. YATES. Thank you.

Do you have an asbestos problem?

Ms. CARR. No.

Mr. YATES. You are lucky then. Do you have any other problems you should tell us about? I don't mean personally.

Ms. CARR. I would like to also mention some of the other OMB cuts that are going to impact upon us. There has been a \$3 million request for planning for the General Post Office Building, which has been denied. Also, we asked for \$55,000 to be added to our base for automation, and we have only \$20,000. This is very severe in the sense that it impacts on collections maintenance and it also impacts heavily on the kind of research we do.

Mr. YATES. It occurs to me, at long last, the Nation's museums are beginning to feel the strictures private museums have had for many, many years, and it shouldn't be. It shouldn't be. Is the day coming when you will have to charge admission?

Mr. ADAMS. Under the impact of Gramm-Rudman, that subject may need to come up.

Mr. YATES. Had you concluded?

Ms. CARR. No. That is why I am still standing.

Mr. YATES. I gathered that. There was kind of a hint there.

Ms. CARR. I would also like to indicate to you what further reductions would do if we were to take 10 percent of our budget on top of what has already happened. We would basically have to eliminate all exhibitions and publications that would occur next year.

Mr. YATES. All exhibitions?

Ms. CARR. Yes. All exhibitions.

Mr. YATES. Nothing for the public to see?

Mr. ADAMS. All new ones.

Ms. CARR. All new exhibitions.

Mr. YATES. OK. What you are saying is, you wouldn't have any new shows like the various—

Ms. CARR. Right. The Chester Harding, William Edward West shows, those kinds of shows. The exhibitions like those on General Grant would not occur, and will not under the reduction.

Mr. YATES. That museum is so beautiful now, the corridors and the hanging of the paintings. The layout is so beautiful, and I hate to think of it deteriorating, and it will, won't it?

Ms. CARR. Yes. We have a request to rehang the permanent collection to make it even more interesting and beautiful, and that has been denied.

Mr. YATES. Mr. Adams is tough on you, isn't he? I didn't hear your answer.

Ms. CARR. I did not respond.

RECENT ACQUISITION OF AMBER

Mr. ADAMS. Mr. Chairman, I suggest we turn to the Museum of Natural History. Mr. Tyler is here.

Mr. TYLER. Let me show some recent acquisitions. There are 5,000 pieces of amber from the Dominican Republic that are 24 million years old.

These are valuable because of the inclusions of plant and insects in the amber, and it gives you a snapshot of evolutionary time from 24 million years ago with plants and animals perfectly preserved, far more than you would get in paleontological stone.

Mr. YATES. Do they make these more valuable than if they had been clear?

Mr. TYLER. Yes. They would be worth about \$100. With the inclusion of insects and plants, they are worth ten times that. They give you an idea what was happening 24 million years ago, with insects copulating, in some cases, or a female depositing eggs, or a flower spewing forth pollen.

Mr. YATES. How long ago?

Mr. TYLER. Twenty-four million years ago.

Mr. YATES. How do you know?

Mr. TYLER. They can be dated by the amber chemically. You know it is 24 million years very precisely.

Mr. YATES. You know flora and fauna from the period 24 million years ago?

Mr. TYLER. Yes. Particularly by the inclusion of pollen grains in the amber. The pollen can be dated very precisely.

Mr. YATES. Does that mean you know all the time periods dating before that, too?

Mr. TYLER. Yes.

Mr. YATES. Is that the last time layer you go, 25 million years ago?

Mr. TYLER. No, in the period of time it goes Oligocene, Miocene, Pliocene, Pleistocene, and then the recent.

Mr. YATES. You go back 25 million years in your findings?

Mr. TYLER. Closer to 2 billion years for finds of organic life.

Mr. YATES. Really?

Mr. TYLER. Yes.

Mr. YATES. That is impressive. You had better take these gems. Tell us—what else? This is fascinating.

INDIAN SKELETAL REMAINS

I have a question to ask you, though. What about giving your collection of Indian bones back to the Indians?

Mr. TYLER. I would certainly consider any legitimate request from a person who had a biological connection with the bones or is a representative in standing of a tribal group.

Mr. YATES. Of a tribal group. Will the tribes have difficulty in identifying the bones as belonging to ancestors in their tribe?

Mr. TYLER. Would they?

Mr. YATES. Do you know which tribes' bones you have?

Mr. TYLER. We have approximations of a tribe. It is oftentimes by the geographical locality. We know what state the bones came from and you sometimes suppose, therefore, what tribe of Indians the bones came from.

Mr. YATES. In other words, you would have the six nations up in New York, for example.

Mr. ADAMS. Part of the problem, Mr. Chairman, is that the process of white settlement was one that displaced Indians continuously westward, so that you are dealing with successive movements and resortings that were very complex and that continued over the entire period of relatively recent research, and to try to extend the pattern back into prehistory, in view of all that sorting and resorting that went on, is really very difficult.

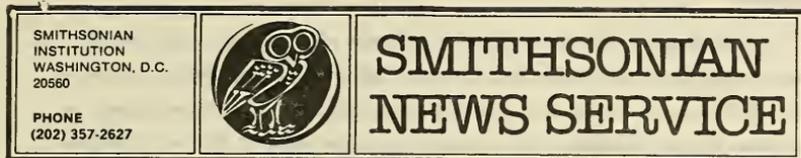
So that making attributions at the level of the tribe becomes exceedingly complex.

Since you raised the issue, it is a matter to which the Smithsonian has given quite a lot of attention, both from a purely legal point of view and also from the point of view of the scientific importance of our collections of bones, and if this is the right moment, you might want to hear from David Challinor on the scientific end and Peter Powers on the legal end.

Mr. CHALLINOR. The scientific end is very important. To help explain, I have a press release I will show you that explains in greater detail—

Mr. YATES. We will put it in the record at this time.

[The information follows:]



February 1986

UNEARTHING ANCIENT DISEASES

By Madeleine Jacobs
 Smithsonian News Service

Dead men don't tell tales, but as many an anthropologist will tell you, skeletons can speak volumes.

Consider, for example, the skeletal remains of a man excavated in 1983 at an archaeological dig in Bahrain. Although no written accounts exist of his life 4,000 years ago, archaeologists relate this story:

The 5-foot-6-inch-tall, powerfully built man was in his 40s or 50s when he died, a ripe old age by antiquity's standards. For most of these years, he lived elsewhere, perhaps in south Asia—possibly India—or Iran, where the water supplies are unusually high in naturally occurring fluorine.

His fused spine and mottled brown teeth, typical of an uncommon disease caused by excessive fluorine in the diet, were the tell-tale clues to this man's past. Since the other skeletons excavated thus far at the Bahrain site show no evidence of this disease, scientists conclude that the man probably migrated to Bahrain, then as now a busy trading center in the Persian Gulf.

For decades, archaeologists have been using the bare bones of history to glean information about the lifestyles of our distant ancestors. Now, a growing specialty in anthropology—a 150-year-old field known as "paleopathology"—is unearthing new insights about the origins and patterns of disease over a span of thousands of years.

To physical anthropologists like Dr. Donald J. Ortner of the Smithsonian's National Museum of Natural History, the renewed emphasis on paleopathology—the study of ancient disease processes, with emphasis on skeletal remains—is overdue.

-more-

Skeletons/2

"I'm interested in the big question of how humans adapt," Ortner says, "and different disease conditions reflect both biological and cultural components of the past." Infectious disease, for example, increases with urbanization. Other diseases, such as lung cancer and heart disease, reflect changes in the environment, diet and lifestyles.

Disease can also have dramatic consequences for entire civilizations. In America in the 18th century, smallpox wiped out entire Indian tribes. "In 1918, at least 21 million people worldwide died from influenza," Ortner notes. "In the more distant past, plague and epidemics decimated major cities. Thus, the role of disease in human adaptation is one of the most important problems in the study of our biological history."

Ortner's key to unlocking the secrets of the skeleton is the Smithsonian's incomparable collection of carefully cataloged skulls and bones. This, the world's largest such collection, contains more than 35,000 skeletons. They represent nearly every geographic area of the world; some date back 5,000 years, to the early development of cities.

As a source of information on ancient disease, skeletal remains are both "tantalizing and frustrating," Ortner explains. "The bad news is that most diseases that kill large numbers of people don't affect the skeleton. Influenza, smallpox, heart disease, lung cancer, the dramatic things--these very rarely affect the skeleton. The diseases that affect about 10 percent of archaeological skeletons are relatively chronic illnesses.

"The good news is that among diseases that do affect the skeleton, there are some very important illnesses--for example, arthritis, certain types of cancer, tuberculosis, syphilis. In fact, virtually all diseases found in modern bones are also seen in ancient bones." Best of all, compared to other archaeological evidence that could give clues about disease patterns, skeletal remains are relatively abundant.

At the very least, a well-documented skeleton should reveal to a skilled physical anthropologist the person's age, race and sex. Then, Ortner says, comes the tricky part: figuring out what is disease and what is normal.

After years of studying normal and pathological skeletons, Ortner and a long-time colleague, Dr. Walter G. J. Putschar, a consultant pathologist with the Massachusetts General Hospital in Boston, put their findings together in a 488-page volume, described by some anthropologists as the "bible" of paleopathology.

Diseases manifest themselves in the bones in one of several ways--by a build up or destruction of bone tissue or both. In addition, bone tissue may appear normal but have abnormal shape or contour. Various disease processes often preferentially affect groups of bones, specific bones and specific locations in bones.

For example, when it affects the skeleton, tuberculosis most often shows up in the form of destroyed vertebrae, the bones of the spinal column. Syphilis affects parts of the skeleton with less soft tissue, giving the top of the skull a worm-eaten look and disfiguring the shinbone and the ulna (the larger of the two bones of the forearm).

Several diseases appear to affect the skeleton in similar ways, however, and it is often difficult to make a firm diagnosis solely on the basis of the bones. One advantage the paleopathologist often has over a pathologist who deals with living people is access to an entire skeleton. The total skeleton can provide valuable information in making a diagnosis and a broader understanding of the range of expression of skeletal diseases in untreated cases. Ortner uses visual inspection and X-rays of the bones, as well as chemical and microscopic analysis where appropriate, to come up with a diagnosis.

There are more than a few mysteries to keep things interesting for Ortner and Putschar, who are now investigating 500 of the most unusual pathological skeletons in the Smithsonian's collection. The three-year study is funded by the National Institute of Arthritis, Diabetes and Digestive and Kidney Diseases.

For starters, there are the five baffling cases from Alaska, dated around 1750. The skeletons show a pattern of lesions that does not resemble any condition except a fungal disease. "But this kind of infection among modern Eskimos is almost unheard of," Ortner says. "We don't know the answer, but perhaps these individuals had weakened immune systems from another disease that led to a rare, opportunistic infection by fungi."

Piecing together the past also leads to present controversies. One of the longest and most intense debates in the medical profession centers on the origins of syphilis. Some historians of medicine argue that the disease was introduced into the New World by Columbus and his crew. Another school contends that syphilis existed in the New World before Columbus arrived and was introduced into the Old World by Columbus' band on their return. A third view holds that the disease existed in both the Old and New Worlds.

Enter paleopathology into the debate. Several years ago, Ortner assisted in an excavation of an adult skeleton near Dulles Airport in Northern Virginia. The skeleton showed definite signs of syphilis and was dated to around 1100 or 1150. Though the questions about syphilis are far from settled, Ortner says, "this skeleton is one of the best pieces of evidence so far that syphilis was in the New World before Columbus."

Tuberculosis, another disease often associated with urban life, apparently also had its origins in ancient times. In 1977, Ortner participated in the excavation of a 5,000-year-old fortified town, Bab edh-Dhra, in Jordan near the Dead Sea. In one tomb, the skull of a 7-year-old child and an 18-year-old man provided evidence of tuberculosis, two of the earliest cases of this disease on record.

Far from being academic, such cases have meaning to today's clinicians, says Dr. Bruce Ragsdale, a pathologist at Georgetown University Medical Center in Washington, D.C., and a Smithsonian research associate who has worked with Ortner and Putschar. "Most pathologists today are content if they can assign a name to a pathological specimen. To the paleopathologist, that's just the beginning. The really interesting questions are: Where did these diseases come from, how have they changed over time, how do various diseases relate to each other, which are old, which are new, do some no longer exist?"

The origins of rheumatoid arthritis, a debilitating disease that afflicts an estimated 7 million American adults, is one of the conditions of interest to clinicians. Some researchers believe that the disorder is relatively new, arriving on the scene around 1700 as the result of a virus that mutated from another virus. However, Ortner has studied a skeleton of a 35-year-old Alaskan woman who lived around 1200 that shows indications of rheumatoid arthritis (though it could also be one of several diseases that resembles this type of arthritis). Additional cases from antiquity could help resolve the evolutionary history of this crippling illness.

Says Ragsdale, who specializes in skeletal diseases: "Those in modern medicine who are interested in diseases of the kidneys, liver and lungs are out of luck because such specimens have only been collected systematically for 150 years or so. But the bones are there, right back to the beginning of humanity. Mapping diseases over time can tell us about the challenges humanity faced in the past and what we may face in the future."

♦ ♦ ♦ ♦



Smithsonian News Service Photo
by Dana A. Penland

Information on selected disease patterns in ancient specimens in the Smithsonian's extensive skeletal collections is being computerized by Dr. Donald J. Orner and his research assistant, Janet Beck, in a project funded by the National Institutes of Health. Orner holds a skull from Gabon, Africa, that shows signs of chronic infection. The X-ray of a Peruvian Indian skull in the photo at left reveals numerous lesions from metastatic cancer.



Smithsonian News Service Photo
courtesy of Donald J. Orner



Smithsonian News Service Photo by Dana A. Penland

Dead men don't tell tales, but skeletons can speak volumes. From the bare bones of history unearthed at archaeological sites around the world, physical anthropologists like Dr. Donald J. Orner, of the Smithsonian's National Museum of Natural History in Washington, D.C., can reconstruct much about lifestyles of ancient humans. Spread before Orner are bones, selected from the Smithsonian's collections, which show evidence of disease processes.



Smithsonian News Service Photo by Kjell Sandvød

In 1977, anthropologists continued excavation of a 5,000-year-old fortified town, Bab edh-Dhra, in Jordan. A number of the bones found in the burial tombs showed signs of various disease processes. Here, Smithsonian anthropologist Donald J. Ortner examines the skeletal remains of at least four people, found in a tomb at the base of a 4-foot-deep shaft.



Smithsonian News Service Photo by Donald J. Ortner

Anthropologists found a mixture of skeletons and pottery in this 5,000-year-old tomb at Bab edh-Dhra

in Jordan. One of the skulls, that of a 7-year-old child, showed possible evidence of tuberculosis.

SKELETAL RESEARCH

Mr. CHALLINOR. The scientific evidence that these remains can show us a great deal about spread of diseases, the diets of people, and whether certain diseases originated in the New World or the Old World. This has been a source of confusion for many years.

As a result of these investigations, we have learned many answers which are spelled out in that press release.

Mr. YATES. But has your research on the bones, valuable as it is, been concluded?

Mr. CHALLINOR. No. Research would go on as long as we have the collections and as long as we improve the techniques of analysis, so that the collections we now have are, in effect, a giant bank from which we can draw further and further information as the techniques develop to analyze them more accurately.

Mr. ADAMS. Mr. Chairman, only in the last few years have there been major advances in the analysis of bone protein that make it possible to identify dietary factors in prehistoric skeletal material, to distinguish between different patterns of diet, and so on.

That is simply indicative of the fact this is a moving front of scientific research where possibilities are still expanding as to what can be done.

LEGAL CLAIM TO SKELETAL REMAINS

Mr. YATES. Okay. Judge Powers, do you want to tell us what the legal ramifications are?

Mr. POWERS. Mr. Chairman, the legal situation is superficially very simple. The Institution, as you recall, is a trust, and it holds all of its collections in trust for not only the American public, but the people of the world, so it is not free to simply dispose of an item without a valid legal claim to it.

It is not a new question. Over the years, we have had a number of requests for the return of material, and we simply have to have the evidence, not only that the claimant is the right person and has a claim or title to the object, but we have to look through our records to see how we acquired it and so forth.

So, each case is considered on its own merits, but the basic principles are fairly simple. They have to show a good claim.

Mr. YATES. I respect your reply, and I can understand why it is essential that you know the validity of the claim before you return your object.

I would assume that Miss Harjo and the other young lady who came to see me must recognize that. I assume the National Congress of American Indians speaks generally for the Indian people, and not specifically enough to validate claims. But that is something that they will have to do.

But they do ask this. They want to have a meeting. In their letter to me, which I will put into the record, a letter dated March 17, they do ask for a meeting with Mr. Adams regarding development of the Smithsonian policy to return human remains to tribes and regarding their practice of public display of Indian remains.

I didn't know you put these on display. "We feel the Smithsonian should sponsor this meeting and pay people's expenses for such a meeting."

I don't know how many people are involved, but I assume that you would be glad to talk to Ms. Harjo.

Mr. ADAMS. Certainly.

[The information follows:]

OFFSET
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Billy Cypress
Micosalusa Tribe

TO: REPRESENTATIVE SIDNEY YATES DATE: MARCH 17, 1986

FROM: SUZAN SHOWN HARJO, EXECUTIVE DIRECTOR

RE: SMITHSONIAN COLLECTION OF AMERICAN INDIAN HUMAN REMAINS

The Smithsonian Institution has the skeletal remains of 14,000 American Indians, plus an unknown number from Alaska. The total human remains collection is 32,000, with many of them being Indian remains from Canada, Mexico, Central and South America. The remains are stored in the Natural History Museum. Furthermore, the Smithsonian has on display on the second floor of the Natural History Museum several hundred Indian skeletons. Most other Museums at least have the sensitivity to not display human remains, especially Indian remains.

NCAI and other organizations requested in a July 22, 1985 letter to Smithsonian Secretary Robert McC. Adams a meeting with him regarding the Smithsonian's collection of human remains and the possible return of those remains. We were told that there was no purpose in meeting with the Secretary until further work was done on the inventory of human remains, and until we had further defined our questions.

We subsequently met twice with the Acting Director of the Natural History Museum, and one of those meetings included the Chairman of the Museum's Anthropology Department. We also met separately with the Museum's Chief Curator. None of these meetings resulted in any concrete progress, except for the development of a state-by-state listing of Indian human remains.

At the Smithsonian's request NCAI presented a detailed list of questions regarding the human remains inventory on September 11, 1985. None of our questions have been answered with the exception a state-by-state listing of remains. The Smithsonian has given no indication that they are attempting to research and answer our questions contained in our September 11 letter.

We requested again, by telephone, a meeting with Secretary McC. Adams in December 1985 and February 1986. The meeting requests were timed to coincide with the presence in Washington of Indian people who wanted to meet with the Secretary. We were told that there is nothing to discuss at this time, and were told that internal discussions

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Dennis Turner
Runcion Band of Luiseno

SOUTHEASTERN AREA

Billy Cypress
Miccosukee Tribe

are taking place. We have no information about those discussions.

We request that you:

- 1) Facilitate a meeting between Secretary McC. Adams, NCAI and Indian people from around the country regarding development of a Smithsonian policy to return human remains to tribes and regarding their practice of public display of Indian remains. We feel the Smithsonian should sponsor this meeting and pay people's expenses for such a meeting.
- 2) Request the Smithsonian to answer the questions in our September 11, 1985 letter regarding their collection of human remains.
- 3) Question the Smithsonian regarding their policy of maintaining a collection of American Indian skeletons and the expenditure of money to maintain this collection.
- 4) Communicate with the Advisory Council on Historic Preservation regarding the Smithsonian. The Advisory Council has a balanced view and could possibly serve as a mediator with the Smithsonian.

Attachments

- 1) NCAI letters of July 22, 1985 and September 11, 1985 to the Smithsonian.
- 2) Four articles regarding the Smithsonian's human remains collection.
- 3) Smithsonian letter to tribal representatives (chairmen of federally recognized tribes) and a state-by-state listing of Indian human remains.
- 4) Four papers delivered at the American Anthropological Association meeting in Washington, D.C. in December 1985 regarding reburial of Indian skeletal remains, including one paper specific to museum issues.

Mr. YATES. "We also request the Smithsonian to answer the questions in our September 11, 1985 letter regarding their policy on human remains." Has that been answered?

Mr. ADAMS. I believe we have answered all our correspondence.

Mr. ANDERSON. That is my understanding, Mr. Secretary.

Mr. YATES. They say this:

At the Smithsonian's request, NCAI presented a detailed list of questions regarding the human remains inventory. None of our questions have been answered. With the exception of a state-by-state listing of remains, the Smithsonian has given no indication they are attempting to research and answer our questions contained in our September 11 letter.

Would the director know about this?

Mr. ADAMS. I certainly recall seeing a copy of the letter that was sent by the chairman of the anthropology department in response to that.

Now, the answers may not have satisfied them. There are some 14,000 Indian remains in the Smithsonian collections. So, that is not something to which one can supply an instant reply—

Mr. YATES. Here is the letter of September 11. We will put it into the record.

[The information follows:]

NATIONAL CONGRESS OF AMERICAN INDIANS

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September 11, 1985

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A. Bruce Jones
Lumbee

Dr. James Tyler, Acting Director
Museum of Natural History
Room 421
10th & Constitution Avenue, NW
Washington, D.C. 20560

Dear Dr. Tyler:

Thank you for your letter of August 29th regarding the Smithsonian's inventory of North American human remains. In response to that letter and to our telephone conversation of September 10th, below is a more detailed description of what we hope to get from the Smithsonian inventory of human remains:

- 1) a listing of any human remains identified by tribe
- 2) a listing by state of human remains
- 3) within the state listings, a general geographic location, i.e., South Dakota, Pine Ridge Reservation or Shannon County
- 4) date or approximate date remains were unearthed
- 5) approximate age of human remains
- 6) number of North American human remains with no tribal or state identification
- 7) storage location of above remains (i.e., Smithsonian Institution, Washington, D.C.; Peabody Museum, Harvard University)
- 8) number of human remains, by country, from Central and South America
- 9) If the North American listings above do not contain remains from Canada and Mexico, we wish the number from those countries also

When we say "number of human remains" we mean the number of people represented.

It was not clear from your letter whether the Smithsonian inventory includes only those remains physically stored in the Smithsonian in Washington, D.C. or if it also includes remains the Smithsonian may have transferred to other locations, i.e., the Hemenway collection which has been transferred to the Peabody Museum at Harvard University. This transfer was mentioned in the Smithsonian 1981 book entitled Savages and Scientists, the Smithsonian Institution and the Development of American Anthropology, 1846-1910.

I would like to meet as soon as possible with yourself again and appropriate Smithsonian curators to look over and discuss the computer printout of your inventory of human remains. I will likely bring one or two people with me, but do not know at this time who that would be -- it depends on who is able to be in Washington at the time of the meeting. We may have additional requests for information following a meeting with yourself and Smithsonian curators, as we will then have a better idea of the type of information the Smithsonian has regarding the human remains in its possession.

Please note that this letter is part of the process which we expect to lead to a meeting with Secretary Adams, and as such is on behalf of the individuals and organizations who sent the July 22, 1985 letter to Secretary Adams. I have previously sent you a copy of that letter.

We very much appreciate your prompt responses to our inquiries, Dr. Tyler, and the seriousness with which you take our views. I look forward to hearing from you soon.

Sincerely,



Karen Funk

Mr. YATES. If you can't answer the questions, why don't you just tell them you can't answer the questions? Maybe that will help. That is the letter. I don't know whether that was replied to.

There was a reply here dated November 22, signed by Ms. Kaepler. Ms. Adrienne Kaepler, Chairman of the Department of Anthropology.

And this may go into the record as a reply to that letter.
[The information follows:]



National Museum of Natural History · Smithsonian Institution

WASHINGTON, D.C. 20560 · TEL. 202-

November 22, 1985

Dear Tribal Representative:

Several years ago the Smithsonian Institution initiated an inventory of its collections, the first such systematic effort in its 140 year history. Teams of people were hired to examine objects in our collections and enter important data about them into computers. The effort is still going on, but at this time we do have some summary statistics on the size and composition of our collections that we wish to share with tribal governments. As you probably know, our holdings are especially strong in the area of American Indian archeology, ethnology and physical anthropology, reflecting a long-standing popular and scientific interest in aboriginal American cultural and biological history.

Our North American physical anthropology collections contain a large number of human skeletons, recovered during the past 100 years or so from archeological sites by Smithsonian scientists or by other archeologists and then transferred to us for curation. These "skeletons" vary from single bones and mixed lots of bones to complete skeletons. In some cases we do not know their archeological age, but we do know that most of the skeletons are hundreds or even thousands of years old. Because of their great antiquity, they are regarded by our museum and the scientific community as being of great scientific value. With careful study, these ancient remains offer valuable scientific data on diet, growth, disease, demography, population relationships and other aspects of human biology, as well as on cultural practices that may affect the skeleton and such cultural factors as social status, and mortuary practice. These remains are thus a continuing source of unique information on the historic and prehistoric heritage of Indian people and their ancestors and much knowledge about American Indians has been generated from them.

According to our inventory, we have about 32,890 catalog entries for human remains. Almost 19,000 of this total were recovered from Europe, Africa, Asia, Australia and Latin America. All major racial groups are represented. The remaining 14,000 represent ancient American Indians from the contiguous United States. Since the vast majority of these skeletons are so old, it is not possible in most cases to establish their historical/cultural relationship with present day or historic tribes. For your information, a computer printout is enclosed showing the number of

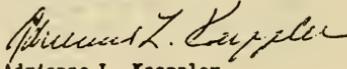
American Indian skeletons in our collections for each state. In consideration of much of the recent interest in American Indian skeletal remains, we want you to know that we have these collections and that they are always curated and treated with great respect. They are kept in non-public areas in wooden drawers with covers. Access is limited to qualified scientists for research purposes only, but only under careful staff supervision.

These collections are studied continually by visiting scientists from major museums, universities and medical schools throughout the world. Much information gleaned from this research has been published in major books and journals and has contributed greatly to our understanding of the history of disease in North American and especially the health and biological history of the American Indians, both before and after Europeans arrived. Some of this research has particular relevance to medical problems that trouble American Indians today such as the high incidence of rheumatoid arthritis and tuberculosis. Knowledge gained from the study of American Indian skeletons also contributes to the science of forensic anthropology and is used to identify Indian victims of crime and missing persons. The continual development of new research techniques has shown us the value of maintaining these collections for future research. We know that as research methods and technology improve, future scientists will be able to acquire new information from these remains and answer questions about American Indian history that are important to us all. Having these remains in a single collection in one place greatly facilitates their proper scientific and medical study by specialists and assures that they will remain a source of information on Indian history and heritage.

We understand that while many Indian people appreciate the value of the information learned from scientific research and welcome the careful curation we provide for the physical anthropology collections, others have mixed feelings. In either case, we want you to know that these collections we have are of great value to the international scientific community, they have benefited American Indians today, and that we treat them with great respect.

Occasionally we have requests for this type of information by Native American groups and hope this letter and the attached summary statistics will answer any questions you may have about the Smithsonian's collections.

Sincerely,


 Adrienne L. Kaepler
 Chairman
 Department of Anthropology

Encl.

Mr. YATES. What is the date on that letter?

Mr. ADAMS. There has been a further letter and response since that time.

Mr. YATES. Supply them for the record so the record may be complete.

[The information follows:]

The University of Iowa

Iowa City, Iowa 52242

Office of the State Archaeologist
Eastlawn

(319) 353-5175, 353-5177

January 13, 1986



1047

Dr. Douglas Ubelaker
 Department of Anthropology
 National Museum of Man
 Smithsonian Institution
 Washington, D.C. 20360

Dear Doug:

At the American Anthropological Association meetings in Washington, D.C. last month a representative of the National Congress of American Indians (NCAI) informed Maria Pearson, the chairman of our Iowa Indian Advisory Committee, that the skeletal remains of 21 Native Americans from Iowa are repositied in the research collections being maintained by the Smithsonian Institution.

In the interim, Maria Pearson (Running Moccasins), has been in touch with other Indians in the state and has sent a formal request to me (attached) in which she asked for my assistance in obtaining return of the remains for reinterment in Iowa under the supervision of appropriate Native American religious leaders.

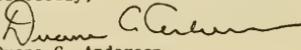
With this in mind I am writing to inquire into the matter. I would like to know (1) if Iowa materials are indeed present in the Smithsonian collections; (2) the provenience(s) and condition of the materials; (3) if a report has been prepared/published on any or all of the material; and (5) if your institution would be willing to return the materials for reburial in one of our cemeteries that have been established for that purpose.

As you may know we have been working closely with the Indians for over a decade and have managed to develop an atmosphere of mutual confidence and respect which has not only helped resolve difficulties over reburial, but has led to cooperation on many other fronts (see attached article).

If remains from Iowa are present in the Smithsonian collections I would like very much to obtain them. If they have not been adequately studied and reported upon, we would do so prior to reburial.

Thank you for your consideration; I will look forward to hearing from you.

Sincerely,


 Duane C. Anderson
 State Archaeologist

DCA:bh
 cc:Indian Advisory Committee
 encl.



SMITHSONIAN INSTITUTION
Washington, D.C. 20560
U.S.A.

February 26, 1986

Mr. Duane C. Anderson
State Archaeologist
Eastlawn
The University of Iowa
Iowa City, Iowa 5242

Dear Duane:

This letter is in response to your letter dated January 13, 1986, in which you requested information on, and the return of, remains from Iowa that are present in the Smithsonian collections. You submitted that request at the behest of Maria Pearson, Chairman of the Iowa Indian Advisory Committee, who was informed through the National Congress of American Indians that the Smithsonian has 21 skeletal remains from Iowa.

The Smithsonian does, indeed, have 21 catalogued specimens in our collections from the State of Iowa which represent various elements of the human skeleton. This information, as well as the number of skeletal remains in our collections from every state in the United States, was provided to recognized tribal representatives by letter from the Chairman of the Smithsonian's Department of Anthropology on November 22, 1985.

Since that letter, further review of our records has been conducted, such that we now are in a position to address your other inquiries. With respect to provenience, these 21 remains appear to have been archaeologically recovered and represent prehistoric American Indians. According to our records, none of the specimens represent complete skeletons and all were added to the museum collections between the years 1898 and 1940. Nineteen of the specimens were given to our museum by the Army Medical Museum, with little associated information on provenience. The remaining two items consist of skulls and mandibles only. They apparently were collected by a Mr. H. O. Draw near Council Bluffs, and given to the Smithsonian in 1918 through Professor J. S. Foote.

As to their condition, the specimens are not on public display and are made available only to qualified persons who utilize nondestructive techniques. Of course, you or qualified staff are welcome to study the materials here, but our policy is not to allow material of this nature to leave the Smithsonian's premises.

Responding to your third inquiry, I know of no formal reports on this material, but suspect that it may have been included as part of larger studies.

Finally, let me address your request that you obtain the remains from Iowa for reburial in an Iowa cemetery. Specific requests for the transfer of materials in the Smithsonian's collections must be considered in light of the Institution's responsibilities to hold its collections in trust for the benefit of all people, not just discrete interest groups. In light of this trust relationship, the Smithsonian is not free to dispose of collection material without compelling legal reasons. Factors to be considered on a case by case basis would include the records of the Smithsonian's title to the materials, the detailed history and significance of the materials, the standing of the claimant to assert an ownership interest in the materials, and the precise justification for the requested disposition. Generalized requests that lack a legally demonstrable claim to the material cannot be acceded to without compromising the rights of others, which we are duty bound to protect under the Smithsonian's trust obligations.

Bearing in mind these concerns, we do not believe at this time that the information presented in your recent letter is sufficient to justify the transfer to you of the skeletal remains from Iowa. We are always open to further discussion, however, should an appropriate tribal representative seek to provide an adequate legal basis for the requested transfer.

Sincerely,

Douglas H. Ubelaker
Curator

Mr. ADAMS. If you look at that, Mr. Chairman, I think you can see, with a collection assembled over a period of 120 or 130 years, that is not something to which——

Mr. YATES. You can answer in a week.

Mr. ADAMS. Yes.

Mr. YATES. OK.

Third question she asked, "Question the Smithsonian regarding their policy of maintaining a collection of American Indian skeletons and the expenditure of money to maintain this collection."

I am not sure I understand that, except that you have stated what your policy is; it is one for research.

Mr. ADAMS. That is right.

Mr. YATES. And that the research is valuable. I assume that if there is a time in the future when your research is terminated for one reason or another, you can return the bones to a properly accredited representative.

Mr. ADAMS. It is not clear how this will happen. There may, indeed, ultimately need to be some form of legislative action in order to justify that kind of return since in the case of so many of these skeletons we cannot make a tribal attribution. We would not know who was a properly accredited representative.

I think this may call for something beyond an internal Smithsonian policy in order to be appropriately handled.

Mr. YATES. All right.

The fourth request is to communicate—for us to communicate with the Advisory Council on Historic Preservation regarding the Smithsonian.

They have a balanced view and could possibly serve as a mediator. Apparently, these people aren't happy with you. But that is something you have to live with.

Unfortunately, all people aren't happy with you, are they?

Mr. ADAMS. I am afraid that is so.

ACQUISITIONS PROGRAM AT NATURAL HISTORY

Mr. YATES. That is life.

Now, have I asked you about your acquisitions and whether you have enough money?

Mr. TYLER. We have Federal funds—the amber I showed you was purchased with \$115,000 from the central trust funds of the Smithsonian Institution.

Mr. YATES. Those three pieces were one——

Mr. TYLER. There were 5,000 such pieces, the best of the lot. There were 5,000 such pieces. That is a partial donation. They were donated at below market value.

Mr. YATES. Do you have anything pending you want to acquire you can't because of lack of funds?

Mr. TYLER. There are a great many orphan collections of a systematic nature of plants, animals and insects that we could purchase that would greatly strengthen our national collections we do not purchase because of lack of funds.

BUDGET CUTS AT NATURAL HISTORY

Mr. YATES. I suppose while I have got all of you here, I should have asked Mr. Kennedy, and Ms. Carr from the National Portrait Gallery what else I should know about the operation of your Gallery, what is lacking that you should be doing, and how friendly is Mr. Adams in giving you money to carry out your purposes?

Are there things you should be doing that I should know about, that the committee should know about, that you can't do for lack of funds or for other reasons?

Is everything fine with the Museum of Natural History?

Mr. TYLER. No, sir. I can assure you it is not.

Mr. YATES. Tell us wherein it is not.

Mr. TYLER. The Gramm-Rudman-Hollings cut in fiscal year 1986 of 4.3 percent has seriously hampered our operations.

Mr. YATES. In what respect?

Mr. TYLER. It has caused a hiring freeze for all positions, a total freeze, which affected 36 positions as of January 17. Included in those 36 positions were five hires for assistant or associate curators to replace curators who had retired.

Those were frozen. And it has affected the operation of the departments of anthropology, biology and paleontology.

Mr. YATES. How do you make up for that gap? You have acting curators?

Mr. TYLER. No, sir, there is research that will not be done until those people are replaced.

Mr. YATES. Give us an example of what will not be done.

Mr. TYLER. In paleontology, the person will not be studying our diatom collection, both the diatom alive today and those of the fossil record, which is one way we date pieces of such things as the amber you have seen.

This is a case in which we have no curator present and no hopes of replacing that curator until such time as we have the cuts restored.

Mr. YATES. As there always is, we have underground messages that come to us. We have one here on the National Museum of Natural History. They said the situation at the National Museum of Natural History is that research production is nearly the only factor assessed when a curator's performance is judged.

There is very little importance placed on curation and the more public-oriented activities of which exhibits is the most significant for this reason.

