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**DEPARTMENT OF THE INTERIOR AND RELATED
AGENCIES APPROPRIATIONS FOR 1974**

HEARINGS
BEFORE A
SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES
NINETY-THIRD CONGRESS
FIRST SESSION

**SUBCOMMITTEE ON DEPARTMENT OF THE INTERIOR AND
RELATED AGENCIES**

JULIA BUTLER HANSEN, Washington, *Chairman*

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PART 2

Bureau of Sport Fisheries and Wildlife

Bureau of Outdoor Recreation

Land and Water Conservation Fund

National Park Service

✓ Smithsonian Institution p772



BUDGET PRESENTATION

Mrs. HANSEN. Mr. Secretary and Mr. Smith, I want to compliment you on an excellent presentation. I can't compliment you on all the details of the budget, but I recognize that you have other difficulties. We have enjoyed your charts and we particularly enjoyed the sketches.

Mr. REED. Thank you, Madam Chairman.

THURSDAY, MARCH 15, 1973.

SMITHSONIAN INSTITUTION

WITNESSES

S. DILLON RIPLEY, SECRETARY
 ROBERT A. BROOKS, ASSISTANT SECRETARY
 CHARLES BLITZER, ASSISTANT SECRETARY FOR HISTORY AND
 ART
 DAVID CHALLINOR, ASSISTANT SECRETARY FOR SCIENCE
 JULIAN T. EUELL, ACTING ASSISTANT SECRETARY FOR PUBLIC
 SERVICE
 PAUL N. PERROT, ASSISTANT SECRETARY FOR MUSEUM PROGRAMS
 RICHARD L. AULT, DIRECTOR OF SUPPORT ACTIVITIES
 JOHN F. JAMESON, DIRECTOR OF PROGRAMING AND BUDGET
 MICHAEL COLLINS, DIRECTOR, NATIONAL AIR AND SPACE MUSEUM
 THEODORE H. REED, DIRECTOR, NATIONAL ZOOLOGICAL PARK
 DAVID F. HERSEY, PRESIDENT, SMITHSONIAN SCIENCE INFORMA-
 TION EXCHANGE, INC.
 JAMES BRADLEY, RESEARCH ASSOCIATE

INTRODUCTION OF WITNESSES

Mrs. HANSEN. This morning we have the Smithsonian Institution and our principal witness is S. Dillon Ripley, Secretary of the Smithsonian.

Would you introduce the members of your staff to the committee at this time, Mr. Ripley?

Mr. RIPLEY. Thank you, Madam Chairman.

I have with me Mr. Brooks, the Assistant Secretary;

Mr. Blitzer, Assistant Secretary for History and Art;

Mr. Euell, Acting Assistant Secretary for Public Service; and

Mr. Jameson, our budget officer, all in the front row here.

I also have a group of potential witnesses: Dr. Reed, of our Zoo; Dr. Challinor, Assistant Secretary for Science; Mr. Collins, Director of the Air and Space Museum; and Mr. Wheeler, Treasurer of the Institution.

We will have other witnesses.

Mrs. HANSEN. Where is Mr. Bradley?

Mr. RIPLEY. Mr. Bradley and possible other witnesses are waiting in the wings, as it were, in case we can have their testimony later.

GENERAL STATEMENT

Mrs. HANSEN. I am sure you have a general statement. Please insert it in the record and summarize it for us.

Mr. RIPLEY. I would be pleased to do so.

[The statement follows:]

STATEMENT OF S. DILLON RIPLEY, SECRETARY
SMITHSONIAN INSTITUTION
ON APPROPRIATIONS REQUESTED FOR FISCAL YEAR 1974

Chairman and Members of the Committee:

We are grateful for this opportunity to present the Smithsonian Institution's program plans for the budget year 1974 and to review with your Committee our accomplishments and current activities.

Founded in 1846, our Institution is an independent establishment devoted to basic research, documentation, public education, and care of the national collections in the arts, sciences, and history. Centered on the Mall in Washington, D.C., it also operates major facilities and activities elsewhere in Washington, across the country, and overseas. One of the world's leading study centers, the Smithsonian is also the world's largest museum complex, attracting, with the National Zoological Park, some twenty million visits yearly as well as additional millions who view traveling exhibits. We have in our collections more than 70 million objects and natural history specimens, only a few percent of which are on public display. The rest are available for scholarly research by our own staff and many hundreds of visiting students, scientists, and historians. In addition, important research, not associated with collections, is performed in the fields of astrophysics, biology, and the environmental sciences. These public services have been made possible by your committee's continuing strong interest and support. We are most appreciative.

Notable Events of the Past Year

Our many contributions and accomplishments will be described in the course of our testimony today. In addition, a full statement of our program and financial operations appears in our annual report for FY 1972 Smithsonian Year, copies of which have been provided to the Congress. At this point, I would like to mention only a few recent events which illustrate the scope of our work and public involvement with the resources provided from public and private sources.

--Visitor attendance in FY 1972 to our buildings on and near the Mall was over 15 million, an increase of about 1,200,000 visits over the previous year. An additional 4 - 5 million visits were at the Zoo and some 50,000 persons came to the Anacostia Museum. It is estimated that approximately 75 percent of our visitors come from outside Washington, D.C. and the Metropolitan area. About 4 million persons viewed traveling exhibitions and many hundreds of student and professional visitors came to our astrophysical and biological research centers in Cambridge, Massachusetts, and Panama respectively.

--In the research area, we completed a monumental study of the Glass Mountain, Texas, fossil fauna, the largest and most complete fossil fauna in the world. We also produced the first star catalog of ultraviolet stellar magnitudes. This data was derived from the Telescope Experiment built by our Astrophysical Observatory and flown on NASA's Orbiting Astronomical Observatory II.

--Many significant new exhibitions have been presented to the public this past year. In the National Museum of History and Technology, the permanent Halls of Money and Medals, Graphic Arts and Printing, Stamps and the Mail, News Reporting (funded by a private donation), Photography, and the Special Exhibits Gallery now occupy the area heavily damaged by fire in September 1970. This Museum also opened a pertinent and timely exhibition on American Productivity. At the National Portrait Gallery, the temporary exhibitions "Portraits of the American Stage 1771-1971" and "If Elected - Unsuccessful Candidates for the Presidency 1796-1968" received critical acclaim. Among the many outstanding exhibitions produced by the National Collection of Fine Arts were "The Religious Impulse in American Art, 1770-1900," "The National Parks and the American Landscape," and, at the Renwick, "Objects for Preparing Food." In the Arts and Industries Building, the Institution opened a major exhibit to educate the public in understanding drugs in our culture. Also in this building, the National Air and Space Museum presented new and exciting exhibits on Ballooning and a World War I fighter aircraft base. And I hardly need say how tremendously popular the Pandas have been at the Zoo.

--Important milestones for Smithsonian installations in the Capital were the final National Capital Planning Commission approvals of the Master Plan for the Zoo's redevelopment and of the design of the National Air and Space Museum building. I am pleased to report that work on this Museum is presently on schedule and below budget estimates.

--And, finally, I would like to mention the tremendous success of the Smithsonian Magazine. Subscriptions are projected at 400,000 for June 30, 1973, as compared with 308,000 a year ago. This is a remarkable performance for this three-year old, privately-funded venture. We are actively exploring additional ways, including television, to fulfill the Institution's educational potential.

Budget Requests for FY 1974

I would like now to summarize and highlight our budget requests for FY 1974. In total we are requesting appropriations of \$99,173,000, presented in several appropriation accounts:

(In thousands of dollars)

	<u>FY 1973</u> <u>Appropriations</u>	<u>Requested</u> <u>Increase</u>	<u>FY 1974</u> <u>Estimate</u>
Salaries and Expenses	\$51,633	\$ 4,805	\$56,438
Science Information Exchange	1,600	65	1,665
Special Foreign Currency Program	3,500	5,500	9,000
Construction and Planning	18,689	13,381	32,070
	<u>\$75,422</u>	<u>\$23,751</u>	<u>\$99,173</u>

This is a substantial budget request. Looking at each account, I would like to explain why these funds are relevant to national needs and important for FY 1974.

Salaries and Expenses

We are seeking an operating budget of \$56,438,000 for some 45 museums, art galleries, research laboratories, special programs, and supporting activities as detailed in our budget submission. This is an increase of \$4,805,000, or about nine percent on the FY 1973 base of \$51,633,000. Of this increased amount, \$750,000 is to meet the anticipated costs of legislated periodic step increases and Wage pay raises for currently authorized levels of employment. The balance, a net amount of \$4,055,000, is for program improvement and development to meet the following Smithsonian objectives.

Meeting Mandatory Commitments

An amount of \$2,308,000 and 91 new jobs are essential in order to carry forward those important projects to which we are committed by Congressional authorization or direction. These commitments include the National Air and Space Museum, the American Revolution Bicentennial, and the Hirshhorn Museum and Sculpture Garden.

A major funding increase is required by the National Air and Space Museum to meet the Institution's commitment to open the new Museum on the Mall on July 4, 1976. In order to do this, it is imperative that research be undertaken and completed, collections documented and restored, and exhibits planned, designed, constructed, tested, and stored for later installation while the building is under construction. An amount of \$765,000 and 20 new positions are required for this effort.

With regard to the Bicentennial, we will contribute to commemorative activity across the Nation. We will also be a focal point for the Washington, D.C. celebration. We must be ready to meet official and

public expectations of our performance. An increase of \$1,000,000 for a total program effort of \$1,754,000 is needed to continue the preparation of exhibits, scholarly projects, and national outreach activities which we have begun.

We anticipate opening the Hirshhorn Museum and Sculpture Garden in the Spring of 1974. Additional museum staff, as well as building maintenance, custodial, and protection personnel will be essential to meet this target date and to assure that the Museum can serve the public effectively after opening. An additional \$150,000 and 14 new positions are requested for the Museum's operations. The protection, maintenance, and custodial functions will require a further 57 positions and \$393,000.

Meeting these needs has our top priority.

Correction of Operational Support Deficiencies

We are seeking an additional \$1,202,000 and 88 new positions for a limited extension of a phased program we have discussed with you before. This is the correction of certain deficiencies in the stewardship of the national collections, in the maintenance and protection of existing buildings and facilities, and in the support of research. These funds by no means will solve the full range of operational support problems we have identified. They will help in certain critical areas.

The research effort throughout the Smithsonian in science, history, and art is the very important basic work from which come publications, exhibitions, and education programs of great relevance and practical applicability to the information needs of government agencies, colleges, universities, and others. With your support in previous budgets, we have begun to correct serious shortages of technicians, research assistants, and funds for laboratory operations and field studies. This continues to be an important internal commitment. The FY 1974 budget contains a request for \$360,000 and 13 new jobs for the National Museum of Natural History, the Smithsonian Astrophysical Observatory, the Chesapeake Bay Center for Environmental Studies, and the Center for the Study of Man.

The documentation and care of the collections is a national responsibility that has received too little attention for too long. We need additional funds for such activities as the establishment in the National Museum of History and Technology of a collection inventory and management system that will tell us what we have and where it is for research purposes and to answer public inquiries. We must conserve objects in the collections to avoid deterioration and loss. We need to locate, document, and protect valuable archival materials for public reference. And we must augment with library reference resources the data associated with collections and research. An additional amount of \$330,000 and 13 new positions are requested for these needs.

And, finally, increased funding of \$512,000 and 62 new jobs are urgently required to maintain, operate, and protect buildings. Heavy visitor use, rising prices, threats to public safety, and an essential need to give more adequate preventive maintenance and custodial care to a valuable physical plant make this funding an important requirement. We have separately identified the Office of Protection Services in our budget request in recognition of its very important role in safeguarding our buildings, collections, and visitors.

Response to a Growing Public

A further \$776,000 and 27 additional positions are requested for our general exhibition, education, and outreach programs. These are the programs of greatest impact on the rapidly rising numbers of visitors to our museums, art galleries, and zoo, and to the museum public across the nation. We must not fall too far behind in attempting to meet these growing demands. This request includes such diverse but kindred activities as the care and exhibition of the animal collections at the National Zoological Park and the public program at the Renwick Gallery, which since opening about a year ago has had well over 200,000 visitors. It also includes our school tour and education program in our museums and galleries and the preparation of new exhibits and the maintenance and upgrading of older, worn exhibits for the pleasure and education of visitors.

The proposed budget also provides additional funding for such important outreach and national service activities as the Anacostia Neighborhood Museum, especially its exhibits training and production laboratory for inner-city minority group people; the Folklife Festival on the Mall which annually attracts over a half million persons; the Smithsonian Traveling Exhibition Service; the National Museum Act; and the research report and exhibits catalog publication program of the Smithsonian Press. Much of this effort is of direct benefit to those persons who cannot or do not visit our major museums or other buildings in Washington.

Program Administration and Direction

In the final category under "Salaries and Expenses," we are requesting an increase of \$299,000 and 16 positions for general program administration and direction to help manage and support a large and complex organization. These resources will be used for administration at the Institutional level, postage indicia costs and financial management, career training and employee development, internal audit, equal opportunity programs, mathematical analysis in support of research, procurement services, management analysis, and printing duplication services.

Science Information Exchange

The budget request for FY 1974 for the Science Information Exchange is \$1,665,000, an increase of only \$65,000 over the FY 1972 and 1973 levels, for this national information system on research in progress. This proposed budget will only cover the costs of the staff currently supported by Federal funds and the Federal portion of anticipated increases in primarily fixed operating expenses, such as building space and computer equipment rental. Our budget submission outlines a number of actions which the Smithsonian and the Exchange have taken to help correct the problems noted in the August 1972 General Accounting Office report regarding the completeness and timeliness of the Exchange's data base. As a result of our collective efforts, we expect an increase in project information input by those Federal agencies and others supporting research. Use of the Exchange is also growing as demonstrated by a steady rise in user charge income.

Special Foreign Currency Program

The requested budget increase for FY 1974 for the Special Foreign Currency Program is \$5,500,000 for a total funding level of \$9,000,000 in excess foreign currencies. The basic program provides grants to American institutions of higher learning for overseas archeological work, systematic and environmental biological research, astrophysical and earth sciences studies, and museum programs. It has benefitted more than 200 museums, universities, and research institutes in 32 states.

The budget request would allow us to meet the demand reflected by the constant flow of new and meritorious research proposals and to respond to the high priority assigned by both the United States and by excess currency host countries to research which includes a phase devoted to applying the results of the basic studies as, for instance, the application of ecological data to the development of sound pollution control programs. Important new collaborative research opportunities have opened up, especially in India, Pakistan, Burma, and Poland.

The FY 1974 funding level would also be used to complete with one final payment of \$4,000,000 equivalent in "excess" Egyptian pounds the United States' contribution to UNESCO's international campaign to preserve archeological monuments in Nubia. These are threatened by the waters of the Nile River as regulated by the Aswan Dam. This payment will support the preservation work proposed by Public Law 86-472 and supported by President John F. Kennedy in his letter to the Congress dated April 6, 1961.

Planning, Construction, Restoration, and Renovation
of Buildings and Facilities

Our budget request for the planning, construction, restoration, and renovation of buildings and facilities totals \$32,070,000. This request is distributed among three appropriation accounts.

Planning, construction, and repairs at the National Zoological Park	\$ 3,850,000
Restoration and renovation of other buildings and facilities	\$ 1,220,000
Construction of the National Air and Space Museum (liquidation of contract authority)	\$27,000,000

The request of \$3,850,000 for Zoo construction and improvements is designed to begin to implement the approved Master Plan with the goal of producing animal exhibits, visitor services and staff support facilities that are fully in keeping with the National nature of this Zoo. Of the budget request, an amount of \$3,000,000 will be used for a major, natural environment-like exhibit for lions and tigers, thus replacing the present Lion House constructed in 1890 which is a dangerous fire hazard as well as an unsatisfactory exhibit. Planning funds in the amount of \$275,000 are in the FY 1973 appropriation.

An amount of \$620,000 will be used for planning a terraced visitor parking structure to also house the maintenance shops and storage, commissary, and police operations. These funds will be used also to design a new primate exhibit, to design the exterior and interior changes to the existing Elephant House, to design outdoor exhibits of waterfowl and other birds, and to design a new restaurant near the Harvard Street entrance.

And, finally, an amount of \$230,000 is required to continue the program of essential repairs and renovation of existing facilities to keep the Zoo open and available to the public during the Master Plan development.

An appropriation of \$1,220,000 is sought for the restoration, renovation, and improvements to other Smithsonian buildings and facilities. These funds will be used to continue the road and power improvements, initiated with the FY 1973 appropriation, at the Mt. Hopkins, Arizona, Observatory (\$385,000); to increase the utility of the Silver Hill, Maryland, storage and restoration facility (\$250,000); and to finish architectural plans and specifications for construction of additional library space in the National Museum of History and Technology (\$100,000).

They will also be used in several Smithsonian buildings and facilities to make improvements and repairs to prevent further deterioration, ensure public safety, enhance appearance, and facilitate the program operations of the research organizations, museums, galleries, and other organizations using these spaces (\$410,000). And, finally, they will be used to undertake the study and development of a master plan for Smithsonian facilities in the Washington, D.C. area (\$75,000).

The last item under this general construction heading is for \$27,000,000 to liquidate the National Air and Space Museum construction contract authority provided by the Congress in the FY 1973 budget in addition to the \$13,000,000 appropriation in that budget.

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This completes my summary presentation of the Institution's budget request for next year. For over 125 years we have provided the American people with greater knowledge and appreciation of their natural and social environment and their cultural and technological achievements and heritage. With your support, we will continue and improve our efforts.

GENERAL STATEMENT

Mr. RIPLEY. Thank you very much.

It is a pleasure to be here again, as always. We depend very strongly on the committee's support in our work. All of you, I know, are aware of our activities and annual events because we have submitted our 1972 annual report to the committee.

Our visitor attendance I think, is particularly interesting. I drew attention to it in my statement at the beginning of the annual report this year. I have been much concerned, as I am sure members of this committee have been, with the weight of the public visitation on Washington, D.C., from across the Nation and abroad. In my report, I emphasized that the Smithsonian receives the brunt of this. I am sure that all members of the Congress with visitors flowing into their offices, are aware of the fact that so many of them wish to visit what is generally known as the Smithsonian but which consists of this complex of buildings on and near the Mall and, of course, at the zoo.

In the past year we had about 20 million visits, counting Smithsonian buildings and the National Zoological Park.

Mrs. HANSEN. How does this compare with 1960?

Mr. RIPLEY. Very considerably more. It is almost 100 percent more than we had in 1960.

NUMBER OF VISITATIONS

Mrs. HANSEN. Please insert in the record the number of visitations from the year 1965 through 1972.

Mr. RIPLEY. Yes.

[The information follows:]

Visitations to the Smithsonian Institution, 1965-72 (includes the zoo and Anacostia Neighborhood Museum)

1965	-----	17, 690, 013	1969	-----	16, 329, 630
1966	-----	16, 534, 354	1970	-----	18, 666, 402
1967	-----	18, 300, 186	1971	-----	18, 960, 108
1968	-----	16, 398, 897	1972	-----	21, 236, 123

NATIONAL NATURE OF VISITORS

Mr. RIPLEY. Except for a falloff after the riots in 1968 when the visitations went down significantly, there has been a dramatic climb since the early 1960's. In this past year, we have attempted to survey where our visitors come from. We have discovered that on the Mall fully 75 percent of our visits are from people out of the surroundings of Washington and the city. This is an extraordinary number because it means that we are a national institution. We have broken down these visits by regions and area of the States, and we find that, as one might suspect, the considerable majority of these, about 62 percent, are from the Northeastern and Southern States. The numbers from the North Central States and the Far West are extraordinarily high, about 25 and 12 percent respectively. It means from any State of the Union we may have now tens or hundreds of thousands of visitors. The visitations from the West particularly have been increasing steadily apparently. Now, at the Zoo, the national percentage of visitors may be slightly different because of its location. We feel that about 50 percent of the Zoo's visitors come from outside the metropolitan area.

NUMBERS OF SCHOOLCHILDREN

Mrs. HANSEN. Also insert in the record what percent of your visitations are schoolchildren.

Mr. RIPLEY. Yes.

[The information follows:]

NUMBERS OF SCHOOLCHILDREN

The Smithsonian has become more involved with tours for schoolchildren in recent years. There were approximately 75,000 children on tours visiting the major museums on the Mall last year. This number is augmented by an additional 47,500 children on tours who visit the National Portrait Gallery, the National Collection of Fine Arts which includes the Renwick Gallery, and the Anacostia Neighborhood Museum.

The total figure of 122,500 does not include the many hundreds of thousands of children who come from across the Nation.

Probably half of our visitations are by schoolchildren.

GUIDED TOURS AND OTHER VISITS BY CHILDREN

Mr. RIPLEY. We have a very good estimate of that. In fiscal 1972, almost 75,000 schoolchildren were given formal tours under our organized school tour program which involves organizing a curriculum, making arrangements with the teachers, and so on. In addition, although we do not keep a separate count, it is clear that additional hundreds of thousands of children come as visitors.

Mrs. HANSEN. Are most of these 75,000 children from Washington, D.C., or are they distributed in the same proportions as the rest of your visitors?

Mr. RIPLEY. The 75,000 with the guided tours are mostly from the Washington suburbs and inner city. The tours of children are from all over. On any one day, the buses lined up on the Mall have license plates and school groups from Missouri, North Carolina, Arkansas, Texas, Oklahoma, Utah, California, and many other States right there parked in with the ones from Maryland and Virginia.

POPULAR EXHIBITS

Mrs. HANSEN. Which of your facilities receives the highest impact of visits?

Mr. RIPLEY. Quite clearly, the strongest interest has come in the general area of American history. This is demonstrable by the fact that the building of the National Museum of History and Technology was a breakthrough for the Institution. That building opened in January 1964 and we had our first 5 million visits in 10 months. At that point there was a dramatic new plateau reached of visitations. It was interest in American history.

Secondly, and coupled with that, I think, has been the enormous interest in air and space exploration, and the fascination of these space vehicles, these old planes, new technologies, and so on. Then there is the traditional and enormously popular interest in the big elephant, dinosaurs, whales, and the gems and so on, which represent natural history. It is quite clearly demonstrable that the interest has been in history. This visitation bears no comparison to any other museum or museumlike experience in this country. In aggregate, it can only be

compared to the total visitation that the National Park Service is impacted with, to use a popular word.

We have a denser impact right here in Washington than anywhere else in the world. I estimate that 3 years from now, this visitation will increase by another 50 percent. This is really what I find rather hair raising and frightening. Perhaps "hair raising" was a bad word for me, but it is to me a rather terrifying thought.

SIGNIFICANT NEW EXHIBITS

Some of the significant events have been touched on in our highlight statement for the year. We have been able to recover from a disastrous fire in the Museum of History and Technology, and have opened a number of new exhibits. These include, stamps and the mail, graphic arts and printing, and money and medals. They are tremendously interesting to the public; and these areas are always crowded. I never fancied that an exhibit on money would be so much fun. It is tremendous fun to look at. Extraordinarily interesting. The Hall of News Reporting will open this spring.

You know of our National Collection of Fine Arts and National Portrait Gallery in the old Patent Office Building. They have had some very successful exhibitions. One, which was beautifully timed, occurred this past year; it was called "If Elected." It was all about the Presidential campaigns between 1796 and 1968, and extraordinarily good fun because you could go in and vote yourself. You could wear a hat for one of your candidates. It was tremendously popular. It was quite a breakthrough for the Portrait Gallery which with the National Collection of Fine Arts, has suffered from the Metro building and the traffic congestion in that area.

LOCATIONS OF TRAVELING EXHIBITIONS

Mrs. HANSEN. You mentioned that about 4 million persons viewed your traveling exhibitions. In what areas have the exhibitions traveled?

Mr. RIPLEY. I would be glad to supply for the record, Madam Chairman, if you are interested, a list of the museums, cultural centers, and other centers this reached in the past year.

Mrs. HANSEN. Please do.

[The information follows:]

SMITHSONIAN INSTITUTION

TRAVELING EXHIBITION SERVICE

The following is a partial listing of the museums, cultural centers, and other centers who have received a traveling exhibit sponsored by the Smithsonian Traveling Exhibition Service during the past year.

Alabama :

Mobile, Mobile Art Gallery.

Montgomery, Montgomery Museum of Fine Arts.

Alaska : Anchorage, Anchorage Historical and Fine Arts Museum.

Arizona :

Flagstaff, Museum of Northern Arizona.

Phoenix, Temple Beth Israel.

Tempe, Arizona State University.

Tucson, University of Arizona.

Arkansas :

Little Rock, Arkansas Center.
Pine Bluff, Southeast Arkansas Arts and Science.

California :

Berkeley, University Art Museum.
Concord, Concord Center for the Arts.
Costa Mesa, Orange Coast College.
Hayward, Chabot College.
Los Angeles, California Museum of Science and Technology.
Palm Springs, Palm Springs Desert Museum.
Riverside, University of California Gallery.
Santa Barbara, Santa Barbara Museum of Natural History.
San Diego, San Diego Historical Society.
San Francisco, M. H. De Young Museum.
San Jose, Civic Art Gallery of San Jose.
San Marcos, Dwight Boehm Gallery, Palomar College.
Stanford, Art Gallery and Museum, Stanford University.
Torrance, City of Torrance Library.
Walnut Creek, Beacon Savings & Loan Association.

Colorado :

Alamosa, Adams State College.
Colorado Springs, the Taylor Museum, Colorado Fine Arts Center.
Denver, State Historical Society of Colorado.
Fort Collins, Colorado State University.
Greeley, Municipal Museum.

Connecticut :

Greenwich, the Bruce Museum.
Middletown, Davison Art Center, Wesleyan University.
New Haven, Southern Connecticut State College.
Stamford, Stamford Museum and Nature Center.
Storrs, Jorgensen Auditorium, University of Connecticut.

Delaware :

Dover, Delaware State College.
Newark, University of Delaware.

District of Columbia :

Washington, National Museum of Natural History, Smithsonian Institution.
Washington, National Museum of History and Technology.
Washington, George Washington University.

Florida :

Daytona Beach, Museum of Arts and Sciences.
Deland, Deland Museum.
Gainesville, University of Florida Art Gallery.
Orlando, Central Florida Museum.
Pensacola, Pensacola Art Center.
Tallahassee, Florida State University.

Georgia :

Athens, University of Georgia.
Carrollton, West Georgia College.
Columbus, Columbus Museum of Arts and Crafts, Inc.
Macon, Macon Museum of Arts and Sciences.

Idaho :

Boise, Boise State College.
Moscow, University of Idaho.

Illinois :

Chicago, Illinois Center.
Decatur, Kirkland Fine Arts Center, Millikin University.
Lake Forest, First Presbyterian Church.
Macomb, Western Illinois University.
Quincy, Quincy College.
Urbana, University of Illinois Library.

Indiana :

Bloomington, Indiana University Art Museum.
Evansville, the Evansville Museum of Arts and Science.
Fort Wayne, Fort Wayne Art Institute.
Muncie, Ball State University.
Terre Haute, Indiana State University.
Valparaiso, Sloan Galleries of American Painters, Valparaiso University.

Iowa :

Ames, Design Center, Iowa State University.
 Cedar Rapids, Kirkwood Community College.
 Des Moines, Iowa State Fair.
 Mason City, Charles H. MacNider Museum.
 Mount Vernon, Cornell College.

Kansas :

Kansas City, Kansas City Museum of History and Science.
 Lawrence, School of Architecture and Urban Design, University of Kansas.
 Pittsburg, Kansas State College.
 Topeka, Topeka Public Library.
 Wichita, Wichita Art Museum.

Kentucky : Murray School of Fine Arts, Murray State University.

Louisiana :

Lake Charles, Art Associates of Lake Charles.
 New Orleans, Isaacs Delgado Museum of Art.

Maine :

Gorham, Art Gallery, University of Maine.
 Lewiston, Bates College Treat Gallery.

Maryland :

Chestertown, Washington College.
 College Park, University of Maryland.
 Frederick, Hood College.
 Leonardtown, Women's Club of the Mary's County.
 Rockville, Montgomery College.
 St. Mary's City, St. Mary's College.

Massachusetts :

Amherst, University of Massachusetts Art Gallery.
 Boston, Museum of Science.
 Brunswick, Bowdoin College Museum of Art.
 New Bedford, New Bedford Public Library.
 Worcester, George C. Gordon Library, Worcester Polytechnic Institute.

Michigan :

Detroit, The Detroit Institute of Arts.
 Flint, Flint Institute of Arts.
 Kalamazoo, Genevieve and Donald Gilmore Art Center.
 Muskegon, The Hackley Art Gallery.
 Sidney, Montcalm Community College.
 Ypsilanti, Eastern Michigan University.

Minnesota :

Bemidji, Bemidji State College.
 Jackson, State Historical Museum.
 Mankato, Lincoln Art Gallery, Mankato State College.
 Minneapolis, The American Swedish Institute.
 Northfield, Carleton College.
 St. Cloud, St. Cloud State College.
 St. Paul, Northwestern National Bank of St. Paul.

Mississippi :

Jackson, State Historical Museum.
 Senatobia, Northwest Mississippi Junior College.

Missouri :

Canton, Culber-Stockton College.
 Columbia, Stephen College.
 Jackson, State Historical Museum.
 Kansas City, Kansas City Museum of History and Science.
 St. Joseph, Albrecht Gallery.
 Springfield, Southwest Missouri State College.
 Warrensburg, Central Museum State College.

Montana : Billings, Yellowstone County Fine Arts Center.

Nebraska :

Grand Island, Stuhr Museum of The Prairie Pioneer.
 Lincoln, University of Nebraska.
 Omaha, Joslyn Art Museum.

Nevada :

Las Vegas, Service League of Las Vegas.
 Reno, Nevada Art Gallery.

New Hampshire :

Concord, The Art Center in Hargate, St. Paul's School.
 Hanover, Hopkins Center Art Galleries.
 Manchester, Manchester Institute of Arts and Science.
 New London, Colby Junior College.

New Jersey :

Montclair, The Montclair Art Museum.
 New Brunswick, Rutgers University.
 Trenton, New Jersey State Museum.

New Mexico : Portales, Eastern New Mexico University.

New York :

Albany, The Art Gallery, University of New York.
 Binghamton, Roberson Center for the Arts and Sciences.
 Brookfield, Madison County Agricultural Society.
 Buffalo, D'Youville College.
 Cazenovia, Cazenovia College.
 Clinton, Bristol Campus, Hamilton and Kirkland College.
 Corning, The Corning Museum of Glass.
 Elmira, Arnot Art Museum.
 Jamestown, James Predergast Library Association.
 Long Island, The Hecksher Museum.
 New York, American Bible Society.
 Rochester, Sibley Lindsay & Curr Co.
 Rome, Rome Art and Community Center.
 Schenectady, The Schenectady Museum.
 Yonkers, Hudson River Museum.

North Carolina :

Burlington, Technical Institute of Alamance.
 Louisburg, Louisburg College.
 Raleigh, Saint Augustine's College.
 Winston-Salem, Wake Forest University.

North Dakota : Fargo, North Dakota State University.

Ohio :

Bowling Green.
 Bowling Green State University.
 Cincinnati, Cincinnati Art Museum.
 Cleveland, Cleveland Institute of Art.
 Columbus, The Columbus Gallery of Fine Arts.
 Dayton, John F. Kennedy Memorial Union.
 Sandusky, Sandusky Area Cultural Center.
 Tiffin, Heidelberg College.
 Wilberforce, Wilberforce University.

Oklahoma :

Ardmore, Charles B. Goddard Center.
 Oklahoma, Oklahoma Science and Arts Foundation, Inc.
 Oklahoma City, Oklahoma Science and Arts Foundation, Inc.

Oregon, Corvallis :

Oregon State University.
 Portland, Portland Art Museum.

Pennsylvania :

Allentown, Allentown Art Museum.
 Carlisle, Dickinson College.
 Cheyney, Cheyney State College.
 Cresson, Mt. Aloysius Jr. College.
 Erie, Erie Public Museum and Planetarium.
 Gettysburg, Gettysburg College.
 Kutztown, Kutztown State College.
 Philadelphia, The Franklin Institute.
 Pittsburgh, Carnegie-Mellon University.

Pennsylvania :

Pottstown, Hill School.
 Reading, Reading Public Museum.
 Scranton, Everhart Museum.
 Uniontown, Fayette Bank & Trust Co.
 University Park, Pennsylvania State University.

Rhode Island : Westerly, Westerly Public Library.

South Carolina :

Charleston, Archives-Museum, the Citadel.
 Clemson, Rudolf Lee Gallery, Clemson University.
 Columbia, Columbia Museum of Art.
 Due West, Erskine College.

South Dakota :

Aberdeen, Northern State College.
 Brookings, South Dakota State University.

Tennessee :

Johnson City, Carroll Reece Museum.
 Chattanooga, George Thomas Hunter Gallery of Art.
 Knoxville, University of Tennessee.
 Memphis, Brooks Memorial Art Gallery.
 Nashville, Tennessee Fine Arts Center.
 Oak Ridge, Oak Ridge Community Art Center.

Texas :

Austin, St. Edward's University.
 Dallas, Dallas Public Library.
 Ft. Worth, Amon Carter Museum of Western Art.
 Galveston, The Center on the Strand.
 Houston, Houston Museum of Natural Science.
 Lubbock, Texas Technical University.
 McAllen, McAllen International Museum.
 Midland, Museum of the Southeast.
 Orange, Orange Junior Museum.

Texas :

San Antonio, Citizens National Bank.
 Wichita Falls, Wichita Falls Museum and Art Center.

Utah :

Provo, B. F. Larsen Gallery.
 Salt Lake City, Utah Museum of Natural History.

Vermont :

Burlington, Robert Hull Fleming Museum.
 Manchester, Southern Vermont Art Center.
 Mankato, Southern Vermont Art Center.
 Poultney, Green Mountain College.

Virginia :

Blacksburg, Virginia Polytechnic Institute and State University.
 Bristol, Sullins College.
 Williamsburg, Colonial Williamsburg Foundation, Inc.

Washington :

Auburn, White River Valley Historical Society.
 Olympia, State Capitol Museum.
 Seattle, Pacific Science Center.
 Spokane, East Washington State Historical Society.
 Tacoma, Tacoma Art Museum.

West Virginia :

Athens, Concord College.
 Buckhannon, West Virginia Wesleyan College.
 Charleston, First Presbyterian Church.
 West Liberty, West Liberty State College.

Wisconsin :

Appleton, Arts Center, Laurence University.
 Green Bay, University of Wisconsin.
 La Crosse, Wisconsin State University.
 Milwaukee, University of Wisconsin.
 Ripon, Ripon College.

Wyoming : Casper, Foundation for the Visual Arts.

DEMAND FOR TRAVELING EXHIBITS

Mr. RIPLEY. This has been a very useful program and I know that the great problem is booking. We are swamped with requests.

Mrs. HANSEN. Give us a couple of examples.

Mr. RIPLEY. We had a drug exhibit which we hope will travel. Such an exhibit is sought by more cities than we can possibly service. I think we can give you some documentation on that. It generated well over 100 inquiries. As you know, last year in the Arts and Industries Building we opened an exhibit on the historical background of drugs. This was quite a significant venture for us into that mixture of anthropology, as it were, history, and medicine. The exhibit covered the danger of overuse of intoxicants and narcotics of current social concern. It had a real impact and it would be terribly popular as a traveling exhibit if we can mount it in several lightweight versions. We can give you other examples.