The majority of the curators in this museum are not in any way active in collection building and have little to do with exhibition.

In fact, it is common for a scientist at this museum to totally eschew any involvement, any activity except for his or her own personal research.

Would you like to comment on that?

Mr. TYLER. I would beg to differ with that, quite respectfully. Curators want to be involved in exhibits and education—

Mr. YATES. At such times as you have curators?

Mr. TYLER. Yes, sir. We still have about 120 curators on the staff, but we are down at least six. The curators are very much encouraged to be involved in exhibits and educational programs.

Moreover, in their professional accomplishment evaluation committees, which is the basis for their promotions, there are two series of activities that are very closely looked at on the basis of OPM regulations as we have interpreted them.

One is the research series in which quality publications are very important. The other series of activities are their collections of curation and exhibit work.

Both of those factors are taken into account legally and must be by the Smithsonian in promotion of curators.

Mr. YATES. Well, we draw a conclusion. One obvious conclusion from this is that things are not what they ought to be at the National Museum of Natural History.

One assumes the public, and Congress as an instrument of the public, believes it is getting something altogether different for its tax dollars than what it is actually getting.

The taxpayer sees only the public side of the museum, and this is probably all the taxpayer really cares about.

The taxpayer does not know that most of the scientists in the museum have little or no involvement in the more traditional museum functions, but care almost exclusively for their research.

One of the unfortunate results is that the exhibits have been much less than they could have been or should have been.

When so much emphasis is placed upon research, it is easy to understand why the scientists do not care to be involved in exhibition and why it is so hard to get them involved, and why, at times, it is necessary to offer special rewards and bonuses in order to get them involved.

EXHIBIT HALLS AT NATURAL HISTORY

The exhibits in this building have been a disgrace. Is that true?

Mr. TYLER. I believe they are vastly in need of improvement. And we would do so if we had about half a million dollars more per year to refurbish and restore our permanent exhibit halls, which indeed, in some cases are rather shoddy in appearance.

It is not the fault of the curators being willing to volunteer time and effort, because they have a committee of curators who serve the assistant director of exhibits.

Larry O'Reiley, who is here today, would be the first to say he needs a half a million dollars more of funds to restore our public exhibit halls.

Mr. YATES. Why doesn't Mr. Adams give them to you?

Mr. TYLER. He is doing the best he can.

Mr. YATES. Well, that raises the question of balance. Should research be cut to give a better deal to the public? What do you think?

Mr. TYLER. I think our balance—75 percent goes to research, research support and collections maintenance.

The other 25 percent goes for exhibits education and outreach activities. I think it is a fair balance.

Mr. YATES. Well, for years we have been trying to show the artifacts and history of the American Indian, and you are the portray-er of that, are you not, in the Smithsonian?

Mr. TYLER. Yes.

Mr. YATES. I, personally, when I went up to see your exhibits, had the impression they could be improved.

Mr. TYLER. Absolutely.

Mr. YATES. They were dark and not a reflection, really, on the kind of showmanship—and I don't mean that in a Frank Sinatra sense—the kind of showmanship that a museum should offer to the public.

Is there any way you can improve that under existing funds?

Mr. TYLER. I agree the Indian hall is drab, dreary and dull. I am not pleased with it at all. I have been through it recently in conjunction with the request to bury Indian skeletal remains.

We have some remains on exhibit in that hall. I would like to replace those with other types of objects. It is expensive to do that. A new hall costs between \$2.5 million and \$5 million to refurbish and make it new again in a cultural and scientific content.

We don't have money to do that in the Indian hall or gems or minerals or any others that are outmoded.

CONSTRUCTION AT DULLES AIRPORT

Mr. YATES. There is a question about the construction policy of the Smithsonian.

Mr. ADAMS. I quite agree with the—

Mr. YATES. A thought that comes to my mind, before you start, Mr. Adams, is why should we be spending millions of dollars for this addition at Dulles in order to house your Enterprise, when we ought to be cleaning up your museums.

Mr. ADAMS. There is no proposal before you in this budget, nor in any budget I can see, certainly in the immediate future, to spend any millions of dollars at Dulles.

Mr. YATES. I read in your minutes, I thought that you were looking to receive the Enterprise, you were going to put it in a shed at Dulles, I think, temporarily, or in some kind of portable building, but I assume once you get the Enterprise, there is going to be an awful lot of pressure by Virginia Senators and by other people to house that in appropriate surroundings.

Mr. ADAMS. The Enterprise is only one of a number of exhibits that need to find housing. The Air and Space Museum is full, and I think there will need to be a museum there. But I don't think we are making a proposal as part of this budget.

Mr. YATES. I thought I saw that in your overall construction budget last year. Did I not? What about in your five year prospectus?

Mr. ANDERSON. There is a new prospectus. There has been an intervening variable called Gramm-Rudman-Hollings.

Mr. YATES. You are down to \$22 million from \$200 million. Your budget last year, as I remember what you were going to do, approximated—over a five-year period approximated \$200 million.

Mr. ANDERSON. The capital budget.

Mr. YATES. Has that been changed by Gramm-Rudman?

Mr. ANDERSON. These new numbers reflect the projections that OMB has in its mind as those which are appropriate for the Smithsonian Institution during this budgetary retrenchment period.

I don't think it suggests at all that the other projects have disappeared. They are simply pushed beyond the immediate horizon.

ARTS AND INDUSTRIES BUILDING RENOVATION

Mr. YATES. I suppose I should let Mr. Adams and you address that question. What happens to your proposed renovation of the Arts and Industries Building? Is that now in the background?

I remember it was \$31 million.

Mr. ANDERSON. It proceeds in a slow fashion within the existing Restoration and Renovation of Buildings account. The exterior is almost complete—exterior renovation, replacement of windows, window frames, the seams between the walls and the roof—that is almost done.

We will be able to turn from exterior to interior repair and improvement as part of this 1987 budget request.

EXHIBIT HALL RENOVATION

Mr. ADAMS. Mr. Chairman, can I go back to the answer I was about to give?

Mr. YATES. Sure.

Mr. ADAMS. I quite agree that many of our exhibits in the Natural History Museum, in particular, are not as good as they should be.

I say that, in particular, having recently visited a number of natural history museums around the country, new ones, coming on line with new ideas and so on, and I think we have a great deal that we can and must plan to do.

It is expensive to do when you are the U.S. National Museum, because the collections are huge, and the requirements of doing it right and doing it authoritatively and thoroughly make it more expensive than it would be.

There isn't the capacity to be as quickly innovative as can occur in smaller collections.

As Mr. Tyler has indicated, the costs are very large to do this job.

Let me speak to the question that is raised in the comments that you received. I do have strong views on them, and I would like to have them on the record.

The question of balance of research and museum activities is obviously an exceedingly difficult one, and it is one that we do discuss a great deal.

It is one on which there cannot be a fixed position. I would point out, however, which is sometimes negotiated by people working for the Smithsonian and certainly by the public, that our charter calls for attention to the increase and diffusion of knowledge.

The increase, clearly, is in the research activities of the Smithsonian. The diffusion is in the exhibit activities. I don't think this should be seen as an open position. I think, in fact, if you take fields like systematics, one feeds into and supports another.

We are, in fact, carrying out our charter by supporting research activities. If we then look at those research activities over recent years, as I have had occasion to do, I would say that it is very hard

to make those calculations, because many other variables come into account.

But relative to the support given by this administration and by past administrations to the support of research within the country, generally, the Smithsonian has moved ahead a little less rapidly than has been true of, say, the National Science Foundation budget.

Similarly, if you look at the portion of funds devoted to research within the Smithsonian, it is significantly lower now than it was, say, 15 or 16 years ago.

All I am saying is that I don't think a case can be made in view of this sort of larger view of what the Smithsonian is and what it should be related to, that we are supporting research activities at the expense of museum activity.

CONSTRUCTION PLANS

Mr. YATES. The money has been coming in, but the money has gone for construction rather than anything else. You have the frames now, you have the big buildings, and you still have—at least in last year's budget—you still have a huge construction budget that you had intended to exercise.

Mr. ADAMS. Even within the operating budget, there has been a slight, but significant, reduction in the percentage of funds for research.

Mr. YATES. Was I wrong in thinking your total was close to \$200 million? Fifty-nine million for construction—yes, 59.8, 18.3, 39.3, 15.9, 4 between 1986 and 1990.

Mr. ADAMS. If you are looking ahead at the construction budget—take the case of the Dulles facility you mentioned—at the moment there is no clear indication of what the scale of that facility ought to be.

I have heard estimates ranging from somewhere around \$30 million to up in the eighties. We really have no way of putting that in.

Mr. YATES. Last year you put it in in table three, showing that in 1989 you propose to spend \$2.4 million, and in 1990 you propose to spend \$29.6 million.

I don't know whether you intend to spend any beyond that. But is that out now, at the present time?

Mr. ADAMS. I think that is out at the present time.

Mr. YATES. What about the Quadrangle, if completed, of course? What happens to the General Post Office expenditure that is proposed, \$3.5 million for 1987 and \$36.5 million for 1988?

Mr. ADAMS. There is no provision for that in this budget.

Mr. YATES. Are the funds for the Whipple Observatory in for 1987?

Mr. ANDERSON. The construction funds in the budget before you, sir, would accomplish the completion of the Quadrangle, and fund the tropical institute—

Mr. YATES. So, you got \$3.9 million for the Smithsonian Tropical Research Institute for 1987; \$2.8 million for 1988; and \$4.4 million for 1989. That is still ongoing.

Mr. ANDERSON. I am not certain which chart you are reading from.

Mr. YATES. I am reading from last year's Five-Year Prospectus, dated January 28, 1985. Would you like to see it?

Mr. ANDERSON. That is largely an obsolete document.

Mr. YATES. What do we do, relegate this to the waste basket, then?

Mr. ANDERSON. The five-year document is intended for annual updating and renewal.

Mr. YATES. You now show an average, I guess, of about \$22 million for each year, going from 1987 through 1991.

Mr. ANDERSON. Which is almost exclusively the renovation of existing physical plant rather than the construction of new space.

Mr. YATES. We will go into those a little later. I want to complete the museums now that I have started them. I take it, Mr. Tyler, you had finished with the Natural History Museum?

Mr. TYLER. I would like to endorse Roger Kennedy's statement about the impact of the cut, in 1986.

Mr. YATES. Do you want to put in the record what effects it will have specifically?

DINING FACILITY AT NASM

Mr. MURTHA. Mr. Chairman, I wonder if I might ask a question of Secretary Adams about the dining facilities that are going to be put in. I have been down there a couple times to the Air and Space Museum, and it is kind of out of the way, and you talked a couple years ago about putting something on the first floor where people could get to it at a reasonable price, and I notice, in looking, you still haven't made a decision. Where is that, and—

Mr. ADAMS. A decision was made by the Regents at their last meeting, and a request for a proposal of a bid to provide service in a new restaurant on the terrace at the first-floor level adjoining the Air and Space Museum, has gone out.

Mr. MURTHA. Are you going to build it yourself or contract to private enterprise, and they will provide the service?

Mr. ADAMS. The action taken by the Regents contemplated borrowing of the necessary funds by the Smithsonian, itself. The building would be contracted out for construction. I think there is room for re-examination of precisely what pattern we will follow when we see what the bids are. We are definitely proceeding with the plan.

Mr. MURTHA. I hope you will consider a place where they can get in and get out that won't be so formal. I don't have any idea what you have in mind, but I know there are so many people visiting, it certainly ought to make some money if it is handled the right way.

Mr. ADAMS. We plan a 1000-seat restaurant with rapid access from the first floor level, and I hope, if I say that it is designed to move people through quickly, you won't think of it as a fast-food line.

Mr. MURTHA. No, and I don't even know that people would object to that in a place like that, that they could get in and get something to eat and rest maybe, but also get out in a hurry.

Mr. ADAMS. I think Mr. Jameson has something to say.

Mr. JAMESON. This is a sketch plan for what the proposed facility will be. We are looking north at the Air and Space Museum as if

we were standing on Independence Avenue. This is the East side, and we would construct a restaurant on that rather open and wide terrace area toward the Capitol. It should be very accessible to the public.

Mr. MURTHA. Nothing, just a concrete patio?

Mr. JAMESON. Paving block. Yes, sir.

Mr. MURTHA. I assume it will be the same type. When you look out the Appropriations Committee room, you look right into that, of course, beautiful building. And it will be the same; it will fit right into the building?

Mr. ADAMS. It will have to be designed to harmonize, yes.

Mr. JAMESON. The interior will be designed to give a through view—

Mr. MURTHA. I think that is something you should be concerned about, because where it is now almost limits access to it, and I think it could be a good thing for the museum. If it is handled right, it could make money.

Mr. ADAMS. It has been a complex project, but we are moving ahead very clearly.

PCB CORRECTION

Mr. YATES. None of the three museum directors have told us about their PCB problem. Is that because someone else wants to testify about that? Because each of the three museums are the ones that have the PCBs, aren't they, that are being corrected American History, Portrait Gallery and Natural History. Are there others that have PCB problems?

Mr. JAMESON. There are approximately 60 systems that need to be retrofilled to take out the PCB fluid and put in new fluid or may need to be taken out and replaced with brand new transformers. We have roughly \$.5 million in the 1987 budget request before you to begin that process, which we will then complete at a cost of about \$3.5 million by 1990, which is the deadline for EPA regulations. Michael League, our Acting Director of Facilities Services, can give you a rundown, if time permits, on all the things we have done since last summer when we had the publicity to make sure we are in compliance.

Mr. YATES. I think that should go into the record for sure.

[The information follows:]

STATUS OF PCBs IN SMITHSONIAN TRANSFORMERS

Much progress has been made since the Environmental Protection Agency inspected a number of electrical transformers and since the issuance by the Environmental Protection Agency (EPA) of new Federal regulations governing the use of PCB transformers in July 1985.

Among numerous fire protection improvements over the years, the Smithsonian has taken significant steps to keep fires away from transformers. These steps have included enclosing transformers with fire-rated construction to reduce the possibility of a fire outside the room reaching the transformers, providing fire detection to give early warning of a developing fire so that it can be kept away from a transformer, and providing sprinkler protection in areas where fire hazards may threaten transformers. More recent measures have included repairs performed by Sub-Station Test Company to correct leaks on various PCB-filled transformers; implementation of inspections to detect and document new transformer leaks; and initiation of proper storage documentation and labeling practices for PCB dielectric fluid and associated contaminated materials.

About \$270,000 has been spent to date to make necessary repairs. Sub-Station Testing Company completed repairs to all leaking PCB transformers in Smithsonian buildings in February 1986. The Office of Plant Services is continuing to make daily inspections of all PCB transformers to identify new leaks and initiate necessary corrective repairs in accordance with EPA regulations. Corrective work on all circuit breakers and related equipment performed by the Westinghouse Electric Company was completed in mid-March. This work corrected all high-voltage equipment deficiencies noted during annual preventive maintenance contract inspections for fiscal years 1984 and 1985.

The Institution contracted in October 1985 with Gage-Babcock and Associates, Inc. (engineers and consultants in fire protection, safety and security) to study Smithsonian electrical systems. The report recommended that the Institution tighten specifications used in the annual high-voltage preventive maintenance contract; it also recommended that electrical load "coordination" studies be conducted in all Smithsonian buildings. Equally important and encouraging, however, were Maryland Electric Testing's (MET) assertions that the Institution's electrical systems were adequately managed and that the problems noted—common to varying degrees in all electrical systems—did not present imminent danger to artifacts, the public, staff and buildings. As a result of the MET recommendations, the specifications for fiscal year 1986 have undergone extensive review and revision, and the Institution is actively reviewing available resources to locate funds to contract for coordination studies.

Gage-Babcock was also asked to develop an operational emergency plan for Smithsonian personnel to follow in the event of a PCB transformer fire, using the Natural History Building as a prototype, and to develop recommendations to minimize further fire threats posed by PCB transformers. A final report on these two studies was received in early April and is currently under review by Smithsonian staff. The preliminary report received in November 1985, and the subject of recent media reports, contained 27 recommendations. Action by the Smithsonian has already been taken or is in progress on 15 of the recommendations. The remaining recommendations elicited some differences in opinion among the Offices of Design and Construction, Plant Services, and Safety Programs with respect to need, method of implementation, and scope. Further action on these recommendations awaits review of the final report regarding its response to the points raised by Smithsonian staff.

In a letter dated January 10, 1986, the Director of the Environmental Protection Agency's Hazardous Waste Management Division reported favorably on its review of corrective actions taken by the Smithsonian to comply with the PCB regulations. Similarly, in a letter dated January 22, 1986, the National Institute for Occupational Safety and Health reported favorably on its visit and follow-up evaluation of potential PCB exposures as well as other safety concerns raised by the American Federation of Government Employees Local 2463, the Smithsonian's civil service employee union.

The Smithsonian's current Five-Year Prospectus provides for the appropriation of \$3.5 million dollars during the period from fiscal year 1987 to 1990, inclusive, for the replacement of PCB transformers. A replacement plan has been prepared in order of priority together with cost estimates. These estimates include the cost of disposing of PCB fluid and contaminated transformers in accordance with EPA regulations. The plan will be revised if the retrofill technique currently under evaluation becomes fully acceptable to the Institution or if other funding sources become available to share replacement costs.

Mr. YATES. The question that concerns me is this, why is it taking so long? If this is a dangerous condition, why are you allocating only \$.5 million to it for this year rather than expediting it?

Mr. JAMESON. Part of it has to do with the overall allowance from OMB, approximately \$13 million.

Mr. YATES. What did you ask OMB for?

Mr. JAMESON. We asked for \$16 million.

Mr. YATES. Would that have permitted you to have a program that would permit you to get rid of the problem quickly?

Mr. JAMESON. I am sure—

Mr. YATES. What is the total cost of the program?

Mr. JAMESON. About \$3.5 million.

Mr. YATES. What is the \$16 million for?

Mr. JAMESON. The \$16 million was the total R&R request.

Mr. YATES. I am interested only in the PCB's at the moment. How much will it cost to eliminate the PCB problem?

Mr. JAMESON. \$3.5 million, Mr. Chairman, over about four fiscal years.

Mr. YATES. Why do you take four fiscal years?

Mr. JAMESON. Part of it has to do with our ability to move into buildings and make those changes that quickly. Part of it has to do with money.

Mr. YATES. Can't you rewrite the program to less than four years?

Mr. JAMESON. Mr. League, can we?

Mr. LEAGUE. Yes.

Mr. YATES. How long can you do it, Mr. League?

Mr. LEAGUE. I would say probably in two years.

Mr. YATES. How much do you need for each year?

Mr. JAMESON. It would be half of \$3.5 million, roughly, \$1.8 million.

Mr. YATES. Do you need more for the first year or more for the second year?

Mr. LEAGUE. No, sir, part of the problem in accelerating is that there is a great deal of design work that will have to go into this replacement program.

Mr. YATES. That, of course, relates to the time factor. That is what I am asking you. Have you taken that into consideration in telling the committee it will take two years to do it?

Mr. LEAGUE. I would say so, yes.

Mr. YATES. You can do it; get it done in two years. In other words, if we give you the \$3.5 million to do it, you could do it within the next two years. Could you do it faster than the two years? It is in unsafe condition, isn't it?

Mr. LEAGUE. It is only unsafe—

Mr. YATES. Explain the problem, then. From what I read in the paper about PCB's, I have been terribly impressed. I feel it is an emergency condition. Correct me if I am wrong.

Mr. LEAGUE. Well, I would like to correct you from what you read in the paper. The PCB, itself, is only dangerous if it gets into the ground water system or the food chain.

Mr. YATES. What if there is a fire?

Mr. LEAGUE. Or if there is a fire. We feel reasonably comfortable that our electrical systems and our fire suppression protection systems within the buildings, while not eliminating the possibility of a fire, reduce that possibility to a degree of risk that we feel safe with.

Mr. YATES. Gee, I would hate to have that happen. And you explain it later in saying "We never saw this happen." We just finished an election in Illinois where we didn't foresee something happening. Kind of a fire, too. It is amazing how many times the perfect system turns out not to be perfect.

Mr. LEAGUE. Yes, sir, anything can happen. We have spent a great deal of money since the EPA inspections last July with outside contractors coming in and taking corrective actions, analyzing our systems and so forth.

Mr. YATES. Well, let's read from the Washington Post of March 4, 1986. I am kind of alarmed by the PCB's now, and you are trying to put out the committee's fire. This is what Dana Green, Manager of the Substation Test Company, which as part of its annual maintenance inspections, has reported electrical and transformer deficiencies in the Smithsonian since 1982. He praises Mr. Adams' work, he said "I can say without reservation he is conscientious by all appearances in contacts I have had with him. He appears to be trying to get something accomplished in his job, noting that deficiencies reported as long as three years ago were corrected only after publication of the Post's article."

Why is that? Why weren't they corrected three years ago? Now, of course, publicity has a very salutary effect sometimes on institutions, as well as on politicians. Why isn't it better just to tell us that we ought to get the job done and do it?

Mr. LEAGUE. I would agree within reason, the faster we replace the PCB transformer, the better off we will be.

Mr. YATES. Two years is your fastest time?

Mr. LEAGUE. That would be my minimum.

Mr. YATES. You want half of \$3.5 million, then, for 1987?

Mr. LEAGUE. That would be fine.

SUPPLEMENTAL FUNDING

Mr. YATES. As a matter of fact, should you be having it as a supplemental? Did you ask for it in a supplemental, or don't you consider it that important? Anybody want to answer that? Mr. Jameson, you are quiet.

Mr. JAMESON. It is very important to correct the PCB problem.

Mr. YATES. Why didn't you ask for it as a supplemental?

Mr. JAMESON. We thought there was no chance of getting supplemental money.

Mr. YATES. Why don't you come to the committee and tell us it is important to get the money? We just went to the full committee yesterday for a request for supplemental funds. I don't know why you didn't try if it is that important. Could you have used the extra money at that time, that is the question, or are you spending as much as you can?

Mr. JAMESON. We certainly need the extra money. I think we can proceed in an orderly way in a two-year timeframe.

Mr. YATES. You still need design, if I understand you correctly, so that you don't need 1986 funds. You don't need it if you don't have design unless you need it for design. Do you need the money for design? Do you have money for design?

Mr. JAMESON. We could spend money this year out of the current R&R account for design.

Mr. YATES. So that doesn't need a supplemental. If you get it for 1987, you can move forward.

Mr. JAMESON. We will certainly spend the money in 1987.

Mr. YATES. That is the fastest you can do it, is that right?

Mr. JAMESON. Yes, sir.

Mr. YATES. You say you could use some money. What do you mean by that? There are two ways of interpreting that. You said

out of your present R&R funds. Do you have money in your R&R funds you will use for designs?

Mr. JAMESON. Yes, sir.

Mr. YATES. Not could, but will?

Mr. JAMESON. Yes, sir.

Mr. YATES. I appreciate the use of the verb. We already have that. What about the next museum after this?

COLLECTIONS AT THE AFRICAN ART MUSEUM

Mr. ADAMS. I think we are working our way through the collection of objects that have come in. I think we might turn to Sylvia Williams and collections of the National Museum of African Art.

Mr. WILLIAMS. I will bring the objects to you.

Mr. YATES. You wear white gloves, too?

Ms. WILLIAMS. Oh, yes.

Mr. YATES. It looks Indian.

Ms. WILLIAMS. What you have, Mr. Chairman, is a plaque from the ancient Nigerian Kingdom of Benin.

Mr. YATES. I know about Benin.

Ms. WILLIAMS. It is quite fortuitous what happened, the Hirshhorn Museum contained a marvelous collection of Benin bronzes of which this is one, and the Smithsonian, through an ingenious arrangement, made it possible for the National Museum of African Art and several of the other museums to partake of the Hirshhorn objects that were not germane to its mission.

So the National Museum of African Art now has 22 Benin bronzes. It would be impossible for us to go out on the market and hope to obtain a collection like this, and they are really quite splendid. It dates to about the 16th, 17th century, but there is some dispute about that. It might be the 18th.

Mr. YATES. Now the reason I asked whether it was Indian is because I have a piece with three figures like this, smaller.

Ms. WILLIAMS. A triatic figure composition you find in many cultures. In this one, it is a person of royal stature flanked by attendants.

Mr. YATES. I have got a peasant. Mine isn't royal.

Well, you haven't really begun to operate yet, have you? You are still kind of floating on A Street.

Ms. WILLIAMS. We are still on A Street, that is correct, sir.

Mr. YATES. Incidentally, I see the motion picture setup, and the screen back there. Just by way of information, what is that for?

Mr. ADAMS. The Astrophysical Observatory has a short presentation.

Ms. WILLIAMS. A Street is about to phase out, of course. We have one remaining exhibition at that location, and then a move will occur this summer, and we will move into the new building and then, of course, we have to take time to gear up for the opening installations.

Mr. YATES. Will you be opening on the same day or night that Sackler will be opening?

QUADRANGLE OPENING CEREMONIES

Ms. WILLIAMS. The opening ceremonies are being orchestrated so they are in succession, they don't overlap.

Mr. YATES. You don't have the time table there?

Ms. WILLIAMS. They are working on a time table now.

Mr. YATES. Will somebody put it into the record?

[The information follows:]

Quadrangle Openings

Plans for opening the Quadrangle complex have been developed in conjunction with the directors of the bureaus and offices involved and have been approved by the Secretary. The Enid A. Haupt Garden is scheduled to be dedicated at a small private ceremony and opened to the public in September 1986. Eight months later, the underground structure will be completed with its inaugural exhibitions in place. From May 30, 1987, until June 15, when the complex will be open to the public, 16 days of special preview events for the press and approximately 20,000 invited guests will be held consecutively at the Sackler Gallery, the Museum of African Art, and the International Center.

Consecutive openings have been organized so that each programmatic area may establish its separate identity from the outset and in order that the Smithsonian's invited guests may be received with appropriate graciousness. Within this 16-day period, several outreach events are being planned to involve the students and teachers of the District school system as well as other wider audience constituencies.

An invitation will be extended to the President to dedicate the complex and open it to the public on June 15, 1987.

MAY/JUNE 1987

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Day	May 24	25	26	27	28	29	30
Eve		Memorial Day Observed					Sackler Dinner & Reception
Day	31	June 1 Sackler Student Teacher Outr.	2	3	African Art 4 Student/Teacher Outreach	5	6
Eve	Sackler Concert	Sackler Reception	African Art Dinner and Reception	African Art Concert	African Art Reception	International Center Dinner & Receptions	International Center Reception
Day	7	Internat'l. 8 Center Student/Teacher Outr.	9	10	11	12	13
Eve	Congressional Open House	CWA* Reception	General Press Preview	General Press Preview	General Press Preview	Staff Open House	Associate Donors Open House
Day	Associate 14 Donors Open House	President 15 Opens Complex to Public	16	17	18	19	20
Eve	Regents' Dinner and Ancillary				Donor or Outreach Function		
	21	22	23	24	25	26	27
Day	28	29	30				

*Committee for a Wider Audience

Mr. ANDERSON. It is still tentative. We foresee activities stretching over a two or three-week period to allow proper access.

Mr. YATES. You are not going to have any kind of explosion like the celebration at the Statue of Liberty on July 4th?

Mr. ANDERSON. I was not there.

Mr. YATES. No, it is this coming July 4th. Well, you haven't consulted the people up there. Who is preparing this?

Mr. ANDERSON. The opening?

Mr. YATES. The opening.

Mr. ANDERSON. I thought you were referring to the bash in New York.

Mr. YATES. I was trying to compare it. You don't propose to have a celebration that grand.

Mr. ANDERSON. I am not familiar with that which it is being compared to, so I don't know.

BUDGET CUTS AT AFRICAN ART MUSEUM

Mr. YATES. Let me talk to Sylvia and then I will come back to this.

Sylvia, have you any problems?

Ms. WILLIAMS. We are a small institution and since we are about to embark on what we are doing, cuts of Gramm-Rudman can't help but to have a deleterious effect. The first round of cuts, we are reducing \$113,000, we are reducing \$90,000 from exhibition design plans for the building. We have eliminated \$20,000 worth of free public information for those exhibitions and then I have to reduce staff travel by \$3,000 to make up the \$113,000, but that is on top of, of course, other cuts that have occurred since the time of these hearings a year ago, which totals about \$400,000 some. We feel the impact of this, particularly in view of what is ahead of us.

Mr. YATES. Do you have any conservation problems?

Ms. WILLIAMS. Well, I don't have any—you mean in terms of the facility or collection?

Mr. YATES. Yes.

Ms. WILLIAMS. Not problems, but since we are young, it took us a while to get our full conservator's slot. We got it; it is filled and he is working hard.

Mr. YATES. What happens to all of your wooden objects? I would think at least the historical ones would be deteriorating?

Ms. WILLIAMS. They are living under abominable circumstances on A street, but, of course, that is about to change when we move to the new facility. They will be in ideal conditions. A Street is not good for anything in the way of storage.

Mr. YATES. Not good for anything what?

Ms. WILLIAMS. With respect to storage.

Mr. YATES. You don't want to amplify on that?

Ms. WILLIAMS. No.

Mr. YATES. Anything else you want to tell us?

Ms. WILLIAMS. The cuts are the main thing, and if it continues, it will, of course, have a deep impact on our ability to open the programs you haven't seen.

ACQUISITIONS PROGRAM AT AFRICAN ART

Mr. YATES. How are your collections coming along?

Ms. WILLIAMS. Slowly.

Mr. YATES. Weren't you supposed to get a couple collections as a result of getting—

Ms. WILLIAMS. Yes. First, we got the Hirshhorn collection of Benin objects. That was one sizable gift. Through a transfer.

Second, we have slowly, but surely, been acquiring a private European collection through a Trust funded arrangement with the Smithsonian. Our Federal budget is quite modest. For example, let me give you an illustration, of 86 objects acquired in the past year, only six were acquired with Federal funds. The rest all came either as private donations or through private contributions toward the purchase of the object. So, we stretch it as far as we can, but it is a very modest budget.

Mr. YATES. Thank you very much, Sylvia.

EQUIPMENT REPLACEMENT PROGRAM AT SAO

Mr. ADAMS. Continuing in that same line, we might turn to the film that you just mentioned and ask Irwin Shapiro to present a film on recent events.

Mr. YATES. You seem to be happier than last year when you got your money.

They cut out your money?

Mr. SHAPIRO. It is virtually gone, through the accumulation of cuts we have taken.

Mr. YATES. You are kidding.

Mr. SHAPIRO. No, I am not.

Mr. YATES. How much money is involved?

Mr. SHAPIRO. We took an effective cut of \$850,000.

Mr. YATES. What did you lose as a result of it?

Mr. SHAPIRO. We virtually crippled our equipment replacement and improvement program. I could tell you the alternatives we had and why we had to do that.

We basically had two choices. One was cutting out people; we had, again, two choices. We could have cut the senior people which would save no money at all. They have so much in benefits that we don't save money. So that doesn't solve the budget problem. If we cut out young people, we cut our most productive scientists, and that doesn't make any sense. If we start doing that and there comes a time, if we recover economically, when we want to start hiring new scientists to take their place, we would want to hire good ones. But they will have other suitors, and I guarantee you the other suitors will point out what happened in the massacre of 1986 or 1987, whatever it is. So we really have a potential long-term disastrous effect if we cut out our young people.

Mr. YATES. What does the cut out of your equipment mean?

Mr. SHAPIRO. Let's take computers. Computers are at the heart of everything we do. They point the telescopes, they run the instruments at the back end of the telescopes. They are used to process the data, they are used to interpret the data, they are used for theoretical models to try to understand the data, and they are used even in the preparation of papers for publication.

They run through the entire system, and our computers are widely recognized to be obsolete and lacking in certain critical areas. We have people doing things by hand in monitoring certain laboratory experiments.

Mr. YATES. Does the Department of Defense know how important you might be to SDI?

Mr. SHAPIRO. That is an issue I would rather pass on. To answer, we have no contracts or grants funded by the SDI program that we know of. I will have to add that because I have heard stories about how such funds have moved around, and one has to be careful.

Mr. YATES. Smithsonian or Harvard?

Mr. SHAPIRO. The Smithsonian Astrophysical Observatory.

RECENT SCIENTIFIC DISCOVERY

Mr. SHAPIRO. I had actually intended to bring in the universe, but I overestimated the size of the door there. I really appreciate this—

Mr. YATES. This is kind of a planetarium; isn't it?

Mr. SHAPIRO. Not a planetarium, just a little bit of film. I really appreciate this opportunity to share this startling discovery about the large structure of the universe that was made by a team of SAO scientists. I think it is arguably the most significant scientific achievement made by Smithsonian scientists in the history of the Institution.

Mr. YATES. Really?

Mr. SHAPIRO. I am prepared to argue it.

What is it? It concerns how galaxies are distributed in space. If you look up at the sky and separate out all the stars and only look at the galaxies which are large collections of stars, you look at the sky with the galaxies projected in two dimensions and their distribution looks random.

How are the galaxies actually distributed in distance in this third dimension?

Well, by using a time honored technique based on the Doppler principle, and by making painstaking observations using the Whipple Observatory telescopes for about a decade, we were able to chart the relative distances of over a thousand galaxies.

The surprise was this: instead of being distributed randomly in space, the galaxies actually formed the surfaces of large voids just like soap bubbles occupy a surface with nothing inside.

Mr. YATES. Something like the Henry Moore approach.

Mr. SHAPIRO. I wouldn't go that far. Some of his figures are quite substantial on the inside as well.

Anyway, getting back to the point, this has been a really startling discovery.

Mr. YATES. What occurs to me, though, you were able to make this discovery without your computers.

Mr. SHAPIRO. No. We had to use computers. In fact, one of the ways we are trying to survive is based on some of these results. We have people who have been actually going around to all their contacts in computer companies to try and get computers on long-term loan. In fact, two of our scientists, just this last month, have succeeded in making up a little under—

Mr. YATES. Perhaps I didn't make myself clear. You want the computers in order to do this marvelous work of yours.

Mr. SHAPIRO. Do all this, right.

Mr. YATES. Even without the computers you didn't buy, arguably you made the best scientific discovery in the history of the Smithsonian. I mean you do such wonderful work without it. How much of a greater discovery could you make?

Mr. SHAPIRO. That is a good question, and we would like to look for the answer.

Let me give you one illustration. We have explored here one-one hundred thousandth, ten to the minus fifth, one-one hundred thousandth of the universe. We would like to explore more.

The only way we can do it usefully is to take advantage of the advance in computers because we have to do so many more things so much faster. We couldn't possibly continue in the same way. So the point is, we have reached a certain level. To go to the next level, to continue the research, we need to replace the computers with more modern equipment.

Mr. YATES. The next question that occurs to me is what is your relationship to NASA? Isn't NASA doing that same kind of work?

Mr. SHAPIRO. Good question. These are ground-based results. We did this with telescopes on the ground. NASA is concerned only with space.

The interesting thing is when you do things on the ground, the expenses are roughly one percent or less of comparable experiments in space. So ground-based astronomy is very cost effective and, in fact, most of the major discoveries about the universe, as opposed to the solar system, have been made from ground-based instruments, which is not to say one should not use space-based instruments because one can do things in space that just are not possible to do from the ground.

Mr. YATES. You do all this for three-quarters of a million dollars?

Mr. SHAPIRO. It depends on how you count. What I am about to show you are the results of a ten-year program.

Mr. YATES. I understand your equipment you wanted was three-quarters of a million dollars. Am I wrong? What was the figure you gave me?

Mr. SHAPIRO. What I said was, we were cut by \$850,000 and we had to cut out most of our equipment replacement and improvement program.

Mr. YATES. Roughly three-quarters of a million dollars.

Mr. SHAPIRO. That is to replace and improve—

Mr. YATES. This will launch you into—

Mr. SHAPIRO. I thought you asked me how much it would cost to do this.

Mr. YATES. No. This will launch you into the stratosphere if you get this money?

Mr. SHAPIRO. It will certainly put our computer infrastructure on a sounder basis. I will just give you one illustration. Most of the equipment we are using now is obsolete. I have not taken any money for my personal research from the Smithsonian budget. I get money from my own contracts and grants through NSF to do my own research. My grant monitor chewed me out saying the computer expenses I have on my grant application are the highest

he's seen in all the grants he has received. That is because we are dealing with obsolete equipment; making it do what we need to do costs much more.

Mr. YATES. All right. You make a good argument for the \$850,000.

Mr. SHAPIRO. Everybody has had to absorb these cuts.

Mr. YATES. You are still earth-bound to your obsolete equipment.

THE FILM

Mr. SHAPIRO. Right. This movie was made by SAO scientists on non-working time, and I will narrate.

Mr. YATES. You didn't have the money, did you?

Mr. SHAPIRO. It was all done basically out of love of the possibilities and the results. First, you see what the galaxies look like on part of the sky. Then you look at the strip outlined by two horizontal lines which show the galaxies for which we determined what happens in that third dimension.

Now, we fade into what the distribution looks like when we look out in that third dimension. You see the galaxies are distributed sort of linearly. That is only because of the slice. They are really on two-dimensional surfaces.

What we are doing is just flipping the view to let you see from different vantage points what this structure looks like. The point up at the top now is us. It is coming along to the middle of the screen as we look out in space in the other two dimensions. You can see that there is nothing random about this distribution and the galaxies form surfaces just like in bubbles.

This is an actual picture of a bubble and this is back to the two-dimensional view of the sky which shows you couldn't possibly have inferred that structure from just looking at the universe that way.

Mr. YATES. The shortness of that film makes me believe you really worked hard.

Mr. SHAPIRO. Believe it or not, a lot of work and mathematics went into that film to change the projections.

Mr. YATES. The question that occurred to me, was that a photograph or was that something that you created?

Mr. SHAPIRO. That is all done by computer. All we did was take the positions of the galaxies. Remember I said earlier we separated out the stars and the planets you see when you look up at the sky, and only left the markers for the galaxies. That is what the sky looks like if one could see only galaxies.

What I would like to do is make three more points, one about the scientific significance of this discovery. The short answer is it is too early yet to say. It is too new. What everyone agrees on is that when we finally understand what causes this structure, we will doubtless have profound new insights into how the universe evolved to produce such structures.

The other point I would like to make—the second point—is that there is a revolution going on in science at the moment that is not widely appreciated. There is a confluence between the immeasurably large, the deep universe, and the immeasurably small, fundamental, elementary particles of physics. Elementary particle physi-

cists are looking more and more now to the universe as their laboratory to gather experimental information on new elementary particles.

That brings me to the final point—the practical benefit of all this. The bubble structure SAO scientists discovered, as you probably could infer, will persist as a permanent fixture of the firmament for eons after Halley's Comet stops orbiting the sun. So this is of permanence. But what would its practical benefit be down here? It is not possible to say. All one can do really is point to the past and say, with regard to Faraday, to Maxwell, to Einstein, to Dirac and to Bohr, it was not clear what the practical benefit of their fundamental research was, but it is clear to everyone now that the technological base of our civilization depends solely on the physics that was done from 60 to 160 years ago. And I see no reason why history should not repeat itself.

What we are doing here is laying the seeds of the future technology that none of us is wise enough to predict in detail.

Mr. YATES. You have to trust in luck occasionally, don't you?

Mr. SHAPIRO. It is an investment for which the historical precedent on outcomes is certainly fine.

Mr. YATES. There was a story about Niels Bohr who was visited by a young man who came into his office and above his door he saw a horse shoe hanging. He said, Dr. Bohr, you don't believe in horse shoes, do you? Dr. Bohr looked up and said, no, I don't believe in them, but some people say they do bring luck whether you believe in them or not.

Mr. SHAPIRO. That reminds me of the story of Ben Franklin who said he believed in God just in case. Anyway, I brought for you, if you would like it, a picture of a somewhat different part of the sky. These results, just obtained this month, are of a smaller number of galaxies and you can see the surfaces of circles outlined here. You can put a compass down and draw a circumference and it fits just beautifully.

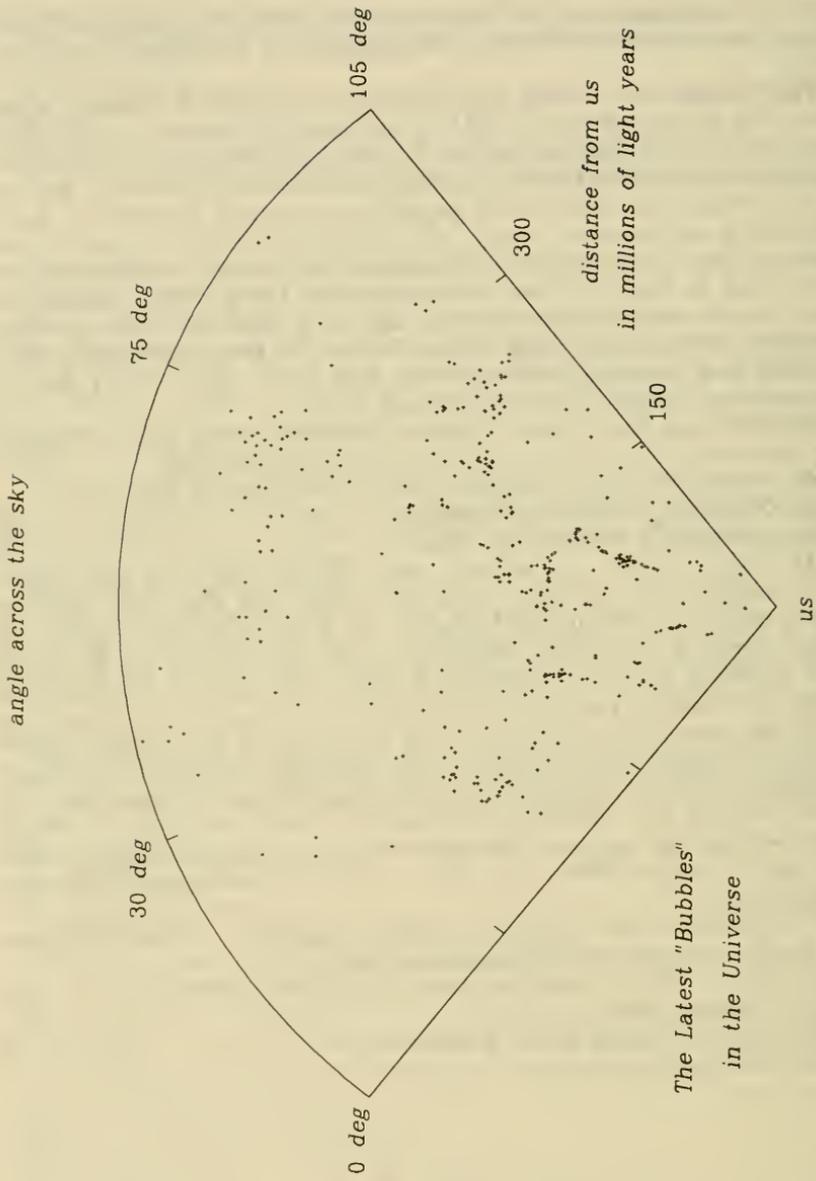
It is perfectly clear there is a general property of this structure out in the universe, but when we can look——

Mr. YATES. Would you like to put this in the record?

Mr. SHAPIRO. Sure.

Mr. YATES. We will put it in the record.

[The information follows:]



Mr. YATES. Very similar to the chart I just got. I just got two new speakers for my high fi system.

Mr. SHAPIRO. That is purely coincidental.

Mr. YATES. I know.

Mr. SHAPIRO. Unless you really believe in horse shoes.

Mr. YATES. Who is next?

Mr. ADAMS. I think next we ought to turn to our other major research facility, the Tropical Research Institute.

EQUIPMENT REPLACEMENT PROGRAM

Mr. YATES. Before you go to tropical research, let me go back to Mr. Shapiro for a moment.

Is there a phased purchase you can have in your program? Do you need the \$850,000, all at once?

Mr. SHAPIRO. This is a phased purchase. This was a five-year replacement and improvement program.

Mr. YATES. They stopped you in flight, didn't they? They didn't let you take off at all.

Mr. SHAPIRO. We barely got half way down the runway.

Mr. YATES. I thought I had done such a good job for you and they knocked you out and they knocked me out, and I won't permit it, Mr. Shapiro.

Go ahead, Mr. Adams.

TUPPER FACILITY AT STRI

Mr. ADAMS. I think we should ask Ira Rubinoff if he would come forward.

Mr. YATES. How do you like living in Panama?

Mr. RUBINOFF. It is warmer than Washington at the moment. Our request is for funds to match a gift from a private donor of \$4 million to help us consolidate our facilities in Panama. We are currently in a lot of World War I or even older structures that were turned over to the Smithsonian by the Panama Canal Commission, and the U.S. Armed Forces.

Mr. YATES. Yellow fever time.

Mr. RUBINOFF. In that period. So this will allow us to consolidate. We already have the site—this is the site of the old Tivoli Hotel for any of you who were down in Panama in the fifties or sixties, a hotel I think that Teddy Roosevelt stayed in at one point.

The site contains our administrative headquarters and a new library built three years ago. The Tupper center will allow construction of a laboratory, greenhouse, animal holding facilities, cafeteria and conference facilities.

Mr. YATES. Is this Tupper of Tupperware?

Mr. RUBINOFF. Originally, yes.

Mr. YATES. How come it is not in the shape of one of those bowls?

Mr. RUBINOFF. He sold the company some years ago. This will allow a consolidation, a centering of our activities in one area with the exception of the field facilities, which are tied to the oceans or Barro Colorado Island and essentially to create a campus-like facility.

Mr. YATES. It looks very good in the model. You brought that all the way from Panama?

Mr. RUBINOFF. The Air Force helped get it here.

Mr. YATES. I must say I am impressed by it. I guess you are, too, aren't you?

Mr. RUBINOFF. It is impressive. I would like to see it reach reality.

Mr. YATES. What problems do you have? Apparently you don't have any problems, do you?

Mr. RUBINOFF. The gift is one half, more than half of the total cost of the construction. We are seeking funds of three-and-a-half million dollars to start construction and complete it within two years. The design is at the 95 percent level and we should be able to break ground by September, I think, of this year.

BUDGET CUTS AT STRI

Mr. YATES. All right. Anything else you want to tell us?

Does Gramm-Rudman affect you at all?

Mr. RUBINOFF. Quite seriously. It will cost us \$164,000 this year, plus another \$30 thousand or so, for the two percent, that occurred earlier. This will force us into a furlough of all our scientific staff and senior administrators for a three or four-day period this fiscal year.

We will also have to reduce our equipment replacement in the area of the purchase of new diving compressors, various kinds of electronic equipment, computers, etc.

Mr. YATES. Will you lose your staff as a result of the furloughing?

Mr. RUBINOFF. I don't think at that level. If it persists the next year at ten percent or greater, most definitely.

Mr. YATES. What is the nature of your staff? Who are they?

Mr. RUBINOFF. There are 25 staff scientists and three or four administrators who would be involved in the furlough.

Mr. YATES. I bet they are not happy with it, are they?

Mr. RUBINOFF. No, they are not. But I think they prefer that, than to see a further cut in their equipment and their research programs. So up to at least the level of three or four days is tolerable.

Mr. YATES. That makes up the \$164,000?

Mr. RUBINOFF. That is part of it. That is about the last \$30,000. The major part of it comes from our equipment replacement and from the slowing down of repairs and renovations and general maintenance.

We have about 50 buildings across the isthmus from one ocean to the other and it is quite a maintenance job and that will be slowed down.

Mr. YATES. Will this affect your research?

Mr. RUBINOFF. Definitely in the long run.

Mr. YATES. In what way?

Mr. RUBINOFF. It is going to—at some point, it may prevent us from doing a certain amount of field work. We have field vehicles to go into the field.

Mr. YATES. What kind of field work?

Mr. RUBINOFF. Work on the ecology of forests. We have been doing research in various parts of the country, and work on both oceans, the Atlantic and Pacific, which we have access to in Panama.

Essentially, the reasons we are in Panama are the unique biological resources that are there. We will not be able to take full advantage of them, with diminished support.

Mr. YATES. Anything else you want to tell us?

Mr. RUBINOFF. I think that is it for now. I echo my colleague's concerns about the future if we are forced to take these cuts in a research organization. We have no public access or responsibility that we can cut back on.

It goes right to the core of our program which is the protection of the Barro Colorado Nature Monument and our own research effort. There is really nothing we can do except affect our core programs.

Mr. YATES. OK. Thank you very much, Mr. Rubinoff.

Mr. ADAMS. This concludes the show and tell portion of the program.

BUDGET CUTS AT CENTER FOR ASIAN ART

Mr. YATES. Well, they will have to have their show and tells in their museums, I guess. What about Mr. Lawton? Is he still with you?

Mr. Lawton, hello. How is Freer doing?

Mr. LAWTON. We are now part of the Center for Asian Art so it is Freer/Sackler.

Mr. YATES. You are no longer Freer without Sackler?

Mr. LAWTON. We are. I think the public, and we, internally, will speak of a Freer Gallery and Sackler Gallery, but when we come before you or when we are preparing budgets, we refer to the Center for Asian Art.

Mr. YATES. Has that been augmented? You have been increased by \$934,000. Is that adequate?

Mr. LAWTON. If you give us the money we are requesting, it is adequate. If there is a cut, then serious questions arise.

Mr. YATES. What happened as a result of Gramm-Rudman?

Mr. LAWTON. We had some cuts, a little over \$100,000. Those are documented in the papers you have before you. The most important figures—and I can go through all of them if you would like—but the important figures are the delaying of hiring two staff members for the Center and delaying the letting of contracts for the design of the installation, of the Sackler Gallery.

Those are crucial, and it means we aren't as far along as we should be at this time.

Mr. YATES. Did you get your Japanese conservator?

Mr. LAWTON. We did, yes.

FREER UNDERGROUND EXPANSION

Mr. YATES. Okay. That is fine.

Tell us about the basement problem.

Mr. LAWTON. I hate to refer to it as a problem, but the design of the project we have continues.

Mr. YATES. Maybe from your side of the table, it was not a problem. From mine, it was because we couldn't get figures that everybody could agree on. Is there agreement on the figure now?

Mr. LAWTON. There is an agreement on the figure and I apologize for the uncertainty or the difference of opinions that were given to you last time. We are, in fact, submitting an entirely new design for that construction.

Mr. YATES. It is a good thing it was held up then, right?

Mr. LAWTON. No. It is an alternate design and will not be as successful as the original design. If we could get what we wanted, we would like the original design, but we obviously can't.

Mr. YATES. Tell us the difference.

Mr. LAWTON. The difference is that we give up exhibition space and when visitors come—

Mr. YATES. You mean in the basement?

Mr. LAWTON. Yes. So that when visitors come from the Sackler to the Freer, or vice versa, they will not have, we think, the aesthetic benefit of moving from one exhibition space into another exhibition space. You will go through a corridor, and take stairs or elevator, as you wish.

We also rearranged the storage space which is the crucial point of all this, storage space for the Freer Collection. We have moved it to the west end of the building. It is all right. It gives us storage space that we dearly need, but it is not the most logical or the most efficient way to get the space.

Mr. YATES. You don't happen to have diagrammatic interpretations of both, do you?

Mr. LAWTON. We do. Mr. Gilmore, I hope, brought them with him.

Mr. YATES. Right there.

Mr. LAWTON. That is a cross section of the existing Freer Gallery, Mr. Chairman.

Mr. GILMORE. We are standing on Jefferson Drive looking towards Independence Avenue. This is the existing building and this is our proposal. We are trying to show you with the darker areas below the yellow line where we are going down.

Mr. YATES. Is this the present plan or is this last year's plan?

Mr. GILMORE. This is the present plan.

Mr. YATES. Can you show us both as you proceed to show what the differences were?

Mr. GILMORE. Yes, sir. I can do that. In the earlier plan at the access level which is that pink line, the access level being the point where the connecting tunnel from the Quadrangle comes over from the Freer, these two drawings are not to the same scale. You can see the volume of space at the access level we were excavating is about 10,000 square feet.

Mr. YATES. Where is the entrance from Sackler?

Mr. GILMORE. Right here, sir. You can see, the volume of space we were excavating at a very, very low level. On the ground it is about 10,000 square feet.

Now, in the new design, we have reduced the quantity of space to be excavated at that level to about 1,700 square feet.

Mr. YATES. From 10,000 to 1,700?

Mr. GILMORE. Yes, sir. This is the space that cost about \$335 a square foot. We are now developing our additional space above here at the sub-basement level where we think the costs will be more in the order of about \$250 a square foot. It was very convenient in the earlier plan, as Tom Lawton was trying to describe to you, coming over from the Sackler Gallery, we could move staff and public in separate corridors into the access level.

We kept the collections separated. Other storage space was here. When we got over to this point above at the basement level and you rise up in an elevator, we were at the new conservation laboratory.

Now, where we only concentrate at this level to this extent, you have to come up the elevator to the basement level and you have to work your way across the building.

Mr. YATES. What is the difference in cost between the two?

Mr. ANDERSON. Half.

Mr. YATES. Only half? There is a difference of so much square footage.

Mr. ANDERSON. Only at the deepest point, Mr. Chairman. The new design goes less deep, but is much broader.

Mr. YATES. How many square feet will you have?

Mr. GILMORE. We are still producing about the same amount of square footage.

Mr. YATES. 10,000?

Mr. GILMORE. Yes, sir. We are doing it here so we don't have to underpin the building as much as being down at this lowest level. This is about 15.5 feet deeper in the ground. If you look at the next level up—

Mr. YATES. Do you encounter any additional difficulties because you go deeper in the ground?

Mr. GILMORE. Absolutely. In the construction of the Quadrangle Building, we were looking for no more than say a quarter inch of subsidence with the Castle and Freer and the Arts and Industries Building, and we did very, very well. We had some superficial cracking at the Freer, plaster.

We had a little bit more problem with the south tower of the Castle. The Arts and Industries Building was in good shape, because we are a greater distance away from it. Excavating directly underneath the Freer structure, again, we hope we are looking at maybe a quarter inch subsidence, more cracking in the building, but that is a risky business.

It is not foolproof. We think by not excavating as much space at the lowest level, the access level, concentrating on the sub-basement areas more, there is more safety and the underpinning is five to eight feet versus, say, 15 or 16 feet. It will cost less and there is less risk.

Mr. YATES. Okay.

Mr. GILMORE. This is the sub-basement area. The gray area here on the old plan, we were penetrating for the elevator and the stairwell. This is the courtyard area that we were hoping to pick up. We penetrated that and created two floors. Now in the new plan, we will excavate the courtyard to one level only down to the existing footings only so there is no underpinning involved here. In this area in the sub-basement, there is now only about a six-foot head-

room, we are going to drop that five to eight feet, do some underpinning and other techniques.

There is about 10,000 square feet available here. We think it ought to cost us about \$2.5 million now. We can provide the same quantity of space. It simply does not do it as well as Tom was trying to explain earlier.

Mr. YATES. But at half the cost.

Mr. GILMORE. It is half the cost.

Mr. YATES. Thank you very much. I think that shows me. Will you be having any storage space in Sackler?

Mr. LAWTON. Yes, yes. There is storage space for the Sackler collection. It operates as a different museum. The storage space in the Sackler Gallery has to take care of the Sackler collection, but it also has to regularly be able to absorb touring exhibitions, special exhibitions, and exhibitions that might occupy 14,000 square feet.

That material has to arrive, be stored, worked on in-place in the galleries, so there has to be an elasticity, if you wish, to the use of the space that does not prevail in the Freer. In the Freer, we have our own collections. Those have to be stored and cared for, but we don't have to anticipate that kind of quick change over a regular period.

FREER WILL

Mr. ADAMS. I might remind you, under the terms of the Freer Will, objects can either move in or move out of the collection.

Mr. YATES. Now that you have Freer/Sackler, will you be moving in and out?

Mr. ADAMS. Out of the Sackler part.

Mr. YATES. I know you can do that, but you are one institution though, aren't you?

Are you violating the Will if you move a Chinese figurine from Mr. Lawton's Freer part to the Sackler part?

Mr. LAWTON. If we exhibit it, we would be in violation, but we don't plan to do that.

Mr. YATES. It is part of the same structure now, isn't it?

Mr. LAWTON. No. The Freer Gallery remains the Freer Gallery and its collection remains intact within that gallery.

CONSERVATION AT THE FREER GALLERY

Mr. YATES. Okay. All right. Anything you want to tell me, Tom, about your problems? You have all the money you need, obviously.

Mr. LAWTON. If you approve the budget we have submitted, we wouldn't have any problems.

Mr. YATES. You have a full conservation staff so you don't have any conservation problems.

Mr. LAWTON. If you approve the budget that we are requesting.

This morning the entire conversation has had a thread running through it of conservation. You know our conservation studios and the whole point of getting this extra space in the basement of the Freer Gallery is to enable us to enlarge our conservation areas.

Mr. YATES. Are you going to hire additional conservators?

Mr. LAWTON. Yes, we have a listing of our staff.

Mr. YATES. Can you get them? I thought you had to go to Japan for them.

Mr. LAWTON. That is one of our problems. We want to be able to train Americans to be able to do this, so we aren't always faced with the problem of going to China or Japan.

Mr. YATES. What do you mean you want to be able to do it? Why aren't you doing it now?

Mr. LAWTON. Because we don't have the space to do it. You have been in the room we have. It is occupied by the people who are doing the work.

Mr. YATES. You ought to put a portable up in your courtyard.

Mr. LAWTON. If you give us the money—

THE HIRSHHORN WILL

Mr. YATES. Thank you. What is next?

Hirshhorn? Hirshhorn, wherever you are. Mr. Demetrian?

Mr. DEMETRION. We are doing reasonably well. We are going to have some problems.

Mr. YATES. I didn't think you had any financial problems because of Mr. Hirshhorn's Will.

Mr. DEMETRION. Well, I had someone, a collector in Southern California, tell me recently that it was her impression that next to the Getty Museum, the Hirshhorn was the richest museum in the world. I had to inform her that the funds provided by the Congress for acquisitions were considerably less than many medium-sized museums around this Nation.

Mr. Hirshhorn's Will has not yet been settled. There are still problems with it. We have received the entire collection, however, but it appears that the funds that he had indicated in his Will may not be coming to us. I think perhaps Peter Powers can speak more directly to that.

Mr. YATES. Is it Mr. Powers' fault they are not coming to you?

Mr. DEMETRION. Absolutely not.

Mr. YATES. Mr. Powers, why aren't they coming to Mr. Demetrian?

Mr. POWERS. I think that is an overstatement. The estate is still in probate. There are still substantial tax questions over which we have no control at all. I think it is premature to say what the result will be.

We hope there will be a final accounting by the beginning of next year.

Mr. YATES. There are tax questions that are involved. Why does that enter into it insofar as gifts to the Hirshhorn are concerned?

Mr. POWERS. What it has to do with is the size of the entire estate. The structure of the Will is such that we don't, the Hirshhorn does not, have a bequest which comes ahead of everybody else. It comes at the end.

Mr. YATES. You mean because of special gifts to institutions?

Mr. POWERS. No, individuals.

Mr. YATES. And members of the family?

Mr. POWERS. Yes.

Mr. YATES. Well, that really isn't tax. That is a question of priorities, isn't it? Why is that a tax question?

TAX CREDITS

Mr. POWERS. The tax on the whole estate is a problem which affects the amount left over at the end.

Mr. YATES. Well, you have an estate the Smithsonian may or may not get, the Neumann estate in Chicago. Interestingly, one of the questions that the Neumann's are concerned with is whether they can surrender some of their objects in payment of what the estate tax is likely to be. The French do that.

Mr. POWERS. The English do it, as well.

Mr. YATES. I wonder if that would be a good idea for us to do, too. Do you want to think about it? What do you think, Mr. Demetrian?

Mr. DEMETRION. I think it would be a wonderful idea. It is my understanding, it may have been done once or twice.

Mr. YATES. In this country?

Mr. DEMETRION. I have heard that.

Mr. YATES. Do you know the instances?

Mr. POWERS. We had special legislation in 1968 for the Lilly collection. I don't know if you remember the gold coins.

Mr. YATES. Oh, yes.

Mr. POWERS. Which enabled them to be given to the National Museum as part of a tax credit to these estates. So, in effect, it had that same result. But that took special legislation.

Mr. YATES. I would think it would take special legislation to do it, but it would be at least an idea. Incidentally, who is negotiating with the Neumann's on this? Are you?

Mr. DEMETRION. No, I am not.

Mr. YATES. Are you, Mr. Adams?

Mr. ADAMS. Mr. Anderson has been.

Mr. ANDERSON. Tom Freudenheim and I will be meeting with Mr. Neumann next Tuesday in New York City.

Mr. YATES. The National Gallery isn't in this picture then, is it? The Art Institute is in the picture, is it not?

Mr. ANDERSON. That is my understanding.

Mr. ADAMS. I don't think we should say whether the National Gallery is in the picture or not.

Mr. YATES. Technically that is Smithsonian, too, isn't it?

Mr. ADAMS. Under the broadest reading, but not under an operational reading.

BUDGET CUTS AT HIRSHHORN MUSEUM

Mr. YATES. Okay. Mr. Demetrian, what problems do you have? The Gramm-Rudman problems are itemized, it does not say very much.

It says you will not fill current vacancies in the amount of \$84,000, defer contractual services for exhibition scheduled for 1987 of \$50,000.

Mr. DEMETRION. That is for the 4.3 percent for the current fiscal year.

Mr. YATES. Okay. What do you mean by contractual services? You mean for hanging it or something like that?

Mr. DEMETRION. No. We are participating in two exhibitions, one from the Fort Worth Art Museum for an exhibition of sculptures

by Nancy Graves, and an exhibition of paintings by Morris Louis, which the Museum of Modern Art is organizing and we have to pay fees for those exhibitions.

ACQUISITION PROGRAM AT HIRSHHORN MUSEUM

Mr. YATES. Well, what about acquisitions? Do you have any money for acquisitions?

Mr. DEMETRION. We do have some money, but like all art museums, the amount is really quite insufficient. It is a situation where we find ourselves in competition with other national museums of modern and contemporary art across the world and the funding which we receive tends to be ten percent or in the case of the Beaubourg in France, five percent of what those national museums receive is for the purchase of the 20th-century art.

So we are in a very bad position in that respect. We do have some funds available from the deaccessioning program that we have entered into and will continue to work at over the years, and we still have some funds from Regent's money which was provided to us about four years ago.

Mr. YATES. Are you interested in buying anything specifically?

Is there anything pending that you need money for, a pending purchase?

Mr. DEMETRION. In the area of art, so much depends upon availability of particular objects at particular times. Recently, I went into New York to look at a painting by Barnett Newman, a very important painting, which I had known from some years before which was available with a very hefty asking price of \$1.4 million.

When I saw the painting, the condition of it appeared to be such that I didn't feel I wished to pursue it. But had its condition been sound, we certainly would have tried to acquire it. But that would have wiped out all of the Regent's money that we have. I could negotiate the price down a bit, but it would have left us without any funds for additional purchases.

With a museum as heavily involved in the acquisition of contemporary art as we are, it behooves us to keep on top of things as much as possible with what new and young artists are doing as well as trying to fill in with some of the older artists.

Because of budgetary constraints and lack of funds, we have pretty much, though not completely, but pretty much given up the idea of trying to acquire works prior to World War II because of the cost of such works unless we can get them from the Neumann collection, for example, or some other such collection.

Mr. YATES. Appraisals become very important there, don't they?

Mr. DEMETRION. Indeed.

CONSERVATION AT HIRSHHORN MUSEUM

Mr. YATES. Do you have a conservation problem?

Mr. DEMETRION. I don't know if our problem is any greater or worse than other museums. It has been heightened recently by the acquisition of the 6,000 objects from Mr. Hirshhorn's bequest which have come to the museum. They need to be processed and looked at, which is an ongoing situation.

Mr. YATES. I thought I read somewhere that the character or the quality of the surface of contemporary art paintings is so poor because of the kind of materials that contemporary artists were using that they are flaking off, they are cracking, they are breaking. That presents a real problem to those who own such paintings.

Is that true of the paintings that you own?

Mr. DEMETRION. That is correct in many instances. It is not true of all artists, some of whom paint in traditional methods and techniques, but many artists, especially those who are more experimental, certainly do work with very unusual materials in many cases and we do have problems.

Mr. YATES. How big a conservation department do you have?

Mr. DEMETRION. Five full-time conservators and one part-time conservator.

Mr. YATES. I guess you keep them busy, don't you?

Mr. DEMETRION. We do.

Mr. YATES. Anything else you want to tell us?

Mr. DEMETRION. No. I would just like to reiterate, in general, what my colleagues have indicated about the seriousness of GRH for the future because I think it will affect all of us in ways which could also be detrimental to the public.

BUDGET CUTS AT AIR AND SPACE MUSEUM

Mr. YATES. Thank you very much.

Air and Space, Mr. Boyne.

Mr. BOYNE. Hi, Mr. Chairman. How are you?

Mr. YATES. Tell us about Air and Space. You tell us in your Air and Space Museum budget justification, you are not going to fill the current vacancies for \$97,600, reduce research by \$15,000 and cancel the purchase of computer equipment for research and records management.

You join Mr. Shapiro in that respect, don't you?

Mr. BOYNE. Yes.

Mr. YATES. You are going to have to reduce a videodisc project for \$15,000 and new equipment for technology of \$20,000, delay collections and restoration at the Garber facility. What is the Garber facility?

Mr. BOYNE. That is our Suitland facility, sir, where we restore aircraft.

Mr. YATES. How did you happen to name it Garber?

Mr. BOYNE. Paul Garber mentioned acquiring a collection and on his 60th anniversary with the institution and his 82nd birthday, we dedicated it to him.

Mr. YATES. The installation of a fire suppression system or 8 millimeter film and slide projector. That doesn't make sense, does it?

Mr. BOYNE. It is a hard decision to make.

Mr. YATES. I hate to see delays in purchase of fire suppression systems. Reduce exhibitions for \$53,000, reduce the number of public information brochures, reduce travel by \$27,000, reduce supplies by \$15,000, and reduce audio-visual support for exhibitions by \$20,000. That is just some of the results, right?

Mr. BOYNE. Yes, sir. I certainly second the remarks of my colleagues who preceded me. They alluded toward the more dramatic

effects of future years, something that is probably implicit, but I would like to say, if those large cuts occur, there will have to be some kind of supplementary legislation to permit you to take the necessary personnel action to effect those cuts.

Otherwise, you simply are unable to remove people and you have no funds remaining that you can cut and it does present a problem. Our computer things effect us particularly because we are somewhat in the advanced field. I would like to have shown and told you some of those things, but they were larger than we were able to display.

They deal with collections management and their solutions. They also, if I may interject a somewhat optimistic note, offer an opportunity for a flow of funds into the museum. They are developed from private funds and we have a patent pending on them and there is a stream of funds that may be coming in.

So I think all of us recognize that there is another element coming into the museum directorship, and that is an aspect of the entrepreneurial in which you have to make your own funds if they is not going to be available here and we are going to try to do that.

CONSERVATION AT AIR AND SPACE MUSEUM

Mr. YATES. Okay. Do you have to worry about conservation?

Mr. BOYNE. Yes. Our objects differ in that we have fewer objects, but they are much larger. Many of them are made of complex and diverse materials.

Many of the space objects are made of very exotic materials and these all require special conservation efforts. We try to do much of it internally. We also are able to ask the industry in those special cases where exotic metals are involved, like beryllium, to help us with it.

We are trying to establish our own conservation people in those specialized fields because they don't really exist elsewhere.

IMAX FILMS AT NASM

Mr. YATES. Tell us about the theater you have. You have some of the most beautiful films I have ever seen there. You have some kind of arrangement with the IMAX Company.

Mr. BOYNE. Yes, sir. The IMAX Company donated the equipment originally to the museum when it began and it was a part of the new concept of the museum to show the large format film. At that time there were about eight IMAX Theaters in the world.

There are about 45 and there will be 60 next year. We like to think part of it, at least, is due to the films that were shown at the Air and Space Museum. We have a new film coming on June 19, "On the Wing." These films also relate to the entrepreneurial side of museum management.

On the last few films we have had contracts that enabled us to participate in the profits that have been created at other museums also. It is a small stream of funds, but it is an effort to look downstream and derive from the efforts of the curators and the people some return ultimately.

Mr. YATES. What else should I be asking you?

Mr. BOYNE. I would just like to reiterate, again, we are all concerned about collection management. We have some things that

might intrigue you. I could either bring them here to show you or it would be better to come back down and look at them.

NASM MUSEUM SHOPS

Mr. YATES. I will not subject you to carrying them here. How is your shop doing?

Mr. BOYNE. It is doing quite well. It has set a record.

Mr. YATES. You have more people than the other museums, don't you?

Mr. BOYNE. Yes, sir. I was told by Sam Greenberg, the able—

Mr. YATES. I hate to say this, Roger, but I am told that they do.

Mr. BOYNE. They set a record in February, a very slow month, one of the shops did, and continues almost every month to expand because of the very good merchandizing efforts that Sam Greenberg and some other people are doing.

Mr. YATES. When are you going to get a shop as large as Mr. Kennedy's?

Mr. BOYNE. We have something here in our mind which, of course, is in no one else's mind, that ultimately we would do what Mr. Kennedy did and expand the shops to take advantage of the demand.

Mr. YATES. If Gramm-Rudman continues, I think in order to balance your books, you are going to have to increase your shops, aren't you?

Mr. BOYNE. Yes, sir.

AIR & SPACE MAGAZINE

Mr. YATES. You have a new magazine coming out, don't you?

Mr. BOYNE. Yes, sir.

Mr. YATES. I wish you the best of luck on that magazine. I hope you can become as profitable as the Smithsonian magazine.

Mr. BOYNE. We weren't thinking about that, of course, but we would like to have it. Just as a final note, there are a lot of things that can be done and one of the things we are going to do is put in our own pay phones and collect the money from those as a pilot experiment for the Smithsonian.

Mr. YATES. What does that mean "put in your own pay phones"—for your employees?

Mr. BOYNE. No. You can own phones now under the new, rather unstructured system. You put in your own phones and get the proceeds from them. There are a number of things we hope to do that will offset; however, if the next Gramm-Rudman cut is at a level they project, it is really sort of shut-up-shop for all practical purposes.

BUDGET CUTS AT AMERICAN ART MUSEUM

Mr. YATES. Okay. Thank you very much, Mr. Boyne.

We haven't done American Art yet.

The National Museum for American Art, Mr. Eldredge.

Mr. ELDRIDGE. Good afternoon.

Mr. YATES. You have a wonderful collection. Gramm-Rudman would cut your acquisitions by a hundred thousand dollars. Why you, more than the others?

Mr. ELDRIDGE. We had planned over several years to bolster our acquisition funds and, through reprogramming various activities, had this year anticipated significant enhancement of our acquisition capacity, just in time to have it wiped out by the Gramm-Rudman legislation.

That plan would have provided an increase from \$250,000 to \$350,000 a year. As it is we are back where we started now.

Mr. YATES. You want to buy computer equipment, too, for \$13,000.

Mr. ELDRIDGE. Indeed, sir.

Mr. YATES. And benches for public galleries. How come you put computer equipment and benches together?