Mrs. HANSEN. Please do.

Mr. RIPLEY. Two additional examples of shows which are now circulating are "American Pieced Quilts" and "Cast Iron Toys," both of which have generated two to three times the demand that we can meet. We have two important milestones to record. We are phasing in the exhibits already for the new Air and Space Museum by putting on some of them in relatively finished form in the old Arts and Industries Building. We can then move the exhibit right into the new building. We have two of these exhibits this year. One was on ballooning and another one was on World War I fighter aircraft, including the old German plane successfully retrieved from World War I.

Finally, the Capital Planning Commission has approved a master plan for the zoo at least. We are back onto the track that we established a number of years ago to try to upgrade and care for our animals which are so popular.

SMITHSONIAN MAGAZINE

I might say in this connection that another milestone for us has been on our private side. This is the great success of the associates program as epitomized by the magazine Smithsonian which has a national circulation of 400,000 members. It has been a tremendously satisfying experience.

Mrs. HANSEN. Is the magazine self-sustaining?

Mr. RIPLEY. Yes, it is now self-sustaining. In 3 years, this is quite a record.

Mrs. HANSEN. It is a very beautiful magazine.

Mr. RIPLEY. We are proud of it and we feel it has extended the reach of the Smithsonian into homes across the Nation.

HIGHLIGHTS OF BUDGET REQUEST

If I can mention highlights of our budget request, Madam Chairman, I would like to do so. We have what seems like a significant jump in our budget.

Mrs. HANSEN. We will get into the details as we proceed.

Mr. RIPLEY. I should point out that we have trimmed back half a million dollars worth of ongoing activities in environmental sciences and major exhibitions in this connection.

We have also shown no program fund increases in one-third of our operating line items for 1974. The main item in our budget which makes it seem so staggering this year is the fulfillment of the contract authority for \$27 million for the construction of the Air and Space Museum. This is the principal item.

There is also a large increase budgeted for our special foreign currency program, including a one-time donation to the UNESCO plan to try and restore the Philae temples above the Aswan Dam.

The budget request for salaries and expenses is about a 9 percent increase, \$4,800,000 over our 1973 base of \$51,633,000. Of this increase, about one-sixth, or \$750,000, is to meet anticipated costs of periodic step increases and wage pay raises required by law.

The balance, \$4,055,000, is for program improvement and development to meet essential Smithsonian objectives. A major portion of the proposed funding increase is concerned with the opening of two new museums, the Hirshhorn Museum and Sculpture Garden and the National Air and Space Museum. It is also oriented toward the plans which the Smithsonian has to implement for our Bicentennial observances in the year 1976. I should point out, as I have before to this committee, that the Bicentennial base funding will tail off after 1976 and will gradually drop out of our budget. We anticipated that, and in 1965, when I first spoke to this committee and received your endorsement for this program, I emphasized that I was not anticipating building in permanent base funding for our observance of the Bicentennial.

PREPARATIONS FOR THE BICENTENNIAL

Mrs. HANSEN. However, Mr. Ripley, I do want to remind you that after 1776 there are many important historical events relating to the completion of the treaty, some of the events of the Revolution itself, and then the Federal Convention.

Mr. RIPLEY. I entirely agree.

Mrs. HANSEN. These will be continuing subjects for nationwide discussion as the Bicentennial impact is felt.

Mr. RIPLEY. Yes, that is true. We hope to be able to observe these steppingstones along the way, but in the process gradually phase out, as it were.

Mrs. HANSEN. 1776 was the beginning of a thought, and later there was the beginning of a Nation.

Mr. RIPLEY. You have expressed that very well. I quite agree.

I can go into detail on our budget requests, and will in subsequent discussions, but I believe that they are essentially connected with the three basic elements in our program: the opening of the Hirshhorn Museum, the preparations for opening Air and Space Museum, and the peaking and dephasing of the Bicentennial observance.

As I have often pointed out, our buildings on the Mall which have this big visitation are simply here. For one reason or another, everyone in this Nation has been raising everyone else's expectations about what was going to be happening 3 years from now.

As I mentioned earlier, we started thinking about this in 1965, and received continuing endorsements from this committee in the 1966, 1967, and 1968 budget cycles. We had to do something to accommodate this wave of people who would be here, standing elbow to elbow, right across the Mall. We believe we have done, with your help, the best we can in anticipating and thinking about what we would be presenting to the public at that time.

SUPPORT OF RESEARCH AND COLLECTIONS MANAGEMENT

We have, of course, the continual nagging problem of adequate support of research on our collections, and for the correction of conservation problems which get worse and worse as time goes on. To a large extent, the effectiveness of our public exhibits results from our research and the care we give our collections.

Looking back over the history of the Smithsonian, I note that in the very beginning of Federal support for the Institution, it was essentially as a service to the people. The largest overt service to the people is, of course, our exhibits, the fact that they exist and that people come into the building to see them.

Second to that is the backup. We have established a reputation for telling the truth, and, as I like to think in the drug exhibition, for telling it like it is.

We cannot maintain a reputation for veracity unless we have curatorial work going on on our exhibits and collections. It is with that in mind that we continually try to remedy deficiencies in the area of the collections, their preservation, and publications on them.

We have, in effect, a national set of reference collections; collections of zoological materials, collections of historical materials. We do have, in that sense, a national obligation as well.

PROTECTION OF VISITORS AND EXHIBITS

Mrs. HANSEN. Dr. Ripley, since we have new members of the committee this year, I think it would be well for you to review your experience in the protection of your museum and exhibits. Also discuss the type of preservation work that must go into your exhibits as well as the research that is involved.

Mr. RIPLEY. I would be very glad to do that.

Mrs. HANSEN. Please do.

Mr. RIPLEY. The problems we have maintaining tremendous exhibit areas which are to be visited by 20 million people are manifold. The main problem is just allowing people to come in and out without falling down and getting hurt, as it were. In the buildings, which are greatly crowded during the day, we have a considerable problem of maintaining a guard force who are both alert to possible difficulties and dangers of that sort, but who are also extraordinarily hospitable.

They must say, "This is your house" when visitors come in. They must be prepared to smile and be friendly. During the times of the riots, for example, we had early morning drills, day after day. In some drills I would go down and ask them to take me out as a protester to see how they would treat me as a citizen and not, in effect, as their boss. Thus, we tried to emphasize that quality in behavior which is not necessarily the ordinary training for an ordinary person—on the one hand being alert and strict and, on the other hand, being very pleasant and hospitable.

During some of these episodes in Washington, we have put these men to the test, and we have found them to be wonderfully geared this way.

Our salary problems are great. We are in competition with other institutions employing police or a guard force and it is very difficult sometimes to keep the men who are more keen, more ambitious to get more salary.

As we open new buildings, we have to try to train new people of this caliber.

You see, for example, there is an increase in our employment and salary requests this year as we phase into opening one new museum next year and another one in 1976. If we came before the Congress at the last moment, all of these things would seem appalling. If we did not somehow build in the training and requirements for the kind of excellence that we need for our guard system, we would not be able effectively to keep the buildings open.

INCIDENTS OF VANDALISM

In another sense, we worry about vandalism. There were very few episodes of vandalism this past year, maybe 30 or so.

Mrs. HANSEN. How much has vandalism decreased; percentagewise?

Mr. RIPLEY. I would have to supply this for the record in that sense, Madam Chairman, but I can speak to it, at least. It has, I think, shown an improvement this past year.

Mrs. HANSEN. Do you attribute the decrease to the guard service or to the type of visitation?

Mr. RIPLEY. We attribute it to the guard service and their training. We have regular training programs with these men. This is of great importance. Also, there is a direct corollary between the number of people who are in an exhibit hall at one time and the danger of vandalism. If you have a magnificent gallery such as, let us say, the Freer Gallery of Art, with only two visitors in one gallery at a time, and a guard on duty who is looking at two galleries at once, standing in the door, if he turns away there is a good chance for vandalism there. Whereas in another museum next door, let us say, if you have 75 or 200 or 300 people in a hall at the same time, the guard is quite assured that a more or less cursory examination around the room is enough, because people, in effect, buffer themselves and prevent themselves from creating episodes of vandalism.

All you need is for one vandal to make one stroke with heavy chalk or a knife or write something—I have shown the committee in the past photographs of graffiti on precious objects—and you have 12 or 15 months of repair work and damage sometimes amounting to a quarter of a million dollars. This is a very serious problem that requires alertness at all times. This is part of our problem of administering buildings for public use.

PERCENTAGE OF TOTAL EMPLOYMENT COMMITTED TO PROTECTION AREA

Mr. McDADE. What is the total employment at the museum? How many people have you on board? Then I want to know what percentage you have to commit to the guard force, to security.

Mr. BROOKS. At present, Mr. McDade, our total employment on board, full-time permanent employees, is 2,377 on the Federal rolls. We have approximately 1,000 on the private roll.

Mr. McDADE. How many, for example, are security people or security-related in the broad definition? How many people must you commit to that activity?

Mr. BROOKS. We have on board as of the end of February, 313 full-time permanent employees in the Office of Protection Services, which is mostly the guard force, but also comprises some other security and safety personnel. That includes only those who are employed by the Office of Protection Services.

This number would have to be increased by the guard force at the zoo, which is not included in the total. That would be 29 individuals.

Mr. McDADE. Will we have a more difficult problem once the Hirshhorn Gallery is operative, in terms of security, because of the nature of what you will have there?

Mr. AULT. Certainly, there is bound to be a greater problem in attempting to protect the Sculpture Garden, which is essentially outdoors, although it will be well lighted and will have protective devices. It is a question of having the people there to watch it around the clock. There will be some added difficulty.

Within the building itself, there won't be any problem.

Mr. RIPLEY. Normally, in daytime I do not think it will be bad at all.

Mr. McDADE. Thank you, Madam Chairman.

Mrs. HANSEN. Please proceed, Mr. Ripley.

CURATION AND CONSERVATION

Mr. RIPLEY. The backup to all this comes in the form of curation and conservation. We are finding that our objects suffer from wear and tear. I sometimes feel that people just walking through the corridors and halls cause tiny, ephemeral pieces of painting to flake off. They almost flake off through constant changes of temperature and the passage of air.

This is probably imaginary on my part, but the general pressure of visitors does, of course, cause wear and tear on buildings and exhibits. As a related problem, huge cracks are developing in some of the exhibit halls in the Fine Arts and Portrait Galleries Building because of the Metro construction; we are getting fragile paintings and drawings actually subjected to vibration and damage.

Mr. McDADE. There has been no improvement in that situation from the standpoint of the Smithsonian?

Mr. RIPLEY. No; there has not, Mr. McDade. We are told that in about 3 months we may have a chance of reopening the Lincoln Gallery in that building, but this has been going on for over a year now in our Fine Arts Collection.

We anticipated that we would have trouble, but not as bad as this.

Mr. McDADE. Is there any permanent structural damage to any of the buildings?

Mr. RIPLEY. I do not think so, no; but certainly the cracks are rather frightening to see. It looks like the fall of the House of Usher, with the cracks developing. It is extraordinary. They tell me it can be remedied.

CARE OF DOCUMENTARY MATERIALS

The paper and the ancillary things that go into our exhibitions and related archival materials are constantly in need of checking and care. Our old documentary film, for example, photographs of American Indians, constantly have to be checked over. We have hundreds of thousands of photographic items that are becoming brittle and suffering from fraying. The envelopes in which they are contained and often the associated reading material are becoming as illegible as the photograph itself.

Mr. YATES. How do you check that over?

Mr. RIPLEY. Piece by piece, just like that. We have volunteers doing this with us. In the past year, I should mention we have had more than 774 persons volunteer to help in all parts of the Smithsonian.

Mr. YATES. How many pieces do you have to check? You say thousands? Have you any idea how many?

Mr. RIPLEY. In one job my wife is working on as a volunteer, more than 30,000 negatives have been given to her and 3 or 4 other women. We say, "Here they are, and please start sorting and identifying them."

Much of the film material itself has become very brittle, and it is extremely difficult to handle. As you all know from your home movie apparatus, movie film becomes very brittle. It has to be kept under controlled conditions and supervised.

Mr. YATES. Where do you keep them? I remember you had a marvelous exhibit of Alfred Stieglitz photography some years ago. Where do you keep his photographs, for example?

Mr. RIPLEY. We have some temperature and humidity control facilities both for film and other things like musical instruments. Without these facilities that offer some protection, we would be absolutely helpless.

Mr. YATES. Your facilities are adequate for the purpose?

Mr. RIPLEY. Yes; but we do not have enough room or enough people really to restore. This is becoming a national emergency, to be able to preserve the things that we already have.

I am very keen, and I know some Members of the Congress have been over the years, to develop a conservation facility which will be really effective for all kinds of paper, wood, metals, and so on.

REQUEST FOR APPRAISALS

Mrs. HANSEN. I think there is another facet that should be highlighted as part of your costs—the constant requests from all groups for appraisals.

I met one of your employees at the folklore celebration in Washington. He was working with the Ozette people on their exciting artifacts which are hundreds of years old and require some very special techniques.

How many requests would you say you have per year for this type of work?

Mr. RIPLEY. I would shudder to answer that. It would be a guess. I think we can supply an answer for the record. I suspect it is in the neighborhood of 250,000. There is just a crashing number of requests for information and documentation of objects of this sort.

(The information follows:)

PROFESSIONAL AND PUBLIC INQUIRIES DIRECTED TO SMITHSONIAN BUREAUS AND OFFICES

The Institution continues to observe increases in the inquiries directed to its offices, museums, laboratories, and other bureaus from the general public and the scientific community. Scientific visits to the Smithsonian, including all museums, galleries, and field stations, for scientific research and scholarly purposes (ranging from a few hours to many months) numbered about 12,000 in fiscal year 1972. This represents an increase of approximately 10 percent over the previous year. The volume of mail and telephone inquiries from the general public and the scientific and professional communities is estimated at around 264,000 in fiscal year 1972. Many of these were concerned with the identification of objects owned by the public.

One subject matter area might be cited as an example of the heavy public demand for information. In fiscal year 1972 the Division of Ceramics and Glass of the National Museum of History and Technology, with a staff of five persons, received 500 mail inquiries from the general public and 100 from members of the profession; met with 225 public visitors and 55 professional visitors; and had some 3,000 telephone inquiries. This pattern repeats itself through the Institution's museums, galleries, zoo, and research laboratories.

Mrs. HANSEN. As more objects come to light or are found, then there are increasing numbers of requests for verification and advice.

Mr. RIPLEY. Yes. Some of the curators actually have a day when they stand up before the people and just attempt to give information about objects that are brought in. We do that in the Freer Gallery, the National Collection of Fine Arts, and our other museums.

These are not evaluations in terms of money, but valuations in terms of authenticity or background.

Our conservation needs, then, are a firm backup of the basic needs of opening the museum and having people coming in and out of it.

IMPORTANCE OF DOCUMENTATION

An important related need is the preparation of publications, because without guidebooks and all the ancillary research materials that are involved in the exhibits, we cannot satisfy public inquiries. I sometimes feel very much defeated and depressed by the difficulty of answering the expectations that all of us have helped to arouse in all of our children and the younger generation, most of whom seem to be getting sharper and smarter, as I have more to do with them. Sometime I sit behind a visitors' reception desk and try it for size and see what it is like. It is a very rewarding experience. I only wish I could attract one or more Members of the Congress to come and try to be Harun al-Rashid with me and sit behind the visitors' desk and answer questions.

Some of them are as sharp as a tack, much to the point, and extraordinarily diverse and interesting as any questions or answers that I am sure you will hear up here on the Hill.

Mrs. HANSEN. They are probably better.

Mr. RIPLEY. Some of them are from visitors 10 years old or younger. It is really fascinating.

Without our conservation and documentation backup, we cannot perform this kind of service for the people.

I think that is all I have to say.

Mrs. HANSEN. Does this complete your general statement?

NATURE OF THE SMITHSONIAN

Mr. RIPLEY. Yes, I am very happy to rest with that presentation.

Mrs. HANSEN. In the second paragraph of your statement, you state that the Smithsonian is an independent establishment. What do you mean by this, specifically as it pertains to appropriations made by this committee for the Smithsonian?

Mr. RIPLEY. The Smithsonian was founded by the Congress as an establishment to administer the bequest of James Smithson. It is, in effect, the prototype of a public service foundation. Our Board of Regents, established by the 1846 act, has a mixed membership of Members of the Congress, members of the Government, members of the judiciary, and private citizens.

The implication was that the administration of the Institution would be by this Board through its paid hand, as it were, the executive head called the Secretary; and that this Board would act to carry out the will of the Congress in setting up the foundation and would proceed with funds garnered through various sources. Over the years we have quite clearly demonstrated—in fact, it is in the original act—that we accept funds given to the Institution, and under the original act deposit them in the Treasury for the benefit of the Smithsonian Institution quite separately. In subsequent years, decisions by the General Accounting Office and the Comptroller General, have underscored, as it were, the concept that we are free to garnish and sequester these funds for our purposes.

Then beginning in 1858, when my predecessor at the time requested funds for the administration of the buildings for public visitation, we began an annual appropriation from the Congress as a means of keeping the buildings available for the public of the United States.

For many years this has been a direct appropriation. Since the early years of this century, the appropriation came under the general budget submitted by the President to the Congress each year.

The Smithsonian is, nevertheless, still operating under the original act in which the trust was accepted by the U.S. Government to be administered by a Board of Regents.

Mrs. HANSEN. But you now have to have the approval of OMB.

Mr. RIPLEY. That is right. Since the early years of this century, the budget has been submitted through the executive branch.

Mrs. HANSEN. The budget is first approved by your Board of Trustees?

Mr. RIPLEY. That is right.

Mrs. HANSEN. Then, secondly, by the administration through OMB?

Mr. RIPLEY. That is right.

Mrs. HANSEN. Then it is transmitted to the Congress.

Mr. RIPLEY. Yes; having been incorporated in the President's budget, it comes before the Congress.

Mrs. HANSEN. Mr. Yates?

OMB ACTION ON SMITHSONIAN BUDGET REQUEST

Mr. YATES. Did OMB delete any of the funds you requested?

Mr. RIPLEY. Yes, sir.

Mr. YATES. What did they delete?

Mr. RIPLEY. It deleted, in effect, our basic request for support in the areas of environmental science and some other science programs.

Mr. YATES. Would you also state in what amounts they deleted?

Mr. BROOKS. The total request to the Office of Management and Budget, Mr. Yates, for "Salaries and Expenses" for this coming fiscal year was \$66,353,000.

Mr. YATES. What did they delete?

Mr. BROOKS. The resulting budget which you have before you is \$56,438,000.

Mr. YATES. That is approximately a \$10 million cut.

Mr. BROOKS. Yes, sir.

Mr. YATES. What form did the cuts take?

Mr. BROOKS. They took a number of forms, Mr. Yates.

Mr. YATES. Where did they cut?

Mr. BROOKS. Secretary Ripley pointed out the science programs.

Mr. YATES. Will you put a list of them in the record, please?

Mr. BROOKS. Yes, sir.

[The information follows:]

COMPARISON OF BUDGET REQUESTS TO THE OFFICE OF MANAGEMENT AND BUDGET
AND THE CONGRESS

The Smithsonian's fiscal year 1974 "Salaries and Expenses" budget request to the Office of Management and Budget totaled \$66,353,000 an increase of \$14,720,000 over the fiscal year 1973 base of \$51,633,000. The budget request to the Congress totals \$56,438,000, an increase of \$4,805,000. The difference between the original requested increase and the allowed increase is \$9,915,000. The Smithsonian is allowed to allocate the approved budget request in accordance with program priorities.

The distribution of the \$9,915,000 reduction, following receipt of the allowance and Smithsonian review, was as follows:

	Request to OMB	Request to Congress	Reductions
Science.....	\$23,388	\$19,747	\$3,641
History and art.....	9,446	7,765	1,681
Public service.....	2,589	2,261	328
Museum programs.....	7,161	6,065	1,096
Special programs.....	4,901	3,449	1,452
Administration, protection, and support.....	8,665	7,999	666
Buildings management.....	10,203	9,152	1,051
Total.....	66,353	56,438	9,915

EFFECTS OF CUTS ON OPERATIONS

Mr. YATES. Will those be terribly hurtful to your operation? If you had your choice of getting anything back, which would you select?

Mr. RIPLEY. When you say terribly hurtful, I will say we will keep treading water.

Mr. YATES. Will you be able to tread water, or will you sink?

Mr. RIPLEY. In many areas we are receiving less than the aggregate estimated for maintaining the laboratories this year.

Mr. YATES. What about your buildings?

Mr. RIPLEY. I think we are all right on the buildings. We can keep the lights on and that sort of thing.

As far as the backup areas, the research and especially publications, we will be treading water.

The main programs for which we received support this year were the public aspects, the completion of buildings prior to the Bicentennial, and, more immediately, the backup support for these buildings.

HOW COLLECTIONS ARE ACQUIRED

Mr. YATES. As I understand, one of the functions of the museum is to try not only to be current, but also to expand its facilities and properties, its objects. Does the Smithsonian go out to purchase artifacts, objects of art?

Mr. RIPLEY. Not ordinarily. We have very small purchase funds in the Portrait Gallery, which is one area where we need it very badly, and in the National Collection of Fine Arts. In addition these are minute, private, donated funds or endowed funds for restricted purposes in other areas, such as minerals. We have been able to keep our head above water with the mineral collection only because of the presence of endowed funds.

Mr. YATES. What about the Freer Gallery, for example?

Mr. RIPLEY. They, of course, operate almost entirely on private funds because of the Freer endowment. Up to now, they would more or less contract to purchase objects; but the increase in the cost of everything, and especially oriental objects, in the last few years means that we know have to budget years ahead. That is, we have to promise the dealer that we will buy his bronze, or his painting, or whatever it is, and maybe pay him next year or the year after.

I would not suppose for a moment that we would ever ask for major support from the Congress for buying anything other than works of art, unless perhaps it was some absolutely fantastic national object, like, let us say, the original flag that Barbara Fritchie held, or something of that sort, some treasure which would be equivalent to the Constitution or the Bill of Rights, or one of these great historic documents. In the ordinary course of events, we have acquired virtually everything that we have through gifts.

Mr. YATES. Are you permitted to exchange any of the Smithsonian objects as does the curator of the Metropolitan Museum, for example?

Mr. RIPLEY. I am sorry you put in that last qualifying clause, Mr. Yates. I would prefer to speak without reference to one of our sister institutions.

Under the wills, deeds, or bequests, or whatever it may be, that a transfer of property has taken place, there is a whole gamut of specific actions that might be taken.

FREER GIFT

Mr. Freer's gift was highly restricted. The objects cannot go out of the building, and so on. They cannot be shown anywhere else. They cannot be exchanged or transferred.

Mrs. HANSEN. What was the total amount of the Freer gift?

Mr. RIPLEY. The original Freer gift in money was \$1.6 million for endowment, and \$1 million for the building. For the objects given at the time, I have never seen a proper assessment. In that connection, I would say the Freer gifts or the Freer collections which have been

bought as well as have been given by Mr. Freer, are probably worth as much as about three of our buildings put together. I am thinking of the three buildings along that side, all of which would cost, of course, many millions to reconstruct.

The Freer Building itself was built for \$1 million in 1916 to 1921. Of course, it would cost probably \$8 million or \$10 million to build today.

Mr. YATES. I pass.

Mrs. HANSEN. Mr. McKay.

Mr. MCKAY. No questions.

Mrs. HANSEN. Mr. Long.

Mr. LONG. I do not know whether these questions are relevant at this time.

Mrs. HANSEN. Are these on the justifications or general questions?

Mr. LONG. I wanted to get to the matter of the Chesapeake Bay Center for Environmental Studies. I also have a question about what the Kennedy family contributed to the Kennedy Center, and who are the other people who have made contributions.

Mrs. HANSEN. We will discuss those subjects at a later time.

Mr. McDade?

Mr. McDADDE. Nothing.

Mr. WYATT. Nothing at this point.

Mrs. HANSEN. Mr. Veysey.

OTHER SOURCES OF FUNDS

Mr. VEYSEY. Thank you for your overall statement. It will be helpful to me in getting a perspective.

You made some reference to other sources of revenue, but I do not believe they are recorded as part of your statement or in the documents here.

Mr. RIPLEY. They are shown in the annual report quite explicitly. Our private funds are also shown in the appendix to the budget document you received. I will be glad to answer any questions.

Mr. VEYSEY. They are in your presentation, then.

Mr. RIPLEY. Yes.

Mr. VEYSEY. Both in terms of gifts and bequests, and subscriptions, sales, and whatever?

Mr. RIPLEY. That is right. We have a complete listing in there of our income from endowments, gifts, grants, contracts, and so on.

VANDALISM

Mr. VEYSEY. Thank you for identifying that for me.

You made reference in earlier conversation to vandalism as a problem. Do you have any way to indicate at this time what the incidence might have been in the past year, how many incidents of serious nature?

Mr. RIPLEY. Yes.

Mr. VEYSEY. You may submit that for the record.

Mr. RIPLEY. We will put in the record the number of incidents.

[The information follows:]

SPECIFIC INCIDENTS OF VANDALISMS

In fiscal year 1972 we had a total of 32 incidents of vandalism. In fiscal year 1973 (through February), we have had 27 cases of vandalism. Some examples of serious vandalism at the Smithsonian can be cited but it is virtually impossible to place a value on them. The true extent of such damage cannot be calculated in monetary terms alone. The damage can be properly measured only at the aesthetic and historical level, that is to say, at the cultural level.

In February of 1973 a sharp instrument was deliberately pushed through the pupil of one eye in a portrait of Sato Issai by Watanabe Kazan. This painting is one of three portraits of Issai now extant. The Freer version is considered most important because it bears a long inscription written by Issai.

Also in the Freer Gallery, a set of 17th century screens by Nonomura Sotatsu were punctured. Two other paintings, one from the 14th and the other from the 17th century were punctured. These objects have a priceless monetary value. They are absolutely irreplaceable. The cost of repairing such damage is infinitesimal in relation to the aesthetic loss resulting from such wanton injury.

NUMBER OF INCIDENTS OF VANDALISM

Mr. RIPLEY. As I mentioned, these have been going down slightly, which I attribute to our increased training and our staffing through the security forces. As I tried to indicate, one case of vandalism can be absolutely shattering.

Mr. VEYSEY. I suppose your statement to be put in the record will identify more the magnitude of the problem. I am concerned with the major ones.

Mr. BROOKS. We have figures for vandalism specifically.

In fiscal year 1972, the incidence was 32; and for fiscal 1973 so far, the count is 27. It is a little too early to tell whether it will even out or be slightly less. We think we are holding it under control.

Mr. VEYSEY. You identify vandalism as you defined it as substantial damage to an exhibit or building?

Mr. BROOKS. That would be included within it, yes, sir. It is broken down between Government property and personal property. Government property, of course, would include not only the exhibits and museum objects, but other items of Government property.

Mr. VEYSEY. Would you be able to give us some idea of the magnitude of the money damage?

Mr. RIPLEY. Their value? Yes, we will try to do that.

Mr. VEYSEY. I know it is difficult.

Mr. RIPLEY. A lot of it is in man-hours for repair work, and that kind of thing. Then, of course, personal vandalism—maybe a visitor had a wallet taken or purse lifted, which of course is personal property.

Mr. VEYSEY. You include that?

Mr. RIPLEY. We include that under personal items as distinct from Smithsonian items. Such incidents happen on our property, and we have to investigate.

Mr. VEYSEY. Are there some instances where the vandalism might be severe enough that the item could not even be reconstructed?

Mr. RIPLEY. Certainly. We had a man take a stuffed snake out of a case in the museum. By the time he got it out, the case, of course, was ruined, and the snake was ruined, too. The snake was a personal enemy of his. He had been worried about it for some time.

Mrs. HANSEN. I know just how he felt.

Mr. VEYSEY. Thank you.

Mrs. HANSEN. Mr. Veysey you might be interested to know that at a hearing 2 years ago, Dr. Ripley brought to the committee several items that had been damaged, a chair, as I recall was one of the objects—someone had slashed the seat.

Mr. RIPLEY. And some of the Japanese paintings have been damaged by pressing a child's chalk from the schoolroom very hard against a 10th or 11th century Japanese screen.

Mrs. HANSEN. Museums are often the victim of people with phobias. They do not like Indians or do not like something else. They wait for a time to destroy something that is particularly symbolic of the thing which they hate.

Mr. VEYSEY. That is a sad commentary on that type of mentality.

Do you apprehend the culprit in many cases?

Mr. AULT. In very few cases.

Mr. VEYSEY. In other words, the damage is found later.

Mr. RIPLEY. Somebody goes by and then goes out again, if it is not seen at that moment.

Mr. LONG. Do you have this roped off so you can only look at this from a distance?

Mr. RIPLEY. It varies. Each exhibit we treat on its own merits.

Mr. LONG. If you had a very valuable painting, I should think you would have some barrier to it so you could see it only from 6 to 8 feet away, and then you could easily detect whether someone was sneaking inside that rope barrier.

Mr. RIPLEY. Surely. We try to qualify each exhibit in different terms on the basis of how near people can get to it. We encourage certain kinds of touch exhibits. These are very important, especially for young people. If you can touch a piece of elephant skin—I spent ages trying to get a piece of elephant skin under the elephant so you could rub it and see what fun it is. This is very important. Or a piece of tiger skin, for example. Here is a great tiger which epitomizes the fate that tigers are about to suffer of becoming extinct. To rub the tiger fur is a fascinating experience.

These kinds of experiences and opportunities we try to offer. To touch a dinosaur bone and rub it. It has quite a high patina. It is fun.

REQUIREMENTS FOR LARGE BUDGET INCREASES

Mrs. HANSEN. Mr. Ripley, this is a very tight budget year. The President has proposed drastic cuts in many programs which affect the health and welfare of our country.

In this subcommittee we have discussed with agency witnesses cut-backs and impoundments in Indian health and education, replanting of trees on national forest lands, and cooperative forestry programs with the States.

Yet, for the past few years, the Smithsonian has seen a rapid expansion in its budget. This year there is a requested increase of \$23,751,000 on a 1973 base of about \$75 million. How do you explain these large increases in a time of general budgetary restraint?

Mr. RIPLEY. Madam Chairman, I can only say that we have been through the process with the Office of Management and Budget of identifying our budget requirements for operating our own buildings

and our own programs. We are not, of course, involved in any way with the major decisions of policy, either by the Executive or by the Congress, on the allocation of Federal funds. We can only speak to our own issues.

We have commitments to our current and new buildings, to what goes on in them and to the people who visit them. We are perfectly prepared, however, to abide by the will of Congress in regard to the budget that we have been allowed to submit.

Mrs. HANSEN. I point out this is an exceptionally tight budget year. You recall we have had tight budget years ever since 1960, and it is becoming increasingly tight.

IDENTIFICATION OF GIFTS TO THE INSTITUTION

Mr. McDADE. I would like to inquire about the series of gifts and bequests that are in your annual report, from the National Capital Parks, the National Council on the Arts, the National Endowment for Humanities, and the National Park Service, which are listed as making gifts and bequests to the Institution of \$1,000 or more.

What were these funds for? Would you supply that to me, or do you know now?

Mr. RIPLEY. I am fascinated to have you describe them as bequests.

Mr. McDADE. You describe them as gifts or bequests. That is the language the report uses.

Mr. RIPLEY. Yes, sir.

Mrs. HANSEN. Can they properly be called a grant?

Mr. RIPLEY. Mr. Jameson, have you any specific figures on the Park Service or other agencies?

Mr. JAMESON. I do not have the programmatic uses to which these funds were put.

Mr. McDADE. I would like to get an explanation, because we do handle their budget; if this is in the nature of reimbursement, it happens all the time. I think it merits some explanation to the committee as to why these various agencies are contributing to you, labeled as gifts and bequests.

I am curious to know whether in fact these were programs that were participated in jointly, or what they were. I would like an explanation of each of them for the record.

Mr. RIPLEY. If I may, I will furnish this for the record. I do not know at this point.

[The information follows:]

AGENCY FUNDING OF SPECIAL PROJECTS

The Annual Report of the Smithsonian Institution for Fiscal Year 1972 erroneously described as gifts or bequests the following grants from agencies of the Federal Government :

Name of Agency	Amount	Purpose
National Capital Parks.....	\$2, 228	Cost of books distributed by Reading is Fundamental program for Summer in the Parks program.
National Park Service.....	3, 500	Cost of books distributed by Reading is Fundamental program for Summer in the Parks program.
National Endowment for the Humanities.....	5, 716	A study of materials for Mexican, Spanish-American, Puerto Rican, Cuban, and other Latin American Children.
National Council on Arts.....	1, 700	Awarded to National Collection of Fine Arts for a Discover Graphics program.

REQUESTED INCREASE IN POSITIONS

Mrs. HANSEN. You are requesting an additional 222 permanent positions to bring the 1974 total up to 2,921. What are the factors that necessitate this large increase?

Mr. RIPLEY. I would like to ask Mr. Brooks to outline this increase in our personnel.

Mr. BROOKS. Madam Chairman, the increase of 222 positions requested in this year's budget is primarily for two purposes. One purpose is the additional staffing needed to open or prepare for the opening of our two new museums. Taking the Hirshhorn Museum first, there is a total of 71 additional positions requested for that new museum.

Mrs. HANSEN. Are these permanent positions?

Mr. BROOKS. These are permanent positions, yes.

For the National Air and Space Museum, there are 20 additional positions sought, for a total of 91.

Mrs. HANSEN. Are these permanent positions?

Mr. BROOKS. Yes.

That is 91 out of the total request of 222.

The balance of our request is essentially in the support areas of buildings management maintenance services, protection services, exhibits, scientific and technical support within our museums, for example, in the Museum of Natural History, and for public outreach purposes.

Outside of the 91 new positions for the new museums, the balance of 131 are primarily in these support areas.

Mrs. HANSEN. What is your personnel ceiling?

Mr. BROOKS. For this year, the personnel ceiling is 2,544 employees against the 2,699 permanent, full-time positions authorized by the Congress.

Mrs. HANSEN. What is your current employment?

Mr. BROOKS. With respect to our on-board employees, as of the 28th of February we had 2,377. We estimate that by June 30 this year, our on-board employment will be 2,464.

PERSONNEL CHANGES RESULTING FROM ATTRITION

Mrs. HANSEN. What portion of your personnel changes are due to attrition?

Mr. BROOKS. Would that be the personnel changes downward, Madam Chairman?

Mrs. HANSEN. Yes. The committee is trying to get a handle on what is happening in early retirement. I strongly suspect that by the time all of these early retirements are totaled, the Government will be no better off fiscally than it was before early retirements were encouraged.

We are trying to find some answers. The built-in costs of the pension fund are steadily escalating. So, Congress will be called upon to provide substantial amounts of money eventually.

If you have some adequate figures for the record, we would be very glad to have them.

Mr. BROOKS. We will supply them.

Mrs. HANSEN. The committee is trying very hard to weigh the situation.

Mr. BROOKS. I think I could answer you in general that forced retirement has not been a factor of any magnitude in the Smithsonian, virtually none of it.