Mr. ELDRIDGE. It is the same object category. They serve different purposes obviously.

Mr. ANDERSON. It might bear repeating, Mr. Chairman, that there are reasonably few things that a director, faced with a short-term cut, can do to achieve savings. You can't, as Mr. Boyne pointed out, simply fire your staff. That is a long, involved process for which sometimes the expenses in the near-term increase rather than go away. You are left with a narrow range of things you can do.

You can turn off your exhibit program. You can stop acquiring things for the collections or cut "Other Objects" of expense: contracts, equipment. I think that is why the list before you is rather repetitive in matters having to do with exhibitions, computers, equipment, things of that sort.

Mr. YATES. The problems are all the same in that respect, aren't they? Do you have any other problems that are not listed in this summary that has been given to the committee that we ought to know about?

Mr. ELDRIDGE. As for the summary of the 1986 situation that you have before you, what concerns my colleagues—and I think all of us—is how you go about dismantling a dream. You work over a period of time to build a base for national collections and nationally important research activities and finally, in our case, reach the threshold as a significant center for the study of America's visual history. Ultimately, we see ahead of us, in the worst case scenario, the undoing of a decade of work, or several decades of work.

That, in general, is the situation which confronts us. With specific reference to the Museum of American Art, the research and dependence upon computers and automation of research in which we have heretofore played a leadership role in the profession is now threatened by the punitive impacts of cuts over the last several years and those projected for the future.

The unique data banks, for instance, that provide a census to art historians and curators and researchers around the globe relating to American paintings—and a new data bank paralleling it relating to American sculpture—will suffer. We will now be unable to continue to provide that kind of unique resource.

Mr. YATES. Do you have any artifacts or collection items that have been offered to you that you can't buy because of cutbacks?

Mr. ELDREDGE. Yes, indeed. We have been fortunate in some cases to find private funds, but in many cases, we have had to forgo opportunities because of the cutback of \$100,000 in the funds. We have had to pass, for instance, on a major Georgia O'Keeffe painting, a water color, just within the last fortnight.

I have paintings on my easel I know I now must send back to the dealers because I haven't the means, post-Gramm-Rudman, to acquire them.

Mr. YATES. What kind, other than Georgia O'Keeffe?

Mr. ELDREDGE. Specifically, there are paintings offered to us, of which we would like to take advantage, that range—I am not saying we would do all of this—but they range from works by Arthur Dove to the contemporary sculptor, Brian Hunt.

Those, alas, will probably not find a home at the Smithsonian, at least not in my shop.

Mr. YATES. No way of getting donations?

Mr. ELDREDGE. We have gotten healthy donations that enabled us to acquire, for instance, a major Thomas Hart Benton mural and Thomas Eakins' last great nude composition, both of which came into the collection over the last few months.

Mr. YATES. How do you get a mural? I thought murals were painted on a wall.

Mr. ELDREDGE. This was a mural that was painted on a canvas and then hung on a wall, using the term loosely. But it came out of a department store, and the owner contributed three quarters of the million dollar value.

Mr. YATES. Good. Anything else the committee should know?

Mr. ELDREDGE. I would simply again, at the risk of redundancy, repeat what has been said by my colleagues before me.

BUDGET CUTS AT ZOOLOGICAL PARK

Mr. YATES. Thank you very much.

The zoo, sir.

Tell us about your acquisitions. Are you acquiring any tigers or leopards?

Mr. ROBINSON. We are fortunate in that respect.

Mr. YATES. Did you get the big bear from Mr. Shapiro?

Mr. ROBINSON. Our collection is a reproducing collection and that gives us some offspring that we can trade.

Mr. YATES. Doesn't the big bear have a little bear?

Mr. ROBINSON. As a matter of fact, we have two little bears. Our spectacle bears had two babies this spring. Twins are unusual. They are due out anytime now from the den and they will be charming. I invite you to see those, and at least five other major births we have had this spring.

Mr. YATES. Unfortunately, none of the pandas.

Mr. ROBINSON. None of the pandas.

Mr. YATES. Are you still trying to get a panda?

Mr. ROBINSON. We are still trying very, very hard indeed.

Mr. YATES. Why don't you trade Ling-Ling in for another panda?

Mr. ROBINSON. Well, the fault may not be on the distaff half of the pair.

Mr. YATES. The males like to think so.

Mr. ROBINSON. There is an important point I should make, sir, that our collection unlike any other collection anywhere needs constant day-to-day conservation and, in fact, you can leave an insect collection for a year and there will be deterioration, but you can't leave our collection for more than a day without something dying.

We are being hurt. The only way we can meet our cut, with a 86 percent personnel budget, is not to replace keepers as they retire and that is a very sad state of affairs.

Mr. YATES. You have a big cut, \$496,000.

Mr. ROBINSON. Right. This highlights something that Roger said and several other people have said. It is an extremely difficult thing. I know you know it, but it is worth reiterating and that is, when you do a RIF, you can't decide who ultimately goes.

If we wanted to RIF a bear keeper because we have plenty of keepers in the bear line, it might finish up with an elephant keeper actually going and you can't have less than two elephant keepers on duty at any one time because it is an extremely dangerous occupation.

Mr. YATES. Are the elephants more dangerous than other animals?

Mr. ROBINSON. More keepers die in the United States zoos by accidents related to elephants than anything else. They tend to lean against somebody and it is really no laughing matter. Next year the proposed cuts could be a disaster. We would have to close exhibits. There is no way we could cut ten percent of a personnel budget, which is over 80% our total budget and then cut the food budget on top of that which is uncuttable without cutting down the collection.

Mr. YATES. You can't put any of your animals on diets. They are on special diets now, aren't they?

Mr. ROBINSON. They are, indeed. We try to keep most of them slim and active.

Mr. YATES. Do you lose any animals from disease?

Mr. ROBINSON. Yes. We have a very good health record, the best veterinarians, I believe, in the whole United States, including Chicago. But, of course, there are all kinds of degenerative diseases and accidents.

Mr. YATES. I wonder about special plagues.

Mr. ROBINSON. We have problems with some avian diseases because, during the winter, thousands of wild birds fly into our bird exhibits to free load on the food that we give to the captive animals.

Mr. YATES. Your statement here does not tell us very much. It just tells us you are going to take it all out in personnel. You don't have maintenance problems?

Mr. ROBINSON. Of course, this is a solution which would work for one year only and will cause deterioration in succeeding years if the cuts continue.

Mr. YATES. What about your walks and fences?

Mr. ROBINSON. We have over seven miles of those. Those are going to get pitted and we are going to have problems there. We are going to have problems with air conditioning. We are going to have problems with keepers and the only ultimate solution next

year, if this is repeated, we are going to have to close exhibits, remove animals from the collection and wind it down.

While other places are concerned about conserving extinct species, we are concerned with savings species from extinction and, I think, we have a role in that respect that is not replicated anywhere else in the world.

We just saved two species this year from extinction, two birds from the Island of Guam are gone from the Island, but we are breeding them successfully at Front Royal.

CALIFORNIA CONDOR

Mr. YATES. Perhaps we ought to move the California condor into your zoo.

Mr. ROBINSON. No comment, sir.

Mr. YATES. Could you save the condor, do you think?

Mr. ROBINSON. I would not like to be on record in front of my colleagues in the California zoo or the California wildlife movement, but there is no doubt that the conflict between the various interests there has put the condor at risk.

Mr. YATES. Really?

Mr. ROBINSON. Yes. There are two sides.

Mr. YATES. What should be done with the condor? I have that problem in the Fish and Wildlife Service as to what to do about preserving the condor's life. I see by the papers that they lost a new condor—at least an egg was smashed.

What could you do they can't do out there? Of course, the conflicting interests would be all around you then, wouldn't they?

Mr. ROBINSON. Probably not.

Mr. YATES. You have facilities for the condor?

Mr. ROBINSON. At this stage, I think the situation is completely irremediable.

Mr. YATES. You mean it is going to be extinct?

Mr. ROBINSON. Yes, and also the black footed ferret has reached the stage where the population is so low that even if we got them now, we probably couldn't preserve it. One of the outstanding results of our research has been to show that if you get down to small populations, the genetic variability in a tiny population isn't sufficient to sustain a captive population when you start a breeding program.

If you get down to five or six pairs, it is just too much inbreeding and the whole viability of the species is at risk. Our statistics have been able to show that for the first time, that when you inbreed, the families have a shorter life cycle, there are smaller numbers born, and when you get down to five or six condors, you may be dealing with a very closely related population and it may be too late in that sense.

TROPICAL RAIN FOREST EXHIBIT

Mr. YATES. Anything else you want to tell us besides reiterating what your colleagues have said?

Mr. ROBINSON. I would like to add something.

I think unarguably, the most vital environmental problem in the world today is the fate of tropical rain forests which makes the

Smithsonian's research in that area a major, important international activity.

But we would also like to bring the fate of the rain forest to the people visiting the National Zoo by creating a rain forest exhibit. There is a beautiful one at Brookfield and a nice one at the Bronx zoo. We had in our fiscal year 1987 budget a request to build the first Washington rain forest exhibit which would have been a remarkable piece of education for rain forest conservation.

That was removed from our construction budget.

Mr. YATES. Perhaps we can find funds. How much was it? We can find funds in the Forest Service budget.

Mr. ROBINSON. We had requested \$2.5 million, sir, just a trivial amount.

Mr. YATES. We will take it out of the road construction funding for the Forest Service.

All right. Thank you very much.

BUDGET CUTS AT ANACOSTIA NEIGHBORHOOD MUSEUM

Who else do we have?

Mr. Kinard in Anacostia.

Mr. KINARD. Good afternoon, Mr. Chairman.

Mr. YATES. Do you have any problems or didn't they cut you at all?

Mr. KINARD. Mr. Chairman, being small, we were able to absorb the 4.3 percent cut this year through salary lapse.

Mr. YATES. What didn't they give you because you are so small?

Mr. KINARD. I didn't have anything to request because I was so small this year. As you know, Mr. Chairman—

Mr. YATES. What about next year?

Mr. KINARD. We have inherited a new building in Anacostia that we are beginning to program for and we will open it next year. I would only say, Mr. Chairman, for the moment we seem to be in a satisfactory condition.

I would say about Gramm-Rudman that the emotional upheaval new cuts may have on the Smithsonian community as a family is causing an animalistic thing to occur quite naturally as you would suggest, that some of us then begin to look at others of us to say that perhaps you are expendable.

I think that as an Institution, or as a family, this cuts very deep—as Charlie Eldredge has said—into an Institution that has been building over the years, for some of us to look at other programs and say they are expendable. I hate to see this occurring in this venerable, noble Institution.

That is the only thing I have to say.

Mr. YATES. That is a very good statement. I would hate to see it happen, too.

BUDGET CUTS AT COOPER-HEWITT

Mr. YATES. Mr. Pfister, tell us about your problems. You are building a new museum, aren't you?

Mr. PFISTER. We hope to.

Mr. YATES. You are in the midst of private fund raising. How are you doing?

Mr. PFISTER. We have roughly over \$3.2 million in the fund. The campaign has not yet been publicly announced in New York. A national committee is being formed, and there is an office in place on site specializing in just that project.

Mr. YATES. You are eliminating one position in exhibition design and production and reducing maintenance by \$10,500. You don't have much maintenance. You are a new building, aren't you?

Mr. PFISTER. No, sir.

Mr. YATES. You are new in the sense you were totally rehabilitated, at least I thought you were when I went up and saw you.

Mr. PFISTER. That is correct.

Mr. YATES. It is a beautiful home.

Mr. PFISTER. The doors were opened in 1976, and we have been functioning since then without any major capital improvements. This is our tenth anniversary.

Mr. YATES. A beautiful museum. Any problems that haven't been reflected by your colleagues' statements?

Mr. PFISTER. I wanted to say briefly, that Mrs. Taylor has mentioned on at least one occasion that the world turned upside down with respect to Gramm-Rudman-Hollings. Forty thousand dollars out of a fraction of what is our total operational cost is a reduction that we were able to deal with on paper at this point. All the questions you have been raising with respect to the other institutional collections have a kind of different impact at the Cooper-Hewitt. We have just two full-time Federal people.

Professional conservators have been provided for solely with private funds. They are only able to chip away, and have been and only will be able to chip away, at the edges of the enormous collections.

We do have asbestos on site, and also fiberglass particles blowing around every day due to the deterioration of duct linings in our air handling system and the remedy of that situation is pending the design of the totally improved facility, which is one reason why we are where we are with the capital improvement program.

With respect to your continuing questions on collection acquisitions, not one Federal dime has yet been spent for acquisitions of collections. We are trying to be more aggressive and thoughtful about that, although it is hard to find time to go through the de-accession process. We do it as we can and turn those into private funds for the continuation of our collection-building collection effort.

Our collection-building and conservation efforts are limited by the reconstruction of the physical plant. We have collections we might preserve, but there is no point in doing it at this time because we can't bring them back into a suitable environment for display or storage.

I noted with great interest your observations on the national museums now finding themselves faced with the same constraints that private museums around the country have faced for some time. Your query about admission fees—we are awaiting approval for a request for a fifty percent increase in our own admission fee from \$2 to \$3. Many of those problems faced by private museums have been faced by us.

As far as our special project fund, that is another new wrinkle. It is a little difficult to go out and continue to obtain major gifts for an organization which appears to be in a shut down or cut back or survival mode, and those gifts and grants and developed fund activities are relatively more important for us because they are on the private side of our house and provide up to 75 percent of our operations in any given year.

Specifically, there is a Gramm-Rudman impact already on the capital campaign with respect to the scheduling of the campaign and likely availability of a Federal appropriation prior to 1991, and we are still considering what that may mean for us over the next four or five years. It means a different schedule than we were talking about last year.

Mr. YATES. My notes indicate you may have been the beneficiary of John Lennon's Rolls Royce.

Mr. PFISTER. Yes.

Mr. YATES. Did you get money from that?

Mr. PFISTER. Yes, we did. We brought a record price at public auction in excess of \$2 million. It was an extraordinary gift.

Mr. YATES. All of that went to Cooper-Hewitt?

Mr. PFISTER. That is a good portion of what is there with respect to campaigning. It was an unrestricted gift for the museum's use, and it is part of what we are using now for our campaign.

Mr. YATES. Anything else you would like to tell us?

Mr. PFISTER. No, sir. I think that covers the bases.

BUDGET CUTS AT ARCHIVES OF AMERICAN ART

Mr. YATES. Let's see whom I haven't touched here. The Archives of American Art. Mr. Murray. Are you cut back?

Mr. MURRAY. Yes, sir, we are. We have lost \$39,000, which for small activities, such as the Archives, is a major blow.

Mr. YATES. You can't raise them from private funds?

Mr. MURRAY. As you see on the budget detailing, the Archives does a relatively good job, I think, of matching private and public funds, and I think that we have now reached a threshold in our ability to raise additional private funds for operating. And our traditional notion that Federal funds provides us a stable base is certainly no longer valid.

I do not think that we can raise additional trust funds in order to continue the operations cut by the Federal sum. We were able only to cover the \$39,000 cut by the use of lapsed personnel funds which, thanks to your good judgment and support for the Archives, came to us through additional positions and conservation funds in this year's budget. The lapsed funds came from those positions not being filled until now. We are now recruiting.

We also had to cut some money out of our filming and reproduction budget. We have some collections we acquired from around the country which will not be filmed and available to scholars.

We also had to cut money out of our computer budget, which is a very important part of our operation since we are now changing from a hand system to a computerized system of cataloguing and inventory control. I do not know what will happen next year if the Gramm-Rudman-Hollings Act continues in this way. We will not

have the personnel funds to cover the cuts, and the only additional funds we would be able to cut would be deeply cutting into program funds for distribution of material, funds that we supply for travel for each of our directors, and probably into the conservation funds that you so carefully guided through Congress for us.

Our conservation program is just now beginning. That is the first funding that we have had, and cutting into that would be disastrous.

Mr. YATES. Where are you located now?

Mr. MURRAY. We have regional offices and offices here in Washington. This is our main office.

Mr. YATES. Weren't you given a new building? Didn't someone want to give you a new office?

Mr. MURRAY. Our New York office will be moving into the Equitable Center. That is through the care shown by Ben Holloway, one of our trustees.

BUDGET CUTS AT SITES

Mr. YATES. Thank you.

Ms. Loar, do you want to tell us about SITES?

Ms. LOAR. The numbers won't sound as impressive as some of those from my colleagues. The request is three-tenths of one percent of the total request.

Mr. YATES. How much do you make for the Smithsonian out of your efforts? Do you operate at a loss or profit?

Ms. LOAR. At a loss, about \$300,000 a year of private trust funds. That, coupled with the Federal support, provides a subsidy of about \$700,000. Additional funds come to us from museum participation fees, grants and contracts and outside foundation support.

Mr. YATES. Do you lose any of your objects as you lend them around?

Ms. LOAR. Very occasional. The losses over the last three years are minuscule. I think there have been only five thefts, and four of them were shopping bags from a graphic design show.

Mr. YATES. That is not too bad. Are you insured?

Ms. LOAR. Yes, we are. The value of the objects we tour annually is about \$50 million, and most of that is covered under the Smithsonian's insurance policy unless it is a major international show, which may be indemnified through the U.S. Indemnification program.

Mr. YATES. Does the Smithsonian have an insurance policy?

Mr. ANDERSON. Yes, indeed.

Mr. YATES. With a private company?

Mr. ANDERSON. Yes.

Mr. YATES. For what?

Mr. ANDERSON. For "all risk" coverage of objects we have borrowed from other people or occasionally objects we are lending to other people, if our coverage is better than theirs would be.

Mr. YATES. I wasn't aware of that. I thought you were a Federal institution for that sort of—

Mr. ANDERSON. We do not have outside underwriting on our own objects that are in our own care. Our things under our roofs we conceptually self-insure.

Mr. YATES. What else did you want to tell us?

Ms. LOAR. Our immediate Gramm-Rudman cuts amount to about \$16,000, which we are dealing with by delaying the hiring of the head of education, which is a blow to us because it involves that salary and some educational supplies. We pride ourselves in being able to integrate scholarship and education. The educational aspects of our exhibitions will suffer, and this is what we feel makes exhibitions successful and more meaningful to the public.

In terms of 1987 cuts, it will hit the core of our program and hinder our registrarial operations. This is a serious problem for the traveling exhibition service. Some Federal funds are spent on the head registrar's salary and for travel to get to various locations for mid-term inspection and condition reports on Smithsonian objects and other objects in our care.

If we begin to be perceived as though we don't care about conservation and safety, I think it could be detrimental to the credibility of the institution generally.

Mr. YATES. I hate to hear such negative testimony. Don't misunderstand me, I hate to see what is happening to a national institution which I think is one of the great treasures of—or more than one of the great treasures of our country, faced with the possibility of deterioration and degradation. I don't know what we can do about it.

VALUE OF THE COLLECTIONS

Insurance we just talked about. What is the value of your objects? What is the value of all these artifacts that you have, 100 million artifacts? I don't know how valuable your collection of insects is, for example, but when you think of the paintings—

Mr. ADAMS. I do know in a calculation made not long ago, the value of the collections in the Harvard Art Museums, including the Fogg Museum is greater than the endowment of the entire Harvard University.

Mr. YATES. How much does Harvard have—

Mr. SHAPIRO. Two and a half billion dollars.

Mr. YATES. I remember when we acquired the Hirshhorn collection, Mr. Blitzer brought in an inventory of the objects and probably said "This is worth \$75 million." That was, what, 15 years ago? And I think they have gone up in value since then.

Mr. DEMETRION, what would you estimate the objects' value to be?

Mr. DEMETRION. It would be difficult to hazard a guess. I know in 1982, the bequest of art objects to the Hirshhorn was valued at \$13 million. Those objects are of less importance than the original 6,000 objects which came to the Smithsonian in 1966. It would be very difficult to hazard a guess. The Institution is self insured. Each time we lend an object to another institution, we do research and find out what that particular object or objects are worth, and assign those values to them.

Mr. ADAMS. I would suggest the whole concept of value is a very difficult one to apply to many of our collections. Take the systematic collections in Natural History, the importance is there are more than 30 million insects in those collections. You wouldn't get an impression of the real value of that collection if you took it insect

by insect, but only in its totality as a sort of fundamental source of knowledge.

COLLECTIONS INVENTORY AT AMERICAN HISTORY

Mr. YATES. Well, we have to take care of you. We have to give you the funds to take care of them, and that is a troublesome situation.

What Mr. Kennedy said piqued my interest, too. What is the status of the inventory? I thought we had given you enough money for the inventory.

Mr. ANDERSON. It is more like a moving picture, I think, than a snapshot, Mr. Chairman. Additional objects continue to be acquired, objects are lent, objects are borrowed. That all entails information that needs to be captured in a timely way and updated on the computer. So when you move something from storage room A to storage room B or from room B to exhibit or from exhibit to the conservation laboratory, if you are to assure yourself of adequate inventory control, you ought to record each of those changes in location as well.

We are not yet to the place where we can do that in a timely fashion with on-line computer assistance. Instead we are still in a "batch mode" capturing this information.

Mr. YATES. When are you going to bring it up to date?

Mr. ANDERSON. We are attempting to, and it is with great regret on my part many of the cuts, of necessity, this year have been in computer equipment, because many of the computer applications in the museums around the mall are precisely for the purpose of gaining better automated control over the objects we manage.

Mr. YATES. You have asked for \$1.145 million. Is that adequate?

Mr. ANDERSON. With regard to—

Mr. YATES. The collections management inventory problem.

Mr. ANDERSON. It will get us back on track if we recoup the moneys that are cut out this year because of Gramm-Rudman and there are no further cuts next year.

Mr. YATES. We have been sitting for a little over three hours now. I think that we will submit some questions to you, Mr. Adams. What I wanted to do was to have the Museum Directors and the staff people tell their story so they won't have to come back and have another day. We will give you the questions, and we will review some of the answers, and if we want to set up another date, we will do that.

We will adjourn now, subject to further information. We thank you very much.

[Questions and answers submitted for the record follow:]

Smithsonian Institution

Additional Committee Questions

Smithsonian Reorganization

Question: The Smithsonian is planning a major reorganization in mid-1986, with the new position of Assistant Secretary for Museums, replacing the A/S's for History and Art and Museum Programs; and a new position of Assistant Secretary of Research, replacing the A/S for Science. Why is the reorganization being carried out? What do you expect to be the results?

Answer: The reorganization is intended to focus managerial attention on important aspects of Smithsonian activities which have not, in themselves, been subject to coordinated oversight in recent years. We would expect the result to be strengthened programs in research and in all aspects of museum management.

Development Restructuring

Question: Another change involves a redefinition of the development function, to allow the bureaus and offices to exercise more direct fund-raising efforts in coordination with the Office of Membership and Development. What is the reason for this change? What will it involve?

Answer: Compared to many colleges, universities, private museums, or similar educational or cultural organizations, the Smithsonian has traditionally been less active in outside fund-raising. During a period of diminishing expectations for increased Federal funding, it seemed prudent to us to review our activities in the field of development. The result, after securing expert outside advice, is the partial decentralization of fund-raising responsibilities within the Smithsonian. We hope additional gift and grant funds will be forthcoming.

Trust Fund Revenue

Question: The budget notes that gross revenues from the Trust funds are expected to continue to grow, and reach \$170 million in FY 1986, with net income of about \$36 million. This would only be an increase in gross revenues of about 7.7% over 1985; and would actually be a decrease in net of about 6.9%. By comparison, gross revenues in FY 1985 increased over 1984 by almost 20%, and net increased over 10%. Why are you projecting the lower rate of growth in gross revenues, and the decline in net, for FY 1986?

Answer: The comparison of FY 1985 over FY 1984 is a comparison of audited actuals. The figures presented in the budget justification for FY 1986 are projections based on two months operating results. These are no doubt somewhat conservative. It must be noted that the Institution experienced an extraordinary growth in revenues during 1984 due to the opening of the new American History Museum Shop. Also the SI Press had unprecedented success with several of its publications. This kind of extraordinary growth cannot be anticipated.

With respect to expense, there are a number of one-time costs included in the FY 1986 projections that will reduce available net income. Principal among these expenditures are the start-up costs for Air & Space magazine (\$1.8 million), long needed expansion of the Institution's warehouse facilities for auxiliary activities, and further renovations, although minor, of museum shops and restaurants to better serve the public.

Question: Do you expect this trend to continue? If so, do you foresee the share of your funding represented by non-Federal dollars declining, while the Federal share increases?

Answer: As detailed in the answer to the previous question, the Institution does not expect the "trend" to continue. The lower net revenues currently projected for FY 1986 reflects management's decision to invest in the future growth of auxiliary enterprises, a process long delayed; and to enhance the public outreach and diffusion of knowledge responsibilities of the Smithsonian by the establishment of Air & Space magazine, hopefully with some future profit to the Institution.

PCB's in Electrical Transformers

Question: EPA has issued a new regulation requiring replacement of all transformers containing PCB's by 1990. \$475,000 is included in the 1987 budget to begin the replacement. Why had the situation with the leaking PCB's not come to the attention of those in charge in the Smithsonian before last summer's events? Were those involved not aware of the hazardous nature of this situation?

Answer: The Smithsonian has been keenly aware of the PCB regulations under the Toxic Substance Control Act (TSCA) since 1976, and the numerous changes to this Act that have been produced through 1985. During this period, OPlantS has been inspecting our transformers for leaks on a continuous basis three times a day, seven days a week. Between 1976 and 1983 expenditures in excess of \$100,000 have been made with outside contractors to repair leaks discovered as a result of these inspections. Additionally, hundreds of repairs to correct leaks have been made by Smithsonian electricians. The EPA inspection in July 1985 cited the Smithsonian for not maintaining proper records to support its repair activities. The EPA report noted that it was apparent that the Smithsonian was aware of leaks in their PCB transformers and had been taking appropriate steps to repair these leaks, but that the record keeping procedures for tracking these leaks and subsequent repairs were not in accordance with EPA guidelines. This deficiency has been corrected. It is important to note that the EPA non-compliance report stated that none of the deficiencies noted posed any imminent danger to Smithsonian buildings, artifacts, staff or the public.

Question: Have all necessary repairs been completed on the 57 transformers in Smithsonian buildings? How much did the repairs cost? What was the source of funds?

Answer: As of February 1986, all repairs to the 57 transformers have been completed at a cost of \$97,000. The funds for these repairs were obtained from R&R funds available in each building for utility system repairs and improvements.

Question: What is the status of the employee who initially reported the situation?

Answer: The employee who initially reported the situation to the D.C. Fire Department was a high-voltage electrician who was employed on a temporary appointment, not-to-exceed one year. On November 1, 1985, this employee's appointment was terminated for unacceptable attendance.

Question: How exactly do you plan to use the \$475,000 requested in FY 1987? When will you decide which option to use (replacing all transformers, or draining PCB's from the transformers and replacing with another harmless liquid)?

Answer: The \$475,000 will be used to replace four PCB transformers serving the American Art and Portrait Gallery building and three transformers serving the Museum of American History Building. Because of the condition and age of these transformers, we determined to replace these transformers regardless of the outcome of the retrofill process. The results of the retrofill process should be known by January 1987. If, as anticipated, this process successfully reduces the concentration level of PCB's to below 50 ppm, consideration will be given to using this retrofill process on certain transformers on a case by case basis.

Question: What is the difference in cost in these options?

Answer: The retrofill process costs are approximately one half the costs associated with replacement. For the Smithsonian transformers, the average cost of replacement is \$70,000, with the retrofill average being \$35,000.

Question: How long do you expect the entire project to take, once a decision on the method to be used is made?

Answer: Existing EPA regulations require that PCB transformers no longer be in use as of October 1, 1990. The Smithsonian's plan of action calls for our PCB transformers to be either replaced or retrofilled in accordance with EPA regulations by this date. If the retrofill process proves to be as acceptable as anticipated, and the decision is made to use this method for the majority of our transformers, the October 1990 completion date could be compressed by approximately one year under our current funding plan of \$475,000 in FY 1987, and \$1.0 million a year in FY 1988 through FY 1990.

Question: Given the safety hazard, and the cancer-causing properties of PCB's, could you proceed faster? Would it make sense to allocate more of your restoration and renovation dollars to this project, and delay other projects which do not relate to life and safety?

Answer: If approximately \$1.8 million were to be appropriated in FY 1987 and in FY 1988, the Smithsonian estimates that all PCB's could be eliminated by approximately October 1988. The current Smithsonian funding plan of approximately \$500,000 in FY 1987 and \$1.0 million each for fiscal years 1988 through 1990, was established on the basis of our belief that the type and condition of our electrical systems reduce the safety hazards associated with PCB's to an acceptable level of risk over this extended period. Although these risks would be further reduced by accelerating our transformer replacement/retrofill program, to do this by deferring or delaying other projects, not related to life and

safety would certainly create other problems of a programmatic nature. In an atmosphere of limited funding, and needs which always exceed this funding, it is difficult to determine the priority of these needs. The Smithsonian feels, after a careful assessment of all projects and the risks associated with delaying or accelerating these projects, that our FY 1987 budget request as presented represents the best use of this limited funding.

Statue of Freedom

Question: The Architect of the Capitol has requested \$75,000 in FY 1987 for repair and conservation of the Statue of Freedom model, which will then be put on display somewhere in the Capitol. The model has been stored by the Smithsonian since 1967. Where is the model currently stored?

Answer: The model is currently stored at the Smithsonian's Silver Hill facility, Building 16.

Question: Why was the model cut in half and the head removed before being placed in storage? Who made the decision to do that?

Answer: The model is 19 feet high and varies in width to 8 feet. Estimates of its weight range from 10,000 to 23,000 lbs. The statue had been brought from the Capitol to the Smithsonian's Arts and Industries building, where it was pieced together from many parts and restored in 1890 for display in that building. When it was decided to remove the statue from display in the 1960s, it was discovered that it could not be moved safely in one piece. In 1966, a collaborative decision was made by a number of ranking Smithsonian officials, in consultation with outside experts, to disassemble the sculpture and place it in storage. The Architect of the Capitol was informed of the decision to move the piece to storage and had earlier declined an opportunity to have the work returned and placed on exhibit in the Capitol.

Electricity Costs

Question: P. 14. The request for uncontrollable increases is \$6,095,000. Included is \$2,446,000 for utilities, communications and postage. Why was the electricity unit cost significantly higher in 1985 and 1986 (estimated) than you estimated last year?

Answer: The primary reason unit costs for 1985 and 1986 (estimated) are higher in the FY 1987 budget request than shown in last year's request is that we had actual figures on the full impact in FY 1985 of the 7.5 percent rate increase approved by the District of Columbia Public Service Commission in FY 1985 and therefore could more accurately estimate this impact on the FY 1986 unit cost. Actual cost figures for FY 1985 were not known when the FY 1986 budget was submitted to Congress in January 1985.

Question: How were you able to reduce usage from 97.4 million KWH estimated for 1985, to 84.9 actual? Is it possible your 1986 and 1987 estimates might also be too high?

Answer: The actual 1985 consumption figure for electricity should have read 89.6 million KWH rather than 84.9 KWH (as stated in the FY 1987 budget

justification). This corrected figure, which now includes electricity usage at the Museum Support Center and final adjustments made in the FY 1985 electricity bills, is still a sizeable reduction from the 97.4 million KWH estimate which appeared in last year's budget justification. The major factor contributing to the decrease was the milder weather experienced during the fiscal year. National Weather Service statistics confirm that in FY 1985 both the winter and summer were significantly milder than is the norm for the Washington metropolitan area. In addition, strengthened energy conservation efforts instituted during the year played a role in limiting our FY 1985 electrical consumption.

Due to the unpredictable variations from year to year in weather patterns, which impact on energy consumption and costs, projections of estimates of utilities usage may vary somewhat from the actual usage figures, either on the high or low side. The current electricity estimates for FY 1986, based upon actual costs for four months, show consumption and cost estimated slightly less than the estimates that appear in the FY 1987 budget justification. However, current estimates for steam, gas and telephones indicate that these costs will likely exceed earlier estimated costs. While current individual component cost estimates differ from earlier estimates for FY 1986, the total cost estimate for utilities, communications and postage for FY 1986 still appears to be in line with the total estimated cost for FY 1986 appearing in our FY 1987 budget justification. Projecting the above situation into FY 1987, it is possible that our estimates for each sub-component might now be slightly higher or lower than previously estimated, but the grand total cost estimate for all utilities still appears to be appropriate.

Question: What is included in the offsetting reimbursements (-\$300,000)?

Answer: This amount consists of reimbursements received from: a) the Marriott Corporation for utilities used in connection with the operation of public restaurant facilities in Smithsonian buildings; b) the Friends of the National Zoo (FONZ) organization for utilities used in the operation of their concessions at the Rock Creek Zoological Park; and c) and the Smithsonian Museum Shops for utilities used in their operations.

Postage Costs

Question: You are projecting a 24% increase in postage. How are your efforts to limit costs reflected in this estimate, if the basis for the proposed increase is the 20% rate increase of a year ago? Shouldn't your cost cutting efforts result in a less than 20% increase, rather than a 24% increase?

Answer: Actions taken to reduce costs associated with domestic package mailings and express mail are expected to produce cost avoidance in FY 1987 of approximately \$100,000. However, despite these initiatives, an anticipated 15 percent increase in the volume of overall mailings (based on recent samplings for existing programs), coupled with the new programs being initiated in the Quadrangle complex, is estimated to result in an increase in overall costs for postage of \$415,000. This amount, offset by the Smithsonian cost avoidance measures, results in the need for \$315,000 to defray estimated postage costs in FY 1987.

Telephone Costs

Question: For telephone costs, why are you using last year's estimate of 1986 costs as your base (\$2,732,000) instead of the current estimate (\$2,970,000)? Wouldn't this decrease the estimated shortage (and requested increase) to \$478,000, rather than the \$716,000 requested?

Answer: The \$2,732,000 represents base funds appropriated in FY 1986 to defray telephone costs now estimated to be \$2,970,000. Consequently, in FY 1986, there exists a shortage in base funds of \$238,000. The FY 1987 deficit of \$716,000 includes this base shortage, plus an additional \$478,000 to defray costs associated with full occupancy of the Quadrangle, additional lines required to link automated systems, anticipated increased costs for use of the Federal Telecommunications System network, and telephone repair and replacements.

Smithsonian Astrophysical Observatory Move

Question: You are requesting an increase of \$230,000 for renting a new facility for the Astrophysical Observatory in Cambridge. The budget explains that the rent was being raised at the old facility, and this new facility will cost the same as the raised rent. Was it not possible to find any other facilities at a lower rent than that proposed, even if not quite as conveniently located as the new facility?

Answer: No. As can be seen from the following table taken from a 1985 market survey of availability and cost of office space, the rental cost of SAO's new facility of \$16.75 per square foot per year for 36,000 square feet is at least 25 percent lower than was obtainable at any other location in Cambridge, aside from the facility formerly rented by SAO. We were fortunate to find a building that was both conveniently located to the main SAO facilities and relatively inexpensive to rent; it is in a primarily residential area which is not in heavy demand for commercial use.

BUILDING	DATE COMPLETED	# FLSB	TOTAL RENTABLE AREA	% AVAILABLE	\$\$\$ ESTIMATED RENT/FL	% VACANT
120 Repliscon Street (B)	1983	10	180,000	2,600	218.00	1.6
398 Repliscon Street	1984	13	221,000	41,000	\$31.00-33.00	16.4
418 Repliscon Street (B)	1984	8	44,000	30,000	\$42.00-44.00	68.2
100 Repliscon Street (Phase II)	1987	23	600,000	600,000	N/A	100.0
100 Repliscon Street (Phase II)	1989	33	600,000	800,000	N/A	100.0
535 Repliscon Street	1983	13	90,000	1,127	328.00	1.3
843 Repliscon Street	1973	13	85,000	18,000	\$23.00-28.50	21.2
575 Repliscon Street (B)	1983	8	33,000	FULL	\$23.00	.0
800 Repliscon Street (Prudential Tower)	1983	52	1,400,000	225,000	\$14.00-24.00	16.1
200 Concordia Street (Nasacco Tower)	1974	80	2,000,000	FULL	\$30.00	.0
Cogley Place	1984	7	843,000	200,000	\$34.00-36.00	23.7
1 Eocler Place	1984	14	281,000	211,000	\$26.10-37.00	100.0
101 Huntington Avenue	1971	26	632,000	FULL	\$28.00	.0
2 Newbury Street (B)	1982	6	12,000	FULL	\$27.00	.0
126 Newbury Street (B)	1981	8	35,000	FULL	\$19.00	.0
6 St James Avenue (R) (Police Office Building)	1980	10	280,000	11,200	\$18.00-21.00	4.0
31 St James Avenue (Park Square Building)	1982	11	300,000	3,149	\$23.00	.6
380 Stuart Street (B)	1982	9	160,000	FULL	\$22.00	.0
TOTAL EXISTING BACK BAY			6,295,129	752,203		11.3
TOTAL UNDER CONSTRUCTION BACK BAY			0	0		0
TOTAL PROPOSED BACK BAY			1,311,450	1,311,450		100.0
TOTAL EXISTING BOSTON			32,421,917	3,713,136		10.7
TOTAL UNDER CONSTRUCTION BOSTON			1,304,753	1,642,382		21.7
TOTAL PROPOSED BOSTON			6,430,476	4,490,578		100.0

CAMBRIDGE MARKET SURVEY

ALEWIFE STATION/ROUTE 2

1 Alewife Center (P)	1986	4	88,000	88,000	\$24.50	100.0
1 Alewife Place	1983	3	135,000	32,000	\$19.50	23.7
54 CambridgePark Drive	1984	2	20,000	FULL	\$19.00	.0
87 CambridgePark Drive	1984	2	85,000	FULL	\$13.00	.0
100 CambridgePark Drive (P)	1987	10	237,000	237,000	N/A	100.0
133 CambridgePark Drive	1984	8	194,388	110,000	\$24.00	59.4
150 CambridgePark Drive (P)	1986	10	250,000	250,000	N/A	100.0
817 Concord Avenue	1985	8	118,000	11,000	\$23.00	9.3
725 Concord Avenue	1982	6	81,000	FULL	\$30.00	.0
733 Concord Avenue	1980	2	62,240	FULL	\$18.00	.0
2087 Mass Avenue (Henderson Carriage House)	1983	5	100,000	3,800	\$15.00	2.8
10 Houlton Street	1974	7	100,000	FULL	\$15.00	.0
59 Wheeler Street	1981	6	123,000	FULL	\$22.00	.0
TOTAL EXISTING ALEWIFE STATION/ROUTE 2			853,826	144,100		17.0
TOTAL UNDER CONSTRUCTION ALEWIFE STATION/ROUTE 2			116,000	116,000		8.3
TOTAL PROPOSED ALEWIFE STATION/ROUTE 2			975,000	975,000		100.0

HARVARD SQUARE/MASS AVE

44 Brattle Street	1972	6	66,000	5,300	\$19.50	8.3
Charles Square	1983	7	115,000	11,000	\$26.00-30.00	9.4
50 Church Street	1983	-	60,000	15,700	\$23.00	31.2
675 Mass Avenue (Central Plaza)	1983	-	100,000	1,300	\$20.00	.8

BUILDING	DATE COMPLETED	# FLS	TOTAL RENTABLE AREA	SP AVAILABLE	648 ESTIMATED RENT/SP.	% VACANT
953 Mass Avenue	(R) 1970	8	95,185	95,185	\$31.00-36.00	100.0
1000 Mass Avenue (Phase I)	1982	4	108,000	FULL	\$23.00	.0
1000 Mass Avenue (Phase II)	(P) 1986	6	102,000	102,000	N/A	100.0
1070 Mass Avenue	1983	6	65,400	65,400	\$28.00	100.0
1093 Mass Avenue	1989	8	85,000	7,500	\$23.00	11.5
1050 Mass Avenue	1974	3	65,000	FULL	\$21.00	.0
1100 Mass Avenue	1979	5	48,000	FULL	\$24.00	.0
1250 Mass Avenue	1985	5	43,000	35,800	\$23.00-26.00	83.3
840 Memorial Drive	1980	5	133,000	18,893	\$18.00-19.75	16.0
8 Story Street	1970	6	20,000	FULL	\$20.00	.0
14 Story Street	1971	6	38,000	FULL	\$28.00	.0
University Place	1984	6	200,000	20,000	\$24.00	10.0
TOTAL EXISTING HARVARD SQUARE/MASS AVE			1,028,185	188,738		18.2
TOTAL UNDER CONSTRUCTION HARVARD SQUARE/MASS AVE			223,800	112,500		50.1
TOTAL PROPOSED HARVARD SQUARE/MASS AVE			1,021,500	102,300		100.0

KENDALL SQUARE/HIT

1 Broadway	1970	14	220,000	FULL	\$19.00	.0
Bulfinch Square	1984	6	54,000	51,000	\$28.00-29.00	96.4
4 Cambridge Center	1983	13	335,000	FULL	\$36.00	.0
3 Cambridge Center	1981	13	350,000	FULL	\$24.00	.0
1 Canal Office Park	(P) 1988	6	100,000	FULL	N/A	.0
Essexwater Place	1985	6	110,000	FULL	\$27.00-34.00	.0
181 First Street	(R) 1983	4	45,600	FULL	\$17.00	.0
215 First Street (Athenaeum House)	1982	5	325,000	(S) FULL	\$19.00	.0
245 First Street	(R) 1984	6	115,000	FULL	\$19.00	.0
245 First Street (Phase II)	1985	14	140,000	140,000	\$25.00-28.00	100.0
1 Hampshire Street	1985	8	184,000	47,000	\$21.00	25.5
1 Kendall Square (Building 100)	1984	3	19,000	FULL	\$20.00	.0
1 Kendall Square (Building 200)	1984	6	120,000	FULL	\$20.00	.0
1 Kendall Square (Building 100)	1984	5	53,000	FULL	\$20.00	.0
1 Kendall Square (Building 400)	1983	6	12,000	11,000	\$21.00	100.0
1 Kendall Square (Building 600)	1985	5	83,000	86,000	\$21.00	80.0
1 Kendall Square (Building 800)	1983	5	23,000	18,400	\$21.00	20.0
1 Kendall Square (Building 850)	1985	5	90,000	72,000	\$21.00	80.0
1 Main Street (Riverfront Office Park)	1983	18	329,100	25,000	\$23.00	7.4
1 Memorial Drive	1984	24	350,000	350,000	\$33.00-35.00	100.0
1 Riverside Place	1985	9	273,000	92,000	\$24.00-26.00	33.7
543 Technology Square	1980	9	140,000	FULL	\$23.00	.0
555 Technology Square	1974	8	250,000	FULL	\$22.00	.0
565 Technology Square	1964	9	161,300	FULL	\$22.00	.0
575 Technology Square	1963	9	150,433	FULL	\$22.00	.0
222 Taid Street	1984	6	115,000	6,463	\$16.50	5.5
TOTAL EXISTING KENDALL SQUARE/HIT			4,795,333	32,465		1.7
TOTAL UNDER CONSTRUCTION KENDALL SQUARE/HIT			1,267,000	758,300		51.2
TOTAL PROPOSED KENDALL SQUARE/HIT			1,000,300	100,300		100.0

Question: When will the move actually occur?

Answer: SAO moved to the new facility during November 1985. The lease at the facility formerly rented by SAO expired on September 30, 1985. During the months of October and November 1985, SAO was able to rent the old facility as a tenant at will without having to sign a new lease. SAO did not begin payment of rental at its new location until December 1985, thus avoiding "double rent."

Inflation Request

Question: An increase of \$1,590,000 is requested for inflation. Why does the Smithsonian believe it should be allowed an inflation increase of 4.1%, when most other agencies are experiencing actual program reductions?

Answer: The amount requested for inflation (4.1 percent) is the percentage that was allowed by the Office of Management and Budget. Approximately 36% of the Smithsonian's requested budget for FY 1987 is estimated to be spent in the "other objects" area of expense. It is vital that this base be protected from further erosion due to the inflationary price increases of those items and services the Institution routinely procures. The 2.6 percent reduction in the FY 1986 appropriation (followed by the 4.3 percent Gramm-Rudman cut for FY 1986) which affected all organization units and programs, made heavy inroads on other object class funds thus sharply reducing the Institution's purchasing power.

Question: Couldn't these costs be absorbed, in light of the actual program increases being requested by the Smithsonian?

Answer: The increased costs due to inflation cannot be absorbed by the Smithsonian since each office and bureau is effected by inflationary trends due to their purchasing requirements for program and support purposes. This funding is critical to ensuring the continuation of each bureau's current programs with adequate levels of base support. Increases are sought only for certain organization units and to a significant extent are reduced already as a result of phasing of hires. Absorbing inflation from these program funds limits our ability to implement the projects justified to the Committee.

Question: The budget lists a number of items which have increased in cost (pp. 20-21). Aren't there other items which the Smithsonian can purchase at the same or even reduced costs? Why don't you list such items in your budget?

Answer: The charts in the budget request illustrate only a selection of items and services which typically have not and can not be purchased at a reduced or same cost from the previous year. The Smithsonian is able, of course, to purchase some items at reduced costs, but the overall purchasing power of available resources is being eroded at the allowed OMB inflation rate or more.

Question: Do you have overall inflation figures (not just for selected items, as in the previous question) for 1984 and 1985, to compare with your overall estimate for those years?

Answer: The purchasing patterns of the Smithsonian vary as widely as its programs year-after-year, thus making comparisons very difficult. It is the

intention of the Smithsonian, through the inflation request presented in its budgets, to justify the modest allowance permitted by OMB. This is done by citing cost estimates for selected items and services that have or will reach a rate of cost increase much higher than the allowance permitted by OMB.

Scientific Equipment Replacement

Question: P. 26. The request for the National Museum of Natural History is \$21,888,000, an increase of \$1,620,000 over 1986 adjusted. Last year, all of the science museums received an increase to the base for equipment replacement. For the record, provide by museum how much will be available in FY 1987 for equipment replacement, and how it will be used. Also indicate how long this program is expected to run.

Answer: The condition of research equipment at the Institution's science bureaus has been a source of concern for a number of years. Many pieces of research equipment have been outmoded by recent technological developments. The productivity of our staff, especially new members trained in the use of modern equipment, has been severely impaired by the condition of the equipment. In FY 1984, efforts began to address these problems by a systematic approach of reviewing inventoried equipment for 1) present research needs, 2) physical condition, and 3) state of the art capability. Previously, equipment needs, particularly major items, were addressed only on an ad hoc basis.

The results of our systematic review dramatically outlined the poor state of the Institution's research equipment, and the need to develop a rigorous cyclical program for replacement and upgrading. Recognizing the age of the many pieces of equipment, the Institution perceived a need to move expeditiously in developing a cyclical schedule to enhance the current bureau base for equipment. The schedule was designed so that within five years of its inception at each bureau, present inventoried equipment would be replaced or upgraded. Following the initial five year "crash" program, it was envisioned that an appropriate level of funding would be retained in each bureau's base for the future replacement of equipment on a regular basis.

A total of \$250,000 was received in FY 1986 as an increase to the base for equipment replacement. The \$250,000 was allotted to the National Museum of Natural History (\$140,000); the Smithsonian Tropical Research Institute (\$100,000); and the Smithsonian Environmental Research Center at Edgewater, Maryland (\$10,000). Approval of the FY 1987 budget as requested would provide the science units with equipment replacement funds as follows:

Unit	Amount	/1	Planned Purchases in FY 1987	Anticipated Duration of Equipment Replacement / 2	
				Upgrade Program	
				Start	End
NMNH	\$530,000		X-ray fluorescence unit (\$150,000); Image Analyzer (\$80,000); Transmission electron microscope (\$180,000). Allotment to the seven science departments within NMNH to replace/upgrade less expensive equipment (\$150,000).	FY 1985	FY 1990

Unit	Amount /1	Planned Purchases in FY 1987	Anticipated Duration of Equipment Replacement/ /2 Upgrade Program	
			Start	End
STRI	\$216,200	Scientific Equipment:	FY 1986	FY 1990
		Multipen recorder (Gilson)	(\$20,000)	
		Oscilloscope (Textronik)	(\$ 5,000)	
		Ultrasonic receivers	(\$ 5,000)	
		Audio-spectrograph	(\$12,000)	
		Balances - 5 units	(\$15,000)	
		Computer (ESP Program)	(\$12,000)	
		Compressor for dive locker	(\$20,000)	
		Spectrophotometer & assoc.	(\$20,000)	
		Subtotal	(\$109,000)	
		Research Support Equipment:		
		Electric plant on the R/V BENJAMIN	(\$10,000)	
		Work trucks - 3 units	(\$25,200)	
		Diesel Engine supply vessel	(\$35,000)	
A/C for BCI 5-tons - 2 units	(\$12,000)			
Lathe	(\$12,000)			
Various shop tools	(\$8,000)			
Computers Administration	(\$5,000)			
Subtotal	(\$107,200)			
Total	(\$216,200)			
SERC- Edgewater	\$50,000	4-wheel-drive field vehicle (\$10,000)	FY 1985	FY 1990
		Laboratory furniture (\$20,000)		
		Approximately 12 weir digital recorders, blow meters and current meters (\$20,000)		
NZP	-0-	It is anticipated that equipment replacement funds will be requested beginning in FY 1988.	FY 1988	FY 1993
NASM	-0-	It is anticipated that equipment replacement funds will be requested beginning in FY 1989.	FY 1989	FY 1990

Unit	Amount	/1	Planned Purchases in FY 1987	Anticipated Duration of Equipment Replacement/ Upgrade Program	
				Start	End
SAO	\$1,200,000		Approximately \$500,000 will be used for laboratory equipment and approximately \$700,000 will be used for computer equipment. With the exception of revisions necessitated by the reductions in SAO's budget in FY 1985 and FY 1986, these expenditures will be made in accordance with the detailed plans that were submitted to, and approved by, the Congress.	FY 1984	FY 1997 /3

/1 Represents the base level of funding anticipated to be available in FY 1987 (assuming receipt of the budget as requested) for scientific equipment. With the exception of SAO and STRI, base funding does not include any funding for computer equipment required as research tools. (Additional funding for replacement of research computer equipment may be requested in future years, either as additional coats above and beyond the present equipment replacement program, or as a new but parallel effort.)

/2 Represents current anticipated duration of equipment replacement program at each bureau. Due to budget reductions in FY 1985 and FY 1986 and the possibility of further reductions in FY 1987 and future years, it should be noted that the proposed schedules may have to be revised.

/3 Although originally established as a five-year program, this program would have to extend through 1997 due to the across-the-board budget reductions in FY 1985 and FY 1986. However, since the life cycle of computer equipment is approximately five years and that of laboratory equipment about seven years, the program, as currently funded, will be unable to keep up with the timely replacement of SAO's scientific equipment.

Research in Barrier Reef Ecosystems and Global Volcanism

Question: The budget mentions two research projects begun in FY 1985: a survey of barrier reef ecosystems, and global volcanism. How long are these projects expected to run? What do you expect to accomplish in FY 1987?

Answer:

Caribbean Reef Ecosystems Program

Duration of program: Long-term. Coral reef systems (including seagrass meadows and mangroves) are among the most diverse and biologically productive communities on earth. The Caribbean is the only sea adjacent to the continental United States that supports these important communities. Yet we are still decades away from completing a basic inventory of coral reef fauna and flora species and their description, not to mention understanding the ecological pro-

cesses that control the existence of reefs. Compared to the much less complex Mediterranean (an analogous sea for Europe) we are almost a century behind the Europeans in scientific study and we maintain only 10 significant marine biological/geological laboratories (5 of them U.S. funded), versus 30 in Europe.

Projects for FY 1987: Program funds allow us to maintain a modest but cost-effective non-permanent marine field research station on Carrie Bow Cay, Belize. Projects proposed for the Belize barrier reef complex include: (1) study of the Twin Cay mangrove swamp communities, their composition, ecology, and changes over time; (2) research leading to improvement of a meteorological and oceanographical monitoring station to serve the southern coast of Belize; and (3) research on systematics, ecology, reproduction, and behavior of selected coral reef invertebrate and fish species. Projects proposed for areas outside Belize include: (1) study of diversity and development of microorganisms in reef habitats off Yucatan (Mexico); (2) composition and distribution of coastal faunas of Caribbean Columbia; and (3) comparative surveys of crustacean faunas of Jamaica and St. Vincent Island.

An estimated 70 workers will engage in Caribbean field studies under the auspices of the National Museum of Natural History. This figure includes 25 staff scientists, 20 staff technicians, 10 pre- and post-doctoral Smithsonian Fellows, and 15 specialists cosponsored by other institutions.

Global Volcanism Program

Duration of Program: Long-term. The geophysical processes that are studied in this project are constantly active.

Projects for FY 1987: (1) completion of transfer of data banks from mainframe to microcomputer systems available to colleagues globally; (2) publication of a book compiling the last ten years of global volcanism reports from the Scientific Event Alert Network and of a map (with the U.S. Geological Survey) of the world's volcanoes, earthquakes, and tectonics; (3) submission for publication of greatly expanded second edition of "Volcanoes of the World"; (4) continuation of research, with publication, on patterns in historical and recent volcanism around the world; and (5) enlargement of volcanological archives, with exploration of videodisc publication of maps, photos, and satellite images of the volcanoes of the world.

Anthropological Films

Question: A Science article last July discussed the status of a repository of anthropological films at the museum which is lying in limbo, unfinished and unusable. According to the article, these films will "soon be the only source of knowledge about aspects of social behavior in fast-disappearing cultures." What is the status of these films? What plans does the museum have to complete the films, and make them accessible in the future?

Answer: Notwithstanding various assertions in that article, the film footage in question is fully available to qualified researchers for study and review within the Smithsonian's National Anthropological Film Archives, just as are the other holdings of that unit. With regard to "completing" the films, the Smithsonian's approach changed in 1983 with the departure of the project's previous director. Since that time we have been working toward a set of agreements with host country principals under which the film footage would be annotated and

edited by their own local scholars. Unfortunately, the effects of the Gramm-Rudman-Hollings reduction at the Museum of Natural History include a cut of \$100,000 in the "Other Objects" budget of the Archives--one of the few areas within the Museum's budget not heavily encumbered by salary costs of existing staff. Consequently, our ability to provide financial assistance in support of such prospective local annotation has been heavily eroded.

Museum of the American Indian

Question: Over the past year, there has been much discussion about the status of the Museum of the American Indian in New York, including the proposal of H. Ross Perot to move the museum to Dallas. A news story in November indicated President Reagan had intervened to make possible the transfer of the museum to the old customs house in lower Manhattan, by transferring the facility to the Interior Department. Has the Smithsonian been involved in any of the recent discussions as to the status of the museum? Do you know what the current plans are?

Answer: The Smithsonian has not been involved in recent discussions on this topic. Our understanding is that the American Museum of Natural History and the Heye Foundation Board may still reach an accord which would keep the Museum in New York City. Our further understanding is that, failing an accord, the prospects for the Museum's collections leaving New York State rest on determinations to be made by the State Attorney General. Should the Attorney General rule that the collections may leave, the Smithsonian would be very interested in exploring opportunities which could result in those materials being secured for public display and scholarly access in the Nation's capital.

Biological Diversity Research

Question: An increase of \$330,000 is requested (p. 29) to expand research on biological diversity and the roots of human culture in South America. This apparently includes increased travel costs of \$261,000, or a 59% increase over 1986. How will this research on biological diversity be differentiated from that of the Smithsonian Tropical Research Institute, as discussed on p. 40 of the justification?

Answer: The enormity of the environmental destruction in tropical environments convinced the Institution to assign its highest priority to this research and has allocated its request for new funds to the two bureaus most competent to carry out this work. The research initiatives of STRI and NMNH on tropical biological diversity are, however, quite separate because of their differing approaches to the common problem of the rapid alteration of the tropical environment caused by human pressure.

Scientists at the Museum of Natural History are primarily expert taxonomists and are therefore competent to identify the plants and animals in the arc along the western and northern Amazon Basin. We will never know what might be lost from tropical forest deforestation unless we know what is there now. We believe no more than a third of the insect species there have been identified. Trees, birds and mammals identifications are probably closer to 80% or 90%, but small plants, such as lichens, grasses, fungi, etc., are as poorly known as the insects. In Amazonia alone there are millions of plant and animal species waiting to be identified. Furthermore, we now understand that these seemingly insignificant plants and insects can have a profound effect on human life.

Scientists at STRI on the other hand need the assistance of taxonomists to understand the species relationship between the plants and animals they are working with, when they initiate a long-term study of their dynamics. STRI scientists, for example, try to understand what is happening in a specific 50 hectare (123.5 acres) forest plot. They seek to learn why certain species of trees are located where they are. When a large canopy tree falls, what species will fill the gap and why? How often do canopy openings occur? Answers to such questions can only be gained by years of close scrutiny, and in almost every case, each answer triggers many more new questions. However, it is only by such research that we can ever hope to understand the consequences of the rapid alteration of the tropical forest and thus be able to plan ways to mitigate potential irremedial damage to our planet.

Thus the two bureaus will act independently in carrying out their specific research, but within an interdependent framework that will coordinate their different projects in addressing what has become a major global problem.

Question: How exactly will you coordinate this initiative, and the requested initiative under STRI, an increase of \$345,000 for a tropical forest biology initiative?

Answer: The initiative of each bureau (STRI and NMNH) will be coordinated through the close liaison between the office of the Assistant Secretary for Research and the directors' offices of the two bureaus.

Question: Can you be more explicit as to what the part of the project on exploring the origin of human culture will involve?

Answer: Of major importance in understanding the biological diversity in the tropical forests of Latin America is determining past influence of early man in the biota. Current evidence from Brazil indicates that primitive tribes, such as the Xingu Indians, have managed parts of their forest as "cultural gardens" which assured sustained sources of medicinal and other plants, roosts for birds whose feathers were required, etc. If NMNH scientists are to fully understand the biotic components they discover and identify, we need to understand the changes made to the forests by native tribes.

Question: Is the \$90,000 travel increase for Smithsonian staff only? Please provide further detailed justification for this increase.

Answer: The requested increase of \$90,000 for travel is an essential part of the National Museum of Natural History's proposed program of recording biotic diversity in the species-rich areas of Latin America. The biological diversity of the earth is diminishing at an exponentially increasing rate. This alarming trend is particularly evident in the tropics where plant and animal life are the richest. A series of multidisciplinary and integrated biological diversity studies will be initiated to collect specimens and record the coexistence of species in the arc along the western and northern Amazon Basin, along the flank of the Andes and eastward across the land of the Tepuis and throughout the Guianas where accumulating evidence indicates that the major center of biological diversity on earth is to be found. These studies will require extensive field research teams, traveling through remote areas of South America for periods of several weeks to several months. Such expeditions, consisting of both scientific and support personnel, often include scientists from different disciplines (for example, botanists, entomologists and ornithologists) to enhance the range of specimens and research data that can be

collected. The requested funding will primarily support the travel costs of Smithsonian scientists and research staff engaged in this program. However, an amount of \$5,000 is included for the travel costs of non-Smithsonian scientists whose expertise in specific disciplines may be necessary to augment the research capabilities of Smithsonian staff.

Travel to species-rich areas in Tropical Latin America: Multidisciplinary expeditions to remote areas of the tropics are costly because of special travel requirements and the need to get specialized equipment into these inaccessible locations. However, there is no alternative to research, document and collect the thousands of unknown species that reside in these remote areas (\$70,000).

Travel to scientific meetings for presenting data: In order to keep current with the latest research in understanding biological diversity and the recent rapid decline in the tropics, as well as to share the research results of this program with the international scientific community as soon as possible, funding is requested for travel to national and international scientific meetings (\$10,000).

Travel to other museums with collections of natural history specimens and data: During the past 150 years, many collections of tropical fauna and flora have been assembled in numerous museums around the world. As part of the systematics part of this research program, these collections, which will provide the identification of these species and documentation of their occurrence in the past, will be studied (\$5,000).

Travel costs for non-Smithsonian participants: Occasionally, an expedition will need an outside professional to complete the range of expertise needed for certain areas in the tropics (\$5,000).

34. Question: How many symposia do you plan to hold, for the increase of \$96,000?

Answer: It is anticipated that symposia will be held each year for the first several years and biennially thereafter.

Question: How long will this project run?

Answer: The task of cataloguing and study of the tropical fauna and flora of perhaps 20 million species is open ended. In a real sense, therefore, the program must continue indefinitely. The Museum already has worked on tropical diversity on a small scale for many years. Now the threats to the tropics are so great that a whole new scale of activity is demanded. We would see this specific initiative lasting a minimum of 10 years.

Whipple Observatory Base Camp

Question: P. 32. The request for the Smithsonian Astrophysical Laboratory is \$9,291,000, an increase of \$942,000 over 1986 adjusted. When do you expect to have the design for the proposed new base camp for the Whipple Observatory in Arizona completed? When would you expect to request funding for construction?

Answer: We expect the master plan to be completed by the middle of FY 1987. The design phase would then commence and should be completed by the end of the first quarter of FY 1988. Funds for construction would be sought for FY 1988.

Smithsonian Astrophysical Observatory-Submillimeter-wave Astronomy

Question: An increase of \$150,000 is requested to initiate instrument development in the new field of submillimeter-wave astronomy. What is the planned total cost of this effort? Over how many years?

Answer: The planned total cost for development of instruments in the new field of submillimeter-wave astronomy is \$550,000 in capital expenditures to equip a suitable laboratory and about \$300,000 in annual costs for salaries, benefits, rent, supplies, machine-shop work, instrument parts, etc. We expect that it would take two years to equip the laboratory and several years to complete the first instruments. The development of instruments is expected to be an ongoing process, guided by advances in technology and research in this new field.

Question: Explain exactly what is involved in this project, in terms of allowing the use of existing telescopes to work at submillimeter wavelengths.

Answer: Submillimeter wavelength instruments, primarily ones to amplify and detect radiation at these wavelengths ("receivers"), would be built at SAO and placed at the focus of existing optical-infrared telescopes, such as the Multiple Mirror Telescope (MMT), to observe the sky at submillimeter wavelengths. Because the field of submillimeter astronomy is only in its infancy, important research could be conducted with these telescopes even though they are rather small and not specifically designed for this purpose.

Question: The justification states that SAO wishes to start construction of a pioneering array of submillimeter telescopes which will achieve far higher angular resolution than the current telescopes, and will therefore reveal much greater detail. How much do you anticipate this effort will cost?

Answer: As stated in testimony before this committee at the FY 1985 Appropriations Hearings (published in Part 8, Pages 46 - 52, of the hearings), the proposed pioneering array of submillimeter telescopes is estimated to cost a total of \$20 to \$25 million (in 1984 dollars), spread over a five-to-seven-year construction period for a developed site in the continental United States. The annual operating cost would be \$2 million. For construction and operation on a site in Hawaii, these costs would probably be 10-20% higher.

Question: What will be gained by proceeding with this interim effort involving the existing telescopes now, instead of starting on or waiting for the new telescopes?

Answer: Because the development of receivers is the technically most challenging part of the array, they require the longest lead time. SAO has, therefore, requested funding to begin their development during FY 1987 to ensure that the design, construction, and testing of these receivers are carried out prior to the completion of the submillimeter telescope array. Moreover, as noted in part in the response above, with these receivers we will be able to gain valuable experience and to carry out important research programs on existing telescopes before the new telescopes, with their higher sensitivity and angular resolution, are completed.

Smithsonian Tropical Research Institute Construction Request

Question: P. 39. The request for the Smithsonian Tropical Research Institute is \$4,243,000, an increase of \$600,000 over 1986 adjusted. In addition there are requests of \$4,800,000 in new construction, including the \$1,300,000 for a conference/dining facility and dormitories that was rejected by Congress last year; and \$3,500,000 for a new research facility. \$665,000 is requested for the conference/dining facility on Barro Colorado Island. On what do you base the need to serve 240 meals a day at this site, compared with the current capacity of 135 meals a day?

Answer: The dining hall on Barro Colorado Island must accommodate both the scientists staying on the Island and the non-resident scientists and support staff using the Island. Non-resident staff eat lunch on BCI, and residents eat all three meals there. Thus, many more people are served lunch than other meals. Recently, the number of lunches has averaged 80 per day (2,410 lunches served in November 1985). This requires a dining hall that can serve 240 meals per day. In the present facility, 10 to 12 people sit at tables meant to accommodate eight during lunch, and others eat on lounge furniture without benefit of a table.

Question: What is the average daily on-site population at this location throughout the year?

Answer: Users of Barro Colorado Island fall into two categories. The number of support personnel, staff scientists, and students from local universities present on a given day is fairly constant year-round. The number of visiting scientists fluctuates, however, with numbers being maximal during breaks from university obligations (December, January, and the summer months) and lower at other times. These visitors do the bulk of the research done on BCI, and our facilities must accommodate a normal seasonal load. With this background, the average number of users of BCI on a week day during periods of high visitor activity is 90. This includes 35 scientists who live on BCI, 28 workers who commute or sleep on BCI, and 27 scientists and assistants who commute. The figure exceeds the number of lunches served because some scientists eat in the field, and game wardens work night shifts. People who sleep on BCI each night include scientists, four game wardens, a cook and his assistant, and a launch operator. During periods of low visitor activity, the number of users of BCI might fall to 55 with scientists living on BCI falling to 20 and commuting scientists and assistants making up the difference.

As general information, Congress in the FY 1986 appropriation report deferred the Barro Colorado Island conference/dining facility and the dormitories at Naos Island and Gamboa because "The Committee believes these projects should be deferred until completion of the master plan, scheduled for fiscal year 1986." The master plan, which is now complete, includes the recommendation of these three projects.

Question: Would it be possible to meet the need to replace the dilapidated facility you describe with a smaller facility than that proposed? What about providing a single story building, and using the dining area for lectures and conferences, when not in use for meals? If so, what would be the potential savings?

Answer: The size of the new facility has already been reduced more than 30% from what was recommended in the Master Plan. Some areas also needed in

this facility such as administrative office, mail room, toilets, and mechanical room have been reduced to minimum functional size. The original Master Plan recommendation for dining hall capacity of 100 people has also been reduced to 80 people as a cost saving exercise. By maintaining the current size of the dining area, it would be impossible to accommodate both activities in the same area. The very broad and different type of research activities being conducted at Barro Colorado Island requires scientists to work with very different schedules, therefore expanding the use of the dining area to more than just breakfast, lunch and dinner hours. In addition, if folding partitions are provided to an already under capacity facility (dining), a not very practical/usable conference area would be created, and administrative areas would be eliminated. An alternative to this proposal would be expanding the size of the dining area on the first floor by about 100%. However, BCI's steep topography, which favors the construction of high rather than wide buildings, would create a sharp increase in cut and fill and other site preparation costs.

Question: \$635,000 is requested for dormitories at Gamboa and Naos Island. How many visiting scientists are on site on Naos Island at any one time, based on your records over the last several years?

Answer: A range of 17 to 29 visiting scientists per month have worked at the Naos Laboratory since 1981.

Question: Is there space available in the STRI housing you mention, which is several miles away from the marine laboratory?

Answer: Currently, no STRI housing is available 90% of the time for visiting scientists and students working at our marine laboratory on the Pacific side of the Isthmus. This is mainly due to increased need for housing accommodations for terrestrial research programs that cannot be accommodated on Barro Colorado Island or is not commensurate with the management goals of the Nature Monument. In addition, the distance of this housing from our Pacific marine laboratory and marine research sites/environments would greatly diminish the quality of marine research. The need for access to experiments at odd hours (during weekends and at night) due to dependence upon tides, upwellings, weather, and sea conditions requires 24-hour per day proximity to the field site.

Question: What is the "pressure" on housing on Barro Colorado Island you describe (p. 228)? How much housing is available there now, unoccupied on a regular basis?

Answer: BCI offers access to moist tropical forest together with rudimentary office and laboratory facilities. The combination is nearly unique, and the number of potential visitors frequently exceeds the capacity of the facilities and of the forest trails. With the proposed renovation of the dormitory in Gamboa, housing that offers access to the forests of the nearby National Park "Soberania" will accommodate much of the overflow from BCI. Apartments are not available for the typical research visit of two or three months. BCI can actually accommodate 35 scientists and eight workers and game wardens. In recent years, the number of scientists resident on the island has hovered closed to 35 during the months of December, January, June, July and August. The number falls to about 25 at other times, and can dip as low as 15 during holidays. Seven or eight workers and game wardens are always present.

Question: Is there other housing available elsewhere which would be accessible to Barro Colorado and Gamboa?

Answer: Barro Colorado is an island in Gatun Lake surrounded by mainland peninsulas and adjacent to the National Park "Soberania." Gamboa is a small town-site on the east bank of the Panama Canal bordering "Soberania," 30 minutes by boat from BCI and 18 miles away from the nearest urban development in Panama City. No housing is available elsewhere that would be reasonably accessible to Barro Colorado Island and Gamboa. Further, use of available housing in more distant urban areas would result in increased transportation costs and reduce research efficiency at sites in "Soberania" and BCI. For example, commuting time from Panama City to BCI is two hours each way and involves coordinating car, train and boat schedules.

Question: \$3,500,000 is requested for a terrestrial laboratory and conference center at the Tivoli site. The present facility dates to 1919, and consists of 12,000 square feet of space. A gift of \$4,000,000 has been received from the family of Earl S. Tupper, which will provide the building shell. The request of \$3,500,000 will complete the proposed 67,000 square feet facility. If the Tupper gift had not been received, would this project have been a current priority of yours?

Answer: STRI approached the Tupper Foundation precisely because a new research-conference center was urgently needed. Existing facilities are obsolete and crowded. A long-time supporter of our research efforts, the Tupper Foundation recognized our present predicament. It is difficult to do good science when working conditions are substandard. This is why the Tupper Foundation made its generous gift in the first place.

Question: When the gift was given, was it assumed that it would be sufficient to build the entire facility?

Answer: The Tupper Foundation made the donation with the understanding that it would cover the shell of the building only, and that there would be matching funds to equip, furnish and put into operation the new facility. Theirs is the largest private-sector contribution ever made to the Smithsonian for the purpose of promoting scientific endeavors. As such, it sets an important precedent. An explicit wish of the Tupper Foundation was that the building complex should be functional in the extreme, devoid of unnecessary frills or purely aesthetic elements. STRI has followed closely their wishes, producing a pleasant but totally practical plan.

Question: On what basis have you decided to replace a 12,000 s.f. facility with a 67,000 s.f. facility? Would it be possible to scale back the size and reduce the total cost?

Answer: A 67,000 square foot facility represents the minimum size necessary to carry out STRI's diverse functions. These include basic research by the permanent staff, adequate research space for several hundred visitors each year, a conference center for weekly seminars and special conferences, several interrelated efforts to promote the conservation of biotic resources, a focus for private-sector programs that call upon our Latin American expertise, an efficient procurement and logistic support department, and so forth. Existing facilities are so limited that many of our permanent scientists lack adequate office and laboratory space. More serious still, the present set-up is woefully impractical. A building that is distant from the library and the administration offices, of such ancient design (1919) that neither sensitive

laboratory equipment nor experimental animals can be kept there, so dispersed that computer and communication facilities cannot be centralized, lacking security, minimal comfort and places to park or have a snack, all of which inevitably lead to loss of time, energy and money. By concentrating the existing facilities in one place and providing much needed new facilities for computing, plant growth, animal handling and biochemistry, STRI will dramatically improve its science and operational efficiency. With respect to scaling down the size of the facility, see response to Question 51.