[The information follows:]

RETIREMENTS

Approximately 300 employees leave the Smithsonian Institution every year. Of these, 14 percent leave because of voluntary retirement. No employees are forced to retire because of lack of funds or because the Smithsonian wishes to hold to its employment ceiling.

REQUIREMENTS FOR AUTHORIZING LEGISLATION

Mrs. HANSEN. Are there any requests in your budget for which authorizing legislation has not been enacted?

Mr. RIPLEY. No.

CONSTRUCTION OF THE HIRSHHORN MUSEUM

Mrs. HANSEN. We have heard a great deal about the problems surrounding the construction of the Hirshhorn Museum. Would you please bring the committee up to date on the status of this? What is the total amount of contractor claims? When are these claims likely to be settled by GSA?

Is your current May 1974 target opening date a realistic one?

Mr. RIPLEY. In regard to the difficulties between the contractor and the GSA, we are keeping in touch with it, but have very little current information. I cannot presently give you any information that we have received beyond the fact that we have heard that there is a sum at the present time of approximately \$900,000 which the contractor is currently claiming against the GSA.

STATUS OF CONSTRUCTION CLAIMS

Mrs. HANSEN. What does he base these claims on?

Mr. RIPLEY. He is basing it on claimed variances in the architectural drawings, particularly in connection with the four major arches which support the superstructure of the building. He claims that these were not sufficiently worked out in the detailed drawings. The architect claims they were.

Mrs. HANSEN. Who is the architect?

Mr. RIPLEY. Skidmore, Owings & Merrill is the firm. The specific architect is Mr. Gordon Bunshaft.

This kind of claim and this kind of discussion, as far as I can see, is a technical welter of conflicting statements and testimony.

Mrs. HANSEN. But this is entirely between GSA and the contractor?

Mr. RIPLEY. It is entirely between them.

Mrs. HANSEN. It is not in your domain?

Mr. RIPLEY. No, it is not. They are, in effect, our agents for the purposes of handling the appropriated and private moneys given to them.

Mrs. HANSEN. Has GSA given you any date of expected settlement?

FURTHER CLAIMS

Mr. RIPLEY. Not for the claims settlement, no. They anticipate this may run on for 2 or 3 years or longer.

Mrs. HANSEN. Do you expect any further claims from the contractor?

Mr. RIPLEY. They anticipate the possibility that the contractor will continue to levy claims. This is an unfortunate custom of all contractors today, especially, I understand, of contractors working with Government-funded operations.

I suspect it happens in our own homes, too, when you try to get a new room put on the back of your house. It is a universal phenomenon at the present time.

It is our understanding, Madam Chairman, in regard to the building itself, that it is a matter of months before we will begin to derive beneficial occupancy of part of it. The holdup on moving in entirely is largely due to the finishing work on the interior. We believe we will be in the building in large part by the end of 1973. We believe that we will be opening the museum, as we said, in 1974.

The sliding scale of the occupancy is starting very soon. In other words, by this summer or early fall we will already be moving into part of the building.

Mrs. HANSEN. Where do the contractors expect the money to come from to settle their claims?

Mr. RIPLEY. They expect it will come out of the Treasury or something of that sort. They expect it will be paid to them.

The cost escalations which they try to build in are very great, and they sometimes get caught.

Mrs. HANSEN. Doesn't the contractor build into his bid the cost of escalation?

Mr. RIPLEY. They certainly do put that in and account for it. I wish we had Mr. Bradley here at the moment. He has been following this very carefully for us. He knows a great deal more about it than I do.

Mrs. HANSEN. Do you want to ask Mr. Bradley to come in?

Mr. RIPLEY. I would be happy to, if you don't mind.

Mrs. HANSEN. The committee is very interested in this matter.

We are very happy to welcome Mr. Bradley.

Mr. VEYSEY. I do not understand whether the basis of the dispute relates to escalating costs over this period of time, or a dispute as to the adequacy of the design.

Mr. RIPLEY. The present dispute has to do with drawings and details within the design. We have intimations there may be further claims.

Mrs. HANSEN. The committee is very deeply concerned by the escalation of construction costs. The committee has been well aware and we assume the contractor has been perfectly well aware of the problems that were involved.

Mr. Bradley, I asked Dr. Ripley what was the total amount of the contractor claims. We have an answer of approximately \$900,000. Is that correct?

Mr. BRADLEY. Madam Chairman, the amount that has been filed as a claim approximates \$900,000 or more.

In addition, we have been in receipt of correspondence from the contractors and the subcontractors that there may be additional claims that might total, as claims, \$4.6 million.

BASIS FOR CONSTRUCTION CLAIM

Mrs. HANSEN. What do these additional claims involve?

Mr. BRADLEY. The big two are: No. 1, the design and the adequacy of the drawings for the four flaring pedestals on which the building rests.

Mrs. HANSEN. Did not the contractor bid on this particular design?

Mr. BRADLEY. He did, indeed, but this is being adjudicated by the GSA Board of Contract Appeals as to whether the drawings and specifications were adequate.

Mrs. HANSEN. It seems to me it is up to the contractor to examine the adequacy of the design drawings in preparation for his bid.

Mr. BRADLEY. I would quite agree with you.

Mr. RIPLEY. It was our understanding that when this contract was accepted by the GSA, the contractor had done the very things that you say, and we are operating, therefore, in good faith.

CONTRACTOR FOR THE HIRSHHORN

Mr. LONG. Who is the contractor?

Mr. RIPLEY. The Piracci firm in Baltimore. He was the low bidder of three. This was judged to be a correctly given contract, and his firm was capable of handling it.

Mr. Piracci, Sr., who has had problems in Baltimore, withdrew all interest from the firm for the duration of the contract.

Mr. LONG. What is this firm's record of filing for cost overruns?

Mr. BRADLEY. Sir, this firm had a good reputation with the General Services Administration, who is administering this construction contract in its entirety. We carried our case for the museum to Congress. We got authorization and money. We then turned it over to the General Services Administration. They took the bids. They reviewed the bidders. They found Piracci to be entirely acceptable.

Mr. LONG. I am just wondering why Government agencies keep giving contracts to contractors who have a regular history of buying in to get the contract, and then filing all these trashy claims, with the idea that they might hit the lottery somewhere.

Why do you keep giving them contracts? Why aren't they ruled out?

Mr. BRADLEY. Sir, in this particular case the General Services Administration advised the General Accounting Office that Piracci had a good record with GSA on other contracts.

I understand that was the older Piracci, and he did withdraw from the firm for the duration of this particular contract.

Mr. LONG. But the damage has been done, and the Government is now faced with a claim.

Mr. BRADLEY. We are now faced with a claim.

SMITHSONIAN RESPONSIBILITY FOR THE CLAIM

Mr. LONG. Is this claim based on the fact that the Smithsonian asked them to do things that were not in the original design of contract?

Mr. BRADLEY. No, sir. The Smithsonian has not been the source or the basis of the pending claim.

Mrs. HANSEN. In other words, after you had decided on a design and it had been approved by the National Capital Planning Commission it went to the GSA. When the contractor bid, he bid on the adequacy of that design.

The GSA then let the contract. The Smithsonian was no longer involved?

Mr. RIPLEY. There has been only one change order of any substance by the Smithsonian, and that is the withdrawal of the sculpture garden plan from across the Mall and its placement in the area within the trees. This represented a net cost reduction, we were told.

Mrs. HANSEN. I was going to say that represented a net cost reduction.

Mr. LONG. What did he base his claim on?

Mr. BRADLEY. The \$1 million, in round figures, was based on what he considered to be the inadequacy of the architectural drawing and the specifications for the four big flaring, curvilinear pedestals on which the entire building rests, 14 feet above the sidewalk.

CHANGE ORDER INVOLVING THE SCULPTURE GARDEN

That is No. 1.

The second request by the contractor for additional funds is on the order of \$1.5 million, relating to the switching or the displacement of the sculpture garden, which was a sunken garden originally planned to go across three panels of the Mall. We suggested it be turned 90°, and put in what we call the tree panel, which is the second panel adjacent to the museum building, in order to avoid transversing the Mall.

At the time that we requested that change, following some hearings on the Hill, it was our understanding, both from GSA and the architect—not from Piracci; we do not deal with him; he deals with GSA—that the same materials would be used and the garden would be somewhat smaller. It would still be handsome, and the money would be sufficient in spite of inflation.

We are told, not officially but unofficially, that that will be the basis for a further claim in the amount of about \$1.5 million.

Then there are other claims that are less easily described, that represent the difference between those two large claims and a gross amount that we have had letters of intent or some intimation, nothing formal, that might total a claim of \$4.6 million.

We are totally unable to give a guess as to what the allowance against the claim of \$4.6 million would be.

Mrs. HANSEN. No one could until the matter is adjudicated between GSA and the contractor; is that not correct?

Mr. BRADLEY. Exactly.

Mr. RIPLEY. These figures do not necessarily bear any relation to the truth or to any resolution of the case.

Mr. LONG. Doesn't practically every building built for the Government have as its aftermath the filing of some kind of cost overrun by a contractor?

Mr. BRADLEY. In our experience—we better stay with that—we usually anticipate some claims. Usually, we allow a contingency of 5 or 7 percent of the costs in the estimate presented to the Congress.

It is awfully hard to generalize. We have some claims still outstanding on the Museum of History and Technology, completed in 1964. They are being handled by the General Services Board of Contract Appeals and, eventually, by the Court of Claims, so this is no concern of ours.

Mrs. HANSEN. They are in court?

Mr. BRADLEY. Yes; or at least we anticipate they will end up in the Court of Claims.

Mrs. HANSEN. The committee will recess until 1 p.m.

AFTERNOON SESSION

STATUS OF HIRSHHORN CONSTRUCTION

Mrs. HANSEN. The committee will come to order.

At the conclusion of this morning session, we were discussing the Hirshhorn Museum. I have received a letter that refers to a GAO report on the status of construction of the Hirshhorn Museum. At the top of the letter to the Member of Congress to which it is addressed, it says—

Restricted, not to be released outside of the GAO except on the basis of specific approval by the Office of Legislative Liaison, a record of which is kept by the Distribution Section, Publications Branch, O&N.

Therefore, the committee cannot make this report a part of the record, which we would otherwise do. I may say that the committee always seeks to avoid assisting any contractor to win a court case. This is not the place to try a lawsuit. We are responsible for Government funding. But I can ask you these questions:

“The contract for construction to the construction company was on February 12, 1970.” Is that correct?

Mr. BRADLEY. That is correct.

Mrs. HANSEN. “At the time of the award, completion of the contract was scheduled for September 4, 1972?”

Mr. BRADLEY. Yes, ma'am.

Mrs. HANSEN. “After the awarding, it granted numerous time extensions to the Piracci Construction Co. due to change orders and strikes.”

Do you recall what these items are, or is this entirely between GSA and the Piracci Co.?

Mr. BRADLEY. Madam Chairman, it is entirely an affair between GSA and the Piracci Construction Co.

Mrs. HANSEN. “Time extensions are granted by the Board of Contract Appeals, the independent judicial body appointed by the GSA Administrator to handle contract disputes.” Is that correct?

Mr. BRADLEY. Essentially correct, although I do not think every time extension has been approved by the Board. Every time extension has been approved by GSA but frequently by the project officer.

Mrs. HANSEN. It has not always gone to the Board of Contract Appeals?

Mr. BRADLEY. Not at this time; that is right.

Mrs. HANSEN. “The total amount of funds available for construction is \$15,197,000, consisting of \$14,197,000 authorized by Public Law 90-425 of July 26, 1968, and \$1 million donated by Mr. Joseph H. Hirshhorn. Is that correct?”

Mr. BROOKS. That is correct, Madam Chairman.

Mrs. HANSEN. Whether the \$15,197,000 available will be sufficient to cover the total construction cost cannot be ascertained until the validity and amount of any claims and penalties have been established. Is that correct?

Mr. BROOKS. That is correct, ma'am.

APPEARANCE OF THE HIRSHHORN

Mrs. HANSEN. We have a great many comments on the appearance of the Hirshhorn building. It has been referred to rather humorously in some quarters as a water tank with portholes.

Mr. RIPLEY. The stone which is going to be placed on the surface is going to be a special extruded aggregate granite of a slightly pinkish brown cast, of which we have exhaustively examined samples and of which there is a section now already mounted on the east side of the building. It is very pleasing in appearance and has elicited very favorable comments from the Fine Arts Commission.

Mrs. HANSEN. I am glad it has, because we have had a number of unhappy references on the floor of the House to the water tank with portholes.

Mr. RIPLEY. We are aware of that, Madam Chairman.

Mrs. HANSEN. How will the landscaping affect the appearance of the building?

Mr. RIPLEY. I think the appearance of a broad, open plaza, which is now concealed by the wooden boarding, and the cultural display there which is going to be something very lively, will take away from the feeling that the building is slightly monolithic, sort of sitting there on top of the fence, as you see it now. You don't get any sense of scale or proportion with the wooden fence around it. For almost any building, whether one that I am involved with or not, I really like to wait until it is completely finished before I form any strong feeling of pleasure or displeasure about it.

It is impossible to visualize.

Mrs. HANSEN. That is a little late?

Mr. RIPLEY. I think it is a little late for everybody, including the architect. I suspect the average architect is never sure of what the eventual effect is going to be.

NATIONAL AIR AND SPACE MUSEUM

Mrs. HANSEN. What measures have you taken to assure that the problems which arose in regard to the contract for the Hirshhorn Museum will not arise with respect to the Air and Space Museum?

Mr. RIPLEY. If I may, I would like to ask Mr. Collins to speak to the Air and Space Museum.

Mrs. HANSEN. The committee is glad to have you with us again.

Mr. COLLINS. Thank you, Madam Chairman.

Mrs. HANSEN. I hope you are taking steps to be sure that you are not going to run into some more of these problems. I believe everybody approved of the Air and Space Museum architecture, including most of the newspapers.

Mr. COLLINS. We have had very good luck with the newspapers so far.

I think there are two main differences between the Hirshhorn and the Air and Space Museum. The building, unlike the Hirshhorn, is

rectilinear and is a very conventional building from a construction point of view.

The building's design and materials have been planned to avoid later surprises, such as curved arches, and so forth. That is No. 1.

CONSTRUCTION MANAGEMENT FOR THE AIR AND SPACE MUSEUM

No. 2, the GSA has instituted a new and somewhat streamlined management procedure for dealing with large projects like this. Instead of having a general contractor such as Piracci is for the Hirshhorn, we have instead a GSA project manager and a construction manager. This construction manager, who supervises construction is the Gilbane Building Co. of Providence, R.I., which has an outstanding reputation in the business.

CONTRACTS PERFORMED BY GILBANE BUILDING CO.

Mrs. HANSEN. Please insert in the record a list of some of the contracts performed by the Gilbane Building Co.

[The information follows:]

CONSTRUCTION MANAGER EXPERIENCE

[The Smithsonian has been informed by the General Services Administration that the Gilbane Building Co. has an excellent record of timely completion of construction without a record of litigation with the owners. The following is a listing of the construction projects during the past 5 years on which the Gilbane Building Co. served as construction manager]

Job name and location	Description	Construction cost amount	Percent of work performed with own forces
The John Hancock Tower, Copley Square, Boston, Mass.	60-story office tower, 2,075,000 sq. ft.	\$102,000,000	10
State Street Bank Bldg., Boston, Mass.	Office building, 3 basements, 34 stories, 1,122,000 sq. ft.	40,000,000	0
State Street South, Quincy, Mass.	Phase I, Operations, data processing and logistics center.	27,000,000	0
Congen Properties, Inc., Subsidiary of Conn. Gen. Ins. Corp., Providence, R.I.	7-story office building, 125-car parking, 115,000 sq. ft.	3,400,000	20
Mercantile-Safe Deposit & Trust Co., Charles Center, Area 12, Baltimore, Md.	24-story office tower, underground parking, 500 cars, 620,000 sq. ft.	13,000,000	0
Allendale Mutual Ins. Co., Johnston, R.I.	Home office building	15,000,000	28
Reynolds Metals Bldg., Lower Merion, Pa.	Office building	700,000	0
New England Power Service Co., Andover, Westboro, East Longmeadow and Granby, Mass.	Office and garage, computer and accounting center service buildings.	6,969,000	20
Blue Cross Bldg., Providence, R.I.	4-story office building	2,750,000	25
The Badger Co., Inc., Kendall Square, Cambridge, Mass.	Phase I, 16-story office building, 445-car garage, retail shopping mall.	12,500,000	24
F. W. Woolworth Co., Boston, Mass.	Retail store, restaurant, roof-top parking garage.	6,509,000	18
Park Plaza Hotel, New Haven, Conn.	308-room hotel, swimming pool, ballroom, convention hall.	6,000,000	25
Hollenden House, Cleveland, Ohio.	363-unit motel and parking garage	4,280,000	20
Holiday Inn Motor Hotel, Providence, R.I.	13-story motor hotel, 276-car garage	3,200,000	32
Trans World Airlines, Inc., Kennedy International Airport, Jamaica, N.Y., and Rockleigh, N.J.	Hangar 12 and computer center	9,400,000	0
Merriweather Post Pavilion of Music, Columbia, Md.	Music pavilion	500,000	20

COST AND DUTIES OF CONSTRUCTION MANAGER

Mr. COLLINS. I might explain further, Madam Chairman, that the Gilbane Building Co. is not the general contractor but a construction manager. He works for us, the GSA. He is on our side as a construction manager. He is paid a management fee and is reimbursed for his actual costs at the site.

Mrs. HANSEN. What is that fee based on?

Mr. COLLINS. It is a negotiated amount based on the time that he spends in consultation with the architect, on the preparation of separate contract packages, and the development of a management control system known as PERT.

Mrs. HANSEN. It is not based on a percentage?

Mr. COLLINS. No, ma'am. It is based on time.

Mrs. HANSEN. Is the contractor's fee increased if the building takes a longer time to construct?

Mr. COLLINS. No. It is not that way.

Mr. MCKAY. Would the Chairman yield?

Would you like to tell us how that fee is based? How it is figured?

Mr. COLLINS. It is based on competitive bidding.

Mrs. HANSEN. Give us the details.

Mr. COLLINS. It is a fixed fee which was negotiated by the GSA.

Mrs. HANSEN. That does not mean it is reasonable.

Mr. COLLINS. Not at all. It is based upon the amount of time and the duties being performed by the Gilbane Co.

Mrs. HANSEN. Are all those stipulations in the contract?

Mr. COLLINS. I do not know. I will find out. The contracts are fixed-fee contracts.

AWARD OF CONSTRUCTION CONTRACTS

To continue with how this system works, the construction manager does not do any of the work himself, as I said. He manages the construction. He starts out by working with the architect to make sure the architect's plans are sane and are low cost and can be translated into steel and concrete at a reasonable price. Then he continues to direct the work of the various companies who have been awarded by the GSA project manager, fixed-price lump sum contracts.

Mrs. HANSEN. The contracts are not awarded to one company?

Mr. COLLINS. No. Separate contracts are awarded to the firms that would normally be subcontractors. There are 23 construction packages; therefore, 23 contracts will be awarded.

Mrs. HANSEN. Who determined how the contracts would be awarded?

Mr. COLLINS. The GSA project manager, in conjunction with the construction manager.

Mrs. HANSEN. What was the basis of determination for 23 rather than 5 or 10 contracts?

NATURE OF CONSTRUCTION CONTRACTS

Mr. COLLINS. The construction schedule and what logically falls into the same kind of work. Excavation is logically one package. You need one hole. That is one contract.

Mrs. HANSEN. Suppose the excavator runs into difficulties and is delayed. Are the other contracts awarded after the excavation is completed or prior to completion?

Mr. COLLINS. They are awarded in most cases in parallel, as the completion of working drawings permit. For example, right now 13 of the 23 have already been awarded.

Mrs. HANSEN. Do not some of those performances hinge on the performance of other contracts?

Mr. COLLINS. That is right.

Mrs. HANSEN. What happens if the completion of the first contract is delayed, will the other contractors have grounds to submit a claim for escalation of costs?

Mr. COLLINS. I would say it depends on the nature of the trouble. In some cases it would depend on the starting date.

Mrs. HANSEN. I think you need to have firmer definitions.

Mr. COLLINS. All right. Of the 13 awarded so far, it appears to be working well.

Mrs. HANSEN. Is the excavation complete?

Mr. COLLINS. The excavation is complete.

Mrs. HANSEN. What contractors are presently working?

Mr. COLLINS. The marble contractor in Tennessee among others.

Mrs. HANSEN. What are the others?

Mr. COLLINS. We have the concrete, base structure.

We have the structural steel we will be starting very shortly. As you pointed out, it is dependent on how the concrete comes along.

Mrs. HANSEN. Is this the first contractor that is behind schedule?

Mr. COLLINS. He is not waiting. This is how it was planned to be. Nothing is waiting in the sense of being behind schedule. I have the list of the 13. The first one was to relocate some utilities.

Mrs. HANSEN. Insert in the record a list by name of the various subcontractors. Also provide a statement on your construction manager system.

Mr. COLLINS. Yes.

[The information follows:]

CONSTRUCTION MANAGER SYSTEM

A new management procedure has been developed by General Services Administration and is being utilized in the construction of the National Air and Space Museum. This system includes a GSA project manager and a construction manager. It is the responsibility of the construction manager to supervise the construction and direct the work of the various companies who are awarded contracts by the GSA project manager.

The process of selecting a construction manager began when GSA solicited proposals and 24 firms responded. Of the six companies asked to submit price proposals, the Gilbane Building Company submitted the best proposal considering price and other qualifying factors.

The construction manager is paid a fixed fee negotiated by the GSA. This fee, which cannot be changed, was based on the time he spends in consultation with the architect, on the preparation of separate construction packages, and on the development of a management control system, known as PERT. In addition, the manager is reimbursed for actual costs at the site.

Separate contracts are awarded to the firms that would normally have been subcontractors. The 23 construction packages are as follows:

Contract package and contractor

Water Main Relocation, Curtin & Johnson, Washington, D.C.
 Excavation, Morauer & Hartzel, Washington, D.C.
 Marble, Peter Bratti Assoc., New York, N.Y.
 Structural Steel, Roanoke Iron & Bridge Works, Roanoke, Va.
 Metal Decks, Epic Metals Corp., Rankin, Pa.
 Foundations, Edward M. Crough, Inc., Rockville, Md.
 Curtain Walls.
 Skylights, Super Sky, Inc., Thiensville, Wis.
 Roofing and Sheetmetal, Commercial Roofing & Sheet Metal Co., Cheverly, Md.
 Masonry, The Sherman R. Smoot Co., Columbus, Ohio

Mechanical, Limbach Company, Newington, Virginia
 Electrical (Audio System), Singleton Electric Co., Inc., Rockville, Md.
 Elevators & Escalators, Otis Elevator Co., Philadelphia, Pa.
 Concrete Slabs.
 Misc. Metal.
 Paint & Wall Covering, Clifton D. Mayhew, Inc., Arlington, Va.
 Carpentry and Finishing.
 Spray Fire Proofing & Insulation.
 (Partitions & Acoustical.)
 Kitchen & Cafe Equipment.
 Spacearium Dome.
 Landscaping.
 Carpet.
 Seats.

The management control system, PERT, schedules the order in which each contract should be awarded to expedite completion. Most of the 13 contracts, presently let, were not awarded until the GSA project manager had an opportunity to study progress of the excavation and to assure himself there were no unforeseen problems.

By using the construction manager system and writing 23 separate contracts, the government is in a better position to determine which of the individual contractors would be affected by any delay which might occur. Furthermore, it is the most economical system for minimizing the impact of that delay.

ADDITIONAL CONSTRUCTION CONTRACTS

Mr. COLLINS. The second one was excavation. The third is foundations.

Mrs. HANSEN. Is that part of the excavation on the street?

Mr. COLLINS. Part of that is Metro.

Mrs. HANSEN. Is Metro meeting part of your costs?

Mr. COLLINS. No.

Mrs. HANSEN. You are working closely with Metro?

Mr. COLLINS. In the same area we are, but they are not paying for ours and we are not paying for theirs.

Mrs. HANSEN. Could you have let a joint excavation contract with Metro and saved duplication? I remember when Independence Avenue was excavated 3 or 4 times.

Mr. COLLINS. It is true that we are completely separate from Metro.

Mrs. HANSEN. You don't have overlap in any part of the construction?

Mrs. HANSEN. You don't have overlap in any part of the construction?

Mr. COLLINS. We are not working in the same holes in the ground. I will say that.

Mrs. HANSEN. But you are working on the same street?

Mr. COLLINS. Yes, ma'am.

Mr. RIPLEY. Several blocks away.

Mr. COLLINS. The third contract was foundations. The fourth one is structural steel. The fifth is marble. Sixth is curtain walls. Seventh, skylights. The next one is roofing and sheet metal. Next is masonry.

Mrs. HANSEN. When the foundation is in place the rest of contracts are let in series?

Mr. COLLINS. Some of the work goes in series by its very nature and some in parallel by nature.

Mrs. HANSEN. Some of the contracts by their nature have to be let before you can install the roof?

Mr. COLLINS. That is correct. We must have done preliminary work before the roofing can be put on, yes. That is true, absolutely. The building comes out of the ground from the bottom up.

Mrs. HANSEN. What is the roofing contractor doing at the present time?

Mr. COLLINS. They are in their plants manufacturing necessary equipment. Masonry was next. Electrical and escalators, mechanical, electrical, paint and wall coverings, and metal decks. Those are the 13 which we have already let.

Mrs. HANSEN. What are the ten remaining contracts?

Mr. COLLINS. The 10 remaining areas include concrete decks, finishes in carpentry, planetarium dome, kitchen and cafeteria equipment, partitions and ceilings.

Mrs. HANSEN. Are those contracts related to placing the building in shape for service?

Mr. COLLINS. Just about, Madam Chairman. There is one in there for miscellaneous metal, and so forth, we need to get in in an earlier time.

Mrs. HANSEN. Why wasn't that let before some of the others?

Mr. COLLINS. Each contract is phased to come in at the proper time. The remaining ones are landscaping, carpets, seats, and acoustics.

Mrs. HANSEN. Please insert in the record the name of each contractor, the amount of the contract, the purpose, and the expected time of completion.

[The information follows:]

NATIONAL AIR AND SPACE MUSEUM SEPARATE CONTRACT DATA

Contract	Contractor	Award amount	Estimated date of completion
Water main relocation.....	Curtin & Johnson, Washington, D.C.....	\$96,715	Dec. 27, 1972
Excavation.....	Morauer & Hartzel, Washington, D.C.....	412,263	June 14, 1973
Marble.....	Peter Bratti Associates, New York, N.Y.....	2,680,000	Nov. 28, 1974
Structural steel.....	Roanoke Iron & Bridge Works, Roanoke, Va.....	2,763,895	Jan. 11, 1974
Metal decks.....	Epic Metals Corp., Rankin, Pa.....	394,000	June 25, 1974
Foundations.....	Edward M. Crough, Inc., Rockville, Md.....	2,187,000	June 21, 1974
Skylights.....	Super Sky, Inc., Thiensville, Wis.....	1,060,000	Oct. 3, 1974
Roofing and sheetmetal.....	Commercial Roofing & Sheet Metal, Co. Cheverly, Md.....	170,331	Sept. 23, 1974
Masonry.....	The Sherman R. Smoot Co., Columbus, Ohio.....	249,754	Apr. 26, 1975
Mechanical.....	Limbach Co., Newington, Va.....	4,536,000	May 22, 1975
Electrical.....	Singleton Electric Co., Inc., Rockville, Md.....	1,587,000	May 16, 1975
Elevators and escalators.....	Otis Elevator Co., Philadelphia, Pa.....	802,000	Mar. 10, 1975
Paint and wall covering.....	Clifton D. Mayhew, Inc., Arlington, Va.....	206,000	(1)

¹ Not available.

Mr. McKAY. Aren't the acoustics determined by the structure?

Mr. COLLINS. That is a bad word. I am talking about the visitor notification and public address system.

Mrs. HANSEN. You mean the broadcast system.

Mr. COLLINS. Yes.

IMPACT ON TRAFFIC AND PARKING

Mrs. HANSEN. What attention have you given to traffic and parking problems that will arise when both these museums are open? You remember this is one of the questions that the committee raised with

the National Capital Planning Commission and the Smithsonian last year.

Mr. COLLINS. We will have one level of underground parking.

Mrs. HANSEN. How many cars will that hold?

Mr. COLLINS. Five hundred cars plus 15 buses.

Mrs. HANSEN. Suppose the 500 cars are all employees of HEW?

Mr. COLLINS. They will not be.

Mrs. HANSEN. How will you prevent that?

Mr. COLLINS. By rate structure. We are going to make it very inexpensive for the first 2 hours and very expensive thereafter.

Mrs. HANSEN. Suppose they have a car pool?

Mr. COLLINS. It is going to cost them \$14 a day, or something like that. We plan to charge them 50 cents an hour for the first 2 hours and then really jack it up.

Mr. RIPLEY. Discourage the employee and encourage the tourist.

Mrs. HANSEN. Where are HEW employees going to park?

Mr. COLLINS. They have already gone. Wherever they went they have already gone.

Mrs. HANSEN. They are just in other areas.

Mr. COLLINS. There could not be any more central spot than where they used to park. They have been pushed away from the center of the city. A place at Hains Point absorbed a lot of them, and some are using commercial garages to the south and to the west of where we sit right now.

Mr. EVANS. A charge of \$14 per day will get to some people.

Mrs. HANSEN. Will the 15 tour buses that you anticipate be coming from the areas surrounding Washington, or are these the inner city tour buses that are used by the Park Service?

Mr. RIPLEY. I believe the answer is the first suggestion you make.

Mrs. HANSEN. Are you working with the Park Service in regard to the inner city tour buses?

SATELLITE PARKING

Mr. RIPLEY. We have been in consultation with the Park Service, for the 9 years I have been here. We have paid for parts of some of the surveys made involving the Mall area. As you know, I was a member of the Visitors Center Committee. We believe that the plans for the satellite parking, which the Park Service is presently in favor of, are good. But this summer a large number of buses will be excluded from the Mall and will be at satellite positions within call by intercom systems. Shuttle buses will deliver people, and buses will come in on schedule when called. This system we are currently in favor of.

One of our problems recently has been parking by employees of the Metro out of their scheduled areas, which are within the barricaded wooded places and not on the street. We have enjoined the Park Service to get these people removed and put into the places where there is space for them behind these barricades. This kind of thing is a continuing struggle, and all I can say is that the Park Service, within their limits of overwork, do their very best to cooperate.

Mrs. HANSEN. Because many members of the committee are new, do you have a copy of the designs of the Air and Space Museum that the committee can see?

Mr. COLLINS. I brought some photographs with me.

VISITATION AT AIR AND SPACE MUSEUM

Mrs. HANSEN. What is the present visitation per year at the Air and Space Museum?

Mr. BROOKS. While Mr. Collins is getting his papers out, I will try to answer that.

There are two buildings, as you know, that house those exhibits. One is the Arts and Industries Exhibit and the other the Air and Space Building. For the most recent fiscal year, 1972, our figures are 2,306,000 for the Arts and Industry Building and 1.1 million for the Air and Space Building. The total visitation, 3.4 million. There are a number of duplicate visits in there since many people will go across the street from one to the other.

Mrs. HANSEN. How many visitors per day will the proposed Air and Space Museum accommodate?

Mr. COLLINS. Our maximum design load is 50,000 people a day. That is what we expect to see at the maximum. The building could physically handle more than that, but we don't expect more than that.

Mr. RIPLEY. We estimate about 6 million visits a year for this building.

Mrs. HANSEN. In spite of the fact that our space program is diminishing?

Mr. RIPLEY. Yes, I think it will continue without respect to any particular program.

DESIGN OF AIR AND SPACE MUSEUM

Mr. COLLINS. We have pictures of the hole in the ground if anybody would like to see that.

You can see the concrete pilings going in now and it is coming along nicely.

Mr. RIPLEY. They are ahead of schedule now, which is very encouraging.

Mrs. HANSEN. To what do you attribute that?

Mr. RIPLEY. Just efficiency.

Mrs. HANSEN. Weather?

Mr. RIPLEY. Weather. It has been a mild winter.

Mr. EVANS. A question?

Mrs. HANSEN. Yes.

Mr. EVANS. You are designing this to have 500 parking spaces basically?

Mr. RIPLEY. Yes, sir.

Mr. EVANS. One level of parking?

Mr. COLLINS. Yes, that is correct.

Mr. EVANS. Why were not two or three levels of parking considered?

Mr. RIPLEY. One is less expensive.

Mr. COLLINS. We have an estimate of going down a second level. It would cost an additional \$8 million to go down one more level. It has to do with the land down there. We used to have rivers and canals and if you start going down and pick up enough moisture it tends to pop the building out of the ground. The hydraulic uplift is expensive and you have to construct to hold the building down. That is what they found over at the National Gallery of Art.

STORAGE OF EXHIBITS

Mrs. HANSEN. Where do you store your exhibits?

Mr. COLLINS. Out at Silver Hill, Md.

Mrs. HANSEN. What is the cost per year for storage?

Mr. COLLINS. I don't have any figures on that. I can give you figures on that on how many people are working there.

Mrs. HANSEN. Insert the information in the record.

[The information follows:]

COSTS AT SILVER HILL

The National Air and Space Museum employs 23 people at Silver Hill. Their salaries and expenses total \$244,394 per year.

It should be noted, however, that these people are responsible for proper storage as well as for the restoration of the aircraft.

NEED FOR OPEN SPACE

Mrs. HANSEN. If we have many more Smithsonian buildings soon there will be no trees left.

Mr. RIPLEY. There were no trees before.

Mrs. HANSEN. I know, but there might have been.

Mr. RIPLEY. We find that we can fit in 6 million people under a roof better than under the trees.

Mrs. HANSEN. Have you read about the need for more open space?

Mr. RIPLEY. Yes. I have also walked the Mall from end to end. It is a very impressive open space.

Of course, we have the long legislative history of presentation and desire to have an Air and Space Museum. I don't believe in an old quonset hut as being an air-space museum.

Mrs. HANSEN. I agree, but the committee was somewhat startled to see in your language, the phrase, "a mandate from Congress."

Mr. RIPLEY. I don't like the word "mandate" myself.

AIR AND SPACE MUSEUM COSTS

Mrs. HANSEN. Are there any other questions on the Air and Space Museum.

Mr. WYATT. Costs are apparently staying within the \$40 million overall estimate at this point?

Mr. COLLINS. That is correct.

Mr. WYATT. You contemplate within present available information they are going to be completed within those estimates?

Mr. RIPLEY. Yes, sir. It is looking good right now. I could be accused of being naive but I believe it is going to stay on schedule and come in on budget.

Mrs. HANSEN. Why hadn't GSA streamlined their operations before?

Mr. RIPLEY. This is a new procedure, Madam Chairman.

Mrs. HANSEN. Why didn't they adopt this procedure earlier?

Mr. COLLINS. All organizations, I suppose, attempt to improve their operation. This is a model which came from outside contracting.

Mrs. HANSEN. I have long wondered why the Federal Government didn't let contracts in this manner?

Mr. RIPLEY. This is what we are doing in the National Gallery, of course. They have a very good contract supervisory engineer right on the job.

Mrs. HANSEN. You need a very competent person to manage a contract.

Mr. COLLINS. We have a good one; Mr. Hurley Offenbacher of GSA.

Mr. WYATT. I would like to say I think this presentation has been very, very good. I think the committee will be watching this new GSA procedure and also the Smithsonian procedure. It makes good sense and we wish you well. We hope it produces good results.

FUNCTION OF ENGINEERS AND ARCHITECTS

Mr. VEYSEY. I want to say the news of being within the cost estimates and ahead of schedule which Mr. Collins brings us is refreshing. I congratulate him. It is unique, I guess.

There is one question relating to the construction management contract. Does that replace the function of the engineers or architects who would normally exercise a supervisory function during the construction phase?

Mr. COLLINS. I don't believe so, Mr. Veysey. Our architectural firm works with the construction manager. He spent a lot of time at their plant in St. Louis when they were doing the working drawings. It obviously has to be a team. It is as strong as its weakest member, I suppose. The architect has not really lost any of his prerogatives except perhaps the prerogative of making capricious changes. He is much less able to say, "Well, I will change this to that." He has a lot of people looking over his shoulder before he can do that.

Mr. VEYSEY. I believe the normal practice is for the architect to get a fee, maybe a certain percentage for the design and the drawings, and then a certain percentage for supervision of the construction. Is this an additional fee on top of that?

Mr. BROOKS. Basically it does not replace the architect's function of supervision which goes to the design and the fulfillment of that design and building. The construction manager's job is essentially to integrate the work being done on the site. He is taking over the work that traditionally has gone to the general contractor who was supposed to do that. Under the general contractor arrangement, the general contractor has not been able to get to the architect until he gets a contract.

In this case the construction manager gets to the architect and starts looking at his drawings and preparation some months before the drawings are ready. He packages those drawings so that he can send them out to the different contractors.

Mr. VEYSEY. Hopefully a dispute of the type that we have with the Hirshhorn might be avoided under these conditions if they all look at the plans and specifications first and decide indeed it said two different things to two different people; is that right?

Mr. RIPLEY. Yes, sir.

Mr. WYATT. Madam Chairman; for the record, your construction manager in a sense replaces the general contractor who would be getting paid for his services and pulls together and coordinates all these subcontracts; is that right?

Mr. COLLINS. That is correct.

Mrs. HANSEN. This is a far better approach, I congratulate you.

JOHN F. KENNEDY CENTER

Last week the committee heard testimony from the National Park Service on the operation and maintenance of the John F. Kennedy Center. There are apparently continuing problems in the relationships between the Park Service and the Center trustees, especially as they relate to access to the Center and to certain areas in the building. Let me point out the problem.

The Park Service is charged with the maintenance of the Center. Part of the restaurants profits are returned to the John F. Kennedy Center. A certain number of people who use the restaurants also go through other areas of the building and yet none of the profit the Center receives from the restaurant goes to meet the Park Service's maintenance costs. This is typical.

By the way, the warranties on some of the rather sophisticated equipment are expiring. What is your assessment of the problem?

MAINTENANCE AND MANAGEMENT

Mr. RIPLEY. I am afraid that as a trustee, Madam Chairman, I have not addressed myself to the future of the operations. It appeared to me that the Park Service taking over of the maintenance and management of the building as a building, per se in the spirit of their administration of other memorials, such as the Lincoln Memorial, was proper and appropriate.

Mrs. HANSEN. Where the problem arises is that this is a memorial but beyond the memorial you have the theater, opera house, etcetera. You do have these questions arising about the degree of maintenance costs that should be borne by the Park Service. As you are well aware, this creates difficulties especially because the operating costs are going to rise rather sharply in the foreseeable future.

As I noted, we are reaching that point in time when the warranties on the equipment expire; so there is going to be a steadily rising level of costs, I would imagine. I wonder if the Board of Trustees would address itself to this problem, a discussion of perhaps a better distribution of related maintenance costs.

Mr. RIPLEY. Off the record.

[Discussion off the record.]

Mrs. HANSEN. As I understand it, the terrace is quite popular as are all of the restaurants. There are a number of visitors who arrive that do want restaurant services.

Mr. RIPLEY. It is needed in the area.

JOINT DISCUSSION ON DIVISION OF COSTS

Mrs. HANSEN. That is correct. It seems to me that perhaps all the parties involved should get together to develop a better cost division for the management operations. Where you have integrated uses at the center it becomes more difficult to determine what share of the costs should be met by the center and what share should be met by the Park Service. This is going to become, I would say, particularly important in the future as you have to repair or replace major capital investments.

Mr. RIPLEY. Would it be possible to ask either the Chairman or one of the trustees, as such, to come and testify?

Mrs. HANSEN. If your schedule permits, we might ask Roger Stevens to appear with representatives of the Park Service.

We want to do the proper and right thing for the memorial. We are charged with the dual position of trying to make sure the taxpayer's investment is protected and that those functions and costs which are related to performing arts activities are borne by the center. The committee hoped that you might have some comments today and then at a later time we might discuss this matter with Roger Stevens and the Park Service.

Mr. RIPLEY. I would be glad to appear with Roger Stevens as a representative of the Smithsonian. Our function in this has been nominal. We have taken no part in the long-term planning and construction of the building or oversights. Nor were we requested to.

Mrs. HANSEN. The committee suggested at the time the location of JFK Center was selected that a more suitable site could be found. I think time has proved that the committee was right. It could have been more properly a part of Pennsylvania Avenue and general downtown area. The Center has had continuing construction problems which are very similar to those of the Hirshhorn. There are negotiations still pending between the trustees and the contractors. If it takes a different type of authorization the committee is open to suggestions so that in the future these long-term problems won't detract from the purposes of an act like the one establishing the JFK Center.

Mr. RIPLEY. I endorse this heartily.

BICENTENNIAL OUTDOOR MUSEUM

Mrs. HANSEN. What is the status of negotiations for the proposed Bicentennial Outdoor Museum?

Mr. RIPLEY. We are in discussion with the Park Service continually. We hope that they will allow us to prepare a plan for the use of Fort Washington, which is downriver from here on the Potomac.

Mrs. HANSEN. This is going to be an outdoor park?

Mr. RIPLEY. Yes.

Mrs. HANSEN. You also have a related proposition on the Armed Services museum. Isn't this correct?

Mr. RIPLEY. The Dwight D. Eisenhower Center, as it is called, will be incorporated within the Museum of History and Technology and will be under the general supervision of the Armed Forces Museum Advisory Board, but will not require separate construction or a separate building.

Mrs. HANSEN. What are your plans for Fort Foote?

Mr. RIPLEY. That is out.

Mrs. HANSEN. You are requesting no funds for Fort Foote?

Mr. RIPLEY. None whatsoever.

Mrs. HANSEN. Do you still hope to be able to open such a proposed outdoor museum in 1976?

Mr. RIPLEY. I am unable to answer that question with any degree of assurance.

ACCESS TO OUTDOOR MUSEUM

Mrs. HANSEN. Do you think the Park Service will agree to the access at Fort Washington?

Mr. RIPLEY. I have talked to the new Director, Mr. Walker, about this, and find him, in general, very sympathetic. The question is, How can we use such an area effectively with respect to the density of the surrounding suburban population and the narrowness of the roads and access? The alternative that I would like to explore is a small boat—ferry system—across from Mount Vernon to the historical park.

Mrs. HANSEN. Isn't that going to necessitate a new dock at Mount Vernon?

Mr. RIPLEY. They have a dock there, as I understand it. The system would utilize small boats capable of carrying 20 to 30 people only.

Mrs. HANSEN. Doesn't the dock serve only large boats but not small boats? I well remember dropping some 10 feet down to the beach to get to this boat.

Mr. RIPLEY. I wouldn't want to do that. I talked to Mr. Straus about this.

Mrs. HANSEN. The tide was going out and it was doubly hard returning to the dock. If I had not been raised on the Columbia River with fish ladders I would never have negotiated it.

Mr. RIPLEY. This is purely speculative, now. Mr. Straus, of the Accokeek Foundation, has such a boat which he just acquired with the help of Mr. Saylor of the Congress. They are interested in possibly running a fast, short ferry system.

Mrs. HANSEN. It is a beautiful trip; and you get a better idea of Fort Washington than any other way. But the dock that services the tour boat is not going to be adequate unless substantial changes are made. It isn't able to service smaller boats because of the tides on the Potomac and because of the height of the dock.

Mr. RIPLEY. They would have to work out a float with a moving ladder or gangway.

Mrs. HANSEN. They will have to do something.

Mr. RIPLEY. I quite agree. I wouldn't encourage the outdoor park unless we could get some other method of access than simply the present roads.

Mrs. HANSEN. Those roads will not suffice.

Mr. RIPLEY. Our present plans are in flux but we are continuing to work on that.

FORT WASHINGTON

Mrs. HANSEN. The committee will be interested in what you develop. Fort Washington is a very interesting fort.

Mr. RIPLEY. Beautiful site for that. It is relatively well preserved, although there is quite a bit of construction that is beginning to crack. It has no great inherent history and the Park Service has no particular requirements for their interpretive role. They would be willing to cooperate. I think they would be willing to cooperate with us because they realize that they don't have anything special to say there.

Mrs. HANSEN. It is a very interesting example of one of the last built European-type forts?

Mr. RIPLEY. Yes. There have been thought of having outdoor performances there, some tattoolike programs and a historical view of the citizen army. This might be very attractive, but we need access to it. I don't think the sound and light ideas are particularly viable in view of the ambient noise. If you ever stood out in the area and listened to the planes going over your head every minute or so, you cannot think very well about the 18th century.

RESTORATION OF THE DENZEL CAROUSEL

Mrs. HANSEN. You discussed briefly the Denzel carousel. When do you expect to complete the refurbishing?

Mr. RIPLEY. Madam Chairman, it has been a hope of mine ever since I came to the Smithsonian that we could have a few outdoor activities for the children to remind us of the fact that a museum is not a sterile mausoleum. We have a rental carousel that is run by a man on a contract basis every summer outside of the Arts and Industries Building, in front of what is known as Smithsonian Park. We hope to have our own carousel some day. We have a beautiful one, the last one made by the Denzel family of New Jersey in the 1890's, which we purchased some years ago and which have been gradually restoring bit by bit. We had hoped that Charles Eames' design of an all-weather cover, largely glass, which would allow the carousel to be seen winter and summer, could be erected.

Mrs. HANSEN. I understand it is a very enchanting carousel.

Mr. RIPLEY. It is. It conveys a sense of charm and fantasy which would electrify children. This is the meaning to us of the Smithsonian, the ability to attract and fascinate children and intrigue them. These are pictures of some of the animals that we have restored so far. As you see, they are masterworks of their kind. They are great folk carvings.

Mrs. HANSEN. Where was it made?

Mr. RIPLEY. New Jersey. By this German traditional family of woodcarvers that make carousel figures.

Mr. EVANS. Where would this be located?

Mr. RIPLEY. We have a little area known as Smithsonian Park, which lies between 9th and 12th along Independence and halfway out to the Mall. In that area is incorporated the Freer Gallery, the old Smithsonian castle building, the Arts and Industries Building, and the Hirshhorn. The side between Independence and the old Smithsonian Building is a large quadrangular court, bounded by two of these other buildings. It now has a whole assemblage of little rattle-trap things like a quonset hut, horrid wooden buildings, a little old garage, and here and there a noble-tree struggling to maintain itself.

Mrs. HANSEN. Here is my contribution to the carousel.

Mr. RIPLEY. Thank you, Madam Chairman. That brings us up to \$119. I think we have ample open space right in this court area by the original Smithsonian Building. Of course, it would complement the Arts and Industries Building which itself looks like a set of circus tents. It is that world fair architecture of the 1870's. The castle is just a castle, and so to have a carousel associated with it is not inconsistent.

Mrs. HANSEN. I hope your donations improve quickly.

Mr. RIPLEY. We were so overwhelmed by the generosity of Mr. Anderson.

Mrs. HANSEN. I was delighted to see that, it was one of his better articles.

Mr. RIPLEY. May I say, Madam Chairman, he volunteered to help us, rather than our going to him. It is a very nice gesture.

Mrs. HANSEN. I hope you receive sufficient donations, because I would like to see your carousel in operation. I like to see things for young people.

Mr. RIPLEY. So do I.

FLORA OF NORTH AMERICA

Mrs. HANSEN. The committee has received numerous letters about the Flora North America project. With a total increase of almost \$24 million in your 1974 budget, why were you unable to find a place for this \$200,000 item?

Mr. RIPLEY. Madam Chairman, I would like to ask Dr. Challinor, the Assistant Secretary for Science, to speak to that.

Mr. CHALLINOR. Madam Chairman, we have a group of botanists throughout the country interested in this project.

Mrs. HANSEN. I ascertained that fact.

Mr. CHALLINOR. They were initially wholly funded by the National Science Foundation. About last year the National Science Foundation announced they would no longer fund this project to its ultimate completion.

It is going to cost between \$800,000 and \$900,000 a year for the next 5 or 6 years. The Smithsonian during this past period has been funding this to the tune of about \$60,000 a year out of its own funds. The participating institutions, most of whom you have gotten letters from, are not really putting any cash in this at all. They were putting in their portions of the grants which they received from the National Science Foundation.

The National Science Foundation then said if the Smithsonian will for the first year get \$200,000 in its own budget, they will give \$600,000 for a total of \$800,000 to support the botanical teams at other institutions. Then each successive year the National Science Foundation portion would decline, and the Smithsonian portion would increase, until by 1976 the Smithsonian portion would level off at about \$900,000.

In Smithsonian terms, this is a large amount. The mechanism for carrying out the Flora of North America involved the use of an IBM computer designed for this. The Smithsonian has three computers, and we felt within our budget priorities it would be very hard to justify before Congress a request for a fourth computer system to support the Flora of North America in the fashion in which it was supposed to come to us.

We said, however if we can get \$200,000 from Congress, going through the OMB-Congress budget procedure, we would certainly be willing to try.

Mrs. HANSEN. I take it OMB did not approve this project?

Mr. CHALLINOR. We did not get through OMB.

Mrs. HANSEN. The Flora of North America is probably one of the least interesting programs to OMB.

Mr. CHALLINOR. As a matter of policy, I would like to point out we do intend to keep this project going, but within the limits and control of the Smithsonian Institution. If we take over this project from the outside, the buck stops with us. It is our job to make it work with our contributors and under our control, which is, indeed, what we are continuing to do now.

We will have put in during 1973 about \$61,000 of our own money, which I might add is considerably more than any of the other botanical organizations have done. We will continue to keep this project alive, but not at the scale at which it was originally planned.

PURPOSE OF FLORA OF NORTH AMERICA PROJECT

Mr. EVANS. I would like to have a further explanation of the purpose of this project.

Mr. CHALLINOR. This project is to put together under one series of volumes, via a computer, the record of all the plants in North America north of Mexico. This has been done already for mainland Soviet Union. They completed theirs in 1964, 34 volumes, without the use of a computer. The botanical gardens, herbaria, and other research organizations in Europe are in the process of making a Flora of Europe.

We have felt that the Flora of North America would be extremely useful to keep track of what plants and trees exist now in this country at this point in time.

Mrs. HANSEN. And what changes occur.

Mr. CHALLINOR. And the changes, exactly.

Mrs. HANSEN. Let me read you one paragraph from a letter I have received:

Approximately 700 botanists in the United States and Canada have agreed to contribute their time and effort to complete an inventory of all the plants of North America. The Flora of North America program has been carried out for 6 years in the light of full international publicity. Many of the members of the Advisory Committee are distinguished botanists from Foreign countries, including the Soviet Union. The 11th International Botanical Congress is to be held in Leningrad in 1975, and a number of us will be present at that time. I must point out that we would be considerably embarrassed over the fact that the Soviet Union completed its own similar inventory of its plants in 1964 * * *.

Mr. CHALLINOR. This is a very worthwhile project which we endorse and support and which we intend to carry on to the limits that we feel we can best do.

Mr. RIPLEY. We will continue it if we can get money for it.

Mrs. HANSEN. You would not mind if the committee shifted and changed your priorities?

Mr. RIPLEY. No, ma'am.

"TECUMSEH" LEGAL MATTER

Mrs. HANSEN. On December 30, 1972 an article appeared in the Washington Post on the sunken ship *Tecumseh* in Mobile Bay. Is there money in your budget to pay for this? Why should the Government pay it?

Mr. RIPLEY. May I ask Mr. Brooks to answer the question you raised?

Mr. BROOKS. Madam Chairman, as you know, there was a judgment in the case of the *Tecumseh* against the Smithsonian Institution in the amount of \$212,000.

Mrs. HANSEN. What was the judgment based on?

Mr. BROOKS. The judgment was based on a trial in the district court. The complaint was made by Expeditions Unlimited for certain damages they claimed had resulted to them.

Mrs. HANSEN. What were those damages?

Mr. BROOKS. These claims concerned lost profits and expenses.

Mrs. HANSEN. How much did they have invested?

Mr. BROOKS. I do not have that information.

Mrs. HANSEN. Do you want to supply to the committee a complete, detailed summary of the judgment, and give us the highlights of that judgment? You were in the process of recovering the *Tecumseh*, were you not?

Mr. RIPLEY. Since the matter is still before the court, I can only speak generally at this point. We entered into a verbal and letter agreement, but no formal contract. They had the right to try to raise the money to raise the ship, and, if successful, they would carry out the operation of raising the ship.

They claim an infringement on a contractual basis, which we contested, that they were not given an adequate opportunity to sell TV, radio, photographic, and other rights and thereby raise the funds, get advance funds, because of actions of the Director of our Armed Forces Museum Advisory Board, as I understood it. So they then brought a suit.

Apparently the case came to trial before a jury who were impressed by this argument. The head of our bureau had drowned in the meantime and was not there to rebut the case. He had been really handling it very much himself.

Our legal counsel's office did the best they could under the circumstances, but the jury seemed to be persuaded that the Smithsonian Institution, and the U.S. Government, should take care of this man who claimed to be having a very difficult time.

Mrs. HANSEN. The article says, "after the project foundered on the Smithsonian's budget problems, the firm brought suit in the U.S. District Court."

Mr. RIPLEY. This is after the fact. We did not supply funds, as I recall it, at all. It was purely on speculation.

Mrs. HANSEN. In other words, Expeditions Unlimited went ahead on their own?

Mr. RIPLEY. Yes. This was a venture project on his part to raise his own funds. We put no funds into it.

Mrs. HANSEN. Who is going to pay the bill?

Mr. RIPLEY. It is still in litigation. There is a motion for judgment notwithstanding the verdict pending before the court. We have no way of knowing. I would say the whole thing is in limbo at the moment.

Mrs. HANSEN. There are no funds in the fiscal year 1974 budget for this activity?

Mr. RIPLEY. Certainly not.

Mrs. HANSEN. Why should you be required to pay this claim?

Mr. RIPLEY. We are not persuaded that there is a valid case here.

NATIONAL MUSEUM ACT

Mrs. HANSEN. I have received a letter from a museum director in regard to travel authority. Does the Smithsonian have authority to pay for travel and living expenses for museum personnel coming back here to work?

Mr. RIPLEY. Coming back from another State?

Mrs. HANSEN. Yes.

Mr. RIPLEY. We have budgeted items of expenditure for review panels under the Museum Act, as the National Science Foundation and other Government granting agencies do. If we summon a review panel of experts, museum personnel or otherwise, we do have a budgeted item for carrying some of their costs on a reimbursable basis.

TRAVELING EXPENSES ASSOCIATED WITH WORKSHOPS

Mrs. HANSEN. This letter relates to your workshops. "I notice under the National Museum Act you are now offering workshops in special areas to museum staff around the country. The only problem for a small museum in Washington"—or any other State—"is the high cost of travel to and from the District of Columbia and the lodging there, all of which must be paid by the local museums. Since our travel fund is only \$1,200 per year, obviously our staff cannot take advantage of this opportunity. However, some museums can, and it should be to their benefit to do so. Frankly, I am at a loss to understand the travel funding situation."

Mr. RIPLEY. I think Mr. Perrot can speak to that directly, because he is in charge of the National Museum program.

Mr. PERROT. Madam Chairman, there is nothing, as far as I know, that legally prevents us from providing travel expenses.

Mrs. HANSEN. But you do not have funds in your budget for this activity?

Mr. PERROT. We do not have budgetary funds. We feel that institutions sending personnel should make some sort of commitment, moral as well as physical, to the further training of the members of their staff. The limitation now is one of funds, rather than anything else.

Mrs. HANSEN. The committee has received an increasing number of inquiries on this very subject, particularly from the smaller museums in the country. They do not have accessibility to the techniques that are badly needed.

As you are well aware, there is no well-trained cadre of museum directors in the United States, particularly west of the Mississippi.

There should be some discussion on developing cooperative programs between the States and the Smithsonian Institution.

Mr. PERROT. May I add, we are encouraging museums to take a look at this with a view to distributing workshops as much as possible across the country.

Mrs. HANSEN. This could be one answer to the problem.

Mr. PERROT. We want those to be multiplied within the limitations of the funds available to support the workshop programs.

PRESERVATION OF INDIAN ARTIFACTS

Mrs. HANSEN. As I mentioned this morning, one of your employees was in Washington working with the Makahs. Temporarily they have their artifacts stored in an old building. They are interested in a museum for these artifacts.

Because of the customs of the tribe and their pride in the tribe, they do not want them moved from the tribal area. Yet, these artifacts are of great significance in their contribution to the entire history of North American Indians, particularly the Indians on the northwest coast. Because of their desire and the fact that they are not a wealthy tribe we are trying to encourage the preservation of these artifacts.

What are you doing to help these Indian tribes on such matters? If they reached a point where a building was feasible they would need advice on the type of building and what kind of preservation techniques to use.

Mr. PERROT. We have had several meetings with the Museum of Natural History and the Department of Anthropology addressing ourselves to just these questions. For example, representatives of the Navajo community came to Washington some months ago and we reviewed the plans for a new building. Members of the staff of the Museum of Natural History have gone on the site to assist them in sharpening and revising these plans.

The head of the Archives of American Anthropology is particularly concerned about the documentary history that the Navajos have.

We have an advisory service and encourage members of the staff of the Smithsonian to go out and assist wherever possible. We do not have funds nor do we see any way of obtaining funds in the immediate future to assist in construction.

Mrs. HANSEN. That program could be done in cooperation with the BIA through the BIA's economic development program.

The problem is that the authorizing committee has yet to approve this program.

PARKING AT THE ZOO

Mrs. HANSEN. I notice you plan to charge a fee to park at the zoo.

Mr. RIPLEY. Dr. Reed is here and is prepared to speak about the zoo parking.

Mr. REED. The parking fee at the zoo has been authorized by the Board of Regents. We believe it has the support of OMB in the context of considering ways to obtain financing of the parking facilities at the zoo.

The people who are using the parking lot will help defray some of the future cost of the parking development.

Mrs. HANSEN. How many cars can be parked at the zoo per day?

Mr. REED. We can park about 1,100 cars. We can shoehorn in a few more.

Mrs. HANSEN. Is there a fee to park at the zoo at the present time?

Mr. REED. No cost at the present time. We have never charged for admission or for parking at the zoo since 1890.

Mr. HANSEN. All of a sudden, you have decided to charge a dollar per car? Is this revenue sharing?

Mr. REED. A user tax, yes. Revenue sharing, no. At the present time, most of the major zoos in this country charge for parking cars.

Mrs. HANSEN. The major zoos of this country do not receive their operating funds from the Congress of the United States.

Mr. REED. I realize that.

Mrs. HANSEN. I have a news article that indicates you will have room for 2,200 cars, and there will be a terraced visitor space at a cost of \$620,000. Are there any funds in your fiscal year 1974 budget for this project?

Mr. REED. If you are reading a news article, there are a few mistakes in that. The reporter was not quite accurate.

The money we have in the budget request before you today is for the design of the parking garage, certainly not the construction of it. The design will go into the tentative phases now, and partial working drawings.

Mrs. HANSEN. If you arrive at the zoo before 9 o'clock in the morning you are allowed to park for free?

Mr. REED. Yes. Hopefully, this will distribute our visitors out more over the day. We will not be denying a person who does not have a dollar. He can come to the zoo.

Mrs. HANSEN. Provided he arrives before 9 o'clock?

Mr. REED. If he brings his car before 9 o'clock in the morning. We are not denying the person who does not have the dollar. He will be using the zoo. This will spread our visitor load out, making it more enjoyable for everyone.

Mrs. HANSEN. Do you have legislative authority to charge for parking?

Mr. REED. It is my understanding that we have sufficient authorization already for this.

SALARIES AND EXPENSES

Mrs. HANSEN. We will insert justification pages A-1 through A-77 in the record at this point.

SMITHSONIAN INSTITUTIONFISCAL YEAR 1974 ESTIMATES OF APPROPRIATIONSGENERAL STATEMENTOrganization and Performance

Founded in 1846, the Smithsonian Institution is an independent establishment devoted to public education, basic research, and national service in the arts, sciences, and history. Centered on the Mall in Washington, D. C., it also operates major facilities and activities elsewhere in Washington, across the country, and overseas.

One of the world's leading research centers, the Smithsonian is also the world's largest museum complex, attracting, with the Zoo, upward of twenty million visitors yearly as well as additional millions who view traveling exhibits. It possesses more than 70 million objects and specimens, about three percent of which are on public display and the rest used for basic research.

This complex includes as major components four history and science museums: the combined National Museum of Natural History and National Museum of Man, the National Museum of History and Technology, and the National Air and Space Museum. A fifth, the National Armed Forces Historical Museum Park, is in the planning stage under an advisory group established by Congress. There are six art museums: the Freer Gallery of Art, the separately administered National Gallery of Art, the National Collection of Fine Arts, the National Portrait Gallery, the Renwick Gallery, and the Cooper-Hewitt Museum of Decorative Arts and Design in New York. A seventh, the Hirshhorn Museum and Sculpture Garden, is being constructed on the Mall. Each of these museums has or plans extensive research and public service activities.

There are other major components of the Smithsonian in Washington. The Radiation Biology Laboratory plays a unique role in the study of the effects of solar radiation. The National Zoological Park, with facilities in Rock Creek Valley, annually attracts more than four million visitors. The national cultural center, the John F. Kennedy Center for the Performing Arts, is a separately administered bureau of the Smithsonian under a separate Board of Trustees. The Smithsonian's other performing arts activities cover a wide spectrum--puppet shows to classical concerts to a college drama festival. A Festival of American Folklife is presented each year on the Mall with representation from every region of the country and an annual attendance of over half a million persons.

Also in Washington, the innovative Anacostia Neighborhood Museum operates in a low-income area of the city in cooperation with the local community. There is an oceanographic sorting center at the Washington Navy Yard. In addition, a center for advanced study, the Woodrow Wilson International Center for Scholars, is underway at the Smithsonian.

Smithsonian facilities and activities stretch across the nation and the world. Chief among these installations elsewhere is the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts, which itself operates major installations in other parts of the United States and field stations in several nations around the globe. Other national and international facilities include the 350-acre Belmont Conference Center in nearby Maryland; the 2,000-acre Chesapeake Bay Center for Environmental Studies; centers in New York, Boston, Detroit, and San Francisco supporting the work of the Washington-based Archives of American Art; an oceanographic sorting center in Salammbu, Tunisia, whose work parallels the programs of the Institution's oceanographic center in Washington; and the highly regarded Tropical Research Institute centered in Panama.

A wide range of programs is conducted in cooperation with other institutions, several dozen universities, and government agencies here in the United States and on every continent. The Institution offers its facilities and intellectual resources for research and education, from the elementary to postgraduate levels, in hundreds of areas of Smithsonian scientific and cultural interest.

More than two thousand scientific expeditions to the corners of the world have been sponsored or participated in by staff members over the decades. The Smithsonian participates in continuing research projects in many nations abroad, in some cases using United States Government surplus commodity funds for this purpose.

For more than a century, the Smithsonian has circulated a wide range of research and other publications here and abroad. Today, a number of its components are engaged in varying aspects of publication, distribution, exchange, and information-retrieval services. Communications activities also include radio, television, and motion picture programs.

The Smithsonian Associates, a dues-paying membership program set up in 1965, has about 10,000 members in the Washington area. In other parts of the nation, more than 350,000 members receive the monthly magazine Smithsonian.

Management Effectiveness

The management of this complex organization places unusual demands on identifying, implementing, and reviewing needed management initiatives. In recognition of this, over the past year the Smithsonian has taken the following steps:

1. Within the Office of the Secretary it has created a focus for identifying and reviewing emerging issues which impact on the longer-range development of the Institution's programs.
2. Mechanisms have been established whereby bureau and office personnel are provided fuller opportunities to participate constructively in Institutional decision-making.
3. Investigative work has been assigned to key research, technical, and administrative teams in selected areas of activity. The objective of the assignments is a thorough assessment of important program areas with high public significance; such as, exhibits preparation, protection of the National Collections, and general public services.

Through these and other efforts the Institution will ensure that its research, education, and other national service activities will be conducted effectively.

FY 1974 Budget Estimates and Objectives

For FY 1974 the Institution is requesting the following appropriations:

	<u>FY 1973</u> <u>Appropriations</u>	<u>Requested</u> <u>Increase</u>	<u>FY 1974</u> <u>Estimate</u>
Salaries and Expenses	\$51,633,000	\$ 4,805,000	\$56,438,000
Science Information Exchange	1,600,000	65,000	1,665,000
Special Foreign Currency Program	3,500,000	5,500,000	9,000,000
Construction and Planning	<u>18,689,000</u>	<u>13,381,000</u>	<u>32,070,000</u>
	\$75,422,000	\$23,751,000	\$99,173,000

Highlights of the budget requests are as follows.

A. "Salaries and Expenses"

<u>1972 Appropriation</u>	<u>1973 Appropriation</u>	<u>1974 Estimate</u>
\$44,701,000	\$51,633,000	\$56,438,000

This appropriation provides for the regular operating programs in the museums, galleries, zoological park, research laboratories, and other program units; for special projects of an Institution-wide nature; and for program support activities. This funding is allocated by major groups as follows (organizational allocation appears on pages A-2 through A-3):

	FY 1973		FY 1974
	<u>Base</u>	<u>Increase</u>	<u>Estimate</u>
Science.....	\$18,162,000	\$1,585,000	\$19,747,000
History and Art.....	7,250,000	515,000	7,765,000
Public Service.....	2,087,000	174,000	2,261,000
Museum Programs.....	5,364,000	701,000	6,065,000
Special Programs.....	2,955,000	494,000	3,449,000
Administration, Protection, and Support...	7,379,000	620,000	7,999,000
Buildings Management.....	<u>8,436,000</u>	<u>716,000</u>	<u>9,152,000</u>
Totals	\$51,633,000	\$4,805,000	\$56,438,000

Major purposes to be served by the requested funding increase include:

- The projected higher costs of current employees caused by periodic step increases and by legislated pay raises for wage board employees (\$750,000)
- Research, aircraft and spacecraft restoration, and exhibits planning and preparation for the new National Air and Space Museum. Now under construction, the Museum is scheduled to open to the public in July 1976 (\$765,000)
- Support of basic science in the National Museum of Natural History and Smithsonian Astrophysical Observatory (\$200,000)
- Operations of the popular National Zoological Park (\$150,000)
- Collections documentation and preservation in the National Museum of History and Technology (\$150,000)
- Preparations for opening the Hirshhorn Museum and Sculpture Garden to the public in the spring of 1974 (\$150,000)
- Conservation of collections to guard against further deterioration and loss (\$100,000)
- Preparation of exhibits, scholarly projects, and national outreach activities for the American Revolution Bicentennial (\$1,000,000)
- Support of the general exhibits program in the face of a growing workload (\$300,000)
- Additional grants under the National Museum Act in behalf of the museum profession (\$100,000)
- Protection and security of buildings, exhibits, collections, and visitors and buildings maintenance and custodial operations (\$875,000)
- All other research, education, public service, administration, and support activities (\$265,000)

B. Science Information Exchange

<u>1972 Appropriation</u>	<u>1973 Appropriation</u>	<u>1974 Estimate</u>
\$1,600,000	\$1,600,000	\$1,665,000

A funding increase of \$65,000 is requested to help meet the essential costs of maintaining and developing data input on research in progress as a national information service to the federal and nonfederal research communities.

C. Special Foreign Currency Program

<u>1972 Appropriation</u>	<u>1973 Appropriation</u>	<u>1974 Estimate</u>
\$3,500,000	\$3,500,000	\$9,000,000

The need is to provide adequate support, without a drain on hard dollars, for overseas archaeological work, systematic and environmental biology, astrophysical and earth sciences studies, and museum programs. The development and expansion of regular programs, as well as the opening of important new research possibilities, especially in India, Poland, Pakistan, and Burma, have resulted in a rising demand for excess foreign currency funds by American institutions of higher learning. The FY 1974 request also urges funding to complete the United States contribution to UNESCO's international campaign to preserve the archaeological monuments in Nubia with one final payment of \$4,000,000 equivalent in "excess" Egyptian pounds.

D. Planning, Renovation, Restoration, and Construction

<u>1972 Appropriation</u>	<u>1973 Appropriation</u>	<u>1974 Estimate</u>
\$6,347,000	\$18,689,000	\$32,070,000

Included in the FY 1974 budget are three appropriation requests. An amount of \$3,850,000 is required for the National Zoological Park to permit construction of the major new lion and tiger exhibit; planning and design of parking, exhibit, and other visitor and staff services; and repairs to existing facilities. Funding of \$1,220,000 is sought for restoration, renovation, and improvement of other Smithsonian buildings and property, including the Mt. Hopkins Observatory. And, an appropriation of \$27,000,000 is requested to liquidate the balance of the contract authority provided in the FY 1973 budget for the construction of the National Air and Space Museum.

Details on each of these operating and construction programs appear in the following sections of this budget.