Question: What if only an additional \$1,000,000 were provided, for a total project cost of \$5,000,000? What kind of changes would be made in your plans? Would this modified facility be adequate for your current and foreseeable needs in the near term?

Answer: Reducing the total Tupper cost down to \$5.0 million would mean that the Tupper Foundation would be financing 80% of the project. Since it was the intent of this Foundation to share the financing of the total project cost, this reduction might also mean that the donation could be reduced. So far we have only received \$1.0 million from the Tupper Foundation. A total project cost of \$5.0 million, means that, after overhead, profit, escalation, bonds, insurance, architectural engineering design fees and construction supervision, we would have about \$2.4 million for basic construction, or a \$1.4 million reduction from the present construction cost. Construction with a \$5.0 million limit would preclude construction of one laboratory floor (8 offices and 6 laboratories), the conference center, plant and animal research areas (cages and growing houses) and the dining hall. Loss of these components of the Tupper Research and Conference Center would seriously diminish our capability to fulfill STRI's goals.

Question: The project as proposed will provide laboratory space for 36 staff members. How many are onsite at the Tivoli site on a daily basis, on average, based on your records over the past several years?

Answer: For clarification, little research is presently conducted at Tivoli, which is the Institute's administrative headquarters and the site of the Library. The proposed facility at Tivoli would replace the outmoded Ancon facility, located approximately one-half mile from the main STRI administrative complex at Tivoli. It is estimated that a total of 45 staff scientists, research technicians and visiting scholars work at the Ancon facility on a daily basis, on average. Since the Ancon facility can only provide office and laboratory space for 6-8 staff scientists, and 20 other research technicians and support staff, it has been necessary to use hallways and other inadequate makeshift arrangements to accommodate the current need for space. The proposed facility, providing laboratory space for approximately 12 permanent staff members and 24 visiting scientists, fellows and assistants, will increase the capacity of the laboratory space, as well as greatly improve the quality of the facilities.

Question: What will be the capacity of the kitchen and dining room?

Answer: The kitchen is designed to serve on a daily basis as a kitchenette with a maximum seating capacity of about a dozen people for use by on-site employees. In addition, it will serve as a staging area to serve catered meals in the rooms on the second floor of the conference center.

Question: Why is another conference center needed at this site? What is the justification for the proposed size of the center? Could it be scaled back?

Answer: The conference centers at BCI and the Tupper complex will satisfy different institutional needs. The large Tupper Conference Center with a seating capacity of 200 will accommodate international conferences, seminars and workshops, as well as weekly seminars attended by the entire STRI staff, visitors, and members of the Panama scientific and governmental communities. Logistics require that such a conference center be located adjacent to support services such as transportation, restaurants, and lodging, and the STRI library. If this facility were reduced in size, our ability to host such scientific meetings and workshops would be compromised.

The BCI conference center, perhaps inappropriately named, will be used primarily for activities of the BCI resident community as a site for informal seminars, as a staging area for the assembly of research supplies and equipment and as a center for intellectual activities. In addition, it will serve as an educational center for groups of day visitors to the Nature Monument. Its relative inaccessibility makes the BCI facility unsuitable as a major conference center.

Question: Even if the project is agreed to as proposed, why do you need the \$3,500,000 in FY 1987? When will design be complete? When will construction, using the \$4,000,000 gift, be started, and expected to finish?

Answer: The \$3.5 million is necessary so contracts can be let for the entire construction project.

The latest revised schedule indicates that design will be complete by June 1986. Construction is expected to start in October 1986 and last 18 months until March 1988.

Tropical Forest Biology Initiative

Question: An increase of \$345,000 is requested for the tropical forest biology initiative. How exactly do you see this research initiative contributing to the problems today in tropical forestry? How will the countries experiencing these problems be involved in designing or participating in this research program, and how will the results be applied?

Answer: Monocultures in temperate agriculture and forestry are fraught with dangers that are costly in time and resources (e.g. they are energy intensive and require heavy application of pesticides and fertilizers). Because of the biotic complexity of tropical regions, the dangers are multiplied. Nevertheless, monocultures are precisely the technology that our international assistance programs have been imposing upon developing countries. Availability of knowledge of the demography of complex species assemblages of tropical tree species is essential if we are to capitalize on the potential of multispecies management options.

Our results will be applied in numerous ways. Ecologists, foresters, and other resource specialists will learn of STRI's studies through our publications. STRI has an extensive network of interactions with both private and public sector organizations in Latin America and throughout the tropics. The transfer of knowledge will be insured by the visits of hundreds of representatives of these organizations to STRI and the travel by STRI staff to other countries. In addition, our fellowship and assistantship programs for scientists from tropical countries insure participation of scientists from the region. When those scientists return to their home countries and initiate

research, extension or management activities, our results will be applied widely.

Question: Would it be preferable to use additional funds to begin to meet some of the crisis situations in tropical deforestation, through AID or other mechanisms, rather than doing more research?

Answer: Definitely not. The limited successes of past forestry efforts, (e.g. Jari project of Daniel Ludwig and many others) demonstrate the need for pioneering new approaches to the protection of existing forests, to reforestation, and to the production of harvestible forest products (fiber, chemicals, protein from wildlife, etc.). To accomplish these goals more complete knowledge is required of complex natural forest ecosystems and of selected sets of species that might be used in extensive plantation and reforestation programs. The complex biological dynamics (microrhizal fungi, seed dispersal, pollination, etc.) of tropical forests require approaches that differ from those that are successful in temperate regions. The technologies of growing pine trees in North America are not appropriate for tropical forestry production. Thus innovative research is essential. STRI's unique expertise in tropical forest biology provides the required scientific base to assure successful research programs.

Question: Why isn't it possible to use base funds for some of the equipment and supplies for this expanded research? Aren't there other projects winding down or being phased out?

Answer: Base funds are now stretched to the limit. No existing projects are being phased out.

Question: Justify the increase of 47% for travel over 1986.

Answer: For FY 1987, an increase of \$33,000 is requested for travel over the FY 1986 base. Of that amount, \$30,000 is requested as part of STRI's tropical forest biology initiative and serves as an integral part without which the ultimate success will be in doubt. Three thousand dollars is sought to compensate for the effects of inflation on the FY 1986 base funding for travel. Four major activities associated with the initiative require travel funds (\$30,000) to insure their success:

Travel to museums in the United States. Use of major U.S. collections is essential to compare voucher specimens with museum collections to insure identification of known species and for description of new species (\$3,000).

Travel to Panama. Consultants in insect biology and systematics, plant reproductive biology, and molecular evolution will visit for periods of a few weeks to months to help design and conduct research efforts and analyze results. They will insure that the most up-to-date disciplinary advances are incorporated into our studies (\$9,000).

Travel to Malaysia. STRI's developing collaboration with the Forest Resources Institute, Malaysia, has already produced a census plot in the Malaysian forest. Participation by STRI staff in designing and conducting the Malaysian effort is critical to insure the collection of com-

parable data and to continue fostering international collaborative research efforts (\$15,000).

Travel to scientific meetings. Travel to scientific meetings is essential to insure dissemination of project results. STRI's current base budget simply does not permit STRI scientists to respond to many requests to share their expertise in national and international conferences (\$6,000).

Smithsonian Environmental Research Center Lawsuit

Question: P. 47. The request for the Smithsonian Environmental Research Center is \$3,614,000, an increase of \$231,000 over 1986 adjusted. What is the status of the lawsuit brought last year against SERC, claiming SERC violated covenants by disturbing historic land near West River, and renege on a commitment to preserve the property?

Answer: The Smithsonian was sued in U.S. District Court for the District of Maryland by a descendant of a landowner who sold her property to the Institution over 15 years ago, to become part of the Smithsonian Environmental Research Center. Plaintiff alleges that some Smithsonian activities on this property violated covenants restricting the uses of this land; and that the alleged violations of the covenants activated a re-purchase option so the plaintiff can re-purchase Smithsonian land at a fixed price which is considerably less than fair market value. The Department of Justice, which represents the Institution, filed motions to dismiss for lack of jurisdiction. The motions were denied. The Smithsonian's answer to the complaint states that the activities on this property did not violate the covenants, and that the plaintiff has no right to enforce the option to re-purchase. Pre-trial discovery proceedings are underway.

Question: Have you sold any of the land in question? If so, what were the proceeds, and how were they used?

Answer: No, the Smithsonian has not sold any of the property which is the subject of the lawsuit.

Smithsonian Environmental Research Center-Rockville

Question: The Smithsonian just announced its plans to close the SERC Rockville site, formerly the Radiation Biology Laboratory, in November, 1986. What are the expected closure costs?

Answer: The closure costs associated with personnel for the Smithsonian Environmental Research Center Rockville facility are currently estimated at \$825,000 (approximately \$600,000 for severance pay and \$225,000 for annual leave pay off). In addition, the facility will be operational until November 14, 1986 and costs associated with salaries, utilities, building, and equipment maintenance will accrue during this period in FY 1987. The Smithsonian's lease for the building at Rockville does not expire until January 31, 1990. Unless the Smithsonian can sub-lease the building, it is committed to \$175,000 per year until the expiration of the lease. The Smithsonian is in the process of determining the specific costs associated with the moving of the greenhouse, research equipment and furnishings, and modifications to restore the building to its original configuration in accordance with the terms of the lease. These costs will be communicated to the Congress when they are known.

Question: What are your specific plans for redirecting the savings (estimated at \$2.3 million) in FY 1987? Why won't this result in a possible savings in the budget?

Answer: The Institution's action in closing SERC Rockville was not primarily to achieve a budget savings, but rather to strengthen the Institution's research capabilities by redirecting these existing funds into other high priority areas of Smithsonian research competence. The Institution, with the assistance of knowledgeable experts, is carefully examining a number of promising new lines of investigation to maximize these resources in order to build on existing strengths in evolutionary biology and related disciplines. Such promising new areas of investigation might include genetics, molecular biology, and gaseous exchange at the atmosphere/biosphere interface.

Animal Species

Question: P. 57. The request for the National Zoological Park is \$11,747,000, an increase of \$704,000 over 1986 adjusted. What is the reason for the decrease in animals and species at the Zoo (2,000 and 381 in this year's budget, compared to 2,200 and 397 last year)?

Answer: The figures cited, comparing the population of animals located at the Rock Creek facilities of the Zoo, reflect a small decrease between the two years. The shift in population, however, reflects the constant movement of animals in and out of the collection and the increased emphasis on the successful breeding programs at the Zoo's Conservation and Research Center at Front Royal. When the animals located at Front Royal are included in the figures, the total population has remained constant at just over 2,900 specimens.

The decline in the number of species reflects the Zoo's animal management policy decision to reduce species and increase specimens, resulting in the larger breeding herds maintained at Front Royal.

National Zoological Park Program Request

Question: No program increase is requested, for the second year in a row. Will the Zoo be able to continue to meet its responsibilities for the animals under its care at the requested level? Are there any particular areas where a shortfall is being felt?

Answer: The Zoo will strive to meet its responsibilities for the animals, as well as its responsibility to the visitors and to the facilities, with the requested level of funding. However, some critical areas are in need of additional support, especially compounded by the effects of across-the-board budget reductions, including the Gramm-Rudman-Hollings reduction. The most urgent needs have been to ensure adequate base levels of support and staffing in animal care and facilities maintenance, and to develop a long-term program for the replacement and upgrading of medical and scientific equipment.

Additional funding for these priority areas had been sought in the FY 1987 OMB budget submission, but the requested increases were not allowed. To maintain the Zoo's current program to care for the animals in its collection, three animal keeper positions (3 workyears and \$57,000) had been requested, including two animal keepers to support the newly-opened Invertebrate Exhibit in the basement of the Reptile House, and one animal keeper for the new facilities at the Conservation and Research Center at Front Royal, Virginia. In addition, a sum of \$93,000 had been requested for supplies and materials used in the routine

maintenance of both animal and public facilities at the Zoo. An increase of \$100,000 had also been requested to develop a long-range program of upgrading and replacement of critical medical and scientific equipment. As indicated in a previous question above, the Zoo does not currently have base funding for this program. The average life of the equipment presently used at the Zoo ranges from 6 to 12 years; in many departments, programs crucial to the health of the animals in the Zoo's collection depend upon equipment that is between 10 and 19 years old. The detailed survey of this equipment, conducted in February 1984, estimated that the replacement of the current medical and scientific equipment at the Zoo would cost approximately \$5 million. It is anticipated that additional funding for these critical areas will be requested in future years.

National Zoological Park Construction

Question: There is also a request of \$4,851,000 for construction and improvements at the Zoo and Front Royal, compared to \$5,281,000 in FY 1986. When will the design of Phase II of the Aquatic exhibits be completed? When would you be ready to proceed to construction? How much will be required?

Answer: Phase II design will be completed in FY 1987 with plans ready to proceed to construction in March 1988. The current working estimate for Phase II is \$12 million.

Question: \$2,500,000 is requested to renovate the old hospital into a research facility, now that the new hospital will be under construction. When will the new hospital be completed? Will you be ready to begin renovation of the old hospital in FY 1987, or will it still be needed for hospital purposes?

Answer: The new hospital will be completed and ready for occupancy in September 1987. Renovation of the old hospital can start in September 1987. Until the new hospital is completed, the old hospital will be needed to support the animal health and pathology departments.

Question: Explain what kind of research will be conducted in the renovated facility, and why such extensive renovations will be needed in order to accommodate this research.

Answer: The Department of Zoological Research is involved in basic research in animal behavior, sociobiology, ecology, physiology, nutrition, and genetics. Our research emphasizes whole animal biology and thus our captive animals must be healthy, housed in optimal conditions for displaying natural behavior and not under any stress. The hospital and research facility was poorly designed from the start and constructed to accommodate three separate functions: research, animal health, and pathology. It served none of its functions well which is why we have requested a new veterinary hospital and renovated research space. For example, we have been maintaining a large off-exhibit animal collection in rooms which were never built to house animals. The HVAC systems were also not designed to serve the sheer numbers of animals and people that immediately occupied the building. While the programs of the Department have expanded to include nutritional, physiological, and genetics studies, it has not had access to appropriate space to carry out these programs. Thus, half of the genetics program is housed at the National Institutes of Health. Basically, the current building has insufficient laboratory and office space and very poorly designed animal holding space as well as an HVAC system which needs to be totally replaced.

The Department of Zoological Research provides advanced training and research opportunities at the undergraduate, graduate and post-doctoral level. Although the Department employs only six Ph.D. level staff, in the past 12 months its research activities have involved 16 individuals at a post-doctoral level (recent or advanced), 17 graduate students and 9 undergraduates or recent graduates. These 43 individuals represent 24 universities in 16 states and 3 foreign countries.

Question: Provide a breakdown of the \$2,500,000 estimate for the record. Is the design complete? If not, when will it be?

Answer: The cost breakdown of the \$2,500,000 is as follows:

Roof Replacement	\$ 78,250
Mechanical System Replacement	1,250,000
Asbestos Removal	63,500
Climate Control Rooms	52,750
Demolition	47,256
Site Work	13,250
Conversion of Hospital Facilities	
a. Convert to Research Offices (\$40/sf X 13,000sf)	520,000
b. Convert to Research Laboratories (\$100/sf X 4,000sf)	400,000
Contingency	<u>74,994</u>
TOTAL	<u>\$2,500,000</u>

The design will be completed by March 1987 with anticipated construction contract award in September 1987.

Question: \$600,000 is requested for Phase II of the Entranceway and Olmsted Walk renovation. What is the status of Phase I construction?

Answer: Construction of Phase I of the Olmsted Walk renovation was completed in early April 1986.

Question: When do you expect to request the funding for Phase III? How much do you anticipate will be required to complete this project?

Answer: Funding for Phase III of the Olmsted Walk construction is anticipated to be requested in FY 1988. This is the most complex of the three phases, and we anticipate \$3,000,000 will be required to complete this project.

Rock Creek Renovation and Repairs

Question: \$1,400,000 is requested for renovations and repairs at Rock Creek, an increase of \$200,000 over 1986. What is the reason for the increase over the current year's funding level?

Answer: Several building systems added to the Zoo's plant property during the late 1970s and early 1980s come due for scheduled repairs to their mechanical systems and roofs. Because the Zoo has over \$150 million in plant property, \$1,400,000 is the minimal amount necessary for regularly scheduled repairs and major maintenance to protect our operations.

Question: What projects do you expect to accomplish with this funding?

Answer: The projects range from replacing PCB transformers (\$100,000), removing asbestos throughout the Zoo (\$100,000), HVAC renovation and repairs in several buildings (\$350,000), replacing roof decks in the Panda and Delicate Hoofed Stock buildings (\$100,000), and replacement of high voltage feeder (\$200,000) to Hardy Hoofed Stock Exhibit areas renovation (\$300,000) and Elephant House interior renovation (\$250,000).

National Zoological Park -- Private Fundraising

Question: A recent news article indicated the Zoo is going to seek large private donations in order to proceed with some projects that would not otherwise be possible in the near future, such as the African plains exhibit. Has this fundraising effort begun? What are your goals?

Answer: The fundraising effort is just beginning. We are currently seeking a development person to plan our overall development program. Our initial efforts have concentrated on seeking funds to support the equipment and research activities in our medical programs. Our ultimate goal is to seek capital funds and other support to supplement our Federal budget for the overall enhancement of our exhibition, collections and research programs.

African Plains Exhibit

Question: How much would the African Plains exhibit cost? When do you hope to begin it?

Answer: The African Plains exhibit is estimated to cost \$4,000,000. We hope to begin construction in FY 1990.

Golden Lion Tamarin Recovery Program

Question: What is the status of the golden lion tamarin recovery effort?

Answer: The Golden Lion Tamarin Reintroduction Program is progressing extremely well. In August 1985 we released 3 groups, totalling 11 animals and 10 currently survive in the wild. We have had an additional birth this year and other females may be pregnant. Survivorship from the second set of reintroductions is vastly improved over the first release due to our increased understanding of the animals' requirements. We are hoping to set up a third set of releases to include larger numbers of animals in isolated forest patches on private land. We can proceed with such an effort since our conservation education programs are having outstanding results in enlisting local support for this species' preservation.

Automation Efforts

Question: P. 62. The request for the National Museum of American History is \$12,357,000, an increase of \$1,015,000 over 1986 adjusted. Last year, increases were provided for a number of the museums to continue their automation efforts. By museum, what is the base that will be available in FY 1987 for this effort? Provide a summary of what will be accomplished with these funds in 1987, and how long the acquisition program is expected to run for each museum or office.

Answer: The application of automated systems to the Smithsonian's research, collections management, exhibition, public service and other programs has become an important catalyst in maintaining the Institution's leadership role in the museum and academic communities, both nationally and internationally. In particular, the development of the automated data processing capabilities throughout the Institution's museums and research bureaus, as well as the development of Institution-wide software systems, has been a budget priority since FY 1984.

In FY 1986, particular attention was devoted to providing adequate base levels of funding for automation at the Institution's museums, which traditionally had not been able to take full advantage of the applications of automated systems to their programs and many of which had no base funding available to establish the needed automated systems. Increases totaling \$213,000 were provided in FY 1986 to further automation efforts in these bureaus: the National Museum of American History (\$57,000); the National Museum of American Art (\$27,000); the National Portrait Gallery (\$20,000); the Hirshhorn Museum and Sculpture Garden (\$22,000); the Center for Asian Art (\$17,000); the Archives of American Art (\$20,000); the Cooper-Hewitt Museum (\$25,000); and the National Museum of African Art (\$25,000).

Approval of the FY 1987 budget as requested would provide the History and Art bureaus with base funding for automation as follows:

National Museum of American History (\$300,000): A sum of \$183,000 will support the personnel costs of five full-time positions and one term position. The remaining \$117,000 will be used for contractual services for annual hardware/software maintenance and service (\$86,000); the purchase of computer parts and supplies (\$13,000); and training, networking and office supply needs (\$18,000). The automation acquisition program is expected to continue until FY 1991.

National Museum of American Art (\$160,000): A sum of \$78,600 will support the personnel costs of three positions. An amount of \$68,500 will be needed for central Smithsonian computer services and \$12,900 will be used for supplies, training and computer maintenance contracts. Base resources will be needed for continual repair and replacement of obsolete equipment.

National Portrait Gallery (\$20,000): The increase received in FY 1986 established a base of funding for automation at the National Portrait Gallery. In FY 1987, this funding will be used for the purchase of hardware (\$9,000); the purchase of software and supplies (\$2,000); and contractual services for computer consultant services, equipment maintenance, and staff training (\$9,000). With this base of \$20,000, it will take 10 years to equip all offices with computers.

Hirshhorn Museum and Sculpture Garden (\$22,000): The increase received in FY 1986 established a base of funding for automation at the Hirshhorn Museum. In FY 1987, the Museum will purchase additional computer work stations. The

Museum's computer equipment acquisition program will continue over the next four years.

Center for Asian Art (\$92,000): In FY 1987, an amount of \$67,000 will be used to purchase a central file server that will function as a central processing unit to link all the existing computers within the Center for Asian Art together, as well as to the central Smithsonian computer; and to purchase additional computers, terminals and printers for new staff hired in FY 1986 and FY 1987. The requested increase of \$25,000 for FY 1987 will allow the Center for Asian Art to hire a systems administrator to oversee and ensure the appropriate growth of the Center's automation facilities. It is anticipated that the automation acquisition program will run for a minimum of five years. During this time, the acquisition program will be gradually converted into an upgrading, maintenance and replacement program.

Archives of American Art (\$20,000): The increase received in FY 1986 established a base of funding for automation at the Archives of American Art. In FY 1987, this funding will be used for contractual services for computer hardware maintenance (\$10,000) and central computer services (\$10,000). The Archives of American Art expects to have an ongoing automation acquisition program, which would provide a three-year revolving replacement cycle.

Cooper-Hewitt Museum (\$25,000): The increase received in FY 1986 established a base of funding for automation at the Cooper-Hewitt Museum. This funding has enabled the Museum to hire a management analyst, who is developing a basic automation planning policy for the Museum, in cooperation with the Smithsonian's Office of Information Resource Management. This policy will provide a rational, efficient basis to guide the Museum's ongoing automation work in the decade ahead.

National Museum of African Art (\$100,000): The increase received in FY 1986 established a base of funding for automation at the National Museum of African Art. This funding, in addition to the increase requested for FY 1987, will provide \$100,000 in funding for automation in FY 1987. A sum of \$7,000 will support the partial-year personnel costs of a computer assistant. (Full-year funding for this position is anticipated in the FY 1988 budget.) In addition, the Museum will purchase workstations and software (\$65,500); and contractual services for maintenance of equipment (\$12,500), central computer services (\$13,000), and staff training (\$2,000). At this level of funding, it will take four years to equip the Museum with the basic automation equipment required for its curatorial, conservation, collections management, education, and photographic archival functions.

National Museum of American History Space Study

Question: The budget notes that in FY 1985 the museum began a planning effort to document space requirements for both the short and long (20 years) term. When will this effort be completed?

Answer: This study of space needs has already been completed in preliminary form. It will take approximately three months to finish the refinement and verification of current data and to write the final report.

Question: What do you anticipate will be required as a result of this planning effort?

Answer: Two major areas of concern identified to date have been the need for additional collections storage space both in the short-term and the long-term. During the short-term, the Museum has an immediate requirement for approximately 20,000 square feet of collections storage space to serve as a staging area and temporary storage for collections displaced during the phased renovation of the building's utilities and environmental systems. During the next 20 years, the Museum estimates that it will require an additional 100,000 square feet of collections storage space to accommodate the growth of its collections. Moreover, during this period the Museum will also need to secure 110,000 square feet of collections storage space to replace its storage buildings at Suitland, Maryland, which will have exceeded their life expectancy by that time. Specific recommendations to address these needs will be formulated upon completion of the final report.

Asbestos Decontamination at Suitland

Question: On page 67, the budget discusses the asbestos decontamination effort at Suitland. When do you expect to complete this effort? How much is budgeted in FY 1986 and 1987 for this effort?

Answer: The asbestos decontamination effort at Silver Hill began in FY 1985 and was projected to be a five-year project. Due to the Gramm-Rudman-Hollings reduction and other funding reductions, the FY 1986 level budgeted for this program is currently \$141,000. If the FY 1987 budget is approved as requested, this would provide a level of \$211,000 in FY 1987 through the currently anticipated completion date of FY 1991.

Move to the Museum Support Center

Question: How much is budgeted in FY 1987 for the move to the Museum Support Center? What exactly will be accomplished during that year?

Answer: An amount of \$862,000 is requested in FY 1987 under the MSC line-item for the MSC move. These funds will be used to continue the process of preparing the collections in the National Museum of Natural History and the National Museum of American History for the move and to start the actual transfer of collections to the Museum Support Center. The funds will support temporary personnel, procurement of needed supplies, contractual services for the development and operation of a program for cleaning museum objects contaminated with asbestos, and fumigation services. Under existing schedules (which are subject to the contractor's delivery of storage cabinets), the National Museum of Natural History will start the actual transfer of collections in May 1987, and the National Museum of American History in July 1987.

For the Museum of Natural History, collections from the Department of Anthropology will be moved first, followed by collections from the Departments of Entomology, Vertebrate Zoology, and Botany. For the Museum of American History, collections from the Divisions of Textiles, Costumes, Political History, and Graphic Arts will be the first to be relocated. As collections from designated departments and divisions of the museums are moved in a planned

sequence to the MSC, preparatory work will continue in other departments so that those collections in turn will be ready for relocation in the order established for the overall move. The dual process of preparation and relocation will continue until the move is completed.

American Visions

Question: The museum provided assistance to the Afro-American magazine American Visions, which premiered earlier this year. What kind of assistance was provided? Will this assistance continue? What are the current plans for the magazine?

Answer: Since 1983, the Museum of American History has provided assistance to the American Visions Project in the form of office space and office-type support services at no charge. During FY 1984 and 1985, the Visions Foundation received in excess of \$250,000 in nonappropriated Trust funds from the Institution to support the initial research and development stages of the American Visions magazine. Direct support has now been terminated by the Regents, and is not expected to resume. With the publication of the first issue earlier this year, it is hoped that the Visions Foundation will be able to secure outside funding and that the magazine will eventually become self-supporting.

American History Research Center

Question: The budget discusses establishment of a research center for the study of American history in FY 1986. This wasn't mentioned in last year's budget justification. Will establishment of this center require the redirection of any funds from other activities? If so, how much and from what sources?

Answer: The Museum had planned to establish a research center for the study of American history through the integration of several existing research centers of the Museum, including the Eisenhower Institute, the Afro-American Research Project, the Archives Center, and the journal Technology and Culture. The planned establishment of this center, which would have required the redirection of existing personnel and support, has been deferred because of the impact of the Gramm-Rudman-Hollings reduction in FY 1986.

Bicentennial of the Constitution Exhibition on Japanese-Americans

Question: An increase of \$185,000 is requested for the Constitution Bicentennial exhibit on Japanese-Americans. Will this become a permanent exhibit?

Answer: The current projected duration of the exhibition "The Japanese-American Experience in World War II," presented to commemorate the bicentennial of the U.S. Constitution, is five years. After the close of this exhibition, major portions of the military portions of the exhibition dealing specifically with the 442nd Regimental Combat Team will be incorporated into the permanent Armed Forces hall.

85. Question: What is the current level of the reinstallation program budget? How will it be used in FY 1987?

Answer: The reinstallation budget, formerly at \$525,000, has been reduced to \$283,000 because of the Gramm-Rudman-Hollings reduction and other across-the-board budget reductions. If the FY 1987 budget is approved as requested, this level of funding in FY 1987 will support the research and planning phases for the next federally-funded permanent reinstallation, "Life in America - 19th Century."

Question: Why is it necessary to purchase a new extensive audio-visual system for the exhibit? Are there no existing ones that can be used? What is the proposed system's cost?

Answer: The video disc system to be employed in this exhibition has been utilized in other museums, but not at the Museum of American History. The random access capability enables the curator and designer much greater flexibility in providing audio-visual programs with which the visitor can interact. No existing equipment at NMAH can accomplish our goals, nor could such equipment be borrowed. The complete cost of the proposed system has not been finalized. However, the estimated cost for hardware is \$20,000.

Question: How much of the request will be used to relocate the National Fire Arms Collection on the mezzanine? Will the collection stay there permanently?

Answer: Approximately \$100,000 of the funding requested for this exhibition in FY 1987 will be used to relocate the National Fire Arms Collection and other military history collections on the mezzanine. Both the exhibition display space on the mezzanine level and the collections storage space on the main floor level will be especially designed for the strict security requirements necessary for fire arms and it is anticipated that these collections will remain there permanently.

Information Exhibit

Question: The budget notes that two grants have been received from IBM for research work needed to plan an information exhibit. What are your plans for this exhibit? How much is it expected to cost? Will appropriated funds be required?

Answer: Scheduled to open in FY 1989, this exhibition, which will deal with the social and cultural implications of the application of new information technology, will replace and dramatically extend the current computer exhibition. The total cost of the exhibition is estimated to be \$4.3 million, to be provided entirely from nonappropriated sources of funding. It will occupy 12,000 square feet of exhibition space on the first floor of the Museum.

Renwick Gallery

Question: P. 72. The request for the National Museum of American Art is \$4,959,000, an increase of \$359,000 over 1986 adjusted. What plans does the museum have for the Renwick Gallery?

Answer: At present, the Renwick continues to function as the National Museum of American Art's department of crafts, and to maintain a program of collecting, research, and exhibition of contemporary craft objects from approximately 1930 to the present. The Assistant Secretary for Museums is currently reviewing the future use of the Renwick Gallery, as well as the continuing Smithsonian programs in the area of the decorative arts and crafts.

Inventory of American Sculpture

Question: An increase of \$60,000 is requested to continue development of the Inventory of American Sculpture. What is in the base for this effort?

Answer: The current (FY 1986) base for this effort is \$41,900.

Question: How long is the entire project expected to take? When will the field survey portion of the project be completed?

Answer: At the requested level of funding, the establishment of a comprehensive registry, including necessary field surveys, is anticipated to take ten years. As an established research data base, a small ongoing effort will be required to keep data current and serve the national research community.

Inventory of American Paintings

Question: Do you have any plans to bring the Inventory of American Paintings up through 1950?

Answer: This possibility is under active consideration; however, given the large number of paintings involved, considerable additional funding may be required.

National Museum of American Art Deaccessioning

Question: The Museum had plans for deaccessioning certain works of art. What were the results of this effort? How much was received for the art works involved? How will the funds be used?

Answer: A total of 79 deaccessioned artworks have been offered at public auction in New York since September, 1985. Sixty-nine works have been sold for a gross of \$170,115 (commissions and other expenses are still being computed), and the remaining ten works will be reoffered in the near future. All funds realized will be used to acquire artworks for the Museum's collection.

Requests for Smithsonian Services

Question: Earlier this year, it was reported that four members of the museum's design staff, including the chief of design, went to Georgetown to move a sculpture for a private citizen, a member of the museum's advisory commission. What policy does the museum, or the Smithsonian in general, have in place, to govern such requests? Do all such requests for assistance go through the director?

Answer: The NMAA has no specific policy governing such requests. This unprecedented request from a donor was therefore left to the discretion of the director.

Question: Has any consideration been given to charging a fee for such services (as the National Gallery says it does in similar cases)?

Answer: Because the Museum is not in the business of providing services of this sort to the public, a fee schedule has not been developed. However, some sort of consideration in return for such services is certainly merited and is being explored.

"Portraits of Distinguished American Jurists"

Question: P. 78. The request for the National Portrait Gallery is \$3,770,000, an increase of \$324,000. The increase includes a program increase of \$80,000 for initial planning and research for a Bicentennial of the Constitution exhibition titled "Portraits of Distinguished American Jurists." What is the exhibition base funding of the Gallery? what can't some or all of the costs for this exhibit come from this base funding?

Answer: There is no constant, established base funding for exhibitions each year in the National Portrait Gallery budget. Various budgeted amounts, in the "other objects" accounts for installation of works of art, publications, etc., are established each year depending upon the exhibition plans for which the Gallery is already committed. In FY 1985, this amounted to approximately \$225,000; for FY 1986 and 1987, this amount will be somewhat less, owing to the sequestration of funds due to the Gramm-Rudman-Hollings reduction. The exhibitions centering upon the celebration of the Bicentennial of the Constitution, for which this increase is sought, were not among the previously committed exhibitions. In order to produce the exhibitions commemorating the Bicentennial of the Constitution with base funds, the National Portrait Gallery would have to cancel one of its already scheduled exhibitions and this would be inappropriate since contractual obligations have already been made for these other shows.

Question: Since the exhibit won't open until the spring of 1988, why is it necessary to fund the typesetting and publication costs for the exhibition catalogue (\$50,000) in FY 1987? When will the catalogue actually be published?

Answer: Catalogue preparation must take place long in advance of the actual opening of the exhibition. For an exhibition opening in the spring of 1988, the typesetting for the catalogue must take place more than six months ahead of time, and work cannot be contracted without the funds being made available in the budget for FY 1987.

Hirshhorn Deaccessioning

Question: P. 84. The request for the Hirshhorn Museum and Sculpture Garden is \$3,233,000, an increase of \$248,000. Has the deaccessioning of works planned last year been completed? How many works were involved? At what value?

Answer: The Hirshhorn Museum and Sculpture Garden has deaccessioned 335 objects to other Smithsonian Institution bureaus. The items have come from the Special Collections and were objects that are not commonly held by museums of modern and contemporary art. Since these 335 items were transferred to other Smithsonian Institution bureaus from the Hirshhorn Museum no value was assigned.

The Hirshhorn Museum and Sculpture Garden has also signed a contract with Christie, Manson & Woods to sell at auction 39 works of art from the permanent collection, with a pre-sale estimate of \$1,500,000.

Hirshhorn Bequest

Question: An increase of \$40,000 is requested to research and catalogue 6,000 works of art added by the Hirshhorn bequest. Last year, you identified \$100,000 as the amount you expected to be needed for this purpose. What is the difference?

Answer: In FY 1984, the Hirshhorn Museum and Sculpture Garden requested \$200,000 from the Congress to finance the inclusion of the bequest of Mr. Hirshhorn into our permanent collection. An amount of \$125,000 was appropriated by the Congress for this purpose. Included in the request were funds to be used to rent space in which to process the bequest as well as to publish a catalogue and to make this new material accessible to other museums and study centers. The bequest was not received in FY 1984 and the funds were reduced from our base.

The request of \$100,000 to process the bequest was reduced by the Smithsonian Institution to \$40,000, which is in the current submission. The major difference between the two requests is that with the smaller appropriation, the bequest will be processed into the collection over a longer time. It is estimated that it will take more than twice as long at the \$40,000 level than it would have at the higher level. A number of other things have also been rethought since the initial request was made in FY 1984. Currently the bequest is being housed temporarily in the Hirshhorn Museum. The original budget included the salaries of several employees to help process the material. Since the material is in the Museum, current employees are directing their efforts to the bequest.

Question: Is any conservation work expected to be required? If so, is it covered in this request?

Answer: There will be some conservation work required on the material in the bequest. The chief conservator and his staff are currently examining the bequest to ascertain the amount, nature and cost of the conservation. We do not expect to come back to the Congress for any additional funds for conservation. The work can be accomplished with existing staff and funds, provided there are no further budget reductions.