SMITHSONIAN INSTITUTION"SALARIES AND EXPENSES"Summary of Increase

Appropriation Act, FY 1973	\$51,633,000
FY 1974 Request	<u>56,438,000</u>
Requested Increase	\$ 4,805,000

(Dollars in thousands)
 SMITHSONIAN INSTITUTION
 "Salaries and Expenses"
 Summary of the 1972 and 1973 Appropriations and the 1974 Estimates

Page No.	Unit	1972 Actual		1973 Approp.		1974 Estimate		Analysis of Increases		
		Pos.	Amount	Pos.	Amount	Pos.	Amount	Nec Pay	Pos.	Amount
Science										
A-6	Assistant Secretary for Science	9	\$170	9	\$123	9	\$126	\$3	0	\$0
A-7	National Museum of Natural History	335	5,676	340	6,442	345	6,680	138	5	100
A-9	Smithsonian Astrophysical Observatory	57	2,653	57	2,999	57	3,108	9	0	100
A-10	Smithsonian Tropical Research Inst.	52	843	58	906	58	921	15	0	0
A-11	Radiation Biology Laboratory	46	1,105	48	1,354	48	1,373	19	0	0
A-13	Office of Environmental Sciences	32	682	33	719	33	732	13	0	0
A-14	Chesapeake Bay Center	10	160	10	140	15	232	2	5	90
A-16	National Air and Space Museum	44	754	56	1,070	76	1,852	17	20	765
A-18	Center for the Study of Man	10	202	12	243	15	317	4	3	70
A-19	National Zoological Park	286	3,827	286	4,166	286	4,406	90	0	150
	Subtotal Science	881	\$16,072	909	\$18,162	942	\$19,747	\$310	33	\$1,275
History and Art										
A-21	Assistant Secretary for History & Art	9	\$221	9	\$184	9	\$187	\$3	0	\$0
A-22	Museum of History and Technology	155	2,457	161	2,835	164	3,040	55	3	150
A-24	National Collection of Fine Arts	72	1,221	75	1,396	77	1,493	22	2	75
A-26	National Portrait Gallery	39	924	43	1,052	43	1,068	16	0	0
A-28	Hirshhorn Museum and Sculpture Garden	21	623	23	1,166	37	1,319	3	14	150
A-30	Freer Gallery of Art	8	78	14	186	14	191	5	0	0
A-31	Archives of American Art	11	193	11	190	12	223	3	1	30
A-33	National Armed Forces Museum Adv Bd	6	131	6	134	6	136	2	0	0
A-34	Smithsonian Archives	6	81	7	107	7	108	1	0	0
	Subtotal History and Art	327	\$5,929	349	\$7,250	369	\$7,765	\$110	20	\$405
Public Service										
A-35	Assistant Secretary for Public Service	6	\$147	6	\$106	8	\$126	\$2	2	\$18
A-36	Anacostia Neighborhood Museum	15	206	18	267	21	302	4	3	31
A-37	Office of International Activities	9	140	10	160	11	206	5	1	41
A-38	International Exchange Service	9	147	9	160	9	168	8	0	0
A-39	Division of Performing Arts	7	265	9	303	10	345	3	1	39
A-40	Office of Public Affairs	12	372	12	281	12	284	3	0	284
A-41	Smithsonian Institution Press	25	816	25	810	26	830	4	1	16
	Subtotal Public Service	83	\$2,093	89	\$2,087	97	\$2,261	\$29	8	\$145

(Dollars in thousands)

Page No.	Unit	1972 Actual		1973 Approp.		1974 Estimate		Analysis of Increases	
		Pos.	Amount	Pos.	Amount	Pos.	Amount	Nec Pay	Pos. Amount
Museum Programs									
A-42	Assistant Secretary for Museum Programs	9	\$250	9	\$319	9	\$321	\$2	0 \$0
A-43	Conservation-Analytical Laboratory	13	195	14	269	19	371	2	5 100
A-44	Office of Exhibits Programs	158	2,580	148	2,552	163	2,904	52	15 300
A-45	Office of the Registrar	31	323	31	368	31	373	5	0 0
A-46	Smithsonian Institution Libraries	59	864	63	1,058	66	1,117	9	4 50
A-47	Smithsonian Traveling Exhibition Service	0	0	0	0	5	80	0	4 80
A-50	National Museum Act	3	600	3	798	3	899	1	0 100
	Subtotal Museum Programs	273	\$4,812	268	\$5,364	296	\$6,065	\$71	28 \$630
Special Programs									
Introduction									
A-52	American Revolution Bicentennial Pro.	2	\$356	2	\$754	2	\$1,754	\$0	0 \$1,000
A-53	Environmental Sciences Program	8	268	8	273	8	175	2	0 -100
A-55	Major Exhibition Program	0	525	0	749	0	319	0	0 -430
A-56	Academic and Educational Programs	22	653	23	729	24	751	7	1 15
A-59	Research Awards	0	425	0	450	0	450	0	0 0
	Subtotal Special Programs	32	\$2,227	33	\$2,955	34	\$3,449	\$9	1 \$485
Administrative and Support Activities									
A-62	Office of The Secretary	22	\$391	24	\$425	25	\$459	\$6	1 28
A-63	Office of General Counsel	9	213	10	192	11	222	5	1 25
A-64	Office of the Treasurer	33	647	35	754	36	788	9	1 25
A-65	Office of Personnel Administration	30	419	33	479	33	493	4	0 10
A-66	Office of Audits	5	116	6	107	8	138	1	2 30
A-67	Office of Equal Opportunity	3	64	3	63	5	103	0	2 40
A-68	Photo Services Division	26	368	29	520	29	526	6	0 0
A-69	Information Systems Division	14	267	17	322	18	349	7	1 20
A-71	Supply Division	21	365	21	404	23	425	6	2 15
A-72	Management Analysis Office	10	186	10	186	12	217	6	2 25
A-73	Protection Services	291	3,506	332	3,780	378	4,098	40	46 278
A-75	Other	10	165	10	147	11	181	12	1 22
	Subtotal Admin. & Support Act.	474	\$6,689	530	\$7,379	589	\$7,999	\$102	59 \$518
A-76	Buildings Management	500	\$6,988	521	\$8,436	594	\$9,152	\$119	73 \$597
	Total	2,570	\$44,810	2,699	\$51,633	2,921	\$56,438	\$750	222 \$4,055

SMITHSONIAN INSTITUTION
NECESSARY PAY AND RELATED BENEFITS

An increase of \$750,000 is required for personnel compensation and personnel benefits for the projected higher costs in FY 1974 of FY 1973 staff. The operations of the Smithsonian have been carefully reviewed and \$284,000 have been absorbed. These higher costs result from the following actions:

a. To finance periodic step increases made in accordance with the Government Employees Salary Reform Act of 1964 and with currently prevailing practices in the wage scale.....	\$755,000
b. To finance wage raises for the wage grade, wage leader, and wage supervisor employees and for the manual employees in Panama.....	\$329,000
c. Offset by savings due to reducing average general schedule grade level.....	-50,000
d. Absorbed.....	<u>-284,000</u>
Total request for Necessary Pay.....	\$750,000

The cost of the General Schedule pay raise effective January 7, 1973, is not included in the above request. The Office of Management and Budget advises that the cost of this pay raise may be handled as a supplemental in FY 1974.

Periodic step increases are made in accordance with Government Employees Salary Reform Act of 1964 and prevailing practices in the wage system. The apparent cost of these increases was determined through a position-by-position study and has been offset by the effect of employees leaving the Smithsonian and not receiving their within-grades and by employing new personnel at lower steps than previous incumbents. This salary increase would average approximately \$272 for within-grades of employees in their present positions. In the past the amount was also offset by the effects of promotions of employees in their present positions. The current control on promotions in order to lower the average grade of General Schedule employees has had the effect of reducing these savings. Savings from control of grade rise, however, have been applied. Total additional costs in FY 1974 of periodic increases (the additional costs of annualizing periodics granted in FY 1973 and the costs in FY 1974 of new periodic steps granted in that year) are estimated at \$755,000. An amount of \$522,000 is requested.

The Smithsonian Institution employs over 700 wage employees. In FY 1973 the wage board employees are expected to benefit from four pay actions:

--On August 20, 1972, the non-supervisory wage grade employees in grades 1 through 4 received a salary increase ranging from one cent per hour to nine cents per hour.

--The number of steps in the wage grade series was three for non-supervisory and leader personnel. The steps will be extended to five for non-supervisory and leader personnel on or before April 20, 1973. Since the time in grade from step 1 through 3 was only 18 months most wage personnel are already in step 3. The waiting period to go to step four is understood to be two years. Therefore, approximately 60 percent of the wage employees in the non-supervisory and leader scales will go to step 4.

--A new wage review was ordered for the entire wage structure of non-supervisory, leader, and supervisory personnel. This raise was made effective October 29, 1972. Because of the Administration's wage and price controls this raise was limited to 5.5 percent.

--In addition, the manual employees at the Smithsonian Tropical Research Institute in Panama received a raise in July 1972 and are expected to receive another raise in July 1973.

The request for \$228,000 is to help finance the annual cost in FY 1974 of these four wage raises. The actual cost of these raises was estimated at \$329,000.

Necessary Pay by Unit:

(Dollars in thousands)

Unit	Periodic Step Inc.	Wage Raise	Total
Assistant Secretary for Science	3		3
National Museum of Natural History	138		138
Smithsonian Astrophysical Observatory	9		9
Smithsonian Tropical Research Institute	13	2	15
Radiation Biology Laboratory	6	13	19
Office of Environmental Sciences	10	3	13
Chesapeake Bay Center for Environmental Studies	2		2
National Air and Space Museum	15	2	17
Center for the Study of Man	4		4
National Zoological Park	30	60	90
Assistant Secretary for History and Art	3		3
National Museum of History and Technology	55		55
National Collection of Fine Arts	22		22
National Portrait Gallery	16		16
Hirshhorn Museum and Sculpture Garden	3		3
Freer Gallery of Art	4	1	5
Archives of American Art	3		3
National Armed Forces Museum Advisory Board	2		2
Smithsonian Archives	1		1
Assistant Secretary for Public Service	2		2
Anacostia Neighborhood Museum	4		4
Office of International Activities	5		5
International Exchange Service	3	5	8
Division of Performing Arts	3		3
Office of Public Affairs	3		3
Smithsonian Institution Press	4		4
Assistant Secretary for Museum Programs	2		2
Conservation-Analytical Laboratory	2		2
Office of Exhibits Programs	37	15	52
Office of the Registrar	5		5
Smithsonian Institution Libraries	9		9
National Museum Act	1		1
Environmental Sciences Program	2		2
Academic and Educational Programs	7		7
Office of the Secretary	6		6
Office of General Counsel	5		5
Office of the Treasurer	9		9
Office of Personnel Administration	4		4
Office of Audits	1		1
Photographic Services Division	6		6
Information Systems Division	7		7
Supply Division	6		6
Management Analysis Office	6		6
Protection Services	40		40
Other	1	11	12
Buildings Management	3	116	119
Total, Necessary Pay and Related Benefits	522	228	750

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF THE ASSISTANT SECRETARY FOR SCIENCE

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>9</u>	<u>-</u>	<u>9</u>
11 Personnel Compensation.....	100	3	103
12 Personnel Benefits.....	9		9
21 Travel & Trans. of Persons..	6		6
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	1		1
24 Printing and Reproduction...			
25 Other Services.....	4		4
26 Supplies and Materials.....	2		2
31 Equipment.....	1		1
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>123</u>	<u>3</u>	<u>126</u>

Analysis of Increase

Pay Increase.....	3
Program.....	-

Specification of Increase (Program):

This Office is responsible for overall planning, coordinating, and reviewing the progress of thirteen science bureaus and programs within the Institution. No program fund increase is requested for FY 1974.

OFFICE OF THE ASSISTANT SECRETARY FOR SCIENCE

1972 Actual.....	\$170,000
1973 Appropriation.....	\$123,000
1974 Estimate.....	\$126,000

The Office of the Assistant Secretary for Science advises and assists the Secretary in planning, implementing, and reviewing the progress of Smithsonian science programs. This office assists in planning, coordinating, and reviewing the work of the various scientific bureaus and offices within the Smithsonian. The bureaus reporting to the Assistant Secretary for Science are the National Museum of Natural History, the Radiation Biology Laboratory, the Smithsonian Tropical Research Institute, the National Zoological Park, the National Air and Space Museum, the Smithsonian Astrophysical Observatory, the Office of Environmental Sciences, the Chesapeake Bay Center for Environmental Studies, the Center for the Study of Man, the Smithsonian Science Information Exchange, and Fort Pierce. This office is also responsible for the administration of the Research Awards Program and the Environmental Sciences Program.

No program increase is being sought for this office. An amount of \$3,000 is sought for necessary pay.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

NATIONAL MUSEUM OF NATURAL HISTORY

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>340</u>	<u>5</u>	<u>345</u>
11 Personnel Compensation.....	4,954	164	5,118
12 Personnel Benefits.....	409	14	423
21 Travel & Trans. of Persons..	109	6	115
22 Transportation of Things....	5	1	6
23 Rent, Comm. & Utilities.....	21	2	23
24 Printing and Reproduction...	4	1	5
25 Other Services.....	385	10	395
26 Supplies and Materials.....	123	10	133
31 Equipment.....	432	30	462
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>6,442</u>	<u>238</u>	<u>6,680</u>

Analysis of Increase

Pay Increase.....	138
Program.....	100

Specification of Increase (Program):

Correct Museum Support Deficiencies (5 positions; \$100,000). This museum serves as a national and international center for the natural sciences. It maintains the largest reference collections in the nation and conducts a broad program of identification and documentation, collections management, research, exhibits, and education--including collaborative projects with universities and other institutions. A serious imbalance exists between the professional research curatorial staff and the support personnel and resources available for their efforts (museum technicians, illustrators, assistants, typists, equipment, supplies, etc.). The increase requested (the third in a program originally planned to span three years) will permit continued progress toward the support ratios recommended by the Office of Science and Technology Panel on Systematics and Taxonomy in the Federal Government. Five museum technicians (\$40,000) are requested, along with support funds (\$60,000) for travel, other services, laboratory supplies, and scientific and storage equipment.

NATIONAL MUSEUM OF NATURAL HISTORY

1972 Actual.....	\$5,676,000
1973 Appropriation.....	\$6,442,000
1974 Estimate.....	\$6,680,000

This Museum serves as a national and international center for the natural sciences. It maintains the largest reference collections in the Nation (over 55 million objects) and conducts a broad program of basic research on man, plants, animals, fossil organisms, rocks, minerals, and materials from outer space. Its research is concerned with classification, distribution, analysis, and environmental and ecological relationships. Its fundamental studies in systematics and biology are providing new information required for the solution of major national problems of conservation and pollution, food production, improvement of medical knowledge, and for planning national and international programs leading to predictive ecology and environmental management.

Several million persons each year, including many thousands of school children in organized tours, visit the exhibits. It engages in joint educational programs with universities by teaching courses, training graduate students, conducting science seminars, and providing leadership in the improvement of museum techniques, collections management, especially through the application of computer technology.

The National Museum of Natural History (NMNH) has the legal responsibility (20 U.S.C. 59) to serve as the ultimate Federal repository of all collections and objects of natural history, archaeology, and ethnology made by agencies of the Government when no longer needed by those agencies for investigations in progress. Additionally, the NMNH is the repository for numerous extremely valuable collections obtained from other sources, such as the scientific community, academic institutions, as well as many private individuals. Because the Museum is the national repository, it has responsibilities far beyond the research of its own staff. It assists both the layman and the scientist with identification, lends specimens for research, and safeguards the tangible results of research. As the National Museum, it has inherent responsibility to provide leadership for other museums and institutions in good collections management techniques.

The National Museum of Natural History has in its collections approximately one-third of all the natural history specimens in the United States. There is no other single repository anywhere with so much documentary materials for determining the composition of the biota in various parts of the world from millions of years ago to the present. For these reasons, the controlled acquisition, protection, and increased availability of the National Collections for study and exhibit continues to occupy a high priority.

For FY 1974, the Museum is requesting an additional \$100,000 to further correct imbalances that exist between the levels of professional staff and the support effort necessary for proper curation of and research with the Natural History collections. An additional \$138,000 is required for necessary pay for current staff.

Need for Increase

The increased funding provided to the Museum in FY 1972 and 1973 has enabled it to make substantial progress in correcting the curatorial and research support shortages relating to the Museum's operation which were initially identified in that year's budget presentation. This program is an essential part of the total efforts to make the Museum and its collections more useful to those institutions and agencies needing the expertise which the Museum can offer to their basic research activities.

At the end of FY 1970 the Museum's ratio of support personnel to scientist was 1.10 to 1.00. This had the effect of forcing the scientific staff to spend a high percentage of its time on clerical and technical duties at the expense of research and scholarship, exhibits planning, and other professional level activity. Notable improvements in this ratio have been made as shown in the following table.

Ratios of Man-Years of Effort Between Support and Professionals ^{1/}

<u>FY</u>	<u>Support Staff</u>	<u>Scientists</u>	<u>Ratio</u>
1971/actual	130	103	1.26:1.00
1972/actual	154	108	1.42:1.00
1973/esti.	172	111	1.55:1.00
1974/esti.	177	111	1.59:1.00

^{1/} Ratios apply to personnel assigned directly to science support. They exclude personnel in EDP applications and NMNH director's office.

Already the additional support staffing granted in the past two fiscal years has resulted in the benefit of increased productivity of both the scientists and the higher level technical personnel. The additional support staffing requested for FY 1974 will enable the Museum to continue to move toward the support ratio of two technical and clerical personnel for each scientist which had originally been set as a target for FY 1973. When the NMNH experiences a ratio of 2 support personnel per scientist, an evaluation at this level of support will be made before requesting any additional funds to enable the establishment of the three to one relationship goal recommended in 1969 by the Office of Science and Technology Panel on Systematics and Taxonomy in the Federal Government. Of the proposed \$100,000 increase, \$40,000 is associated with the five additional technical positions being sought.

The balance of the requested increase, \$60,000, is requested to continue to improve current levels of funding for other non-personnel support. This includes \$30,000 for equipment items, which with the base funding allowed in FY 1973 would place the museum's ability to acquire and replace needed museum and scientific equipment at an annual funding level of about \$213,000. A large part of the necessary equipment purchases is related to special scientific instrumentation and proper and adequate storage of the constantly growing collections. The scientific equipment is frequently complex and costly, but is essential to acquire if the research scientists are to keep abreast of the developing techniques of their specialties. The storage requirements of the National Collections continue to increase at a pace which outstrips current capacity to house them in spite of increasingly selective acquisition procedures. The original goal through FY 1975 was to increase the funds available for equipment purchase and replacement to an annual level of approximately \$500,000. At that point operating experience would be evaluated to determine the optimum level for equipment funding.

The balance of the increase (\$30,000) will be directed at allowing small growth of other support to keep pace with the increasing pressures resulting from recent program growth, and to continue to improve the substandard levels of funding which are available to each professional for field research, normal supplies and materials, and other centrally provided services.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>57</u>	<u>-</u>	<u>57</u>
11 Personnel Compensation.....	1,202	8	1,210
12 Personnel Benefits.....	102	1	103
21 Travel & Trans. of Persons..	72		72
22 Transportation of Things....	34	5	39
23 Rent, Comm. & Utilities.....	239	25	264
24 Printing and Reproduction...	17	2	19
25 Other Services.....	1,113	38	1,151
26 Supplies and Materials.....	119	15	134
31 Equipment.....	101	15	116
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>2,999</u>	<u>109</u>	<u>3,108</u>

Analysis of Increase

Pay Increase.....	9
Program.....	100

Specification of Increase (Program):

General Research Support (\$100,000). The study of astrophysics continues to grow in importance, both for its fundamental, long-range implications and for the more immediate concerns of man and his planet. To continue these investigations and to preserve the ability to shift emphasis to cope with new, important problems, the observatory requires an increase of \$100,000. In the face of rising costs, this amount will allow the SAO to maintain the existing level of research support (such as computer time and rental of laboratory space) to investigations of distant objects in the universe, the solar system, and the earth as a planet. It also will keep observational and laboratory instrumentation current with the state of the art. With funds in the base appropriation, the observatory will continue the phased development and fabrication of the Multi Mirror Telescope in cooperation with the University of Arizona.

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

1972 Actual.....	\$2,653,000
1973 Appropriation.....	\$2,999,000
1974 Estimate.....	\$3,108,000

For more than 80 years the Smithsonian Astrophysical Observatory (SAO) has conducted research in problems of astrophysics selected for their significance. As pursued by the Observatory, astrophysics ranges from investigations of distant objects in the universe to studies of the solar system and the earth as a planet.

At one extreme of this range, scientists at the Observatory are concerned with the nature of quasars, of distant galaxies, and of energetic processes in distant parts of the universe. These are some of the most important topics to modern astronomers, who suspect that they may be observing fundamental physical processes previously unknown to mankind. As the investigation of these profound topics has unfolded, SAO has put increasing emphasis on high energy astrophysics. This emphasis is manifest in ground-based gamma-ray observations from Arizona and Australia, in a growing involvement in X-ray astronomy, and in the development of a major balloon-borne telescope for infrared observations.

At the other extreme of the range of programs, scientists at the Observatory are deeply committed to analysis of new solar data from both ground and spacecraft observatories. In recent years, substantial opportunities for important new understandings of solar phenomena have brought the observatory to stress this line of research. Still closer to home, the newly embraced concepts of global tectonics and continental drift, when fully understood, may provide the insight for such practical matters as predicting the probability of earthquakes occurring in given locations. These aspects of the earth as a planet are also receiving renewed emphasis, because the Observatory has particular expertise in the astronomical observations that can clarify them.

The FY 1974 budget request shows an additional \$100,000 for general program support and \$9,000 for necessary pay for current staff.

Need for Increase

The study of astrophysics continues to grow in importance, both for its fundamental, long-range implications and for the more immediate concerns of man for his planet. To continue these investigations and to preserve the ability to shift emphasis to cope with new, important problems, the Observatory requires an increase of \$100,000. In the face of rising costs, this sum will allow the Observatory to maintain the existing level of research support, such as computer time and rental of laboratory space, to the programs described above, and to keep its observational and laboratory instrumentation current with the state of the art.

During FY 1973 and 1974 the Observatory will continue the major project of the phased development and fabrication, in cooperation with the University of Arizona, of the Multi Mirror Telescope. This telescope to be installed at the Observatory's Mt. Hopkins facility will be the world's third largest telescope and the largest ever designed for infrared astronomy. Of unique innovative design, consisting of six 72-inch telescopes mounted around a central axis to produce a light-collecting power equivalent to a conventional 176-inch instrument, the MMT will serve observers from both the Smithsonian and the University as well as from other institutions around the world.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>58</u>	<u>-</u>	<u>58</u>
11 Personnel Compensation.....	615	14	629
12 Personnel Benefits.....	83	1	84
21 Travel & Trans. of Persons..	28		28
22 Transportation of Things....	7		7
23 Rent, Comm. & Utilities.....	30		30
24 Printing and Reproduction..	1		1
25 Other Services.....	63		63
26 Supplies and Materials.....	45		45
31 Equipment.....	34		34
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>906</u>	<u>15</u>	<u>921</u>

Analysis of Increase

Pay Increase.....	15
Program.....	-

Specification of Increase (Program):

The work of the Smithsonian Tropical Research Institute is directed towards increasing our knowledge of tropical environments. In the tropics, the great diversity of plant and animal life provides unusually favorable opportunities for the analysis of fundamental biological problems of worldwide applicability and significance. The ultimate aims of STRI are to increase and refine knowledge of fundamental aspects of biology and to provide some of the essential data for intelligent conservation and management of environments. The large number of visitors from universities and institutions in all parts of the world, and the volume of highly regarded publications resulting each year from research conducted at the Institute are indicative of the relevance of its research. No program fund increase is requested for FY 1974.

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

1972 Actual.....	\$843,000
1973 Appropriation....	\$906,000
1974 Estimate.....	\$921,000

Established 26 years ago to foster understanding of tropical environments and organisms and to administer the Laboratory and field station on Barro Colorado Island, the Smithsonian Tropical Research Institute (STRI) has become a center of excellence for the training of advanced students and for research by staff and visiting scientists. In FY 1972, twenty-six seminars were given at STRI, and it received 797 visitors from universities and institutions in the U.S. and 38 foreign countries.

The primary concern of the bureau is the relationship between environment and survival. This is a vital relationship and one which can perhaps be studied and reported on more readily and profitably in the tropics, the habitat of more than one-half of mankind, than elsewhere. There is more material available for analysis in the tropics (with their diverse biotas and complexity of competitive processes and interactions); and, most important from a practical point of view, the material is available for year-round field study. Within the tropics, the region of the Isthmus of Panama is particularly convenient because of its accessibility and the variety of habitats, marine as well as terrestrial, which occur in proximity to one another.

The ultimate aims of STRI are to increase and refine knowledge of fundamental aspects of biology and to provide essential data for intelligent conservation and management of environments in diverse geographical areas. In FY 1972, research conducted at the Institute resulted in more than 36 publications, including articles in the world's leading biological journals.

In the past, STRI has concentrated upon a defined range of habitats (such as humid forests and marine reefs) and organisms (such as terrestrial vertebrates, certain arthropods, and corals and their associates). There is an urgent need to extend analysis to other areas and environments (grasslands for example) and other kinds of animals and plants, and to start more detailed investigations of the biological and climatic effects of different types of human subsistence patterns, in the past as well as the present. The picture must be placed in both comparative and historical perspective in order to be fully comprehensible.

In FY 1974, no funding increases are being requested for this activity except necessary pay (\$15,000). This assumes that existing projects will be terminated or reduced in scale as new programs develop.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

RADIATION BIOLOGY LABORATORY

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>48</u>	<u>-</u>	<u>48</u>
11 Personnel Compensation.....	604	17	621
12 Personnel Benefits.....	51	2	53
21 Travel & Trans. of Persons..	10		10
22 Transportation of Things....	4		4
23 Rent, Comm. & Utilities.....	360		360
24 Printing and Reproduction...	4		4
25 Other Services.....	60		60
26 Supplies and Materials.....	50		50
31 Equipment.....	211		211
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>1,354</u>	<u>19</u>	<u>1,373</u>

Analysis of Increase

Pay Increase.....	19
Program.....	-

Specification of Increase (Program):

The research of the Laboratory consists of three principal areas: regulatory biology, environmental biology, and carbon-14 dating. From the initial charge that it be concerned with the effects of the sun's energy on earth's life, a major portion of the program of the Laboratory has been devoted to the study of the responses of living organisms to various qualities and intensities of radiant energy. Of particular interest to the health sciences is the continuing development of a scanning radiometer for measuring sunlight, especially in the ultraviolet. No program funding increase is requested in the FY 1974 budget.

RADIATION BIOLOGY LABORATORY

1972 Actual.....	\$1,105,000
1973 Appropriation.....	\$1,354,000
1974 Estimate.....	\$1,373,000

Light is a key controlling environmental factor for the development and growth of biological systems. The storage of solar radiation as chemical energy in photosynthesis is basic for all life on earth. However, the utilization of this energy is regulated by subtle changing signals of light quality, duration, and intensity. A primary objective of the Laboratory's efforts is to explain the influences of the various factors in the environment--light, temperature, humidity, and atmospheric content--on the growth and development cycles of plants and to characterize the mechanisms through which environmental signals eventually manifest their effects on the developmental processes in living organisms. This objective is accomplished by studying environmental influences on plant growth and development in the Laboratory under controlled conditions using biochemical, biophysical, and physiological techniques and then verifying the importance of these processes in nature by monitoring the natural, dynamic environment. Such programs of research by their very nature are long-term and require the concerted team efforts of many scientific disciplines.

The research of the Laboratory consists of three principal areas: (1) regulatory biology, (2) environmental biology, and (3) carbon-14 dating. From the initial charge that it be concerned with the effects of the sun's energy on earth's life, a major portion of the program of the Radiation Biology Laboratory (RBL) has been devoted to the study of the responses of living organisms to various qualities and intensities of radiant energy.

Since its inception in 1928, the Laboratory has pioneered research on the influences of the spectral quality of visible light on plant growth and development. The present experimental program is of greater scope than in any other single laboratory in the country and perhaps in the world. The complexity of the problems studied is demonstrated by the number of disciplines within the program, which has a range through physiology, cytology, biochemistry, biophysics, physics, engineering, electron microscopy, and morphology. The Laboratory has been credited with major contributions in the field of photobiology.

In FY 1974 a budget increase of \$19,000 is requested for necessary pay for staff.

The Laboratory has a phased major objective the completion of the relocated facility at Rockville, and the elimination of program shortages. In FY 1973-74, based on a design effort nearing completion, the RBL plans to erect an environmental plant growing facility at the Rockville site as a replacement for the "greenhouse" now in use behind the original Smithsonian Building on the Mall. Funds for this facility are available in the Restoration and Renovation of Buildings account which provided for the relocation of the Laboratory.

A significant deficiency exists in the regulatory biology program, a research area of major emphasis that is primarily concerned with light-controlled plant and animal responses. These responses, influenced by light signals of varying degrees, help to trigger major changes in the reproductive and life cycles of plants, and in the migratory patterns of birds and animals. The FY 1973 funding level will allow continued progress to be made in outfitting and completing controlled growth rooms over the next several years. About \$60,000 should be available in the current base for this purpose. When a prototype room is completed, tested, and made operational, additional funding requirements for equipping the balance of the Laboratory's rooms will be determined.

In FY 1974, it is important that the Laboratory continue its program for development of a scanning radiometer for measuring sunlight, especially in the ultraviolet. Numerous requests have been received for this data from other researchers including those in the Department of Transportation, International Biological Program, and Environmental Protection Agency. At present the data which have been produced in the Laboratory for the past several years are the only data available. These data may allow for long term predictions about the influence of man on the environment. In addition, the ultraviolet data are of interest to the health sciences, since changes in ultraviolet are associated with skin cancer frequencies. Our current radiometers for the visible can be readily adapted for ultraviolet use at considerable saving to the Federal agencies.

These instruments will provide needed information concerning the amount of ultraviolet energy, as well as better define the short wavelength limits of ultraviolet radiation for agencies already using current monitoring data.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF ENVIRONMENTAL SCIENCES

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>33</u>	<u>-</u>	<u>33</u>
11 Personnel Compensation.....	527	12	539
12 Personnel Benefits.....	44	1	45
21 Travel & Trans. of Persons..	24		24
22 Transportation of Things....	3		3
23 Rent, Comm. & Utilities.....	26		26
24 Printing and Reproduction...	11		11
25 Other Services.....	26		26
26 Supplies and Materials.....	30		30
31 Equipment.....	28		28
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>719</u>	<u>13</u>	<u>732</u>

Analysis of Increase

Pay Increase.....	13
Program.....	-

Specification of Increase (Program):

The Office of Environmental Sciences integrates and mobilizes the scientific resources of the Institution for the solution of urgent, contemporary, environmental problems. Ongoing programs include the Center for Natural Areas, the Center for Short-lived Phenomena, the Oceanographic sorting centers in Washington and Tunis, and numerous research projects on biological control and monitoring. No program increase is requested in FY 1974.

OFFICE OF ENVIRONMENTAL SCIENCES

1972 Actual.....	\$682,000
1973 Appropriation.....	\$719,000
1974 Estimate.....	\$732,000

The Smithsonian's unique scientific resources are integrated by the Office of Environmental Sciences for the solution of urgent, contemporary environmental problems. The Office responds to a diverse range of public inquiries dealing with biological and ecological aspects of environmental issues. Increasingly, it conducts contract research for and reviews programs of organizations such as the Environmental Protection Agency, Council on Environmental Quality, Corps of Engineers, and other Defense Department Agencies, the National Oceanic and Atmospheric Administration, and National Science Foundation. Private foundations and trusts also provide research support.

The Office will continue to apply Smithsonian resources to compelling research on environmental problems during FY 1974. Special projects will be funded from grants and contracts with other organizations. A necessary pay increase of \$13,000 for current staff is requested.

Two examples of research projects in which this office is involved include an effort to replace environmentally hazardous chemical pesticides with the biological control of non-agricultural pests and a study of the environmental consequences of large foreign aid projects such as man-made lakes, major highway links through jungle, and rapid urbanization.

Growing recognition of the need to preserve wilderness and primitive areas for research and educational purposes and as reserves for rare and endangered species has prompted creation of a Center for Natural Areas. The Center extends technical advice to agencies involved in procurement and management of conservation areas and maintains a current computerized registry of the more than 15,000 natural areas in the United States.

The Office's Center for Short-Lived Phenomena provides a world-wide environmental early warning network for the rapid communication of scientific information on short duration environmental events. Through such monitoring the Center improves opportunities for research while environmental changes are occurring. The program is so unique and effective that the new United Nations Environmental Program has asked the Center to assume a leadership role in organizing Earthwatch, the global environmental monitoring program.

Another contribution to environmental research is provided through oceanographic sorting centers in Washington and Tunis which supply more than 350 scientists from 200 agencies and institutions around the world with assistance in curatorial support, sampling design, biological analysis, and data management in addition to thousands of sorted specimens essential to determining the impact of environmental change upon living species.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>10</u>	<u>5</u>	<u>15</u>
11 Personnel Compensation.....	106	58	164
12 Personnel Benefits.....	9	5	14
21 Travel & Trans. of Persons..	3		3
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	10	5	15
24 Printing and Reproduction...			
25 Other Services.....	7	10	17
26 Supplies and Materials.....	3	5	8
31 Equipment.....	2	9	11
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>140</u>	<u>92</u>	<u>232</u>

Analysis of Increase

Pay Increase.....	2
Program.....	90

Specification of Increase (Program):

Research, Information Transfer, and Education (5 positions; \$90,000). The Bay Center, a 2,000 acre natural preserve of land, water, and marsh areas, has growing national use and potential as a living museum of contemporary and historical significance, a primary resource for both teaching and research on complex living systems, and the largest facility in the nation available for the study of land-water (estuarine) relationships. It is now the focal point of a model watershed study program for the Rhode River involving a number of Federal, state and community organizations. Some 20 research projects involving 75 scientists from universities and agencies are underway. Education activities consist of work-study opportunities for graduate and undergraduate students, field study projects for elementary school students (some 3,000 may be involved), and research on environmental education.

This work has been supported almost entirely with temporary grant and contract funds with no assurance of sustained, productive funding. The limited Federal appropriation now available provides general direction, administration, and limited program support. An increase of \$90,000 is requested for research and support staff (plant ecologist, soils scientist, education technician, and two maintenance men at a cost of \$61,000) and for utilities, supplies, contract services, and equipment (\$29,000).

CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES

1972 Actual.....	\$160,000
1973 Appropriation.....	\$140,000
1974 Estimate.....	\$232,000

The Chesapeake Bay Center is a 2,000 acre area located on the Chesapeake Bay seven miles south of Annapolis, Maryland, about equidistant from Baltimore and Washington. It was established in 1965 for the purpose of creating scientific and education programs in the environmental sciences leading to a more complete understanding of what is necessary for human health, welfare, and continued existence on earth. The development of these programs was made possible by the acquisition with non-appropriated funds of a land-water unit large enough to include forests, marshes, fields, and agricultural areas that together form the mosaic of land uses characteristic of the mid-Atlantic region since its settlement. It shows the results of man's past and present activities as vital components of interacting physical and biological systems. The Center now provides a living museum of contemporary and historical significance, a primary resource for both teaching and research on complex living systems, and the largest facility in the nation available for the study of land-water (estuarine) relationships. A map of the Center is shown on a following page.

The budget for FY 1974 contains a request for an additional \$90,000 for research and support personnel and general operating expenses and an amount of \$2,000 for necessary pay for current staff.

Need for Increase

The program of the Center has evolved to include: (1) research in the environmental sciences; (2) information transfer activities; and (3) education.

To further the research program of the Center, and to direct it to meet urgent national needs, the Smithsonian is participating in the Chesapeake Research Consortium, an organization including the University of Maryland, The Johns Hopkins University, and the Virginia Institute of Marine Science.

As a part of this research program the Center has become the focal point of a model watershed program for the Rhode River, a sub-estuary of the Chesapeake Bay along which the Center has 14 miles of shoreline. Data on land use history, ecosystem function, and socioeconomic trends and attitudes is being collected in such a manner that it can be used in planning for long-term optimal use of the land and water resources of this watershed and its adjacent estuary, as well as for other similar sub-systems surrounding the Chesapeake Bay. The methodology developed at the Center for land use planning should have utility in many other regions of the United States. In addition to the Consortium members, this model community action program is being developed and conducted in conjunction with the Anne Arundel County Office of Planning and Zoning, the Maryland Department of Natural Resources, the Soil Conservation Service, the U.S. Geological Survey, the Department of Housing and Urban Development, as well as other agencies and academic institutions. A representative listing of specific research projects appears on a subsequent page.

Information transfer activities include the dissemination of research results to appropriate planning and management agencies, as well as studies on techniques useful in the transfer of technical information to citizens' organizations and the general public. The education program consists of providing work-study opportunities for graduate and undergraduate students, the provision of experimental field study programs for elementary school students, and the conduct

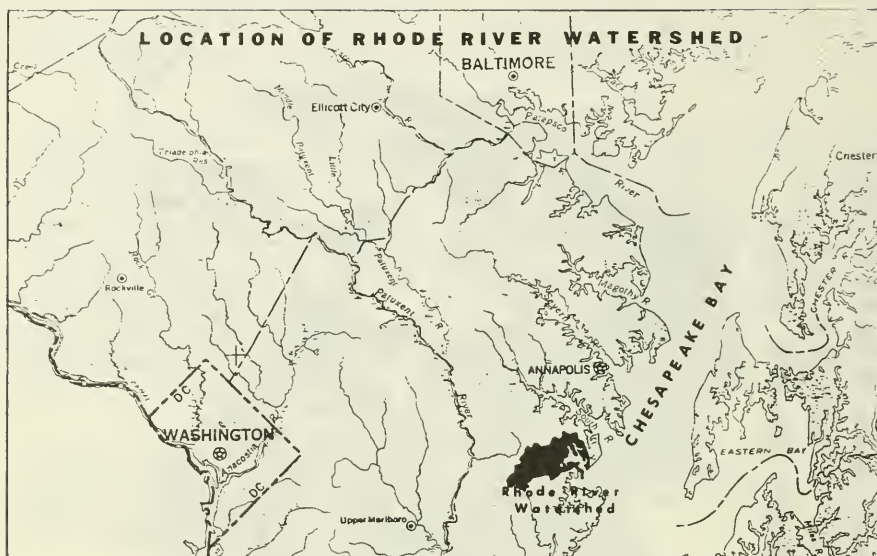
of research on environmental education that focuses on the analysis of ecosystems in urban, suburban, and rural settings. It is planned that the developing program of environmental interpretation will be suitable for future regional ecological research centers.

The staff of the Center presently consists of ten persons all of whom serve an administrative or support function. These persons are presently unable to handle the volume of inquiries, schedule the growing scientific and education use of the Center, and administer its various programs. It is urgent that these activities go forward in FY 1974 in advance of the rapidly encroaching urbanization and industrialization of the region. Interest in the scientific and educational potential of the Center, and participation in the modest programs developed to exploit this potential have grown exponentially in the last year, and now far exceed the financial resources of the Smithsonian that can be allocated to them. The selection of the Center as one of the primary research sites for the Chesapeake Research Consortium has resulted in the establishment of 20 research projects involving approximately 75 scientists from nearby universities and agencies. Still, vital gaps in plant ecology and soils science exist, and no scientists are presently employed for needed monitoring and long-term continuity and coordination of research. Requests for work-study experiences at the Center, from local schools alone, include the potential involvement of over 3,000 children.

The new staff requested for FY 1974 includes a plant ecologist, a soils scientist, one research technician to work in the education program, and two maintenance men required for facilities upkeep (\$61,000). Additional program support funds are required for essential utility services, for research, maintenance, custodial, and boat supplies, for maintenance and repair services and contracts, and for laboratory and grounds equipment (\$29,000).

**LOCATION OF CHESAPEAKE BAY CENTER FOR
ENVIRONMENTAL STUDIES IN
THE WATERSHED OF RHODE RIVER**





**RHODE RIVER WATERSHED
RESEARCH PROGRAM ***
CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES

Projects

Following is a list of the projects and the principal investigators.
"SI" indicates Smithsonian Institution; "JHU," The Johns Hopkins University; "UM," The University of Maryland, and "USGS," the U.S. Geological Survey.

Land

Improved Land Use Planning for the Watersheds of Estuaries, A Case Study for Chesapeake Bay. J. Kevin Sullivan (SI), David P. Miller (SI).
Hydrology of the Rhode River Basin. Edward J. Pluhowski (SI-USGS).

**Land/Water
Interface**

Evaluation of Remotely Sensed Data from the Rhode River Estuary Watershed. Francis S. L. Williamson (SI), Dale Jenkins (SI), Daniel Higman (SI), Susan Weck (SI).
Marsh Grass Productivity in the Rhode River. Bert Drake (SI).
Autotrophic and Heterotrophic Phosphorus Metabolism in Microbial Communities. David L. Correll, (SI).
Microbiology of Estuarine Biogeochemical Cycles of the Land/Water Interface. Robert Ballentine (JHU), Marcia Richards (JHU).
The Role of Organic Debris and Associated Organisms in the Detritus-Based Food Chains of the Rhode River Estuary. Colin Rees (UM).

Water

Physical, Chemical & Biological Measures of Water Quality in the Rhode River. Robert L. Cory (SI-USGS).
Studies of the Physical Hydrography of the Rhode River Estuary. Donald W. Pritchard (JHU), Greg Han (JHU).
Suspended and Bottom Sediments Jack W. Pierce (SI), Leo A. Barnard (SI).
Kinetics of Plankton Production in the Rhode River Estuary. Howard H. Seliger, (JHU).
Ecology of Rooted Aquatic Vegetation in the Rhode River. Charles H. Southwick, (JHU).
Population Ecology of Foraminifera in Relation to Environmental Variables in Rhode River. Martin A. Buzas (SI).
Trace Metals in the Chesapeake Bay—Biological Aspects. John M. Frazier (JHU), Edward P. Radford (JHU).
Exclusion and Enclosure Experiments to Study Biological Interactions of Benthic Estuarine Invertebrates. Richard Strathmann, (UM).
Heterotrophy in Benthic Plan Communities. Raymond A. Galloway, (UM).
Studies of Estuarine Ciliate Protozoa as a Function of Environmental Change in the Rhode River. Eugene B. Small, (UM).
Quantitative Studies of Bacteria Involved in Mineralization and Cycling of Matter in Chesapeake Bay Waters and Sediments. Robert Burchard (UM), Thomas V. Marsho (UM).

*Primarily supported with temporary grant and contract funds. Limited direct appropriation provides direction, administration and a general base of operations, but little in the way of necessary sustained, long-term research for maximum results from the Center's potential.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

NATIONAL AIR AND SPACE MUSEUM

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>56</u>	<u>20</u>	<u>76</u>
11 Personnel Compensation.....	734	219	953
12 Personnel Benefits.....	62	19	81
21 Travel & Trans. of Persons..	14	1	15
22 Transportation of Things....	13	2	15
23 Rent, Comm. & Utilities.....	3	21	24
24 Printing and Reproduction...	6	3	9
25 Other Services.....	163	347	510
26 Supplies and Materials.....	17	168	185
31 Equipment.....	58	2	60
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>1,070</u>	<u>782</u>	<u>1,852</u>

Analysis of Increase

Pay Increase.....	17
Program.....	765

Specification of Increase (Program):

Preparations for the Museum's Opening (20 positions; \$765,000). The new National Air and Space Museum building, now under construction on the Mall, is scheduled to open in July 1976 as a major focus of Washington's Bicentennial program. An estimated six million visitors a year will visit this center of exhibition, exposition, and education. Preparatory work must be accelerated in FY 1974 to meet the 1976 deadline.

-Exhibit units must be conceived, designed, developed, tested in present public space, and stored for later installation in the new building. This requires an additional \$470,000.

-Key new scientific and technical staff are needed to present a balanced perspective to the public on air and space achievements (3 positions; \$65,000).

-Additional curatorial and mechanical staff must be employed to locate and collect needed objects for display; conduct the necessary research and documentation to assure the accuracy of exhibits, labels, and related museum publications; and to restore and prepare aircraft, spacecraft, and associated articles for display. Several hundred objects require such treatment, often requiring up to two man years for a single full-sized craft. This work needs an increase of 16 positions and \$172,000.

-Finally, the development of the large-scale planetarium/spacearium from the prototype to be opened in March 1973 will require one additional position and \$58,000.

NATIONAL AIR AND SPACE MUSEUM

1972 Actual.....	\$ 754,000
1973 Appropriation.....	\$1,070,000
1974 Estimate.....	\$1,852,000

In FY 1973, Congress appropriated \$40 million (\$13 million in construction funds and \$27 million in contract authority) for construction of the new National Air and Space Museum (NASM) building. This building is now under construction and on schedule to be substantially completed and ready for the installation of exhibits in late summer 1975.

When it opens in 1976, the new museum must contain enough inspiring, involving, and entertaining exhibits and presentations so that it can serve as a premiere air and space museum and as a feature attraction on the Mall during the Bicentennial year. The budget request for FY 1974 recognizes that work must be accelerated in FY 1974 to be ready for 1976. Exhibit units must be conceived, scripted, and designed. Aircraft and space vehicles must be restored. Special shows need to be developed for the Spacearium and ultra wide screen theater in the auditorium. The staff must be augmented to accomplish all of these objectives.

To meet these needs, a program increase of \$765,000 is requested for FY 1974. An additional amount of \$17,000 is sought for necessary pay for current staff.

Need for IncreaseExhibits Scripting, Design, and Advanced Development (\$470,000)

An accelerated exhibits program costing an additional \$470,000 (on a base of about \$150,000) will be initiated so that the July 4, 1976, opening of the new Museum building presents the message of air and space achievement in a total educational, inspirational, and involving context to the American public. FY 1974 is critical for the initiation of this major effort. Existing exhibit hall space, primarily in the Arts and Industries Building, must be used and reused to prototype and validate scripts, audio-visual modules, labels, graphics, and electromechanical demonstration units. These will, upon completion of a validation period, be dismantled, preserved, and stored so that the new Museum can open in 1976 with sufficient exhibits of a caliber matched to the high quality of the new building and the expectations of the American public.

Specifically, in FY 1974, the requested funds will be used to support the following activities:

1. Design and develop exhibit units for eight halls. These are: understanding air and space technology; V-STOLS, V-TOLS, and rotary wing aircraft; manned satellites and space probes; early rocketry; early commercial aviation; general aviation; the X airplanes; and World War II aviation.
2. Design, develop prototype of, and test central control system, including program and information tape systems, solid state control systems, and a central functional test and alarm system. This system will be used to monitor from a single central point the wide variety and range of operating exhibits, audio-visual, and visitor participation devices that will be used in order to detect and correct quickly malfunctioning equipment.
3. Rental of environmentally controlled exhibit storage space for pre-1976 storage of replaced exhibit units in the developmental program. An estimated 13,000 square feet of space will be required on a phased basis. Part year rental funds are requested in the FY 1974 budget.

4. Special evaluative studies of exhibits in order to assure maximum visitor education and enjoyment.

Science and Technology Department (3 positions; \$65,000)

This department will be expanded by the appointment of two curators and one clerical employee (\$53,000) and the addition of \$12,000 program funds. This increase is necessary to establish, for the Museum as a whole, a balanced perspective on air and space achievement. Major pre-1976 emphasis will be on preexhibit research for exhibit units of primary importance to the Museum opening date. For example, thematic units planned for design and construction, etc., which will need an intensive research and scripting input from this new department are:

1. The Earthbound Benefits from Flight
2. The X Airplanes
3. Understanding Air and Space Technology
4. Flight, Space, and Planetary Environments

All of the above and similar thematic units will require the curatorial supervision of personnel intensively trained and experienced in various scientific and technological disciplines. The proposed new curatorial staff are a geologist/geodesist (extraterrestrial and terrestrial) and a technology applications and utilization specialist.

Specimen Collections, Research, Preservation, and Restoration (16 positions; \$172,000)

A staff increase of nine mechanics and helpers (to the current staff of 23) is requested so that it will be possible to use most profitably the three years before the NASM opening date for the preparation of aircraft, spacecraft, electronic equipment, computers, and subsystems needed for NASM building exhibits. Restoration and preparation work is now underway on several air and spacecraft, but several hundred additional objects, including some 30-40 full size original craft, remain to be prepared for display. Many of these objects will individually require two man-years work. This additional staffing will cost \$64,000 with a further \$10,000 needed for restoration and preservation materials, services, and equipment.

Companion activities will include substantial efforts of the aeronautics and astronautics departments to locate and collect needed vehicles, subsystems, and components, and to curate the use of these in the exhibits program. Six additional curatorial positions and a clerk typist for these two departments will be required. The new professional positions include specialists in helicopter, STOL, hydrofoil, and air cushion vehicles, military and general aviation, aeronautical transportation, manned and unmanned satellites, and launch vehicles and guided missiles. The new positions will cost \$94,000 with \$4,000 for program support.

Experimentarium/Spacearium (1 position; \$58,000)

The transition of the small-scale experimentarium operation, to be opened to the public in the old Air and Space Building in March 1973, into the large-scale education and involvement role anticipated for the Spacearium in the new building will be initiated in FY 1974. The basic set of experimentarium audio-visuals will have been developed and an initial presentation will be scripted and automated. The requested small staff increase (a planetarium technician at a cost of \$10,000) plus \$48,000 for services and equipment will expedite and facilitate the development of sophisticated audio-visuals and more complex and innovative presentations. A fully staffed spacearium operation will emerge in FYs 1975 and 1976, but FY 1974 will represent major progress towards the goal.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

CENTER FOR THE STUDY OF MAN

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>12</u>	<u>3</u>	<u>15</u>
11 Personnel Compensation.....	117	39	156
12 Personnel Benefits.....	10	3	13
21 Travel & Trans. of Persons..	10	3	13
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	3	3	6
24 Printing and Reproduction...	1		1
25 Other Services.....	98	23	121
26 Supplies and Materials.....	2	1	3
31 Equipment.....	2	2	4
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>243</u>	<u>74</u>	<u>317</u>

Analysis of Increase

Pay Increase.....	4
Program.....	70

Specification of Increase (Program):

Comparative Immigrant and Ethnic Studies Program (3 positions; \$70,000). Supported with temporary grant funds, this program is currently conducting basic research on immigration patterns (cause and effect) in the U.S., Canada, the circum-Caribbean area, and the Panama Canal Zone. As no major studies of immigrants have been made for over 20 years, the knowledge gained through this study will provide a current basis for the formulation of immigration policy and understanding its impact on social establishments. In order to continue this important research the addition of a program director, a research assistant, and a secretary (\$38,000) is requested. Support funds (\$32,000) for travel, short-term special research contracts, and field equipment are also requested.

CENTER FOR THE STUDY OF MAN

1972 Actual.....	\$202,000
1973 Appropriation.....	\$243,000
1974 Estimate.....	\$317,000

The Center for the Study of Man coordinates research and development on a series of important anthropological programs. The American Indian Program is presently concerned primarily with the development of the 20 volume Encyclopedia of North American Indians. Another aspect of this program is the development of a system for providing scholarly educational materials concerning Indians to individuals, schools, and Indian communities. In addition, the Center helps to coordinate educational intercommunication among Indians themselves, with scholars, and with appropriate government and private agencies.

The urgent anthropology program identifies, publicizes, and finances, by means of small grants, needed research in geographical areas that are undergoing rapid environmental change as a result of urbanization, improved communications, better transportation, and other factors. The objective is to salvage and preserve information in selected rapidly changing areas before time and events erase our ability to understand the cultures that existed.

The cross-cultural data retrieval program is coordinating the efforts of numerous anthropologists and other human scientists in developing new, comparative information on population, environmental, and educational studies.

The FY 1974 budget requests an additional \$70,000 program funds for immigration and ethnic studies and \$4,000 necessary pay for staff.

Need for Increase

The comparative immigrant and ethnic studies program, initially funded through temporary grant funds, is carrying out basic research in the U.S., Canada, the circum-Caribbean area and the Panama Canal Zone. It investigates the special conditions which stimulate immigration, assesses the contributions made by immigrants, and studies the effects of immigration on the source country and on the target country. Field research, archival research, and statistical methods are all used.

The research area covered by this program has been badly neglected by modern social science. There have been no major studies of new immigrants for over 20 years. Consequently, there is presently no knowledge of new immigrants from the Caribbean area despite the fact that they constitute a substantial portion of migrants to the U.S. It is imperative that studies be carried out on the patterns of migration especially from Central America and the Canal Zone because of the rapid changes presently taking place in those areas.

Comparative cultural ethnic studies will produce useful and important information for all agencies dealing with migrants. The knowledge gained from these studies will also be helpful in understanding labor recruitment, investment patterns, education, etc. These studies on basic immigration policy will be helpful to officials responsible for legislation in that field. The implications of migration for basic population policy will be thoroughly explored in this research.

In order to continue these studies a program director, a research assistant, and a secretary (\$38,000) are required with support funds (\$32,000) for travel, short-term special research contracts, and field equipment.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

NATIONAL ZOOLOGICAL PARK

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>286</u>	<u>-</u>	<u>286</u>
11 Personnel Compensation.....	2,924	92	3,016
12 Personnel Benefits.....	249	8	257
21 Travel & Trans. of Persons..	17	5	22
22 Transportation of Things....	3		3
23 Rent, Comm. & Utilities....	178	5	183
24 Printing and Reproduction...	8	4	12
25 Other Services.....	136	77	213
26 Supplies and Materials.....	466	32	498
31 Equipment.....	184	16	200
32 Lands and Structures.....	1	1	2
41 Grants.....			
TOTAL	<u>4,166</u>	<u>240</u>	<u>4,406</u>

Analysis of Increase

Pay Increase.....	90
Program.....	150

Specification of Increase (Program):

Directions and Exhibits Program (\$93,000). Although major improvements to displaying the large and varied collections of animals must await the renovation of the Zoo, more immediate steps can be taken to produce educational exhibits that will identify and explain the collection. Funds are sought for contract design and fabrication of the kind of exhibits seen in modern zoos (\$70,000). An amount of \$23,000 is also requested for utilities and routine services, supplies, and equipment.

Operations and Maintenance (\$30,000). These funds are sought to meet the increasing costs of building materials, gardening and tree maintenance supplies, vehicle repair parts, miscellaneous equipment and to provide for seasonal temporary employees.

Zoological Programs (\$27,000). An amount of \$16,000 is needed to meet steadily rising prices of animal food and veterinary supplies. Uniforms and equipment for keepers and other personnel require an additional \$7,000. Funds are requested to cover the cost of contractual research projects and meeting page charges and other research publication costs (\$4,000).

NATIONAL ZOOLOGICAL PARK

1972 Actual.....	\$3,827,000
1973 Appropriation.....	\$4,166,000
1974 Estimate.....	\$4,406,000

The National Zoological Park was established in 1889 for the "advancement of science and the instruction and recreation of the people." To accomplish this mission, the Zoo exhibits a broad collection of animals (3,200 animals of over 1,100 species) representing one of the largest and most varied collections of exotic animals in existence, maintains an information and education program for the visiting public from all over the United States, and promotes scientific research, including biomedical programs, for increased scientific knowledge and for the health of the animals.

Continued progress has been made in improving the quality of the animal collection. The outstanding improvement was the acquisition of the two Giant Pandas. Greater emphasis is also being placed on increasing Zoo births. This is accomplished by pairing unmated animals, maintaining breeding groups, and conducting research in reproductive behavior of endangered species, such as the Golden Marmoset. Such a program not only reflects good conservation practices but is essential in view of increasing scarcity of many species and the higher costs to obtain them.

For FY 1974, a program increase of \$150,000 is requested to meet the rising costs of operating items and services; to provide for the fabrication of exhibits; to purchase scientific publications; and to hire temporary employees for seasonal work. An additional \$90,000 is required for necessary pay increases.

Need for IncreaseOffice of Director (\$93,000)

The office of the director plans and directs all Zoo programs. It coordinates the activities and functions of the planning and design office, develops and maintains the Zoo's educational program, and furnishes general administrative services. Administrative services include the protection service program and budget, fiscal, supply, and procurement functions. The animal acquisition program is under the direction of this office.

The Zoo's collection of animals has great public educational potential in subjects such as wildlife conservation. Educational exhibits are being constructed to illustrate to visitors the animals shrinking environment and the problems facing man in his attempt to revitalize the animals habitat. To identify and explain these living collections more effectively to the public by showing them in more natural settings, materials such as molded fiberglass are extensively used to simulate rocks, tree stumps, plants, etc. Plans for continuing the fabrication work, which began in FY 1973, will be accomplished by contractual service. Funds are requested for continuing to update the educational exhibits and to continue fabrication work (\$70,000).

Additional funds are also sought to meet the rising costs of utilities and routine contractual services, supplies, materials, equipment, and travel (\$23,000).

Operations and Maintenance (\$30,000)

The operations and maintenance department has responsibility for all maintenance and supporting services. These include:

--Maintenance and repairs: maintaining all heating plants and air conditioning and repairing 15 major buildings and a wide range of cages and other facilities. This division also performs renovation and minor construction, builds nest boxes, shipping crates, exhibits, and other needed items.

--Grounds: maintaining and improving the 156 acres of trees, lawns, shrubs, flower beds, and indoor plantings.

--Transportation and automotive maintenance: maintaining all automotive vehicles and operation of trucks and heavy equipment.

--Labor services: performing trash collection, sweeping of streets and walks, snow removal, and public and staff custodial services.

An amount of \$30,000 is needed to meet the increasing cost of services, supplies, and equipment for these essential duties and to provide for temporary mechanical, custodial, and other employees for seasonal work.

Department of Zoological Programs(\$27,000)

The department of zoological programs conducts animal care, animal health, pathology, and scientific research programs. The Zoo collection is a major scientific resource. For this reason, facilities and assistance are often provided to scientists from federal agencies and universities.

Additional funding (\$16,000) is requested to offset the rising costs of animal food and veterinary supplies. The replacement prices for sundry supplies, uniforms, and equipment have also risen sharply. Funds are sought to cover this increase (\$7,000).

Investigations undertaken in the Zoo and in research projects have yielded numerous scientific publications. It is frequently necessary to contract various portions of these research projects to professionals to avoid long-term commitment to personnel. Additional funds (\$4,000) are sought to cover the costs of publications and to contract portions of the research projects.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF THE ASSISTANT SECRETARY FOR HISTORY AND ART

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>9</u>	<u>-</u>	<u>9</u>
11 Personnel Compensation.....	160	3	163
12 Personnel Benefits.....	15		15
21 Travel & Trans. of Persons..	4		4
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	1		1
24 Printing and Reproduction...	1		1
25 Other Services.....	1		1
26 Supplies and Materials.....	2		2
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>184</u>	<u>3</u>	<u>187</u>

Analysis of Increase

Pay Increase.....	3
Program.....	-

Specification of Increase (Program);

The Office of the Assistant Secretary for History and Art advises and assists the Secretary in planning, implementing and reviewing the progress of Smithsonian history and art programs. It also includes the American Studies program, which organizes and conducts a formal program of graduate education in the material aspects of American civilization, and the Joseph Henry Papers project to gather, edit, and publish the manuscripts of Joseph Henry (1797-1878), a pioneer American physicist and first Secretary of the Smithsonian Institution. No program fund increase is requested in the FY 1974 budget for these activities.

OFFICE OF THE ASSISTANT SECRETARY FOR HISTORY AND ART

1972 Actual.....	\$221,000
1973 Appropriation.....	\$184,000
1974 Estimate.....	\$187,000

The Office of the Assistant Secretary for History and Art advises and assists the Secretary in planning, implementing, and reviewing progress of Smithsonian history and art programs. This office assists in planning, coordinating, and reviewing the work of the Institution's various history and art bureaus and offices. The bureaus and offices reporting to the Assistant Secretary for History and Art are Archives of American Art, Cooper-Hewitt Museum of Decorative Arts and Design, Freer Gallery of Art, Hirshhorn Museum and Sculpture Garden, National Armed Forces Museum Advisory Board, National Collection of Fine Arts, National Museum of History and Technology, National Portrait Gallery, Office of Academic Studies, Office of American Studies, Office of Seminars, Smithsonian Archives, Joseph Henry Papers, and the Bicentennial of the American Revolution.

Included in the funding identified for this Office are the American Studies and the Joseph Henry Papers projects. The Office of American Studies organizes and conducts a formal program of graduate education in the material aspects of American civilization. This office also participates in the overall program of historical, archaeological, and architectural history research at St. Mary's City, Maryland, funded by the state of Maryland, National Endowment for the Humanities, Rockefeller Foundation, and other foundations. The Editor of the Joseph Henry Papers and his staff have been gathering and preparing for publication the manuscripts of Joseph Henry (1797-1878), a pioneer American physicist and first Secretary of the Smithsonian Institution. Volume one of a multi-volume set was published in December 1972. These are to be included in the documentary publications program of the National Historical Publications Commission.

No program fund increase is sought for this office. An amount of \$3,000 is requested for necessary pay.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>161</u>	<u>3</u>	<u>164</u>
11 Personnel Compensation.....	2,151	82	2,233
12 Personnel Benefits.....	183	8	191
21 Travel & Trans. of Persons..	38		38
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	12		12
24 Printing and Reproduction...	6		6
25 Other Services.....	198	85	283
26 Supplies and Materials.....	22		22
31 Equipment.....	225	30	255
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>2,835</u>	<u>205</u>	<u>3,040</u>

Analysis of Increase

Pay Increase.....	55
Program.....	150

Specification of Increase (Program):

Collections Management (3 positions; \$100,000). The national historical collections now contain more than 16,000,000 items which are inadequately preserved, stored, recorded, and catalogued. In order to ensure the security of the collections and increase their accessibility to researchers, a computerized inventory of the collections is being developed and overall registration procedures improved. For FY 1974 three positions (\$34,000)--a collections packer, an inspector and photographer, and a clerk typist--are required to improve receipt and registration procedures. In addition funds (\$66,000) are requested for the design and equipping of a modern records management and inventory system.

Prevention of Deterioration of Objects (\$50,000). Preservation of objects on exhibit and in study collections is an area of continuing concern. Minimal funding allowed for this purpose has limited preservation and restoration to stop-gap measures. To prevent further deterioration to collections and exhibits, improved storage equipment and methods (\$30,000) and contract services to augment in-house preservation work (\$20,000) are required.

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

1972 Actual.....	\$2,457,000
1973 Appropriation....	\$2,835,000
1974 Estimate.....	\$3,040,000

The National Museum of History and Technology (NMHT) occupies a unique position among the great museums of the world. As the repository of the National Collections documenting the historical and technological achievements of the American people, the Museum has responsibility for over 16,000,000 objects related to all facets of the American experience. Each of these objects must receive the highest level of professional care and preservation and must be stored and exhibited using the best techniques available.

Since opening in 1964, the NMHT has provided a variety and richness of public exhibits seen by over 50,000,000 visitors. The Museum annually receives more visitors than any other building in Washington, D. C. and millions more than any other museum in the world. As the most visited museum in the world, it will be host to almost 7,000,000 visitors during FY 1973. It is anticipated that this figure will more than double by the Bicentennial year, 1976.

As a center for the scholarly study of the history of American civilization and the history of science and technology, this Museum continues to support and encourage basic research and publication in many subject fields, ranging from early exploration to studies of contemporary American culture.

For FY 1974, an additional \$150,000 in program funds is requested for the development and operation of the new collections management and computerized inventory programs of the national historical collections and the prevention of deterioration of objects in storage and on public view. An amount of \$55,000 is needed for necessary pay for current staff.

Need for Increase

The NMHT has skyrocketed to a position of world prominence in the nine years it has been open to the public. Extremely heavy attendance has overtaxed this Museum's financial and staffing capability in some vital professional areas. It has limited the implementation of some innovative programs and demonstrations in public areas. Existing shortages must now be corrected to avert a reversal of the pattern of success.

The size of the NMHT collections continues to increase by tens of thousands of items each year. While maintaining its unique position in acquiring, preserving, and exhibiting the nation's historical treasures, the NMHT has developed a huge backlog of essential documentation and storage problems. Continually restricted annual budgets have precluded an adequate level of curating. In addition, some anticipated collections management expenditures had to be postponed due to the unexpectedly high costs of reopening fire damaged public exhibit areas. The national historical collections now contain more than 16,000,000 items which are inadequately preserved, stored, recorded, and cataloged. No overall museum-wide registration system now exists although a limited beginning has been made in FY 1973 with the establishment of an Office of Collections Management.

The purpose of the Collections Management Office of the National Museum of History and Technology is to plan, coordinate, and administer a total registration program for the security, cataloging, and preservation of all the objects curated by this museum. The size and variety of the collections, coupled with decades of outmoded procedures, require careful, planned research in developing a standardized,

modern system. All work elements and all associated records systems for the care and custody of objects will be analyzed and improved: receipt, fumigation, storage, relocation, packing and shipment, cataloging, etc. In addition, policies will be developed to assist the curators in determining (1) what is essential to collect in the future; (2) what can be eliminated--and how--from existing collections.

Descriptive cataloging by the curatorial units is essential as the first major step in developing a complete inventory of the National Collections. By late 1974, the first stages of system reorganization may be completed, and the massive computerization phase will begin. The ultimate goal of this long-range program is a computerized information retrieval system based on accurate cataloging, which will for the first time make NMHT holdings readily accessible to researchers.

For FY 1974, three positions--a collections packer, an inspector and photographer, and a clerk typist--are requested to improve receipt, shipment, registration procedures, and security controls. This cost (\$34,000) will augment the skeleton Office of Collections Management staff organized in FY 1973. It is estimated that the Office will be staffed by twelve persons by 1980. During FY 1974, funds (\$66,000) are also requested to design and begin to equip a secure museum-wide modern records management and inventory system.

During FY 1973, limited starts were made in replacement of inadequate storage equipment in collection storage rooms. This effort will be re-emphasized in FY 1974, and it is anticipated that the annual cost will be \$50,000 per year for five years; \$30,000 in new funding is requested for FY 1974 equipment replacement in collections needing unusual security.

Limited starts have also been made in securing the temporary services of outside experts in the fields of collection preservation and restoration of objects on exhibit and in study collections. Inadequate funding has limited preservation and restoration to stop-gap measures. As the new collections management program develops, increasing emphasis will be placed on this activity, which has the highest priority. Increased funding of \$20,000 is requested. Estimates indicate this activity will continue indefinitely at an annual cost of \$50,000 (\$30,000 of which is provided by the existing operating base).

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

NATIONAL COLLECTION OF FINE ARTS

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>75</u>	<u>2</u>	<u>77</u>
11 Personnel Compensation.....	982	48	1,030
12 Personnel Benefits.....	85	4	89
21 Travel & Trans. of Persons..	22		22
22 Transportation of Things....	15		15
23 Rent, Comm. & Utilities.....	1		1
24 Printing and Reproduction...	7		7
25 Other Services.....	172	25	197
26 Supplies and Materials.....	37	20	57
31 Equipment.....	75		75
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>1,396</u>	<u>97</u>	<u>1,493</u>

Analysis of Increase

Pay Increase.....	22
Program.....	75

Specification of Increase (Program):

Renwick Gallery (2 positions; \$75,000). Currently, the exhibition program of the Renwick Gallery is dependent on the support that can be provided by the existing, limited NCFAs staff. A permanent support staff with an adequate budget must be provided if the Renwick's important program is to continue. A curator of exhibits is needed (\$16,000) to supervise the production of Renwick exhibitions, and \$40,000 is required for exhibition costs. Rising costs in installation, packing, shipping, and insurance have had a particularly acute effect on the Gallery which is primarily concerned with borrowed objects of considerable bulk. To extend the NCFAs' effective public education program to the Renwick Gallery, an assistant curator of education (\$14,000) and \$5,000 of additional funds for materials and other expenses are necessary.

NATIONAL COLLECTION OF FINE ARTS

1972 Actual.....	\$1,221,000
1973 Appropriation.....	\$1,396,000
1974 Estimate.....	\$1,493,000

The National Collection of Fine Arts (NCFA), the oldest national collection of art (containing some 15,000 works of art), is devoted to the conservation, study, and presentation of American painting, sculpture, prints and drawings, and, in the newly opened Renwick Gallery, American design and crafts. It presents exhibitions both in this country and abroad, maintains an active program of public education at all levels, engages in research and publication on American artists, and maintains (with the National Portrait Gallery) a widely-used reference library and a laboratory for conservation and conservation research in American painting.

Almost all exhibitions are formulated and produced in the museum itself. During FY 1973, twenty-seven exhibitions will be presented in the galleries, several of them major exhibitions with major catalogs; such as, "The Hand and the Spirit," "Alfred Maurer," "Lilly Martin Spencer," "Objects for Preparing Food," and "The Ceramic Art of Natzler." The schedule thus far for FY 1974 includes the production of fourteen exhibitions.

In addition to the staging of exhibitions in FY 1973 and 1974, the NCFA is continuing its program of opening new galleries for more extensive display of the permanent collections. Eight permanent galleries were installed in FY 1973. Seven of these spaces had never been used before as galleries. The Lincoln Gallery was damaged by Metro construction. It constitutes almost half of the permanent display area and will be redesigned, taking into account the new entranceway coming from the Portrait Gallery. The NCFA also is moving forward with a permanent Gallery of Portrait Miniatures. There is an urgent need for adequate storage of the collection not on view. This will require the installation of sliding racks in the existing storage area and the modification of an area of the garage for storing frames and large sculpture.

The public education program is an essential and closely integrated part of the museum's operation. The staff maintains close contact with the District of Columbia schools and with educational programs elsewhere. It also trains and supervises a crew of eighty-five volunteer docents for the two museums. During the three months' period, October, November, and December, 1972, these docents conducted one-hundred and fourteen tours for nearly five thousand visitors.

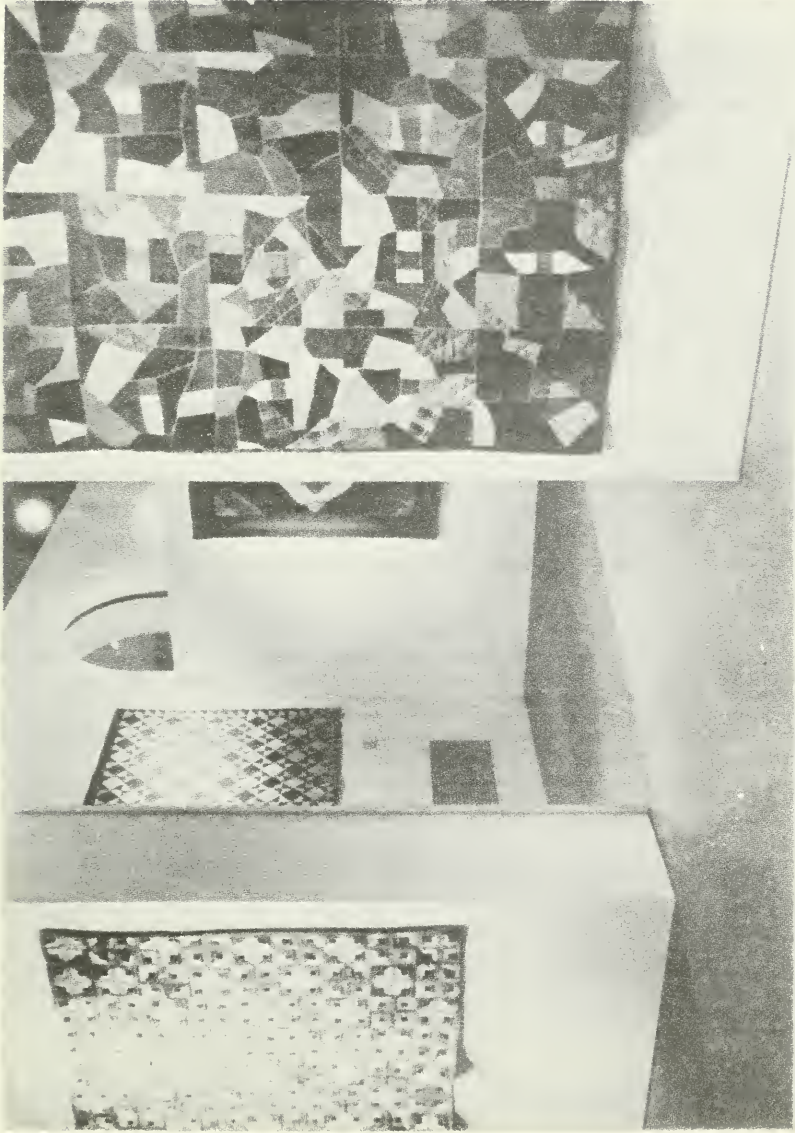
In FY 1973 the museum added to its program of visiting scholars a program of museum training, offering practical internship in all phases of museum operation. Participants in the program include nine students from George Washington University, thirteen summer interns, and two full-year interns.