Freer Expansion Project

Question: P. 88. The request for the Center for Asian Art is \$4,106,000, an increase of \$1,160,000 over 1986 adjusted. There is also a request of \$2,500,000 under Restoration and renovation of buildings for a modified version of the Freer expansion project, which was not approved last year; and \$4,000,000 as a final increment of construction funding for the Quadrangle.

With regard to the Freer project, what is the cost per square foot for the modified project, compared to that proposed last year? How is that figure arrived at?

Answer: The current design concept to acquire additional space within the confines of the Freer Gallery includes excavating one level of the courtyard only down to the existing footings, and to lower a portion of the existing sub-basement level to provide sufficient headroom for collection storage purposes. These two areas are expected to provide approximately 10,000 sq. ft. of collection storage space at a cost of \$2,500,000, or approximately \$250 per square foot. This compares with \$330 per square foot for the project in the FY 1986 request.

Question: Is design included in the \$2,500,000 request? What about storage or other equipment? Will there be any other additional costs required to complete the project in the future?

Answer: Approximately \$150,000 of the \$2.5 million estimate for Freer Gallery expansion space will be applied to project design costs. Approximately \$25,000 is included for floor covering. No other equipment is budgeted within the construction estimate. Funds estimated at \$2,700,000 for collection storage and other equipping will be requested over a several year period as part of the Gallery's budget requests.

Question: Has the authorizing committee looked at this request? Do you know if they object to or approve this modified version of the project they originally opposed last year?

Answer: Authorization committee staff are aware of the revised Freer project concept and the request for \$2,500,000 in the FY 1987 budget. No formal action has been proposed.

Question: Construction of the Freer link, which is included in the Quadrangle construction project, was originally intended for FY 1986, but has now been moved to FY 1987. According to a reprogramming letter recently submitted to the Committee, one of the reasons for the delay is "delays in design." What has caused the design delays? When will they be complete?

Answer: As it became apparent that a Freer collection space expansion project would not be funded at the \$5.0 million level, the Institution suspended design work on the link last fall until a revised and less expensive design concept could be developed for collection space. This work was completed and the architect/engineer was directed to resume detailed design work on the total project in mid-March. Working drawings are expected to be completed next December.

Quadrangle Construction Funding

Question: Your justification reflects the proposed changes to the Quadrangle outlined in the reprogramming letter. This does not make clear what will be accomplished with the \$3,805,000 (after Gramm-Rudman) received for the project in FY 1986. Please provide a breakdown of how these funds will be used for the record.

Answer: The \$3,805,000 received in FY 1986 will be used to purchase equipment and furnishings.

Quadrangle Occupation

Question: Occupancy of the staff areas in the Quadrangle is now expected by June 1986, although last year it was expected by February. What is the reason for the delay?

Answer: The General Services Administration had issued two 60-day non-compensatory time extensions to the construction contractor because of the severe weather experienced during the winter of 1984-85 and other unforeseen delaying factors. This four-month construction delay is the principal reason for the change in the anticipated date of occupancy. Staff occupancy is expected to begin in June 1986 and to be completed in September. This delay is not expected to delay the public opening of the Quadrangle complex in May-June 1987.

Quadrangle Construction Funding-Federal/Trust Match

Question: Although the budget request to complete construction is \$4,000,000, the amount of Trust funds to match the Federal contribution will only be \$2,630,000. What is the basis for this lower amount? Why should the Federal contribution exceed the private contributions?

Answer: Our estimate is that pledges amounting to \$4,235,000 will not materialize of which one particular expected donation constitutes the major amount. Furthermore, based on a recent appraisal, it is expected that the African Art properties may sell for somewhat less than the estimate of \$2 million that has been used in our budget planning. Offsetting these losses, however, is larger than anticipated interest income on funds in hand for the project. The net effect is that we expect to have a total of \$35.9 million in trust funds against a revised (and lower) total project cost of \$73.2 million as shown in our FY 1987 budget. Consequently the budget document showed a need for \$37.3 million in federal appropriations, of which \$33.3 million has been appropriated through FY 1986.

As the budget justification and reprogramming letter stated, we expect to place orders and fully obligate funds for furnishings this year. That work is well underway and thus far we are obtaining very competitive prices. While it is too early to reassess the effects of these favorable developments on the overall cost of the project, we expect to be able to do that and so inform you prior to your Committee's action on the request. It may be possible to lower the requirement for appropriated funds but, if not, we will suggest a strategy with regard to the matching requirement.

Quadrangle Public Opening

Question: When exactly do you now expect the Quadrangle to open to the public?

Answer: We plan to open the Quadrangle garden fully in September 1986 and to have a series of special events in early June 1987, with public openings of

the Museum of African Art, the Sackler Gallery and the International Center to take place on about June 15, 1987.

Sackler Gallery Staffing

Question: A program increase of \$934,000 and 22 workyears is requested for Quadrangle-related programs. Provide a breakdown of which positions were funded (and for what portion of the year) with the funds provided in FY 1986; and how the 10 workyears and \$272,000 requested for those positions in FY 1987 will be allocated.

Answer: The FY 1986 appropriation included partial-year funding of 17 new positions for the Sackler Gallery for Quadrangle-related support (7 workyears and \$172,000). For FY 1987, an amount of 10 workyears and \$272,000 is required to annualize this funding to provide for the full year costs of these positions. The following table provides a breakdown of the

FY 1986 Positions/ (Portion of fiscal year)	FY 1986 Budget		Costs to Annualize FY 1986 Positions In FY 1987		Full Year Costs	
	FTE	\$000s	FTE	\$000s	FTE	\$000s
Exhibit Designer (FY 1986 = 1/2 year)	0.50	25	0.50	25	1.0	50
Graphics Designer (FY 1986 = 1/4 year)	0.25	8	0.75	28	1.0	36
Woodcrafter (FY 1986 = 1/4 year)	0.25	6	0.75	19	1.0	25
Painter Asst. (FY 1986 = 1/4 year)	0.25	4	0.75	15	1.0	19
Carpenter (FY 1986 = 1/4 year)	0.25	5	0.75	17	1.0	22
Asst. Curator (FY 1986 = 1/4 year)	0.25	7	0.75	23	1.0	30
Registration Secretary (FY 1986 = 3/4 year)	0.75	11	0.25	5	1.0	16
Photographer (FY 1986 = 1/2 year)	0.50	10	0.50	10	1.0	20
Conservation Technician (FY 1986 = 3/4 year)	0.75	14	0.25	6	1.0	20
Oriental Art Restoration Specialist (FY 1986 = 1/4 year)	0.25	6	0.75	19	1.0	25
Curatorial Secretary (FY 1986 = 1/4 year)	0.25	4	0.75	12	1.0	16
Library Aide (FY 1986 = 1/4 year)	0.25	3	0.75	13	1.0	16
Education Specialist (FY 1986 = 1/4 year)	0.25	5	0.75	20	1.0	25
Editor (FY 1986 = 1/2 year)	0.50	20	0.50	22	1.0	42
Accounting Technician (FY 1986 = Full year)	1.00	20	0.0	0	1.0	20
Public Affairs Specialist (FY 1986 = 1/2 year)	0.50	20	0.50	22	1.0	42
Secretary (FY 1986 = 1/4 year)	0.25	4	0.75	16	1.0	20
TOTAL	7.00	172	10.00	272	17.00	444

Sackler Gallery Exhibition Base

Question: Since the request for an exhibitions base last year was \$1,105,000, how have you arrived at a figure of \$1.2 million for the base, as indicated on p. 95?

Answer: The figure \$1.2 million includes \$95,000 (received in FY 1985 to hire an exhibit specialist and to construct a case prototype) and \$1,153,000, received in FY 1986 for exhibition expenses (\$1,105,000) and to hire a woodcrafter, carpenter, painter's assistant and exhibition designer in the latter part of FY 1986 (\$48,000).

Sackler Travel Request

Question: What is the justification for the increase of \$10,000 (+59%) for travel?

Answer: The FY 1986 base for travel funds was only \$17,000. The chief reason for the request for the increase of \$10,000 for travel is that the Sackler Gallery is planning a continuous traveling exhibition program that requires curatorial, conservation and administrative staff to develop, arrange and negotiate traveling exhibitions. Travel for such exhibitions requires both domestic and international (principally in Asian countries) travel. A secondary reason for the increase is the additional staff who will require travel funds for research on collections, new acquisitions and exhibitions. The travel budget started from a low base (\$17,000) which was matched to a smaller staff. Increases are now needed to match the expanded staff and their level of activity, and to allow proper planning for the exhibition program.

Archives of American Art Publications

Question: P. 98. The request for the Archives of American Art is \$931,000, an increase of \$73,000 over 1986 adjusted. Included is \$25,000 to establish a base to publish a series of interpretive works on the Archives' collections. For whose use are these publications intended?

Answer: These publications will serve two groups--the Archives' basic constituency of historians and graduate students in American art history and American Studies; and a wider public who take a strong if non-professional interest in the visual arts. Detailed thematic or subject matter guides to the collections would describe relevant research material on such fields as the New Deal art projects, the American Academy in Rome, and 19th and 20th-century art patronage in America. Other volumes would offer authoritative essays on aspects of American cultural history. Still others would consist of especially significant unpublished diaries and correspondence series, presented with scholarly introductions and full editorial commentary.

Question: How many in total are planned? Over what timeframe?

Answer: One volume per year over an indefinite period is planned.

Question: Why can't other funds be redirected from within the program base for this purpose?

Answer: Currently, there are no base funds available for publications. Approximately 91 percent of the FY 1986 funding for the Archives of American Art (after the Gramm-Rudman-Hollings reduction and the OMB Grade Target Reduction) is committed to personnel costs, necessary travel, and contractual services for collections management requirements. The balance of its funding (approximately \$77,000) is required to provide for essential supplies and equipment for the six Regional Centers. The requested increase of \$25,000 will establish a base of funding for publications.

Archives of American Art New York Move

Question: The March Regents' newsletter indicates the Archives may be moving into new space in New York early in 1987. Will the new space be larger than the current space? How will the costs compare?

Answer: The Smithsonian Institution is presently negotiating a lease and planning for space in the Equitable Center for the Archives of American Art in New York City, with an anticipated move scheduled in January or February, 1987. The new space will be larger by 3,452 square feet than the Archives' current space in the American Federation of Arts Building; the Equitable space being 5,000 square feet, the AFA space being 1,548 square feet. The New York office of the Archives houses both the national administrative headquarters and the New York Regional Center, which handles more than half the total documents collected annually by the Archives and serves more than 1,000 researchers every year (there have been frequent times in the past several years when researchers have been turned away due to lack of space). The new space will be able to accommodate ten researchers at a time (an increase of four) in addition to twelve staff members and contractors working on special projects, as well as Trustees, Committee Chairman, and other volunteers working on Archives programs.

The rental cost for the current AFA space is \$58,000 a year. The cost for the Equitable space will be \$130,000 a year - a difference of \$72,000. On a square footage basis, the AFA space cost \$37.47, and the Equitable space will cost \$26.00, or \$11.47 less per square foot.

Question: Will the costs of the new space come from Federal or other funds?

Answer: The cost of space rental for the Archives of American Art's facilities in New York are paid by Federal funds. Funding for the increased rental costs for the new space is requested in the FY 1987 budget.

Cooper-Hewitt Research Request

Question: P. 102. The request for the Cooper-Hewitt Museum is \$1,011,000, an increase of \$108,000 over 1986 adjusted. \$50,000 of the requested increase is to "reinforce the Cooper-Hewitt's research capabilities." Can you be more specific as to how these funds would be used, and for what purpose? What kind of "support" will be provided to the researchers who use the C-H collections for study?

Answer: The funds will be used to contract for qualified professionals who would be allowed to pursue research on some selected aspect of the Museum's

diverse collections, thus allowing more adequate time for curatorial personnel to study the collections in depth and to shape the collections through coordinated acquisitions and related procedures. Support for the researchers will range from basic supplies to the purchase of specialized services and research materials (xerox costs, books, photographs, etc.) relevant to a topic's investigation or the provision of clerical support in the production of a finished project.

Question: How long is this effort expected to last?

Answer: This funding would provide an essential permanent enhancement of the Museum's ability to study, interpret, and analyze its large and diverse collections and thus is requested as an increase to the Museum's Federal base. Individual research projects sponsored with this funding could last from several weeks to a period of two to three years, depending upon the specific project.

National Museum of African Art Staffing

Question: P. 107. The request for the National Museum of African Art is \$3,342,000, an increase of \$829,000 over the 1986 adjusted level. As with the Sackler Gallery, provide a breakdown of the positions funded in FY 1986, and how the requested increase of 6 workyears and \$136,000 in FY 1987 will be allocated to those positions.

Answer: The FY 1986 appropriation included partial-year funding of 14 new positions for the National Museum of African Art for Quadrangle-related support (8 workyears and \$191,000). For FY 1987, an amount of 6 workyears and \$136,000 is required to annualize this funding to provide for the full year costs of these positions. The following table provides a breakdown of the FY 1986 and FY 1987 costs for these positions:

FY 1986 Positions/ (Portion of fiscal year)	FY 1986 Budget		Costs to Annualize FY 1986 Positions In FY 1987		Full Year Costs	
	FTE	\$000s	FTE	\$000s	FTE	\$000s
Writer/Editor (FY 1986 = full year)	1.00	25	0.00	0	1.0	25
Graphic Designer (FY 1986 = 1/4 year)	0.25	5	0.75	20	1.0	25
Exhibit Production Asst. (FY 1986 = 1/4 year)	0.25	4	0.75	12	1.0	16
Carpenter (FY 1986 = 1/4 year)	0.25	5	0.75	17	1.0	22
Shop Foreman (FY 1986 = 1/2 year)	0.50	12	0.50	12	1.0	24
Photographer (FY 1986 = 3/4 year)	0.75	23	0.25	7	1.0	30
Museum Technicians (2) (FY 1986 = 1/4 year each)	0.50	8	1.50	24	2.0	32
Education Specialist (FY 1986 = 3/4 year)	0.75	22	0.25	8	1.0	30
Docent/Intern Coordinator (FY 1986 = 1/2 year)	0.50	11	0.50	14	1.0	25
Curator (Research) (FY 1986 = 3/4 year)	0.75	35	0.25	15	1.0	50
Secretary (FY 1986 = full year)	1.00	16	0.00	0	1.0	16
Administrative Asst. (FY 1986 = full year)	1.00	16	0.00	0	1.0	16
Clerk/Typist (FY 1986 = 1/2 year)	0.50	9	0.50	7	1.0	16
TOTAL	8.00	191	6.00	136	14.00	327

National Museum of African Art -- Move to the Quadrangle

Question: When exactly do you plan to move into the Quadrangle?

Answer: Present plans call for the National Museum of African Art to move during the months of July and August 1986.

Quadrangle Public Information Campaign

Question: P. 118. The request for the Assistant Secretary for Public Service is \$1,257,000, an increase of \$67,000 over 1986 adjusted. Included is \$31,000 for an information campaign connected with the opening of the Quadrangle. Why can't this effort be funded from base funds?

Answer: The public information campaign for the opening of the Quadrangle cannot be funded with base funds from the Office of Public Affairs because no funds are available for reprogramming from basic operating requirements to meet this important need. Some 80% of budgeted funds are allotted to personnel costs, with the remaining 20% representing the amount required for essential support expenses.

The central Office of Public Affairs has never been called upon to publicize a series of events of this magnitude and complexity. The Quadrangle project does not involve merely opening a new building, but rather what is, from an architectural perspective, three independent underground structures. Two of these are new museums and the third is a complex of bureaus and offices including the new International Center. The challenge of opening all these entities -- serving the constituencies of each and allowing each to maintain its separate identity while informing the public of its mandate -- is an immense and unparalleled public relations endeavor.

When any special event is sponsored by an individual bureau, the cost of associated publicity is included in the special event budget of the bureau.

One-year-only funding is requested for FY 1987 to permit a start-up information campaign for the Quadrangle and its components. In light of present and likely continuing Federal funding constraints, it is not possible for the Institution to reprogram funds to meet this essential requirement.

Question: How much is spent each year on publicizing special events or non-recurring events? Why can't these funds be used?

Answer: An amount of \$9,400 is provided in the base funding level of the Office of Public Affairs to publicize special events or non-recurring events. Clearly, these funds are not sufficient to permit a publicity campaign of the magnitude required for the openings of the Quadrangle complex and of the several museums, bureaus, and offices which will be housed there.

Conservation Analytical Laboratory FY 1986 Funding

Question: P. 132. The request for the Conservation Analytical Laboratory is \$2,069,000, an increase of \$124,000 over 1986 adjusted. An increase of \$200,000 was provided in FY 1986. How is the 1986 increase being used? Have any positions been added?

Answer: The increase of \$200,000 in program funds provided in FY 1986 would have provided the full year funding for three new positions (a physical organic chemist, a photographic materials conservation scientist and an analytical chemist) (3 workyears and \$125,000); other objects support for these new positions (\$30,000); and expanded funding for scientific equipment (\$45,000). However, because of the timing of the FY 1986 appropriation, it was not possible to start recruitment at the beginning of the fiscal year. The lapsed saving from these positions has been applied towards the Gramm-Rudman-Hollings reduction for FY 1986.

Question: How will these funds be used in FY 1987?

Answer: If the FY 1987 budget is approved as requested, the \$200,000 will provide for the full year costs of the 3 positions (3 workyears and \$125,000); basic program support related to these new positions (\$30,000); and expanded funding for scientific equipment (\$45,000).

Smithsonian Institution Libraries Bibliographic System

Question: P. 137. The request for the Smithsonian Institution Libraries is \$4,836,000, an increase of \$381,000 over 1986 adjusted. When will you complete the last phase of converting the manual bibliographic records into machine readable format (p. 139)? What exactly will you accomplish in FY 1987?

Answer: The conversion of manual records will be completed in FY 1988. In FY 1987, it is anticipated that 77,000 records will be converted to machine readable format, assuming the receipt of the FY 1987 budget as requested. This would leave a balance of 13,000 records to be processed in FY 1988.

Smithsonian Institution Libraries Quadrangle Operations

Question: An increase of \$32,000 and 2 workyears is requested for Quadrangle-related support. Will this provide complete funding for the Quadrangle?

Answer: The FY 1987 budget, if approved as requested, will complete the funding for Quadrangle-related support for the National Museum of African Art library, with the funding provided in FY 1985 and FY 1986 for acquisitions, cataloguing and processing support for the African Art library collection.

Office of Exhibits Central Staffing

Question: P. 142. The request for the Office of Exhibits Central is \$1,774,000, an increase of \$231,000 over 1986 adjusted. Included is an increase of \$141,000 and 3.5 workyears for Quadrangle-related support. 3 workyears and \$75,000 are for hiring two additional exhibits specialists and one model-maker. Are these full year costs for these positions?

Answer: The funding requested in FY 1987 (3 workyears and \$75,000) will provide the full year costs of the 3 new positions to be hired at the start of FY 1987.

Question: How many exhibits specialists will the office have in total, and how many model-makers, for Quadrangle support?

Answer: In addition to the 1 position funded in FY 1986 and the 3 positions requested in FY 1987, the Office of Exhibits Central has 15 exhibit specialists and 11 modelmakers, who will be available to provide additional exhibit support for the Quadrangle, as needed.

Office of Exhibits Central Exhibition Support

Question: What is the basis for the amount of \$51,000 requested for support items to be used in the production of exhibitions?

Answer: The \$51,000 is requested for hand tools, exhibit materials, and safety equipment needed for exhibit production. This is an estimate based on experience over the past two years in preparing African and Asian objects for exhibit installation, many of which require customized "saddles" made out of various rubber and plastic compounds. Because some of the processes are chemically based, modelmakers are required to wear safety gear.

Question: P. 145. The request for SITES is \$601,000, an increase of \$238,000. Included is a program increase of \$183,000. For the 6 positions added in FY 1986, how many are now in place, or when will they be? What is the cost for each and the 1986 lapse rate?

Answer: The FY 1986 appropriation included partial-year funding of 6 new positions for the Smithsonian Institution Traveling Exhibition Service for Quadrangle-related support (1.5 workyears and \$43,000). For FY 1987, an amount of 4.5 workyears and \$129,000 is required to annualize this funding to provide for the full-year costs of these positions. The following table provides a breakdown of the FY 1986 and FY 1987 costs for these positions:

FY 1986 Positions	FY 1986 Budget		Costs to Annualize FY 1986 Positions In FY 1987		Full Year Costs	
	FTE	\$000s	FTE	\$000s	FTE	\$000s
Research Assistant	0.25	6	0.75	19	1.0	25
Assistant Registrar for Vault	0.25	6	0.75	19	1.0	25
Education Workshop Coordinator	0.25	8	0.75	22	1.0	30
Graphics Technician	0.25	6	0.75	19	1.0	25
Exhibition Coordinator (International Gallery Exhibitions)	0.25	11	0.75	31	1.0	42
Assistant Registrar (International Gallery Exhibitions)	0.25	6	0.75	19	1.0	25
TOTAL	1.50	43	4.50	129	6.0	172

Based on the funding provided in FY 1986, the scheduled hire date for these positions is July 1, 1986. It is currently anticipated that 3 of these positions will be hired in early June and the other 3 positions in late July. Because the projected hiring schedule has been based on the time needed to fill

the positions by specific hire dates, calculations of lapse in 1986 have already been incorporated in the development of this hiring plan.

Question: Will this 1987 request for an additional 2.25 workyears bring on all the positions required to support the Quadrangle operations? If not, what are the remaining requirements?

Answer: The FY 1987 budget request includes partial-year funding of 3 new positions for the Smithsonian Institution Traveling Exhibition Service for Quadrangle-related support (2.25 workyears and \$38,000). These 3 positions, will complete SITES' staffing requirements related to the Quadrangle and enable SITES to fulfill its public outreach through its new Quadrangle facilities. To provide full-year funding for these 3 positions, an amount of 0.75 workyears and \$10,000 will be required in FY 1988 to annualize this funding. The following table provides a breakdown of the FY 1987 and FY 1988 costs for these positions:

FY 1987 Positions	FY 1987 Budget		Costs to Annualize FY 1987 Positions In FY 1988		Full Year Costs	
	FTE	\$000s	FTE	\$000s	FTE	\$000s
	Receptionist	0.75	13	0.25	3	1.0
Education Workshop Secretary	0.50	9	0.50	7	1.0	16
Registrarial Asst. for Scheduling	1.00	16	0.00	0	1.0	16
TOTAL	2.25	38	0.75	10	3.0	48

National Museum Act Authorization

Question: P. 154. The request for the National Museum Act is \$772,000, an increase of \$33,000 over 1986 adjusted. Last year on the floor, Mr. Frenzel objected to the Appropriations Committee continuing to fund this program, which has not been authorized since 9/30/82; and indicated he would object to the entire bill if funding were included this year. Has there been any progress on reauthorization of this program this year? If not, are there indications there will be?

Answer: On February 4, 1986, the Senate approved S. 582 reauthorizing appropriations under the National Museum Act for fiscal years 1986, 1987 and 1988.

The measure has now been referred to the Committee on House Administration before which is also pending H.R. 1337, a bill for the same purpose introduced on February 28, 1985 by Messrs. Boland, Mineta, and Conte, Congressional Members of the Smithsonian's Board of Regents.

The Task Force on Libraries and Memorials of the Committee on House Administration held a hearing August 1, 1985 on H.R. 1337. It has taken no further action on the issue and none is anticipated.

Question: If the program is not authorized by the time this bill goes to the floor, do you believe the Subcommittee should include the funding for the program anyway? Why?

Answer: If the National Museum Act is not authorized, the Smithsonian would want to retain the same funding level, in order to accomplish many of the same goals currently met by the National Museum Act. These include essential support for conservation training and internships, as well as very basic project support for the museum field. While the National Museum Act funding represents one of the most tangible ways in which the Smithsonian conducts outreach to the museum field across the entire country, it has also been very influential in making possible professional activities for which there is no other assistance.

Directorate of International Activities

Question: P. 157. The request for the Directorate of International Activities is \$1,027,000, an increase of \$586,000 over 1986 adjusted. The second major exhibition of the Center, scheduled for 1988, is on "Tropical Forests: A Disappearing Treasure." What will the total cost of this exhibition be?

Answer: The total cost is estimated to be \$1,500,000.

Question: The requested increase includes \$245,000 and 1.5 workyears for Quadrangle-related programs. When will the two positions approved in 1986 be on board?

Answer: The two positions approved in FY 1986 were originally scheduled to be hired on April 1, 1986. Because the FY 1986 appropriation provided half of the requested funding, the scheduled hiring date was delayed until July 1, 1986. The 1.5 workyears and \$41,000 increase requested in FY 1987 is required to annualize the partial year funding provided in FY 1986, based on the July 1st hire date.

Question: An increase of \$141,000 is requested for the exhibition on tropical forests. Since the exhibition is not to open until the spring of 1988, couldn't some of these costs be delayed until the following fiscal year (FY 1988)?

Answer: The exhibition will open in March of 1988. As a result, all of the developmental and research work must take place during fiscal year 1987, including research for the exhibition script, the writing of the catalog, the travel necessary to obtain information for the exhibition, the filming which needs to be done--in short, all the preliminary work needed to produce the exhibition and its accompanying publication. Finished manuscript and all visuals must be in the hands of the publisher by March 1987. All exhibition script, film and visuals must be ready for fabrication bid by early Fall 1987. This means that funds necessary to produce this material must be available in fiscal year 1987.

Question: What is included in "other curatorial support"?

Answer: Other curatorial support that will be required for the "Tropical Forest" exhibition will include conducting library research to support the

development of the exhibition script and catalogue, locating photographs and other graphic material to be used in the exhibition, and providing other program support to the curator and the exhibition coordinator, such as maintaining project files and other documentation.

Directorate of International Activities Courses

Question: \$23,000 is requested for planning two short courses in tropical biology, beginning in FY 1988. How will the participants for these courses be selected? How many will be included?

Answer: Each course will be designed for 10-15 senior Latin American participants who will be nominated by their home institutions, such as universities, research institutes, national parks and museums. Nominees are expected to have expertise and responsibilities in areas of research and conservation parallel to those of the Smithsonian's programs. Selections will be made on the basis of their anticipated contribution to the continuing development of scientific research and to natural conservation in their countries.

Directorate of International Activities Automation

Question: \$40,000 is requested for automation and research support. \$20,000 of this increase is for the Visiting Scholars Program, to purchase 4 computers and related equipment. Why will 4 computers be needed for this purpose? How many scholars are anticipated to be using the Center's facilities at any one time?

Answer: It is anticipated that five to eight visiting scholars will use the International Center's facilities at any one time. The four computers are research tools and will be shared by these scholars. They will be used to draft manuscripts, and to access collections and bibliographic information from other Smithsonian computer systems and from sources outside the Institution.

Question: What local area networks are you planning to link these computers with? Are all such networks currently in place?

Answer: The computer systems that will be provided for the visiting scholars in the International Center will be able to communicate with the central Smithsonian computer, the Institution-wide software systems (such as the Smithsonian Institution Bibliographic Information System), and other small computer systems throughout the Institution by means of telephone lines and communications modems as soon as the computers for the visiting scholars are installed. At the same time, the Smithsonian is currently developing a data communications system, consisting of local area networks interconnected via a Institution-wide communications "backbone" system run through the "raceway" system being constructed between Smithsonian buildings. This communications system will allow computers throughout the Institution to communicate directly, without having to rely on telephone lines and modems. At the same time, the design of this communications systems allows each building or office to link their own computers together through the use of a local area network immediately and later be connected to the "backbone" system that will allow them access to other Institutional computer resources. The first "demonstration" local area network is anticipated to be installed during FY 1986 to link the computers in one of the bureaus. During FY 1987, it is expected that local area networks

will be installed in many buildings and offices throughout the Institution, including the Quadrangle. Eventually, every computer and work station within the Institution connected to this Smithsonian-wide data communications system will be able to have access to each other's resources.

Columbus Quincentenary

Question: An increase of \$245,000 is requested for the Columbus Quincentenary, to be celebrated in 1992. Aren't some of these costs premature; for example, beginning research (NMNH); consultation with non-Smithsonian scholars (NMAH); planning for folklife festivals for 1989 to 1992 (Office of Folklife Programs); negotiate with lenders for exhibition at the Portrait Gallery; research for an Earth Atlas, and liaison with other agencies (NASM)?

Answer: National and international interest in the Columbus Quincentenary began over five years ago with the establishment of National Commissions in Spain and countries in Latin America, and the sponsorship of planning conferences by the National Endowment for the Humanities beginning in 1982. In Spain, major projects are in the implementation stage. For the Smithsonian Institution, early planning for the commemoration is crucial and essential in order to develop exhibitions and programs that offer substance and coherency rather than ephemeral and superficial celebratory events. Moreover, because many organizations and institutions in the United States, Latin America and Europe are planning major exhibitions, it is necessary to make requests for borrowing specific objects as early as possible.

Question: When will the seminars, conference, and scholarly meetings planned by the International Center be held? What will the costs for 1987 be used for? What exactly will all these meetings cover, and who will be involved?

Answer: Two Quincentenary seminars will be held in FY 1987. The three-day seminars, to be held in December 1986 and March 1987, are entitled "The Americas: Cultures and Biotas in Contact." The discussion will focus on the paleoecology of the Americas, the migration of humans in the Americas and the resulting interaction. Five to seven national and international scholars and five to seven Smithsonian researchers will present the latest research in the areas of paleoecology, early archaeology, anthropology, and paleobotany in order to establish the ecology and cultural configurations of the Americas up to approximately 1000 B.C.

Having discussed the early geography and demography of the Americas, the next question to be addressed is the content and nature of the cultures that met in 1492. In May 1987, the Directorate will sponsor an international conference which will present an overview of the cultures of Spain and the Americas immediately prior to the voyage of 1492. Eight to ten invited scholars will discuss the specific social, historical, political and scientific contexts of Spain and the Americas. In this way, we will be able to provide a broad synthesis of the specific elements of each culture which would ultimately clash and then come together to form the new cultures of the Americas. Both the seminars and conference will be open to the national and international scholarly community.

In November 1986, the Directorate of International Activities will invite scholars to meetings to discuss Quincentenary exhibitions for the International Center. Two major themes to be addressed are: (1) the history of mapping as related to systems of thought; and (2) the ways in which maps express ideas

about social organization and thus serve to pattern human interactions throughout time.

Directorate of International Activities Travel Request

Question: An increase of \$84,000, or over 500%, is included for travel. Provide a detailed justification of this increase.

Answer: The travel request of \$84,000 is associated with planning for Quincentenary programs (\$59,000); the "Tropical Forest" exhibition (\$15,000); and tropical research workshop (\$10,000). The requested increase for travel related to Quincentennial planning includes funding for the National Museum of Natural History for curatorial travel to institutions and repositories to identify appropriate exhibition artifacts (\$7,000); for National Museum of Natural History/Museum of Man for travel to various universities to collect text materials (\$2,000); for the Office of Folklife Programs to support travel of scholars from the Caribbean and Latin America for consultation meetings to determine the theme for the 1989-1992 festivals (\$10,000); for the National Portrait Gallery for a consultant and staff person to locate and inspect works proposed for the exhibition (\$4,000); for the Hirshhorn Museum and Sculpture Garden for two study trips to centers of art in middle and South America (\$10,000); for National Air and Space Museum for national and international travel for background research (\$3,500); and for the DIA to support travel of international scholars to the two seminars and the conference planned in FY 1987 (\$15,000) and to support travel of scholars for International Center Quincentennial exhibitions planning (\$7,500). Additional funding is also requested to support the travel costs of the curator of the "Tropical Forest" exhibition to tropical forest research sites (\$15,000); and the travel costs associated with the development of the tropical biology workshops, including that of the course coordinator and the planning committee (\$10,000).

International Environmental Science Program Research Data

Question: P. 169. The request for the International Environmental Science program is \$752,000, an increase of \$55,000 over 1986 adjusted. With regard to the monitoring of subtropical and tropical sites, how are the data generated used currently? Who are the users?

Answer: The long term physical and biological monitoring of subtropical and tropical sites under the IESP are an important adjunct to tropical research being conducted in Smithsonian bureaus. They define the situation for short-term studies and allow the scientist to cast his/her results in the context of longer term trends, that could not be recognized without long-term monitoring. They also help us to recognize unusual events (both their magnitude and their effects). Monitoring provides a perspective useful in the interpretation of the results of experimental studies carried out by many scientists who can make only short visits to the tropics.

Numerous scientists outside the Smithsonian community, especially environmental planners in developing countries, use the monitoring results developed through the International Environmental Science Program. Publications serve as a major outlet for Smithsonian research results. For example, demand for the book Ecology of a Tropical Forest, based largely on the Smithsonian monitoring studies at one particular tropical site, has been high and it is being reprinted in English. A Spanish edition of the book is also nearing publication. Finally,

the Institution supplies copies of monitoring data to many individuals requesting that information.

Office of Smithsonian Symposia and Seminars

Question: P. 173. The request for Academic and Educational programs is \$828,000, an increase of \$90,000 over 1986 adjusted. This budget includes the Office of Smithsonian Symposia and Seminars, which "regularly administers and organizes major symposia in the Smithsonian's international series." What is the budget and staffing for this office?

Answer: In FY 1986, the budget of the Office of Smithsonian Symposia and Seminars included \$99,000 in Federal funds and \$296,000 in nonappropriated Trust funds, for a total budget of \$395,000. The Office has 3 full-time permanent Federal positions and 2 full-time permanent Trust positions, for a total staff of 5 positions.

Question: How are the activities of this office coordinated with those of the International Center, as far as offering international symposia and seminars is concerned? Why are two such offices needed?

Answer: The Office of Smithsonian Symposia and Seminars, as a centralized office, responds to educational opportunities on an institution-wide basis, as well as carrying out special projects recommended by the Secretary, the Regents, and Congress. Frequently, these are projects requiring the resources of various bureaus and the subject foci are national on some occasions, international on others. The 1979 centennial of Einstein and the 200th anniversary of the Battle of Yorktown in 1981 as well as the planned 1987 major symposium on the 200th Anniversary of the Constitution and the Bill of Rights represent the kind of special projects which the OSSS is called upon to handle.

The programs planned for the International Center include exhibitions, conferences, colloquia, performances, film showings, lecture discussion meetings, and workshops, as well as symposia and seminars. The last two activities generally will be thematically related to the exhibitions to be presented in the International Center Gallery. In developing these areas of activities the Directorate staff will draw upon the expertise and experience of the Office of Smithsonian Symposia and Seminars (OSSS). It is intended that a collaborative relationship be established with OSSS, similar to the relationship which the Directorate has established with SITES in conjunction with exhibition development.

Bicentennial of the Constitution-International Symposium

Question: An increase of \$100,000 is requested to support an international symposium on "Constitutional Roots, Rights, and Responsibilities" for the Bicentennial of the Constitution in May 1987. Will this be the total cost of the symposium?

Answer: No. We anticipate incurring expenses of some \$200,000, consisting of the \$100,000 amount requested in Federal funds for FY 1987, and a further \$100,000 which we expect to raise from outside sources.

1. Question: Provide a breakdown of the costs involved.

Answer: A breakdown of the total cost of the symposium is as follows:

1. Program		
Chairman	\$ 1,500	
Essayists	24,000	
Other participants	15,000	
Travel and local expenses	32,500	
Typing Services	15,000	
Printing and duplication	17,000	
Facilities charges	10,000	
Supplies	<u>20,000</u>	
		\$135,000
2. Publishing		
Editorial Fee	\$ 20,000	
Secretary	15,000	
Production of book	<u>15,000</u>	
		\$ 50,000
Direct costs		\$185,000
Administrative costs:		<u>15,000</u>
Estimated total costs:		<u>\$200,000</u>

American Overseas Research Centers

Question: Last year, under this program, \$2,000,000 was requested for American Overseas Research Centers. This money was not provided; but language was added to the bill authorizing the Secretary to provide such sums as needed, from within available funds, to the Centers, if he so chose. Have any funds been provided to the Centers this year? If so, how much, and to which Centers?