The requested program increase of \$75,000 will be used to support the exhibition and education programs of the Renwick Gallery, opened in January 1972. The operation of an active and effective program in this separate, historic building requires support not provided for in the previous NCFA budgets. An additional \$22,000 is needed for pay for the existing staff.

Need for Increase

The Renwick Gallery is devoted to the study and exhibition of American craft and design, both past and present. A recent popular exhibition "American Pieced Quilts" is illustrated on a following page. It also hosts small exhibitions of

art from other countries. During the first full year of operation, it has been visited by about 200,000 persons. Its active exhibition program, calling attention to American crafts and craftsmen, has been supported by the production staff of the NCFCA, which is limited even in its ability to respond to NCFCA needs. A permanent support staff with an adequate budget must be provided if the Renwick's important program is to continue. A curator of exhibits is needed (\$16,000) to supervise the production of Renwick exhibitions, and \$40,000 is required for exhibition costs. Rising costs in installation, packing, shipping, and insurance have had a particularly acute effect on the Renwick Gallery which is concerned primarily with borrowed objects of considerable bulk. To extend the NCFCA's effective public education program to the Renwick Gallery, an assistant curator of education (\$14,000) and \$5,000 of additional funds for materials and other expenses are necessary.



AMERICAN PIECED QUILTS EXHIBIT

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiacal Year 1974

NATIONAL PORTRAIT GALLERY

(Dollars in thousands)	<u>Base</u> <u>FY 1973</u>	<u>Increase</u> <u>Requested</u>	<u>Est.</u> <u>FY 1974</u>
No. of Permanent Positions.....	<u>43</u>	<u>-</u>	<u>43</u>
11 Personnel Compensation.....	627	15	642
12 Personnel Benefits.....	53	1	54
21 Travel & Trans. of Persons..	20		20
22 Transportation of Things....	19		19
23 Rent, Comm. & Utilities.....	10		10
24 Printing and Reproduction...	5		5
25 Other Services.....	96		96
26 Supplies and Materials.....	58		58
31 Equipment.....	164		164
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>1,052</u>	<u>16</u>	<u>1,068</u>

Analysis of Increase

Pay Increase.....	16
Program.....	-

Specification of Increase (Program):

The National Portrait Gallery's activities include: (1) the expansion and care of its collections; (2) public education through the exhibition of the permanent collection and specially organized temporary exhibitions; (3) the preparation and national distribution of scholarly and popular publications related to these exhibitions; and (4) the compilation of a definitive Catalog of American Portraits, constituting a unique information resource in the areas of American history and biography, art, and iconography. No program fund increase is sought in the FY 1974 budget request.

NATIONAL PORTRAIT GALLERY

1972 Actual.....	\$ 924,000
1973 Appropriation.....	\$1,052,000
1974 Estimate.....	\$1,068,000

The National Portrait Gallery is the only national museum of American history that tells the history of this nation primarily in terms of the men and women who made that history. The portraits of these men and women are crucial documents of historical evidence and bear strong witness to the roles these people have played in the American experience.

The Gallery's activities include: (1) the expansion and care of its collections; (2) public education through the exhibition of the permanent collection and specially organized temporary exhibitions; (3) the preparation and national distribution of scholarly and popular publications related to these exhibitions; and (4) the compilation of a definitive Catalog of American Portraits, constituting a unique information resource in the areas of American history and biography, art, and iconography.

Nearly 200 portraits were added to the permanent collection in FY 1972 and 1973, including 69 by gift. Among the gifts were portraits of two Presidents new to the collection, Grover Cleveland and Richard Nixon; purchases included portraits of Presidents Zachary Taylor and Thomas Jefferson, also hitherto unrepresented. Curatorial researchers and the staff and facilities of the Catalog of American Portraits have provided expert assistance in uncovering and studying portraits, locating items for special exhibitions, and responding to a variety of public requests for information. Wider knowledge of the Gallery's services and programs will help to elicit more gifts, but substantial federal funds also are vital for the acquisition of portraits which can only be added by purchase, if the Gallery is to build a collection worthy of the nation's history.

"If Elected..." Unsuccessful Candidates for the Presidency, 1796-1968, including 80 portraits and over 500 objects related to candidates and campaigns, was a highly popular exhibit visited by over 150,000 persons. A 512-page monograph on the subject, an educational booklet, slide set, and a teaching guide accompanied the show and are being distributed nationally. A smaller exhibition and related publication on the Lazzaroni, a group of mid-nineteenth century scientists, were prepared in conjunction with the meetings in Washington of the American Association for the Advancement of Science. In April 1973 the Gallery will present The Afro-American in the Age of Revolution, 1770-1800, an exhibition detailing the role played by blacks during the formative years of our nation. Related educational materials also will be produced.

In April the Gallery also will have completed a book entitled "In the Minds and Hearts of the People" - Prologue to War 1760-1774 to be published in cooperation with the New York Graphic Society. It will accompany an exhibition of the same title to open in the Spring of 1974, which will be the first of the Gallery's Bicentennial exhibitions. The regular Gallery exhibitions scheduled for FY 1974, now in various stages of preparation, include "Contemporary American Portraits", "Two Centuries of American Self-Portraits", and a small exhibition marking the sesquicentennial of the signing of the Monroe Doctrine. These exhibitions will be accompanied by monographs and other educational publications and materials available for national distribution.

The expanded exhibition schedule for FY 1974 reflects the addition of 10,000 square feet of exhibition area through renovation of the 3rd floor mezzanine area and the air conditioning and refurbishing of the 7th Street first floor area. In addition to the special exhibitions listed above, the Gallery plans to up-grade

the installation of its permanent collection in a manner more closely paralleling these exhibitions, adding associative items and audio visual materials.

The education department has trained two dozen volunteer docents and for the first time offers regularly scheduled weekday tours of the permanent collection as well as a variety of special educational services both in the museum and in classrooms. These programs reached over 3,000 students during the first three months of the current school year, as well as several hundred adults. Plans for FY 1974 include an orientation room on the history and purposes of portraiture, a workshop program exploring methods of executing portraits, the preparation of educational publications and slide kits related to FY 1974 special exhibitions, as well as the permanent collection, for school and public use.

No program increase is sought for this Gallery. An amount of \$16,000 is requested for necessary pay purposes.



All Gallery exhibitions are accompanied by major monographs such as this 512-page study and a variety of educational publications, teaching guides, and slide sets.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>23</u>	<u>14</u>	<u>37</u>
11 Personnel Compensation.....	350	138	488
12 Personnel Benefits.....	28	12	40
21 Travel & Trans. of Persons..	10	5	15
22 Transportation of Things....	2	9	11
23 Rent, Comm. & Utilities.....	48	-24	24
24 Printing and Reproduction...	1	4	5
25 Other Services.....	110		110
26 Supplies and Materials.....	14	7	21
31 Equipment.....	603	2	605
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>1,166</u>	<u>153</u>	<u>1,319</u>

Analysis of Increase

Pay Increase.....	3
Program.....	150

Specification of Increase (Program):

Preparations for Opening and Operating the Museum (14 positions; \$150,000). A continued phased increase in staff is required to provide the professional and curatorial support needed to organize and activate the new Museum, scheduled to open in 1974. The requested 14 additional personnel (\$147,000) are primarily technical and support staff including museum specialists, technicians and aides, clerical personnel, and personnel to staff conservation and framing shops. Also included are professional level personnel to supervise the exhibits and educational programs. Support funds in the amount of \$3,000 are also requested. No additional appropriations are sought for furnishing and equipping the Museum and Sculpture Garden. Base funds are adequate to meet this need.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

1972 Actual.....	\$ 623,000
1973 Appropriation.....	\$1,166,000
1974 Estimate.....	\$1,319,000

The Hirshhorn Museum and Sculpture Garden, now under construction on the Mall, will house a magnificent gift to the nation of outstanding modern paintings and sculpture. Although the renowned sculptures in the collection range historically from antiquity to the present, the depth of the representation of major sculptures of the nineteenth and twentieth centuries is unique. The paintings in the collection are primarily twentieth century. Beginning with such precursors as Thomas Eakins and Winslow Homer, the course of modern American painting is extensively covered. Complementing the American section is a strong group of significant European paintings of the past three decades. For museum officials, scholars, students, and publishers, the Hirshhorn Museum collection continues to be a major source of documentation in the field of modern art.

The Act of November 7, 1966, authorized construction of the Museum and designated the Mall site. Building construction began in March 1970 and is estimated to be substantially completed in June 1973. All phases of the work are presently geared to prepare for the opening of the Museum by the spring of 1974. See Figure 1 for the schedule of major activities.

The requested program increase of \$150,000 represents the overall requirements for the addition of necessary staff and for other expenditures related to occupying the completed building and scheduling the opening exhibition in FY 1974. An additional amount of \$3,000 is sought for necessary pay for the current staff.

Need for IncreasePreparing for the Opening and Operating of the Museum (14 positions; \$150,000)

The operating staff of the Hirshhorn Museum and Sculpture Garden must be expanded in FY 1974 to provide the professional and curatorial support needed to organize and activate a major Museum. Additional staff will be required to conduct a full and balanced program of exhibitions, educational activities, research and curation, and technical support.

The budget plans for FY 1973 had contemplated a staffing increase from 21 to about 35 positions to be funded in part by the savings resulting from the planned reduction of expenditures for conservation and restoration of the collections. In view of the delay in the completion and occupancy of the building, the FY 1973 staffing level will be held to about 23 positions with an accelerated build-up in FY 1974 to coincide with the completion of the building and the scheduled opening exhibition date of May 1974. Savings resulting from this action have been used to obtain essential furnishings and equipment for the building interior, thus reducing the level of additional new funds required for this purpose (see following section).

The requested 14 additional personnel in the 1974 budget are primarily technical and support staff including museum specialists, technicians and aides, clerical personnel, and personnel to staff conservation and framing shops. Also included are professional level personnel to supervise the exhibits and educational programs (\$147,000).

Funds are in the budget request for other contractual service costs related to the collections, photography to document the collections for exhibits and research purposes, and supplies and materials to operate the new Museum. Funds have also been included in this request for transportation and movement of household goods of

personnel transferring with the collection to Washington, D. C., as well as for essential professional travel of senior administrative and curatorial personnel (\$3,000).

Furnishing and Equipping the Museum and Sculpture Garden (No new funds requested)

Construction funding of \$16,000,000 (\$15,000,000 appropriated by Congress and a \$1,000,000 gift by Mr. Hirshhorn) will provide a basic museum building, including necessary utility equipment, i.e. heating, air conditioning, etc. This amount does not permit the museum to be outfitted to the degree necessary for public exhibitions and museum programs. It does not provide storage facilities for the collection, furnishings and equipment for exhibit and other public areas, or office and laboratory furniture and equipment. The FY 1973 budget request identified a nonrecurring requirement for about \$1,400,000 for these purposes. Savings in the base as a result of the decline in expenditures for conservation and restoration of the collection enabled the Museum to purchase about \$160,000 of storage screens in FY 1972. The FY 1973 appropriation of \$500,000 specifically for equipment and furnishings, combined with continued personnel cost savings in the base, will permit the Museum to purchase an additional \$600,000 of these items in the current year (including the remainder of the storage screens). The balance of the furnishings and equipment will be purchased in FY 1974. No increase in appropriations will be required for this purpose.

The FY 1974 funds will be used for furnishings and equipment for exhibit galleries and laboratory spaces (\$145,000); security systems and auditorium equipment (\$117,000); furniture for public areas (\$213,000); and other items such as tour guide systems (\$125,000).

Figure I
JOSEPH H. HIRSHHORN MUSEUM & SCULPTURE GARDEN
Schedule of Major Activities - FY 1972-1974

FY 1972		FY 1973			FY 1974			
1971 JULY	1972 JAN	1972 JULY	1972 AUG	1973 JAN	1973 JUNE	1973 JULY	1974 APR	1974 MAY
Building Construction						■		
Planning and Installation of Opening Exhibition						■		
Equipment - Furnishings for Interior						■		
Catalog of Opening Exhibition - Manuscript to Publisher 8/1/72						■		
Transfer of Collection to Wash. - Nov. '73						■		
Inventory of Collection (Computerized)						■		
Research Permanent Collection						■		
Develop Education Program						■		

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

FREER GALLERY OF ART

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>14</u>	<u>-</u>	<u>14</u>
11 Personnel Compensation.....	123	5	128
12 Personnel Benefits.....	11		11
21 Travel & Trans. of Persons..			
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....	9		9
26 Supplies and Materials.....	14		14
31 Equipment.....	29		29
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>186</u>	<u>5</u>	<u>191</u>

Analysis of Increase

Pay Increase.....	5
Program.....	-

Specification of Increase (Program):

The Freer Gallery of Art has a continuing program to search for works of art of the highest quality to be added to the collections, especially Far and Near Eastern Art, and to display, conserve, and study the objects in the collection as keys to understanding the civilizations that produced them. No program fund increase is requested for FY 1974.

FREER GALLERY OF ART

1972 Actual.....	\$ 78,000
1973 Appropriation....	\$186,000
1974 Estimate.....	\$191,000

The Freer Gallery of Art houses one of the world's most distinguished collections of Far and Near Eastern art. Included in the collection are over 10,000 works of art from China, Japan, Korea, India, and the Near East. The collection covers paintings, sculptures, and other objects in stone, wood, lacquer, jade, pottery, porcelain, bronze, gold, and silver. Items not currently on exhibition and the library of 40,000 volumes are available and used extensively by the Gallery's staff and numerous visiting scholars and students.

The two-fold program envisaged by the Gallery's founder involves the continuing search for works of the highest quality to be added to the collections and the study and display of these objects as keys to understanding the civilizations that produced them. As a result of international developments, interest in the cultures of the Far and Near East in the United States has grown at a substantial rate. Each year there has been an increase in the number of people who visit the Gallery and in the number of collectors, students, and scholars who ask staff members for assistance and use the collection, library and conservation facilities.

In FY 1973 significant improvements have been made in the level of Federal funding for the Gallery consistent with the terms of the Deed of Gift. These additional funds are of great assistance in carrying forward the basic program of care and maintenance of the collection and the building, as well as in permitting the Gallery to develop its community service and scholarship activities. Similar improvements made in the level of private income as a result of new investment policies will strengthen the Gallery's ability to augment its collections, and produce research publications and exhibitions as part of the 50th Anniversary program.

These programs will continue in FY 1974. No program fund increase is sought in the budget year. An amount of \$5,000 is requested for necessary pay purposes.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

ARCHIVES OF AMERICAN ART

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>11</u>	<u>1</u>	<u>12</u>
11 Personnel Compensation.....	136	18	154
12 Personnel Benefits.....	11	1	12
21 Travel & Trans. of Persons..	4		4
22 Transportation of Things....	2		2
23 Rent, Comm. & Utilities.....	10		10
24 Printing and Reproduction...	17		17
25 Other Services.....	5	8	13
26 Supplies and Materials.....	3	2	5
31 Equipment.....	2	4	6
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>190</u>	<u>33</u>	<u>223</u>

Analysis of Increase

Pay Increase.....	3
Program.....	30

Specification of Increase (Program):

Development of Western Regional Office and Other Archival Costs (1 position; \$30,000). The Western Regional Office, located in the deYoung Museum in San Francisco, has been opened on a part-time basis. In order to more fully develop the ability to locate, attract and acquire valuable collections as well as provide a center for scholars to study American Art, this regional office requires the services of a full-time director (\$16,000) and funds for other support costs (\$4,000). This branch makes available the full resources of the Archives to all interested publics.

The Archives is continually seeking new additions to its current collections, estimated to be three million items on microfilm, five million original items, taped interviews, and photographs. During FY 1974 costs of acquiring new additions are expected to be \$5,000. These costs are for microfilm, equipment, and processing expenses.

The Archives oral history program, begun in 1959 through grants from the art community, now has more than twelve hundred transcripts of interviews with artists, dealers, collectors and administrators. In order to continue this important program, funding of \$5,000 for interviewing and processing costs is requested.

ARCHIVES OF AMERICAN ART

1972 Actual.....	\$193,000
1973 Appropriation.....	\$190,000
1974 Estimate.....	\$223,000

The Archives of American Art is committed to aiding research and scholarship in the history of the visual arts in this country from prior to the Revolutionary War period to the present time. It acquires, organizes, and preserves the primary documentation needed by historians--the correspondence, diaries, business papers, and photographs of painters, sculptors, critics, dealers, and collectors, and the formal records of galleries, museums, and art societies. These collections of papers are cataloged, microfilmed, and made available to scholars. Several million original and microfilm items are now held.

The processing and chief reference center of the Archives is located in space provided by the National Collection of Fine Arts and the National Portrait Gallery library. In order to make its holdings readily accessible to scholars throughout the country and to develop a systematic collecting program, small regional centers are currently maintained in Boston, New York, Detroit, and on a part-time basis, San Francisco.

The Archives anticipates income from private funds of about \$135,000 in FY 1973. This income is used to support Archives' activities, such as quarterly publications and distribution of the Archives' Journal, certain salaries, and specialized acquisitions. It supplements on a matching basis activities supported by Federal appropriations such as cataloging, information retrieval, and reference services.

An increase of \$30,000 would be used to develop the Archives' Western regional office as a collecting and reference center for students west of the Mississippi, to provide for an expected rise in the microfilming workload in the Detroit and Boston centers, and to continue the Archives' oral history program.

Need for Increase

FY 1971 was the Archives of American Art's first year as a bureau of the Smithsonian Institution. It has become an integral part of the Smithsonian's research facilities and its resources are being intensively used by staff and fellows of the National Collection of Fine Arts, the National Portrait Gallery, and the National Gallery of Art, faculty and graduate students across the country, and by scholars from such places as Chicago, London, Munich, New Orleans, New York, Paris, Seattle, San Francisco, Stockholm, and Tokyo. A large increase in use of the Archives' holdings has been experienced in the various regional offices and many additional collections of records have been received through their efforts.

Regional offices are the chief means of locating, attracting, and acquiring collections of artists' and dealers' personal papers. They are also the research centers where students in that locale use the Archives' resources on microfilm. The western regional center with a filmed set of Archives' holdings is now established in rent-free quarters at the DeYoung Museum in San Francisco, but is operating on a highly restricted basis and is open only two days a week under a part-time clerk, paid from private funds. Personal visits and letters of inquiry from students and scholars in the west provide concrete evidence of a vigorous demand in that region for the documentary records from all parts of the country offered by the Archives. A west coast area director (\$16,000 and support costs of \$4,000) is required to maintain the center as a fully developed Archives facility, to initiate a collecting program, and to serve researchers more fully. Private funds will provide additional staff in this office.

Microfilming projects anticipated in the Detroit, Boston, and New York regional offices will require equipment and services not now available. An additional funding of \$5,000 will make it possible to acquire on film several large and significant collections of records such as those of the National Academy of Design, several major New York galleries, and art related papers owned by the New York Historical Society and the Massachusetts Historical Society. The Archives of American Art's oral history program, begun in 1959, has become a historically significant activity. At the present time, the oral history collection comprises more than twelve hundred transcripts of interviews with artists, dealers, collectors, and administrators. This program has been funded primarily through grants from the art community which are no longer available. The requested \$5,000 would be used to continue this important program in oral history.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

NATIONAL ARMED FORCES MUSEUM ADVISORY BOARD

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>6</u>	<u>-</u>	<u>6</u>
11 Personnel Compensation.....	122	2	124
12 Personnel Benefits.....	10		10
21 Travel & Trans. of Persons..	1		1
22 Transportation of Things....			
23 Rent, Comm. & Utilities....	1		1
24 Printing and Reproduction...			
25 Other Services.....			
26 Supplies and Materials.....			
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>134</u>	<u>2</u>	<u>136</u>
 <u>Analysis of Increase</u>			
Pay Increase.....		2	
Program.....		-	

Specification of Increase (Program):

The Board advises and assists the Regents of the Smithsonian Institution on matters relating to the establishment of an Outdoor Bicentennial Museum and a study center to be designated the Dwight D. Eisenhower Institute for Historical Research. No program fund increase is requested for FY 1974.

NATIONAL ARMED FORCES MUSEUM ADVISORY BOARD

1972 Actual.....	\$131,000
1973 Appropriation.....	\$134,000
1974 Estimate.....	\$136,000

The National Armed Forces Museum Advisory Board, established by Public Law 87-186 (approved August 30, 1961), advises and assists the Board of Regents of the Smithsonian Institution on matters relating to establishment of a National Historical Museum Park, to be known as the Bicentennial Outdoor Museum and a study center to be designated the Dwight D. Eisenhower Institute for Historical Research.

No program fund increase is requested for FY 1974. Planning for the Bicentennial Outdoor Museum will be continued. An amount of \$2,000 is required for necessary pay.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

SMITHSONIAN ARCHIVES

(Dollars in thousands)	<u>Base</u> <u>FY 1973</u>	<u>Increase</u> <u>Requested</u>	<u>Est.</u> <u>FY 1974</u>
No. of Permanent Positions.....	<u>7</u>	<u>-</u>	<u>7</u>
11 Personnel Compensation.....	81	1	82
12 Personnel Benefits.....	7		7
21 Travel & Trans. of Persons..	2		2
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...	6		6
25 Other Services.....	3		3
26 Supplies and Materials.....	8		8
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>107</u>	<u>1</u>	<u>108</u>

Analysis of Increase

Pay Increase.....	1
Program.....	-

Specification of Increase (Program):

The Archives' staff identifies permanently valuable records throughout the Institution and preserves and maintains them as a research resource for the staff and scholarly community. No program fund increase is being sought in FY 1974.

SMITHSONIAN ARCHIVES

1972 Actual.....	\$ 81,000
1973 Appropriation.....	\$107,000
1974 Estimate.....	\$108,000

The Smithsonian Archives is the official memory of the Institution and a valuable research resource for scholars working in the history of American science and in the history of the cultural institutions which are under Smithsonian care. Exclusive of materials located in the research and curatorial areas, which total millions of documents, the Archives' current holdings amount to over one million documents from the 1830's to the present. The Archives' staff identifies permanently valuable records throughout the Institution, preserves them for historical, administrative, legal, and fiscal value, and provides service on these records to staff and to the scholarly community.

Using present staff, the program plan for FY 1974 undertakes to improve the Archives' capabilities to identify, preserve, and make available those documents which the Smithsonian holds throughout its many divisions. This program will be effected by utilizing the expertise of the staff developed over the past few years, with emphasis on modern techniques of archival administration. Major objectives are completion of a guide to the archives of the National Museum of Natural History, establishment of an Institution-wide information system for archives, and distribution of microfilm copies of Smithsonian archives with special historical research value.

No funding increase is being requested for this activity except necessary pay (\$1,000).

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF THE ASSISTANT SECRETARY FOR PUBLIC SERVICE

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>6</u>	<u>2</u>	<u>8</u>
11 Personnel Compensation.....	90	18	108
12 Personnel Benefits.....	8	2	10
21 Travel & Trans. of Persons..	3		3
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....	3		3
26 Supplies and Materials.....	1		1
31 Equipment.....	1		1
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>106</u>	<u>20</u>	<u>126</u>

Analysis of Increase

Pay Increase.....	2
Program.....	18

Specification of Increase (Program):

Expansion and extension of Public Service Programs (2 positions; \$18,000). The Assistant Secretary for Public Service guides and supports the directors of public service units in the development of programs to advance the Institution's objectives in education and information. With the expansion of these programs and the subsequent increase in public interest, an additional clerk-typist (\$7,000) is required to handle the increasing volume of clerical duties. In addition, to permit the utilization of modern communications technology for the extension of educational services to school children and others throughout the nation, a video program coordinator (\$11,000) is also requested.

OFFICE OF ASSISTANT SECRETARY FOR PUBLIC SERVICE

1972 Actual.....	\$147,000
1973 Appropriation....	\$106,000
1974 Estimate.....	\$126,000

The position of the Assistant Secretary of Public Service was established in 1968 to identify and consolidate those organizations which comprise the Institution's popular educational, extension, and information services. These units include: Anacostia Neighborhood Museum, Division of Performing Arts, Office of Elementary and Secondary Education, Office of International Activities, Office of Public Affairs, Reading is Fundamental, the Smithsonian Associates, the Smithsonian Press and the Smithsonian Magazine.

The Assistant Secretary for Public Service guides and supports the directors of public service units in the development of programs which advance the Institution's objectives in education and information, reaching beyond museum exhibition. A program increase of \$18,000 is requested for this office. Necessary pay in the amount of \$2,000 is also sought.

Need for Increase

The Institution is continuing experiments in community and neighborhood museum support. In addition to influencing the future development of exhibitions and programs throughout the Smithsonian, experience obtained through these experiments is also beneficial to other major museums seeking to serve broader social and economic publics. Educational services to schools, performances on the Mall, activities for Smithsonian Associates, and a widening range of publications and information about Smithsonian collections, research, and expeditions are undertakings which tend to reinforce one another and make the Institution's resources increasingly accessible to the public, many of whom may visit our museums infrequently.

An additional position (\$7,000) is requested to handle the increasing volume of clerical duties being generated by these expanding programs and their growing popularity with the public.

The Smithsonian Institution is concerned with the diffusion of knowledge covering diverse academic disciplines. It is vital that modern communications technology be used for the extension of educational services based on Smithsonian research and scholarship. Additional funding in the amount of \$11,000 is requested to support a special assistant for educational video. This individual will be responsible for establishing a pilot level extension program using new approaches in the communications media to reach school children throughout the nation and for working with external organizations in the development of programs that would carry the resources of the Smithsonian to people who could not normally come to the Institution themselves.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

ANACOSTIA NEIGHBORHOOD MUSEUM

(Dollars in thousands)	Base FY 1973	Increase Requested	Est. FY 1974
No. of Permanent Positions.....	<u>18</u>	<u>3</u>	<u>21</u>
11 Personnel Compensation.....	173	32	205
12 Personnel Benefits.....	15	3	18
21 Travel & Trans. of Persons..	2		2
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	28		28
24 Printing and Reproduction..	3		3
25 Other Services.....	24		24
26 Supplies and Materials.....	13		13
31 Equipment.....	9		9
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>267</u>	<u>35</u>	<u>302</u>

Analysis of Increase

Pay Increase.....	4
Program.....	31

Specification of Increase (Program):

Education Department (1 position; \$6,000). The Museum offers education programs for all age groups--preschool to senior citizen--and helps to plan school enrichment activities with area school teachers. While primarily serving Anacostia schools, the Museum has received requests for assistance from schools throughout the greater Washington area. Such rising interest and participation in museum programs has resulted in an increased clerical and administrative workload. One clerk typist (\$6,000) is requested for this department which currently has no clerical personnel.

Exhibits Design and Production Laboratory (2 positions; \$25,000). This laboratory, which is scheduled to open in FY 1974, will train inner-city minority group members in exhibits design and production. It is anticipated that exhibits produced at the laboratory will help to extend the relevance of Smithsonian exhibits and Bicentennial presentations to the entire community. An exhibits specialist (\$14,000) is needed to assist with the development of the Bicentennial exhibits, as well as other exhibits at Anacostia; and an administrative assistant (\$11,000) is needed to manage detailed correspondence and accounts, related to the laboratory's operation.

ANACOSTIA NEIGHBORHOOD MUSEUM

1972 Actual.....	\$206,000
1973 Appropriation....	\$267,000
1974 Estimate.....	\$302,000

The Anacostia Neighborhood Museum was opened in 1967 to reach out to new audiences who are either unaware of museum resources, physically too far from them, or, as inhabitants of low-income population density centers, do not see the interest or relevance of museums. Since its opening, the museum has entertained and instructed about 250,000 visitors and today offers an expanding array of classes and youth programs. Anacostia has linked its research, exhibit, and education activities directly to the needs of the community and has assured a fresh, nontraditional approach to the role of the museum.

The FY 1974 budget contains a request for an additional \$31,000 for three new positions and \$4,000 for necessary pay for current staff.

Need for Increase

The Museum offers education programs for all age groups and helps area teachers to plan school enrichment activities. A photo of the new children's room is shown on a following page. Activities in this area range from flannelboard presentations on black history and demonstrations in soap-making to panel discussions, seminars, and live programs featuring the performing arts. Another important phase in the Museum's education program is performed by the mobile division, which takes the museum into the community through exhibits, pottery demonstrations, a speaker's bureau, teaching aids, and video tape presentations. While the mobile division primarily serves Anacostia schools, many requests have recently been received and fulfilled from schools in the greater Washington area, including Virginia and Maryland.

Rising interest and participation in museum programs have resulted in an increased clerical and administrative workload in the education department. Presently this work is being performed by staff professionals or teenage volunteers. One clerk typist and funds in the amount of \$6,000 are requested to permit a more efficient and economical support effort.

In FY 1974, the Museum plans to establish an exhibits design and production laboratory using funds appropriated to the Smithsonian and anticipated foundation support. The primary objectives of the laboratory are: to train inner-city minority group people in exhibits design and production (which includes teaching skills such as cabinetwork, carpentry, metalwork, spraypainting, silk-screening, model-making, and design) and to place these persons in jobs in the museum community or private industry; and to have minority group members help plan and execute exhibits and related educational materials which describe their contributions to the American experience for the Bicentennial celebration.

In the field of exhibits preparation, there is an urgent demand for creative people who are sensitive to the needs of inner city minority groups. It is anticipated that exhibits produced at the laboratory will help to extend the relevance of Smithsonian presentations to the entire community. In addition, exhibits produced for the Bicentennial on urban problems and minority contributions will be circulated nationwide, thus serving as an example for museums across the nation.

An exhibits specialist (\$14,000) is needed to assist with the development of Bicentennial exhibits, as well as other exhibits at the Museum. An administrative assistant (\$11,000) is needed to manage detailed correspondence and accounts, related to the laboratory's operation.



Chief of the Anacostia education department with children in the newly opened children's room.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF INTERNATIONAL ACTIVITIES

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>10</u>	<u>1</u>	<u>11</u>
11 Personnel Compensation.....	143	20	163
12 Personnel Benefits.....	12	1	13
21 Travel & Trans. of Persons..	5		5
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....			
26 Supplies and Materials.....			
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....		<u>25</u>	<u>25</u>
TOTAL	<u>160</u>	<u>46</u>	<u>206</u>
<u>Analysis of Increase</u>			
Pay Increase.....		5	
Program.....		41	

Specification of Increase (Program):

Support of Overseas Research (1 position; \$41,000). This Office fosters and coordinates the Institution's scientific and cultural activities abroad. A growing number of research projects in India, Pakistan, and Burma require a coordinator (\$16,000) to be present in the region a major portion of each year for host-country consultation and project administration. An additional \$25,000 is requested for a matching grants program to assist American research centers abroad in classical archaeological studies.

OFFICE OF INTERNATIONAL ACTIVITIES

1972 Actual.....	\$140,000
1973 Appropriation....	\$160,000
1974 Estimate.....	\$206,000

The Office of International Activities was established in 1965 to foster and coordinate the Smithsonian's many-sided scientific and cultural activities abroad. To this end, it is the Institution's point of liaison with the Department of State and diplomatic missions in Washington, and with foreign governments and research institutions abroad.

Of special importance are new efforts to foster Smithsonian scientific and cultural exchanges with the Peoples Republic of China, the Soviet Union, and Poland, following President Nixon's initiatives. The Office continues to support the Institution's world-wide environmental and conservation programs and the exchange of scholars and technicians as well as of cultural and scientific objects, information, exhibits, and the like in the interests of basic research and public education.

The program increase of \$41,000 requested is to be used to support the Foreign Currency Program and American centers of research in classical archeology abroad. An additional amount of \$5,000 is required for necessary pay for current staff.

Need for Increase

Thirty-five joint research programs for India are in preparation, eight for Pakistan, and two for Burma for presentation to the Foreign Currency Program. Two nation-wide studies, funded earlier by the Program, will continue for several years in Ceylon. Satisfactory development of programs in India and Pakistan particularly, where excess local currency accounts seem assured for an indefinite period, require a coordinator (\$16,000) to be present in the region a major part of each year. This is essential especially for Smithsonian sponsored research because this Institution, unlike other Special Foreign Currency Program agencies, is required by law to make its excess currencies "available only to United States institutions." American scientists therefore participate in person in joint research programs in these countries. This requires extensive preparation and coordination not characteristic of other U. S. agency excess currency programs. A coordinator, therefore, who is familiar with host country laws, regulations, and procedures, and who is close-at-hand for consultation with potential collaborators on short notice, is vital. His presence in South Asia will save substantial amounts of money both in terms of travel costs and in terms of teaching and research time which would otherwise be lost by American scholars.

America's contributions to research in classical archeology have literally been made possible by a small group of research centers abroad like the American Academy in Rome, the American School of Classical Studies at Athens, and, more recently, the American Research Institute in Turkey. These centers are sponsored and supported by consortia of American institutions and individuals devoted to the study of the roots of our western civilization. Such centers maintain a continuity of contact with local governments, research institutions, and scholars ensuring access to local research materials and sites. Moreover, they provide experienced local administrators for field research. The existence of these centers is threatened by the dual pressures here in the United States of inflation and reduced government support of the programs of the sponsoring United States universities. As the original sponsor of archeology in the United States and of a global network of research scholars, the Smithsonian seeks a fund (\$25,000) for grants to American research centers abroad. Applications for these funds would be carefully screened by the Institution and awards made only to the extent that the applicants obtained new, matching funds. Such incentive awards would contribute to the survival of these excellent representatives of the American scholarly community abroad.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

INTERNATIONAL EXCHANGE SERVICE

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>9</u>	<u>-</u>	<u>9</u>
11 Personnel Compensation.....	89	7	96
12 Personnel Benefits.....	8	1	9
21 Travel & Trans. of Persons..			
22 Transportation of Things....	56		56
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....			
26 Supplies and Materials.....	6		6
31 Equipment.....	1		1
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>160</u>	<u>8</u>	<u>168</u>

Analysis of Increase

Pay Increase.....	8
Program.....	-

Specification of Increase (Program):

Through the International Exchange Service, public and private institutions in the United States exchange publications with organizations in other countries. This includes the exchange of official publications such as the Federal Register, the Congressional Record, and U.S. patent specifications, as well as private publications such as medical and dental texts, which are of particular importance to developing countries. No program fund increase is being requested in FY 1974.