Answer: Despite the continued need, no Institution funds have been provided from this appropriation to the Overseas Research Centers this year because of the stringencies imposed as a result of the Gramm-Rudman-Hollings legislation.

Question: Do you anticipate any further funding requirements this year or in FY 1987?

Answer: The Centers continue to be in need of support. During FY 1986, it is not anticipated that the Institution will be in a position to provide any funds. Support in FY 1987, if any, is yet to be determined.

Question: Would it be useful to the Smithsonian to keep the bill language in, in FY 1987?

Answer: In spite of limited resources, keeping the current bill language would reflect the continued commitment of both the Congress and the Institution to the viability of the Centers.

Museum Support Center Move

Question: P. 185. The request for the Museum Support Center is \$6,366,000, an increase of \$1,686,000 over 1986 adjusted. Included is a program increase of \$1,450,000. What exactly is the increase of \$1,300,000 for the storage system to be used for in FY 1987?

Answer: The increase of \$1,300,000 will be used to acquire the last portion of storage cabinet components (shelves, drawers, special inserts and doors) needed to accommodate the collections to be relocated to the Museum Support Center under the initial move. The unit prices in the existing storage equipment contract for these components terminate on September 30, 1987. Receipt of the full amount requested is necessary to permit acquisition and installation of the quantities required. Failure to receive the increase will result in delay in the move.

Question: If this increase is provided, the total estimated amount for the storage system for the initial move, or \$23,300,000, will have been provided. Did this estimate originally include the cost of the "high-bay" equipment which has been deferred? If so, how much was it estimated to cost?

Answer: The estimate of \$23.3 million for "initial move" equipment shown in the FY 1986 budget request (presented to Congress in January 1985) included an amount of \$1.5 million for "high-bay" storage of equipment.

At the time this information was prepared and presented to Congress, the Institution was still working with the three-tiered metal rack storage system. In March, 1985, the Institution advised the Committee that it was necessary to change to a system using concrete decks and pre-manufactured storage cabinets.

In making this change to the storage system, and after consultation with the General Services Administration and the contractor, the Institution concluded it would be advisable to utilize a portion of the funds available through FY 1986 to complete the concrete decks and utilities in those parts of the storage pods reserved for growth space while the work is being done for the decks and utilities needed for the initial move storage. The reason for this decision has to do with the nature of installation methods involved in the concrete deck system. Dirt and dust produced by pouring concrete in growth spaces in the future would be extremely harmful to collections stored in the pods during the initial move. By completing the concrete installation throughout the pods now, this serious hazard will be avoided.

Application of available funds to complete the decking and utilities reduces the amount remaining in FY 1986 to be applied to the purchase of the storage cabinet unit price components (shelves, drawers, etc.) needed to hold the collections to be relocated to the MSC during the initial move. In preparing its budget request for FY 1987, the Institution took into account the fact that the unit prices for these components are established in the existing contract and will expire on September 30, 1987.

To obtain all of the required components for the initial move before the contract expires, an amount of \$4.6 million (which includes an increase of \$1.3 million over the FY 1986 base) will be needed in FY 1987. This amount, which will bring the total available for the storage system in FY 1987 to \$23.3 million and provide for the needed cabinets and components, does not include funding for the "high-bay" storage equipment. Since the installation of the "high-bay" system will not create the same problems or pose a danger to the collections that will already have been stored at MSC, the Institution decided to defer its acquisition and seek funds for it as part of its budget request for FY 1988.

This adjustment in the sequence of events eliminates a serious hazard to the collections while permitting the Institution to proceed systematically toward the complete and safe utilization of all the storage capacity in the pods in coming years. It advances, for reasons of safety and prudent collections management, the preparation of growth areas originally scheduled for funding and completion in future years and defers for one year the installation of the "high-bay" equipment.

Question: Why is an increase of \$150,000 (for a total of \$862,000) required in FY 1987 for preparing collections for the move? What exactly will the additional funds be used for?

Answer: The increase of \$150,000 is needed for continuation of the process of preparing collections for the move and for the actual transport of collections to MSC. (Delivery of storage cabinets to MSC is projected to start in February 1987.) Move activities during FY 1987 will be more intensive and additional resources will be required to adhere to schedules. The increase will be used to fund eight additional positions on the temporary move work force (\$123,000) and to help provide adequate supplies (\$27,000) for the move effort. The added personnel and supplies will assist with preparation and move of collections from the Departments of Anthropology, Entomology, Botany and Vertebrate Zoology of the National Museum of Natural History and for the move of collections from the National Museum of American History. Needed supplies include such things as cardboard shipping boxes, plastic sheeting, asbestos protective gear and acid-free packing foam.

Question: According to the March Regents' newsletter, production of the collection storage cabinets has not yet begun, and a new subcontractor is being sought. What impact is this additional delay likely to have on your schedule for moving collections beginning in 1987?

Answer: The move schedule has been revised as of March 14, 1986 to reflect the cabinet subcontractor schedule. This schedule is shown below with the schedule submitted to the Committee in April 1985. The storage areas affected by the funds now requested are those labeled "High Density" storage in Pods 1, 2 and 4. Generally, delays of move start times of

about eight months have occurred since the preparation of the schedule in April 1985.

The schedules shown reflect only the time estimates for the actual move of collections to MSC based on the availability of storage cabinets and do not include the time required to clean, prepare and pack collections prior to the move.

Projected Move Schedule (4/29/85):

Pod 3 High Density:	December 1984 - November 1985
Pod 4 High Bay:	October 1987 - August 1989
Pod 1 High Density:	October 1986 - December 1989
Pod 2 High Density:	September 1986 - October 1988
Pod 4 High Density:	November 1986 - February 1989

Re-estimated Move Schedule (3/14/86):

Pod 3 High Density:	December 1984 - October 1985 (completed)
Pod 4 High Bay:	October 1989 - August 1991 (deferred)
Pod 1 High Density:	May 1987 - May 1990
Pod 2 High Density:	May 1987 - May 1989
Pod 4 High Density:	July 1987 - July 1989

Question: When would the new subcontractor have to be on board in order for the cabinets to be ready for the collections during FY 1987?

Answer: The Institution, in consultation with the General Services Administration, has determined that the subcontractor should be on board by June 1986 so that the move can proceed in May 1987 as shown in the schedules given in the answer to the previous question. This would allow time for completion of design and shop drawings and for tooling up for production which should start no later than January 1987 with delivery beginning in February. By May 1987, a sufficient number of cabinets would be delivered and installed at the Museum Support Center to permit the start of collections relocation.

Quadrangle Accounting Service Unit

Question: P. 190. The request for Administration is \$12,504,000, an increase of \$1,069,000 over 1986 adjusted. Included is a program increase of \$25,000 to establish an Accounting Service Unit in the Quadrangle. How many positions will be provided for this Unit (for which 1 workyear is requested)?

Answer: One full time position will be provided for this unit.

Question: Why is an "onsite" accounting unit needed? Why can't these needs be met by the current accounting staff?

Answer: Since 1981, the Accounting Office has provided on-site services in all of the Institution's major facilities. These units, which are equipped with computers tied into the central accounting system, process travel authorizations, advances, and vouchers, process petty cash requests, accept supply requisitions, process invoices for payment, and provide funds availability

information to requesting units. They also provide services to employees such as travelers checks and metro farecards.

The new position will support an Accounting Service Unit planned for the Quadrangle complex. The placement of this ASU would support the financial needs of the National Museum of African Art, the Sackler Gallery, the International Center, and the other programs to be located in this complex.

It must be noted that Federal expenditures at the Institution have increased from \$141 million in FY 1981 to \$188 million in FY 1985. During this period the only significant additions to the Accounting staff have been through the Accounting Service Units to assist in the processing of some 176,000 Institution-wide transactions per month.

Question: \$200,000 was provided in FY 1986 for software development. What will these funds be used for in FY 1987?

Answer: The \$200,000 provided in FY 1986 is part of a total level of funding of \$625,000 for the development of Institution-wide automation systems and software applications. In the current year (based on progress made through FY 1985), these funds were allocated initially as follows: development of a prototype system of the collections information system for museum specimens and objects, using the data on the collection of fishes in the Department of Vertebrate Zoology (\$262,000); acquisition of systems for financial and other management data (\$163,000); and development of computer communications by means of local-area networks among buildings (\$200,000).

For FY 1987, the level of funding of \$625,000 would continue the development of these systems. Budget reductions, including that required by Gramm-Rudman-Hollings, are causing some slowing of progress in management information system development in FY 1986 with the result that while work will take place this year on functional requirements and the development of data models, the actual acquisition of software will be delayed until FY 1987 at a cost in that year of \$225,000. Other components of the FY 1987 request include \$200,000 to extend the prototype collections management system to all science, art and history collections and \$200,000 to extend the local-area network raceway system to additional buildings.

Office of Protection Service Training Program

Question: P. 199. The request for the Office of Protection Services is \$19,340,000, an increase of \$1,975,000 over 1986 adjusted. Included is a program increase of \$817,000. This office provides training for museum security officers from other museums, as well as other police departments. Who pays for such training? Is there any cost to the Smithsonian?

Answer: The Office of Protection Services has provided training for other museum security officers and police departments at no additional cost to the people attending or to the Smithsonian. Although we do not publish a schedule of training classes, our program is recognized as the leader among programs for museum security officers as well as for canine teams, and we have requests each year for outside participation. We make every attempt to accommodate non-Smithsonian students with our own when class space is available, and no extra cost is incurred.

Office of Protection Service Proprietary Security System

Question: By the end of FY 1986, the proprietary security system will be expanded to all Washington, D.C. area facilities. What will be the total cost of this effort? How do operation costs compare to those of the previous system or systems?

Answer: The total cost of the proprietary system, which has been funded since FY 1977, is \$7,305,000. The operational costs of the new system will be about \$550,000 per year. This cost includes personnel, maintenance contracts on computer equipment, spare parts, and major system upgrades of hardware and software to ensure that technology remains current. The previous systems that were installed at the Smithsonian would have had operational costs that would total over \$700,000 in FY 1987, and costs were expected to rise by about 12 percent over that level in each subsequent year. The true value of the system, however, should be measured not in cost savings, but in the vastly improved security and control gained by the installation of a system wholly owned and operated by the Institution.

Question: What use will be made of the funds in your base that have been used for installation since FY 1983? How much is involved?

Answer: The base resources for the proprietary system (\$440,000) will be used for the final increment of the installation contract in FY 1987.

Quadrangle Security Staffing

Question: Of the requested increase, \$420,000 and 21.5 workyears is for 35 additional guard positions and a nurse for the Quadrangle when it opens. Will this provide full staffing from this office for the Quadrangle? If not, what will the total be, and when do you intend to reach it?

Answer: This request provides full security staffing for the Quadrangle. In FY 1988, we will be requesting the annualization of the new FY 1987 positions (14.5 workyears and \$222,000).

Funding for Quadrangle Building Management

Question: P. 203. The request for the Office of Plant Services is \$36,402,000, an increase of \$5,389,000 over 1986 adjusted. Of this increase, \$2,565,000 is for rent and utilities (compared to \$1,921,000 last year); and \$1,202,000 is for a program increase. Since half the request for Quadrangle building management was allowed in FY 1986, out of a request of \$566,000 and 21 workyears, why does the justification state that only 6 workyears and \$159,000 was provided?

Answer: The increase of \$566,000 and 21 workyears was requested for FY 1986 to provide Quadrangle-related support for three offices represented in the Office of Plant Services line item: the Office of Plant Services, the Office of Horticulture, and the Quadrangle Building Manager. Of this sum, an amount of \$321,000 and 13 workyears was requested to establish a Quadrangle Building Management unit that will provide custodial and other support services in the Quadrangle complex. The FY 1986 appropriation allowed half of the request for Quadrangle Building Management, providing \$160,000 and 6.5 workyears. The 0.6 percent across-the-board reduction resulted in a \$1,000 cut, with final funding of \$159,000

provided. The table below provides a summary of Congressional action on the FY 1986 Quadrangle-related increases contained in the OPlantS line-item:

FY 1986 Increases for Quadrangle-related support

	FY 1986 Request		Cong. Action		Conference /1 Level	
	FTE	(\$000s)	FTE	(\$000s)	FTE	(\$000s)
Office of Plant Services	6	205	-3.0	-102	3.0	103
Office of Horticulture	2	40	-1.0	-20	1.0	20
Quadrangle Bldg. Manager	13	321	-6.5	-161	6.5	160
TOTAL	21	566	-10.5	-283	10.5	283

/1 Does not include the effects of the 0.6 percent across-the-board reduction or the FY 1986 Gramm-Rudman-Hollings reduction.

Haupt Garden

Question: An increase of 5 workyears and \$192,000 is requested for the Enid A. Haupt Garden located in the Quadrangle. How much funding was included in your base for the Victorian garden that used to be where the new garden will be? How have those funds been used while construction was underway? Will they be applied to the costs of the new garden?

Answer: The Office of Horticulture designed and supervised the installation of the Victorian Garden in 1975-76 in an area that had previously been occupied by a parking lot and temporary buildings. The four positions and \$51,000 approved in the FY 1977 budget included 2 gardeners for actual maintenance of the Victorian Garden, 1 gardener for installation and maintenance of plantings in "1876: A Centennial Exhibition," and 1 gardener to support production, propagation and delivery of plants from our greenhouse-nursery area to the site of the Victorian Garden.

From FY 1977 until FY 1983, when the Victorian Garden was removed in preparation for the Quadrangle, Horticulture was given added responsibility for the Fragrant Garden, the newly renovated Hirshhorn Garden, the grounds of the Anacostia Neighborhood Museum facility at Fort Stanton, the Smithsonian Institution Service Center, the National Museum of American History Bandstand area, and the Barney Studio House. In FY 1980, 1 position was lost through Institutional reprogramming as a result of the zero base budget process. After removal of the Garden, the 2 gardeners with responsibility for the Victorian garden were reassigned to handle above mentioned areas; and 1 position was reprogrammed to handle the increase in services required for special events and interior plants. Therefore, the four positions and \$51,000 in the FY 1977 for the Victorian Garden are not available for the new Enid A. Haupt Garden. Furthermore, the 4.3% Gramm-Rudman-Hollings reduction in FY 1986 further reduced the Office's ability to care for the Enid A. Haupt Garden.

Question: Who provided the four Victorian greenhouses as a gift in FY 1984? Where are they now? What is the basis of \$20,000 needed to erect them?

Answer: The four Victorian greenhouses were a donation from the estate of R. R. M. Carpenter of Wilmington, Delaware. This bequest included funding (\$10,000) for the dismantling and transporting of the greenhouses to Washington, D.C., at no cost to the Smithsonian Institution. The greenhouses are currently stored at the Office of Horticulture facility at Silver Hill. The \$20,000 requested in the FY 1987 budget is the cost for the basic assembly of the greenhouses, including the construction of the foundation and block walls to which the structure will be attached.

Quadrangle Building Management Support

Question: An increase of \$681,000 and 32.5 workyears is included for Quadrangle-building management division. How much is included in the base for training? Why is the proposed increase of \$10,000 needed?

Answer: The Quadrangle Building Management unit was established in FY 1986 with a base of 6.5 workyears and \$159,000. No training was included in the FY 1986 base due to the short period of time between the hire date and the end of the fiscal year. However, with most of the new employees untrained, it is important that continuing training be provided to fully educate them in the functions they will be performing. The requested increase of \$10,000 will establish a base of funding to train these new employees hired in FY 1986 and FY 1987 (a total of 44 positions), providing approximately \$230 per employee for these costs.

Question: What is the basis of the estimate of \$55,000 needed to purchase supplies and equipment for the new employees?

Answer: An initial \$43,000 was provided in the FY 1986 base for services, supplies and equipment. The base funds covered only the first phase of occupancy of the building during the latter part of FY 1986. The \$55,000 increase is needed to provide full-year program support in FY 1987 for the building management responsibilities in the Quadrangle, including cleaning supplies and paper products (\$25,000); refuse and pest control services (\$10,000); replacement lightbulbs (\$10,000); equipment replacement (\$5,000); and uniforms (\$5,000).

Quadrangle Building Management Staffing

Question: Provide a breakdown of funding and workyears provided for this division with FY 1986 funds, and tie that to the request of 18.5 workyears and \$343,000 requested for the 25 positions approved in 1986.

Answer: The FY 1986 appropriation included partial-year funding of 25 new positions for the Quadrangle Building Management unit (6.5 workyears and \$116,000). For FY 1987, an amount of 18.5 workyears and \$343,000 is required to annualize this funding to provide for the full year costs of these positions. The following table provides a breakdown of the FY 1986 and FY 1987 costs for these positions:

FY 1986 Positions	FY 1986 Budget		Costs to Annualize		Full Year	
			FY 1986 Positions		Costs	
	FTE	\$000s	In FY 1987		FTE	\$000s
Facilities Manager	0.38	15	0.62	27	1.0	42
Supply Clerk	0.15	2	0.85	12	1.0	14
Shipping Clerk	0.15	3	0.85	13	1.0	16
Clerk/typist	0.37	6	0.63	8	1.0	14
General Maintenance						
Foreman	0.15	3	0.85	25	1.0	28
Electrician	0.15	4	0.85	18	1.0	22
Maintenance Mechanics (2)	0.25	5	1.75	39	2.0	44
Custodial Foreman	0.35	6	0.65	18	1.0	24
Custodial Leader	0.30	5	0.70	11	1.0	16
Custodial Workers (6)	1.75	26	4.25	64	6.0	90
Labor Leader	0.35	6	0.65	12	1.0	18
Laborers (7)	1.85	29	5.15	83	7.0	112
Forklift Operator	0.30	6	0.70	13	1.0	19
TOTAL	6.50	116	18.50	343	25.0	459

SPECIAL FOREIGN CURRENCY PROGRAM

Question: P. 209. There is no request for the Special Foreign Currency Program in FY 1987, compared to \$2,378,000 (after Gramm-Rudman) in FY 1986. What is the reason for requesting no funds in this program in FY 1987? What will be the impact if no funds are provided?

Answer: The Institution's request to OMB for \$2,000,000 for the Special Foreign Currency Program (SFCP) in FY 1987 was disallowed, appealed, and disallowed again. The 1986 no-year appropriation of \$2,378,000 will cover the final Moenjodaro contribution at \$1,020,000, leaving \$1,358,000 for the grants program. This amount will cover current activity including multiyear grants to bring ongoing projects to reasonable conclusion. However, it will severely limit the funding of new projects, such as those which might be expected to develop with the initiation of a U.S.-Pakistan Joint Commission encompassing science and technology, and education and culture. Because the Smithsonian SFCP, offers grants to U.S. scholars in disciplinary areas not covered by most other SFCP's specifically humanistic studies, a large segment of scholars will have no access to U.S.-owned Pakistani rupees. Pakistan will probably go off

the excess currency list in about two years, but the Smithsonian will be unable to capture any of these funds for future use. It is anticipated that the Smithsonian will request funding for this program in FY 1988.

RESTORATION AND RENOVATION OF BUILDINGS

Status of General Post Office Building Planning

Question: P. 215. The request for Restoration and Renovation of Buildings is \$12,828,000, an increase of \$2,292,000 over the 1986 adjusted level. \$250,000 is requested for improvement of attic space at the NMAA/Portrait Gallery building, to provide storage space. What is the status of your plans for the General Post Office building? If you were proceeding with restoration of that space, would this project in the attic be necessary?

Answer: Plans for the General Post Office Building are being held in abeyance until the completion of a management study concerning the use of the building. Once this study is complete and a timetable has been established for the relocation of the Tariff Commission, and within the limitations of the President's five-year budget projections, a program will be forwarded to the Congress requesting funds for design and subsequent implementation. It appears at present that it may be some years before the new building becomes available for use. In the meantime, storage space is urgently needed to relieve overcrowded conditions of the painting and sculpture collections of the National Museum of American Art. The fourth floor attic on the G Street side is currently unoccupied, but ductwork now in place on the floor makes it unusable. The ducts will be raised to allow access and increase floor space, and modifications necessary to make the space acceptable for collections storage will be made. Preliminary findings of the management study indicate that this space will be needed for collections storage even when the General Post Office Building is renovated.

Arts and Industries Building

Question: \$2,500,000 is requested to complete the exterior renovation of the Arts and Industries building. Of the \$12.9 appropriated for this project from FY 1981 through FY 1986, how much has been obligated? What in particular is the status of the \$2.5 million appropriated in 1985, and \$1.5 million appropriated in 1986?

Answer: Of the \$12.9 million appropriated for the Arts and Industries Building exterior renovation from FY 1981 to FY 1986 all but \$25,000 has been obligated as of March 1986. The \$2.5 million appropriated in 1985, and \$1.5 million appropriated in 1986 have been obligated for the Phase IV and Phase V construction contracts respectively. The work under Phase IV will be completed in April 1986 and the work under Phase V, which began in March, will be completed in January 1987.

Question: Will you be able to obligate the entire \$2.5 million requested for FY 1987 in one year, or could this amount be spread over two years? What would be the consequences?

Answer: We expect to obligate the full amount of \$2.5 million requested for FY 1987 in the early part of the fiscal year. The work involved for this final

phase of the exterior renovation includes removal and replacement of the building's southwest quadrant roof. If the work were over two years instead of one, it would increase the cost as well as the disruption to the public and staff.

Fire Detection and Suppression

Question: A total of \$1,210,000 is requested for fire detection and suppression systems (p. 218). Do you believe the amounts you are requesting are adequate to provide protection against fire in the Smithsonian facilities? In particular, would it be possible, and would you recommend, proceeding more quickly with fire protection projects in the Natural History and American History buildings?

Answer: In determining adequacy of funding for fire protection work, the Institution must weigh the risk factor against practical aspects of conducting extensive work in a building without disrupting public programs and staff activities. In many cases, fire protection work can be conducted with other construction activities to minimize the dislocation of staff and inconvenience to visitors. This is the case in the Museums of Natural History and American History where the fire protection work is being carefully phased in coordination with other work in each area of the building. It would not be possible to accelerate this work without closing major portions of the buildings. It is our judgement that although a certain amount of risk of fire exists in these buildings, it is not significant enough to warrant the large-scale disruption to public programs that would be involved if this work proceeded more quickly.

Question: Why has the expected amount of future funding for the Air and Space Museum almost doubled, from \$400,000 in last year's justification to \$700,000 this year?

Answer: The expected amount of future funding for fire protection devices and systems for the National Air and Space Museum increased from \$400,000 in the FY 1986 justification to \$700,000 in FY 1987 as a result of more detailed analysis by the fire protection consultant and Smithsonian staff. Previous estimates were based on preliminary findings. Also, the current estimates include an amount for FY 1991, not projected in the FY 1986 justification.

Question: Similarly, last year, future year funding for the Arts and Industries building was identified as \$300,000; it is now \$2,000,000. Please explain.

Answer: With regard to the change in future year funding projected for fire detection and suppression systems in the Arts and Industries building, the FY 1986 request was based on continuing improvements without changing the space configuration or use of the building. The future year funding shown in the FY 1987 budget reflects changes to existing systems to accommodate anticipated major changes that have resulted from a recently completed analysis of space use in the building.

American History Building

Question: \$1,880,000 is requested for utility systems repairs and improvements. Why has the future year funding for projects in the American History building increased from \$4.8 million to \$7.8 million?

Answer: At the Museum of American History, the future year funding for improving the heating, ventilating, and air-conditioning systems has increased since the start of the planning process in 1985 from \$4.8 million in FY 1986 to \$7.8 million in FY 1987 as the result of a more definitive understanding of the coordination and phasing required to integrate the technical installation of the work with the programmatic requirements over a period of years. In addition, escalation caused by the shifting of the completion of the project from 1990 to 1991 and asbestos removal associated with demolition increased the overall cost.

Natural History Building

Question: \$175,000 is included in this request, to continue the design and evaluation process for the Natural History building. When do you expect to complete the design and evaluation?

Answer: At the Museum of Natural History, we expect to complete the evaluation by the end of September 1986. This will provide a conceptual plan of the system required. Funding provided in FY 1986 and anticipated in FY 1987 will be used for more detailed planning and design. As the overall system is so complex, it is expected that the design process will proceed incrementally throughout the project.

Question: Do you still expect the total cost of required renovations to cost \$54.5 million? When do you expect to request initial funding to begin these projects? How long will it take to complete all projects?

Answer: At this time we expect that the total cost of the required renovations may be as high as \$54.5 million. We anticipate that the FY 1989 budget will be the initial request for construction funding, and based on an average yearly funding of \$6.5 million, eight to nine years will be required to complete the program.

American History Building Master Implementation Study

Question: A total of \$5,688,000 is requested for other projects. Will the master implementation study for the American History building be completed by this spring, as the justification indicates?

Answer: We expect the master implementation study for the Museum of American History to be completed by May 1986.

Arts and Industries - Heating, Ventilating, Air and Conditioning System

Question: Under the Arts and Industries building section, the justification indicates that \$300,000 appropriated in FY 1986 will be used to begin design of the renovations for upgrading the HVAC system, and an additional \$300,000 requested in FY 1987 will continue the design. Last year, the budget justification stated (p. 226) that the \$300,000 requested was to begin construction of permanent building alterations based on the comprehensive space study. Please explain what exactly the 1986 funding is being used for, and why the use has changed since last year's justification, if that is the case.

Answer: An amount of \$300,000 was requested and appropriated for permanent changes to the Arts and Industries building for FY 1986. Of this amount, only \$150,000 is available at this time as a result of the Gramm-Rudman-Hollings cut

to the R & R account. These funds are being used to develop office space on the third floor of the Southeast Pavilion, an area that previously housed a photographic laboratory and print service which moved to the Museum of American History building. The remaining funds, had they been available, would have been used to begin the design of future modifications to the Building upon review and acceptance of the recently completed master plan. Funds requested in FY 1987 will be used to begin this design effort.

The use of the funds appropriated in FY 1986 has not changed. The FY 1987 justification explains that the \$300,000 appropriated in FY 1986 would be used to begin design of the renovations for upgrading the HVAC system "as well as modifications to the administrative and exhibit spaces of the building." Any major renovation to a building has an impact on the HVAC system serving it, especially when the use of particular spaces change. In fact, in addition to providing more effective space for programmatic activities, one of the goals of renovating the A & I building at this time is to provide overall better climatic conditions and more energy efficient operation. The present HVAC system cannot provide the proper environmental conditions necessary to house collections exhibited in the building. The exterior work, which has been undertaken over the last several years, is the first step in the process of improving this situation. This process will continue, with a major overhaul of the HVAC system to take place concurrently with the modifications to the space.

Arts and Industries Construction

Question: \$200,000 is also requested for construction of temporary work areas in the A & I building. \$300,000 was requested for this purpose in FY 1986. Is the total of \$500,000 all that will be required for this project? If not, how much additional funding is expected to be required?

Answer: The \$300,000 requested in the FY 1986 budget for temporary relocation of units affected by the renovation work associated with the facade has been reduced by \$150,000 in order to meet the reductions under the Gramm-Rudman-Hollings deficit reduction bill. A total of \$500,000 would have been sufficient to accomplish the temporary moves. However, since this work is required in conjunction with the facade project to be completed in FY 1987, the Institution will revise its plans to fit available resources. Assuming the \$300,000 request for FY 1987 is sustained, we do not anticipate requiring additional funding in FY 1988.

Question: \$300,000 is also requested to begin construction for the relocation of computer equipment. When will you know what location will be selected for this relocation? What sites are being studied?

Answer: At the time of the submission of the FY 1987 budget to Congress, it was anticipated that the computer facility would be relocated to another building. More recently, it was decided to keep the computer facility in its present location permanently. During the exterior renovation of the Arts and Industries building, however, the portion of the roof above the computer facility will have to be removed. In order to allow this work to proceed while the computer facility continues to operate, a contained environmental control structure will be built within the computer facility to maintain the strict environmental controls required by central computer operations. At the same time, the

exterior work will necessitate the removal of the HVAC equipment for the computer facility that had been installed on the roof; the new HVAC system will be designed to operate independently of the system for the rest of the building, ensuring greater control of the environmental conditions within the computer facility. The funding requested in FY 1987 will be used to ensure the proper environmental conditions for the computer facility during the renovation of the building and to provide the permanent HVAC system dedicated to the computer facility.

Hirshhorn Space Use Master Plan

Question: \$125,000 is requested to complete the space use master plan for the Hirshhorn, and fund the design of the first phase of the required modifications. Do you know how much will be required in the future to fund the required modifications?

Answer: At this time we do not have an estimate for the funding required to accomplish modifications at the Hirshhorn Museum. Planning figures will be developed as part of the master plan. Since the master plan process is expected to be completed by March 1987, the kind of modifications and related cost data will be available for the FY 1988 budget submission.

Whipple Observatory Dormitory

Question: \$45,000 is requested for design of a new dormitory to replace the existing dormitory at the Whipple Observatory in Arizona. You are proposing to replace the dormitory because it is "vulnerable" to brush fires. Why isn't it possible to modify the dormitory to make it more fire-safe, rather than replace it?

Answer: The site of the current dormitory is located at the top of a cleft of the mountain ("a natural chimney") located above a popular hiking area. In addition to the possibility that the building could be consumed by a fire that started below and spread up the mountain, the physical characteristics of the location make the current dormitory particularly "vulnerable" to the spread of smoke rising up the cleft, even if the fire itself does not spread up the mountain. We believe that it would not be economical to modify the building at the current site to provide the necessary protection from the dangers of smoke inhalation to the scientists sleeping in the dormitory. Several other sites have been identified that would be free from such a source of smoke inhalation. The requested funding for FY 1987 includes money to conduct a study to determine the most appropriate of these possible locations for the new dormitory and to initiate its design.

Question: Is there any other reason for replacing this dormitory, built in 1973? Is it otherwise in good condition? What will be done with the existing facility if it is replaced?

Answer: The building was never intended to be a permanent dormitory. It consists of a prefabricated Navy building, obtained by SAO as excess government property in 1973, as a quick and inexpensive means to provide sleeping and living quarters for the scientists using the newly-completed Whipple Observatory. Its replacement was called for as early as 1977 in the Observatory's Five Year Development Program.

The dormitory has several serious shortcomings. Nearby road traffic, poor temperature control, and building noises caused by wind and diurnal temperature changes all make sleeping in the building difficult. Moreover, even though the building has been maintained since it was erected, the expansion and contraction of the "sandwich" metal structure continues to cause water leaks and contribute to the noise problems within the building. Because these problems are intrinsic to the design characteristics of this type of prefabricated building, correction has not been possible.

If this building is replaced with a new dormitory, the current structure could be reused as a storage area, after removal of the prefabricated building and the addition of a roof over the existing masonry floor. As a location for storage, the current site would be adequate because the danger of smoke inhalation would not be a critical factor. At this time there are no detailed plans for this modification.

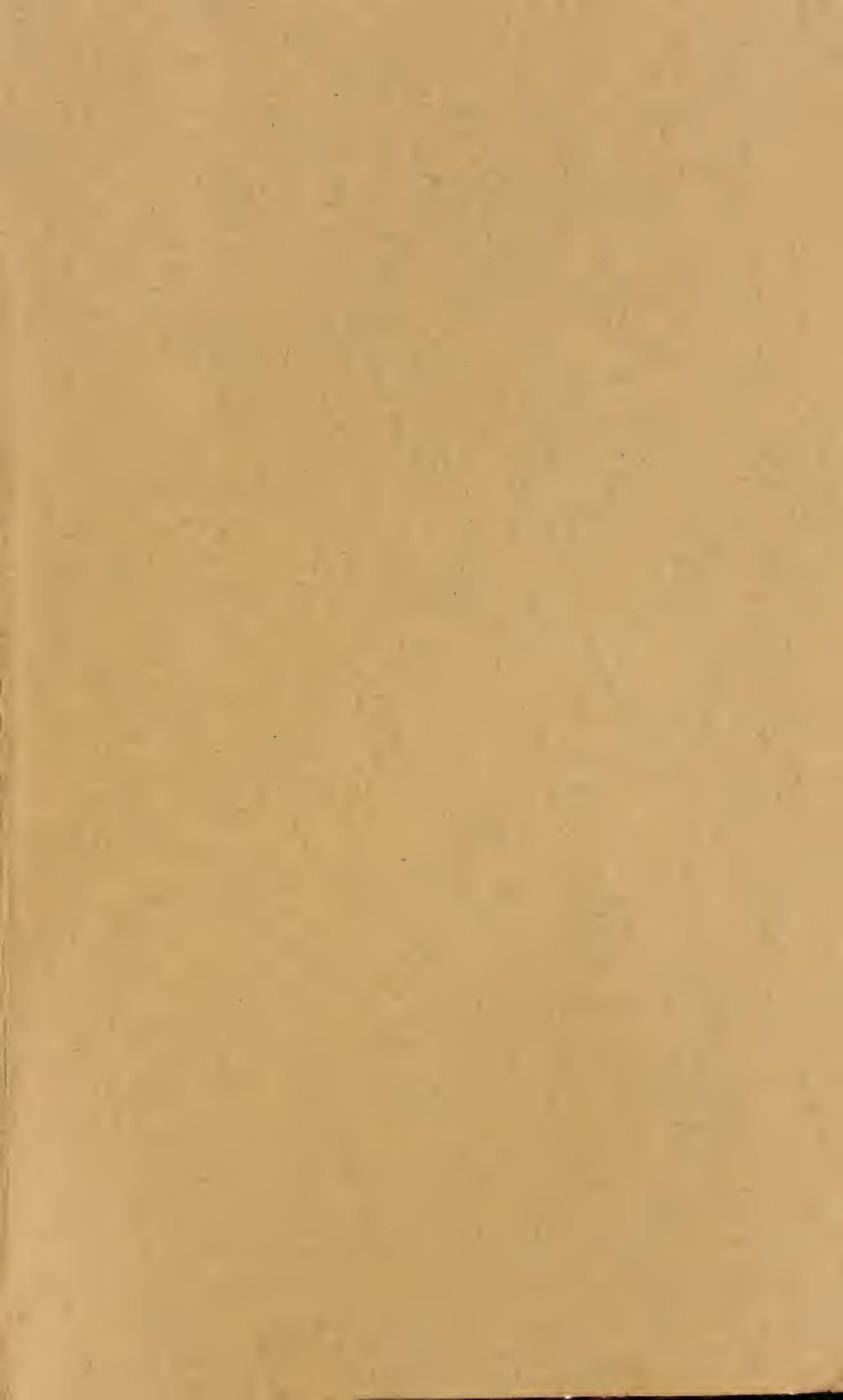
Question: If the dormitory is "vulnerable" to fire where it is located, why was it built there? How much "less vulnerable" would other sites on the mountain be?

Answer: The site of the present dormitory was the only flat space available at that time. No funds existed to develop a better site. It was intended to be a temporary site only. Moreover, it appears that, at the time, it was not appreciated that the site presented a fire hazard.

None of the sites under consideration for the new dormitory has any known special vulnerability to fire and smoke. We estimate that the fire hazard from the surrounding area would be at least tenfold less at the new sites under consideration than at the present site.

Question: Will the new dormitory be the same size as the old one?

Answer: No. The new dormitory will be larger. There are now ten sleeping rooms serving the Ridge telescopes, seven in the old dormitory and three in the nearby laser building. Ten rooms are planned for the new dormitory so that the three rooms in the laser building can be returned to scientific use.



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