INTERNATIONAL EXCHANGE SERVICE

1972 Actual.....	\$147,000
1973 Appropriation.....	\$160,000
1974 Estimate.....	\$168,000

Through the International Exchange Service, public and private institutions in the United States exchange their publications with organizations in other countries and receive in exchange publications from those organizations. Begun in 1849 as an exchange service between the Smithsonian Institution and the learned societies in other countries, the program was so successful that later it was expanded to other American organizations.

When the Brussels Convention of 1886 was adopted by the United States, the Smithsonian Institution became the official exchange bureau in the United States for the International Exchange of literary, scientific, and cultural publications. The Smithsonian Institution is the only organization in the United States that is providing a service under the Brussels Convention.

14 Stat. 573, as amended, provides that the exchange of the official United States Government publications shall be made through the Smithsonian Institution.

No funding increase is being requested for this activity except necessary pay (\$8,000).

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

DIVISION OF PERFORMING ARTS

(Dollars in thousands)	Base FY 1973	Increase Requested	Est. FY 1974
No. of Permanent Positions.....	<u>9</u>	<u>1</u>	<u>10</u>
11 Personnel Compensation.....	169	14	183
12 Personnel Benefits.....	14	3	17
21 Travel & Trans. of Persons..	9	3	12
22 Transportation of Things....	3	1	4
23 Rent, Comm. & Utilities.....	7	2	9
24 Printing and Reproduction...	3	1	4
25 Other Services.....	71	10	81
26 Supplies and Materials.....	17	1	18
31 Equipment.....	10	7	17
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>303</u>	<u>42</u>	<u>345</u>

Analysis of Increase

Pay Increase.....	3
Program.....	39

Specification of Increase (Program):

American Folklife Festival (1 position; \$39,000). Beginning with the Festival in 1973, the Division of Performing Arts will enlarge the basic presentational format to incorporate the themes which will comprise the Bicentennial presentation. Funds for the development of these themes are requested under the Bicentennial heading of this budget, but funds for the changes in Festival format, which will provide opportunities for exhibit development and organizational experience, are urgently needed as a part of the Division's base. One planned format change will extend the 1973 Festival presentation from a 5-day period to a 10-14 day time period. This development of the annual Folklife Festival, resulting from the change in program emphasis, requires a technical assistant and temporary help during the Festival (\$14,000) and \$25,000 for additional supplies, equipment, and contractual services sufficient to support the expanded time period.

DIVISION OF PERFORMING ARTS

1972 Actual.....	\$265,000
1973 Appropriation....	\$303,000
1974 Estimate.....	\$345,000

The Division of Performing Arts is responsible for the presentation of programs dealing with our national aesthetic expressions, particularly as they evidence themselves in oral, music, or dance forms, and relate to the collections of the museums. By staging such events as the annual Festival of American Folklife and cosponsoring the American College Theater Festival, the Division undertakes to extend and enliven the Institution's educational services to the public.

An increase of \$39,000 is required in the FY 1974 budget for the Festival of American Folklife and for general support. An amount of \$3,000 is needed for necessary pay.

Need for Increase

Substantial support is required to meet presentation and public service needs for the annual Festival of American Folklife. In previous years Festival participants have been paid minimum honorariums and housed in college dormitories. Despite rising costs of living, honorariums have remained the same since the inception of the Festival in 1967. The increased size of the Festival and the added number of participants necessitate a search for new housing arrangements at increased costs.

Administrative expenses of the Festival have increased due to the added number of requests for local, state, and national assistance and guidance in developing programs in folk culture. Iowa, Ohio, Kentucky, and Maryland have joined the list of states requesting guidance for state programs. In addition, Spokane, Washington, has requested consultation and assistance for the forthcoming Expo '74. Response to these requests has placed additional demands on administrative and clerical services.

Beginning with the Festival in 1973, which will feature the State of Kentucky, the Division of Performing Arts will enlarge the basic presentational format to incorporate the themes which will comprise the Bicentennial presentation. These themes are:

1. Old Ways in the New World--World ethnic communities and their American analogues.
2. The Native Americans--The surviving cultures of the American Indian.
3. Working America--The skills, crafts, and lore of the American workers.
4. A Regional View of American Life--Regional folklife and expressions.

Funds for the development of these themes are requested under the Bicentennial heading of this budget, but funds for the changes in Festival format, which will provide opportunities for exhibit development and organizational experience, are urgently needed as a part of the Division's base appropriation. One planned format change will extend the 1973 Festival presentation from a 5-day period to a 10-14 day time period. This will provide an immediate benefit to the public as well as an opportunity for determining needs relative to the Bicentennial presentation. This development of the regular annual Folklife Festival, resulting from the change in program emphasis, requires a technical assistant and temporary help during the Festival (\$14,000) and \$25,000 for additional supplies, equipment, and contractual services (for such items as food and accommodations) sufficient to support the expanded time period.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF PUBLIC AFFAIRS

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>12</u>	<u>-</u>	<u>12</u>
11 Personnel Compensation.....	200	3	203
12 Personnel Benefits.....	17		17
21 Travel & Trans. of Persons..	2		2
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...	39		39
25 Other Services.....	15		15
26 Supplies and Materials.....	7		7
31 Equipment.....	1		1
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>281</u>	<u>3</u>	<u>284</u>

Analysis of Increase

Pay Increase.....	3
Program.....	-

Specification of Increase (Program):

The Office of Public Affairs is responsible for communicating information about the Smithsonian and its programs to the public through various media--radio, television, newspapers, popular and scientific periodicals, press releases, documentary films, and general information and visitor orientation pamphlets and other items. No additional program funds are requested in the FY 1974 budget.

OFFICE OF PUBLIC AFFAIRS

1972 Actual.....	\$372,000
1973 Appropriation....	\$281,000
1974 Estimate.....	\$284,000

The Office of Public Affairs is responsible primarily for serving Smithsonian visitors and the public at large by communicating information about the Smithsonian and its programs through various media--radio, television, newspapers, popular and scientific periodicals, press releases, documentary films, the Smithsonian Calendar of Events, Dial-A-Phenomena, Dial-A-Museum, and general information pamphlets and publications. It also prepares and makes available to museum visitors a variety of building guide leaflets to assist them in their tours of Smithsonian buildings. Included in its presentations are the Torch newspaper, research reports, and the "Radio Smithsonian" now being heard over 88 stations across the nation. The Office of Public Affairs also administers the Office of Special Events, which is responsible for servicing exhibition openings, seminars, meetings, and special activities held at the Smithsonian facilities in Washington, D. C.

No program increase in being sought for this office. An amount of \$3,000 is requested for necessary pay for existing staff.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

SMITHSONIAN INSTITUTION PRESS

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>25</u>	<u>1</u>	<u>26</u>
11 Personnel Compensation.....	355	18	373
12 Personnel Benefits.....	30	2	32
21 Travel & Trans. of Persons..	2		2
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...	414		414
25 Other Services.....	5		5
26 Supplies and Materials.....	2		2
31 Equipment.....	2		2
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>810</u>	<u>20</u>	<u>830</u>

Analysis of Increase

Pay Increase.....	4
Program.....	16

Specification of Increase (Program):

Graphic Specialist, Printed Materials (1 position; \$16,000). Careful design of printed materials is essential, not simply for maximum transfer of information, but to secure the most economical procurement within the specifications set by the Congress's Joint Committee on Printing. Funds are requested to employ a specialist in the design of printed materials.

SMITHSONIAN INSTITUTION PRESS

1972 Actual.....	\$816,000
1973 Appropriation.....	\$810,000
1974 Estimate.....	\$830,000

Press publication activity is a fundamental extension of the work of the Smithsonian's basic research laboratories. Necessary for ecological and agricultural advancement and other basic and applied studies by other researchers, these reports are distributed to major libraries and scientific institutions in all 50 states and many foreign countries. For the many millions of visitors to the Smithsonian each year, the Press produces and distributes exhibit catalogs, education pamphlets, and informative leaflets. Finally, the Press also furnishes the Institution with a variety of necessary manuals, reports, specimen labels, and directories, including copies of Congressional materials and reports from government agencies.

A program increase of \$16,000 is sought for design and printing staff. An additional \$4,000 is required for necessary pay for current staff.

Need for Increase

Increased exhibition and education activities of the National Portrait Gallery, the National Collection of Fine Arts, the Renwick Gallery, and Anacostia Neighborhood Museum have outstripped the Press's ability with present staff to design the necessary exhibition catalogs, hall guides, and public education leaflets. Careful design of these printed materials is essential, not simply for maximum transfer of information, but to secure the most economical procurement within the specifications set by the Congress's Joint Committee on Printing. Funds are requested to correct this problem by the addition of a specialist in the design of printed materials.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF THE ASSISTANT SECRETARY FOR MUSEUM PROGRAMS
AND
OFFICE OF MUSEUM PROGRAMS

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>9</u>	<u>-</u>	<u>9</u>
11 Personnel Compensation.....	117	2	119
12 Personnel Benefits.....	10		10
21 Travel & Trans. of Persons..	8		8
22 Transportation of Things....	3		3
23 Rent, Comm. & Utilities....	4		4
24 Printing and Reproduction...	3		3
25 Other Services.....	142		142
26 Supplies and Materials.....	17		17
31 Equipment.....	15		15
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>319</u>	<u>2</u>	<u>321</u>

Analysis of Increase

Pay Increase.....	2
Program.....	-

Specification of Increase (Program):

The Office of Museum Programs oversees and reviews the Institution's museum and exhibition activities, with special emphasis in developing experimental and educational exhibits, surveying visitor reactions to the Institution's services, and providing advice and technical assistance to other museums.

This Office offers three technical assistance programs to museum workers: (1) a training workshop program in museum practices, (2) a series of video tapes on conservation techniques, and (3) experiments in the effectiveness of exhibit and educational programs. No program funding increase is requested in the FY 1974 budget.

OFFICE OF THE ASSISTANT SECRETARY FOR MUSEUM PROGRAMS
AND
OFFICE OF MUSEUM PROGRAMS

1972 Actual.....	\$250,000
1973 Appropriation.....	\$319,000
1974 Estimate.....	\$321,000

The Office of Museum Programs oversees and reviews the Smithsonian Institution's museum and exhibition activities, with special emphasis on developing experimental and educational exhibits, surveying visitor reactions to the Institution's services, and providing advice and technical assistance to other museums. It cooperates with museum professionals and their associations and organizations to increase the effectiveness of museums in the performance of their scholarly and public education functions. The Office of the Registrar, the Conservation-Analytical Laboratory, the Office of Exhibits, the Smithsonian Libraries, the Smithsonian Institution Traveling Exhibition Service, and the National Museum Act are under the general administration of this Office.

In addition to the central administrative functions, this office maintains three technical programs: (1) a training workshop program in museum practices, (2) a series of video tapes in conservation techniques and (3) experiments in the effectiveness of exhibit and educational programs. Currently the Office of Museum Programs offers a series of technical workshops to museum professionals throughout the United States. For FY 1974, a total of 22 one-week workshops will be offered such as silk screen process, museum design, and model making, etc. These workshops provide on-the-job training. The second special program disseminates information on conservation techniques and practices through the production of slide/audio cassette kits and video tapes. For this fiscal year 40 one-hour video tapes will be produced for student training in conservation, 10 slide/audio cassette kits for the general practitioner and 20 technical video tapes for the specialists. The third major project consists of experiments exploring the learning potentials of museum exhibits. Secondly, several research projects are in progress examining the affective and informative levels of exhibits.

An amount of \$2,000 is requested for necessary pay purposes; no program increase is sought for FY 1974.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

CONSERVATION-ANALYTICAL LABORATORY

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>14</u>	<u>5</u>	<u>19</u>
11 Personnel Compensation.....	163	45	208
12 Personnel Benefits.....	14	4	18
21 Travel & Trans. of Persons..	9		9
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....	33	7	40
26 Supplies and Materials.....	13	10	23
31 Equipment.....	37	36	73
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>269</u>	<u>102</u>	<u>371</u>

Analysis of Increase

Pay Increase.....	2
Program.....	100

Specification of Increase (Program):

Preservation and Conservation of Smithsonian Collections (5 positions; \$100,000). Manpower and facilities devoted to general Institution conservation tasks are badly inadequate. Many of the 130,000 artifacts added to the collections each year require analysis and treatment. Thirty-two man years of work each year is estimated to be required for new objects exclusive of the needs of hundreds of thousands of deteriorating objects already in the collections. Only a fraction of the required conservation manpower is now available. Additional badly needed space is being provided to the Conservation-Analytical Laboratory. An additional two conservators, two analytical scientists, and a clerk are requested (\$47,000) to improve the Institution's ability to cope with a huge and growing workload. An amount of \$53,000 is required for laboratory services and supplies and for the purchase of analytical equipment.

CONSERVATION-ANALYTICAL LABORATORY

1972 Actual.....	\$195,000
1973 Appropriation....	\$269,000
1974 Estimate.....	\$371,000

The Conservation-Analytical Laboratory was established in 1963 to serve the museums of the Smithsonian Institution. Staffed by conservators and scientists, it ascertains and advises on the suitability, for artifacts displayed or in storage, of environmental conditions found in the buildings and suggests remedial action if necessary. Based upon examination or analysis, advice is given to curatorial units on conservation procedures for specific objects. Objects which present special problems or require more specialized equipment than is available in these units are treated in this central laboratory.

Analyses of objects or their materials (e.g. pigments, fibers, alloys, or corrosion products) by advanced instrumentation serve to determine appropriate conservation procedures or to provide museum archaeologists and historians with basic research data concerned with dates, attribution, and ancient production methods. Commercial products proposed for prolonged contact with artifacts (such as fumigants used in storage) are examined for suitability.

The conservation program of the Smithsonian requires additional space, personnel, and operating support. It is anticipated that more space will become available in FY 1973 and an increase of \$100,000 is requested for conservator and scientist staff and efficiency-raising equipment. An additional \$2,000 is required for necessary pay.

Need for Increase

Manpower and facilities devoted to general Institution conservation tasks are woefully inadequate. Accessions of artifacts number about 130,000 a year. Some single accessions are complex or represent hundreds of objects. Many of these are invaluable. A large proportion require immediate and extensive treatment to forestall decay. If only thirty minutes were applied to each newly-acquired object (two hours is an actual minimum of treatment), this would represent 32 man-years of necessary work each year, exclusive of the needs of deteriorating objects already in the collection. Central staffing and space needed to cope efficiently and adequately with the preservation and conservation of the Smithsonian's collections is estimated conservatively at thirty conservators, supported by fifteen scientists and 60,000 square feet of well-outfitted laboratory space.

The Conservation-Analytical Laboratory now has six conservators and five scientists for a wide variety of tasks; other units, in the National Portrait Gallery, National Collection of Fine Arts, the Freer Gallery, and the Department of Anthropology total about seven conservators and two scientists whose efforts are focussed on specialized local needs. The Laboratory occupies an overcrowded 2,600 square feet. In FY 1972, with limited staff and space it treated 420 objects (varying in nature from archaeological to space-age) from bureau collections. This compares with 358 in 1971 and 144 in 1970.

The requested funding increase would provide two conservators, two scientists, and an information clerk (\$47,000). It would also provide \$53,000 program funds for services for about 2,000 square feet of additional space for the new staff, general laboratory supplies and materials to cope with a growing workload, and for additional equipment for study and analysis techniques, such as atomic absorption, differential thermal analysis, thermoluminescence dating, and ultraviolet spectrophotometry.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF EXHIBITS PROGRAMS

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>148</u>	<u>15</u>	<u>163</u>
11 Personnel Compensation.....	1,986	158	2,144
12 Personnel Benefits.....	169	13	182
21 Travel & Trans. of Persons..	6		6
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...	60	18	78
25 Other Services.....	156	45	201
26 Supplies and Materials.....	120	98	218
31 Equipment.....	55	20	75
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>2,552</u>	<u>352</u>	<u>2,904</u>

Analysis of Increase

Pay Increase.....	52
Program.....	300

Specification of Increase (Program):

Serving Projected Exhibits Requirements (15 positions; \$300,000). During the period 1974-1977 this Office will be required to help design and produce a growing number of exhibits for regular, ongoing programs, the Bicentennial, the new National Air and Space Museum, the implementation of the Zoo's master plan and others. No program fund increases have been sought for this Office for several years while exhibits plans and base resource capabilities were reviewed. Phased growth of support personnel and funds is now requested to realize the full capability of the current base resource of skilled exhibits personnel. An additional 15 lower-graded positions (\$119,000) are requested to perform full-time maintenance of exhibits subject to heavy visitor use. An amount of \$181,000 also is requested to replace worn-out and damaged exhibits components and to procure routine production and maintenance services. These steps will help to keep existing exhibits in good repair and free more highly skilled employees for the preparation of new exhibits in the years ahead.

OFFICE OF EXHIBITS PROGRAMS

1972 Actual.....	\$2,580,000
1973 Appropriation....	\$2,552,000
1974 Estimate.....	\$2,904,000

The Office of Exhibits, working in close and continuing collaboration with museum scientists, curators, and historians, is instrumental in preparing and maintaining exhibits seen by the millions of people a year who visit the Smithsonian museums. Over 4,000 permanent and temporary exhibit units have been produced over the past 20 years. Among the highly developed techniques used by the Office for the preparation of exhibits are freedredry taxidermy, plastic reproductions and object mounting devices, and modelmaking. Concerned mainly with the presentation of concepts, ideas, information, and objects related to the natural sciences, history, technology, and the flight sciences, the Office of Exhibits provides advanced training in exhibit techniques to hundreds of museum professionals from museums in the United States and other countries each year. Studies now being planned will record visitor reaction, participation, and involvement in museum exhibits to learn more about the process of communicating ideas.

For FY 1974 the Office requires a program fund increase of \$300,000 to permit an improved capability of its total resources to serve Bicentennial, National Air and Space Museum, and other exhibits' preparation needs. An additional amount of \$52,000 is sought for necessary pay for current staff.

Need for Increase

During the period FY 1974 - 1977 the Office of Exhibits will be required to help design, fabricate, and install a growing number of special temporary and permanent exhibit units in support of regular ongoing public service programs serving some 20 million visitors each year, special projects for the Bicentennial, the opening of the new National Air and Space Museum, the implementation of the Master Plan at the National Zoological Park, and others. For several years, no program fund increases have been requested for this Office while the Institution studied current and projected exhibit needs, reviewed the organization and operations of the Office itself, began to implement adjustments to increase productivity, and took other actions to ensure that the total resources of the Office are being used effectively. These studies have confirmed that the Smithsonian now has an excellent base resource of skilled professional exhibits personnel to approach the large workload of the next several years. This resource can be made more productive, however, by limited, phased growth primarily of support personnel and funds. The importance of proper support relationships is a matter that has been presented in other budgetary/program relationships of the Institution, notably the science effort.

To implement this growth in support for increased productivity of existing staff exhibits specialists, the Smithsonian is requesting positions and funds for permanent, full-time maintenance teams at appropriately lower salary levels and for contractual services for routine production jobs. The use of audio visual and special effect techniques combined with the normal wear and tear on permanent exhibits has created a strong requirement for a permanent, full-time maintenance program in all museum buildings. At present, maintenance is provided by highly skilled specialists at the sacrifice of new exhibit program requirements. Fifteen positions (\$119,000) are requested to establish maintenance teams to provide daily attention to existing exhibits. Other object class funds (\$181,000) are requested to replace worn-out and vandalized exhibit components and to replace mechanical equipment, some of which has had to be removed from public exhibit spaces. These funds will also be used to establish a special fund for the procurement of routine production and maintenance services, thus allowing specialists to be assigned to more important projects.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF THE REGISTRAR

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>31</u>	<u>-</u>	<u>31</u>
11 Personnel Compensation.....	253	5	258
12 Personnel Benefits.....	22		22
21 Travel & Trans. of Persons..			
22 Transportation of Things....	62		62
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....	27		27
26 Supplies and Materials.....	2		2
31 Equipment.....	2		2
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>368</u>	<u>5</u>	<u>373</u>

Analysis of Increase

Pay Increase.....	5
Program.....	-

Specification of Increase (Program):

The Office of the Registrar serves as a central point for officially accessioning and recording the specimens and objects coming to the National Museums of Natural History and History and Technology. It also furnishes essential support services to all units of the Smithsonian by operating the central mail room and the shipping office, handling U.S. customs clearances and providing the central messenger service. No additional program funds are sought on the FY 1974 budget.

OFFICE OF THE REGISTRAR

1972 Actual.....	\$323,000
1973 Appropriation.....	\$368,000
1974 Estimate.....	\$373,000

The Office of the Registrar was established in 1881 to serve as a central point for officially accessioning and recording the specimens and objects coming into the Institution. It now has responsibility for recording and safeguarding the documents pertaining to the receipt and legal ownership of the items accessioned into the collections of the National Museum of Natural History and the National Museum of History and Technology. In addition, the Office furnishes essential support services to all units of the Smithsonian in their research, education, collection management, and exhibition programs, by operating the central mail room and the shipping office, handling U.S. Customs clearances, providing the central messenger service, and servicing public inquiries for the Museums.

No program fund increase is requested for FY 1974. An amount of \$5,000 is needed for necessary pay.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

SMITHSONIAN INSTITUTION LIBRARIES

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>63</u>	<u>3</u>	<u>66</u>
11 Personnel Compensation.....	740	32	772
12 Personnel Benefits.....	63	3	66
21 Travel & Trans. of Persons..	8		8
22 Transportation of Things....	1		1
23 Rent, Comm. & Utilities.....	10		10
24 Printing and Reproduction...	33	3	36
25 Other Services.....	26	1	27
26 Supplies and Materials.....	82	5	87
31 Equipment.....	95	15	110
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>1,058</u>	<u>59</u>	<u>1,117</u>
<u>Analysis of Increase</u>			
Pay Increase.....		9	
Program.....		50	

Specification of Increase (Program):

Extension of Basic Services (2 positions; \$22,000). In order to maintain the new branch libraries of the National Air and Space Museum and to respond to the increased demand for reference and information services associated with the development of Bicentennial projects, two additional positions (a librarian and a library technician) are required.

Acquisition of Information Resources (1 position; \$28,000). To assist in meeting the continually changing and growing need for documentary resources relevant to the Smithsonian research and exhibit programs, an increase of \$18,000 in book and journal funds is requested. Based on accepted workload standards, an additional library technician (\$8,000) will be required to perform the associated technical processing function. In addition \$2,000 is requested to enable the repair and processing of many steadily deteriorating rare books now that a secure, climate-controlled storage facility has been obtained.

SMITHSONIAN INSTITUTION LIBRARIES

1972 Actual.....	\$ 864,000
1973 Appropriation....	\$1,058,000
1974 Estimate.....	\$1,117,000

The Smithsonian Institution Libraries provide the documentary information base and the information search and delivery services that are required by, and contribute directly to, the research, exhibits, and administrative programs of the bureaus and offices of the Institution.

The FY 1974 increase of \$50,000 is sought chiefly to extend basic library-based information services to the growing National Air and Space Museum operation and to Bicentennial programs. An additional amount of \$9,000 is required for necessary pay.

Need for IncreaseExtend Basic Services (2 positions; \$22,000)

Library staffing for the branch libraries and information centers, most of which were unmanned in 1964, has reached 40 percent of a goal of 37 positions. Two new positions, a librarian and a library technician at a cost of \$22,000 with supplies and other support, are requested for the major developing program areas of the Institution, principally the branch libraries of the Air and Space Museum and the several bureaus that are increasingly involved in the development of Bicentennial projects. These positions will allow the Libraries to offer reference and information services to researchers in and near their laboratories and collections and to maintain the Museum's branch library and working collections. This additional staff will also help the Libraries maintain the inventory of the recently segregated rare book collections and to begin an inventory of the many map collections, scattered throughout the Institution, that have a growing importance for study and reference.

Acquisition of Information Sources (1 position; \$28,000)

In FY 1973 the Libraries will have reached about 45 percent of their goal of \$300,000 funding to acquire the books, journals, and other documentary resources from throughout the world that are considered essential to information services in the subjects relevant to the Smithsonian research and exhibit programs. The requested increase in book and journal funds for FY 1974 (\$18,000) will move the Libraries to within 50 percent of their goal, allowing chiefly the acquisition of new journals in art and science, special publication series (e.g., the ultramicrofiche editions of research monographs in American culture offered by Encyclopedia Britannica) and new editions of standard guides to sources of information such as the major national and subject bibliographies and indexes. Based on generally accepted workload standards, one additional library technician (\$8,000) in the technical processing function is required for the prompt handling of each \$15,000 worth of new material added, plus expected continued donations of gift and exchange materials.

An additional goal in the FY 1974 budget request is to improve the Libraries' capability in filming, binding, and other processing of deteriorating collections. The Libraries have recently obtained a secure, climate-controlled storage facility for their many rare books and have identified nearly 200 volumes of treasured items that must be processed and repaired for conservation, at prices ranging up to \$100 a volume (\$2,000).

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

SMITHSONIAN INSTITUTION TRAVELING EXHIBITION SERVICE

(Dollars in thousands)	<u>Base</u> <u>FY 1973</u>	<u>Increase</u> <u>Requested</u>	<u>Est.</u> <u>FY 1974</u>
No. of Permanent Positions.....	-	5	5
11 Personnel Compensation.....		60	60
12 Personnel Benefits.....		5	5
21 Travel & Trans. of Persons...			
22 Transportation of Things....		6	6
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....			
26 Supplies and Materials.....		5	5
31 Equipment.....		4	4
32 Lands and Structures.....			
41 Grants.....			
TOTAL	-	80	80

Analysis of Increase

Pay Increase.....	-
Program.....	80

Specification of Increase (Program):

Circulation of Exhibits to the Public (5 positions; \$80,000). The Traveling Exhibition Service (SITES) in operation for 21 years, circulates some 100 exhibits annually in art, science, history, and other fields. Each year about 4 million persons across the country view SITES installations. The service is funded largely from exhibit rental fees; but soaring costs of personnel, production, and shipping have increased these fees beyond the reach of many smaller, less wealthy museums, schools, and historical societies. Federal funding is required, on a cost-shared basis, to permit SITES to increase its service by providing more exhibitions to more potential users at lower rental fees. An amount of \$65,000 is requested to convert four private roll employees (the director, an exhibits specialist and technician, and the registrar) to Federal positions and add a technician. An additional \$15,000 will be used for shipping, production supplies, and equipment.

SMITHSONIAN INSTITUTION TRAVELING EXHIBITION SERVICE

1972 Actual.....	\$	0
1973 Appropriation....	\$	0
1974 Estimate.....	\$80,000	

The Smithsonian Institution Traveling Exhibition Service (SITES) provides a planned program of carefully selected, well-designed, and widely circulated traveling exhibitions covering a diversified range in the fields of art, design, science, technology, history, and education. Exhibitions are organized and lent by individuals and organizations throughout the world. A sample of the range of exhibit subjects is shown on a following page. The Smithsonian Institution is not always easily accessible to people away from the Washington area. SITES is the vehicle for taking the nation's treasures to them. SITES is the only nation-wide organization circulating exhibitions of an inter-disciplinary curriculum serving specialized and general museums, galleries, educational and cultural organizations throughout the nation. It is now in its 21st year of continuous operation supported by private funds.

Approximately four million people view SITES exhibitions annually (500 installations viewed by an average 8,000 persons each). For example, SITES has served 49 states and the District of Columbia many times during the last five years. One hundred exhibitions are presently circulating; existing demand for services could easily sustain twice that figure. Each year, 30 new exhibitions are needed to keep 100 exhibits in circulation. SITES mailing list of corresponding organizations numbers 1700 and increases at the rate of 30 per month. Colleges and universities are SITES most frequent customers (60 percent) followed by museums of all types and sizes (30 percent) and libraries (5 percent). All others make up the remaining 5 percent.

In FY 1974 an amount of \$65,000 for five positions and \$15,000 support costs is being sought to continue these operations.

Need for Increase

SITES seeks additional resources for the necessary balance of public and private funding which will permit SITES to increase its service by providing more exhibitions, making them more available, for lower rental fees. Private funding can no longer support this activity by itself.

SITES, since its inception, has been funded through the private resources of the Smithsonian. Most costs for these exhibits are recovered by charging rental fees. Soaring costs of personnel, production, and shipping, however, have increased the rental of these exhibits beyond the means of many potential users, especially the smaller museums, schools, and historical societies. Figure 1 clearly shows that as the rental fees increase above \$200 the number of installations decreases, and figure 2 shows that the cost of each exhibit has been increasing at a very substantial pace.

The practical effect has been that costs exceed income and the Institution's limited private funds have been forced to absorb annual deficits. The combined deficit for the past five years including FY 1973 is approximately \$80,000. The Institution cannot afford these continued losses. It would not be in the public's best interests, however, to terminate, drastically reduce, or orient this program to the wealthier customers.

The FY 1974 budget request provides for the following private roll staff conversions to Federal (the SITES director, an exhibits specialist, an exhibits technician, and the registrar). One additional exhibits technician will be hired to assist with display and packaging production. The requested funds also will be used for transportation of exhibits, production supplies, and equipment.

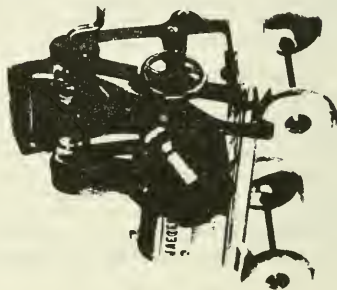
Coffee Pot; from CONTEMPORARY FINNISH DESIGN BY TAYO WIRKALA; closes Aug. 27, Suomi College, Hancock, Mich.



Bringing Up Father; from THE ART OF THE COMIC STRIP; closes Aug. 27, M. H. de Young Memorial Museum, San Francisco, Cal.



Naval Order signed by William Penn; from KNOWLEDGE, SEAPOWER; closes Aug. 27, Okla. Science and Arts Foundation, Oklahoma City, Okla.



Grant Meyer; from a CHILDREN'S WORLD; 1875-1950; opens Aug. 12, The Edmonson Art Gallery, Edmond, Al., Cal.

Booked up

Among the units of the NCFCA quartered out of the Fine Arts and Portrait Galleries Building is the Smithsonian Institution Traveling Exhibition Service (SITES), which sends art, history, and science shows on national tours.

At any given time, SITES has an average of 100 exhibitions on the road, according to Dennis Gould, SITES chief, who says that 60 percent go to educational institutions, 30 percent to museums, 5 percent to libraries and civic associations, and 5 percent to commercial institutions. (A representative sampling of works from current shows around the country is given on this page.) "There's an incredible demand for exhibitions," says Gould. "The public is thirsty. We get four or five letters a day asking us for information."

What's in most demand now? "Shows on the urban environment, and shows on the natural environment," he says.




And what's most popular of the current exhibitions? Gould nominates three: "American Pieced Quilts," "The Art of the Comic Strip," and "A Children's World: 1875-1950," actually three separate collections of cast iron toys that were booked up solidly for their two-year tours within weeks of being offered.

Figure #1

INSTALLATIONS PER FY COMPARED TO NUMBER OF SHOWS OFFERED PER FY ABOVE AND BELOW A \$200 RENTAL FEE

INSTALLATIONS

SHOWS

-  = NUMBER OF INSTALLATIONS / FY
-  = NUMBER OF SHOWS / FY WITH RENTAL FEES ABOVE \$200.
-  = NUMBER OF SHOWS / FY WITH RENTAL FEES BELOW \$200.

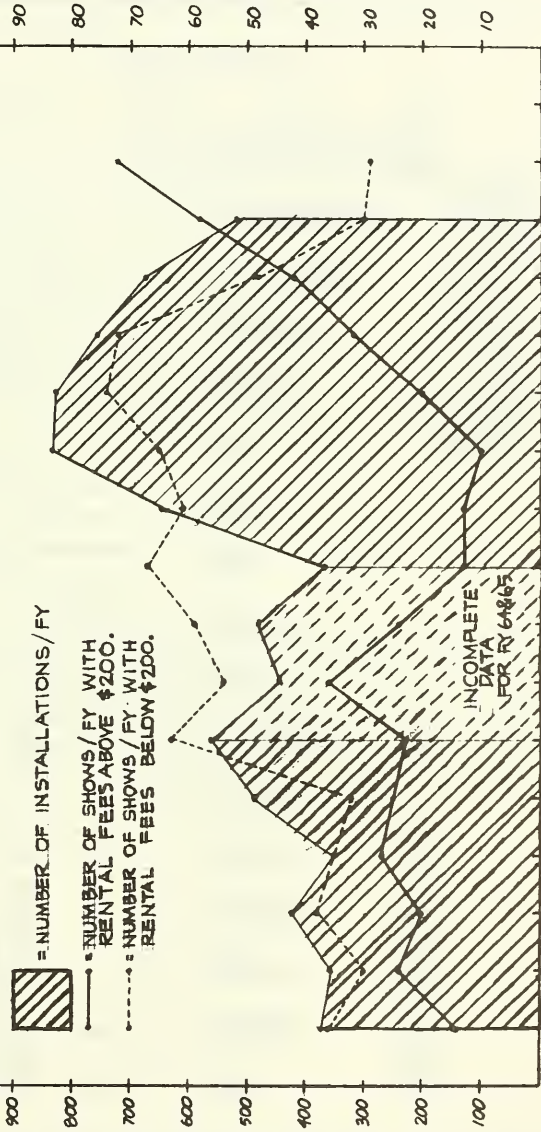
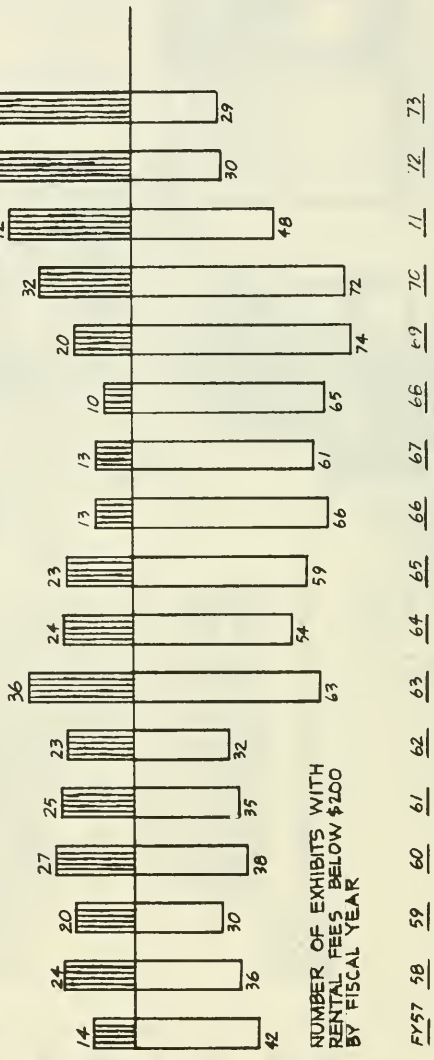
INCOMPLETE
DATA
FOR FY 68 &
67

Figure #2

NUMBER OF EXHIBITS WITH RENTAL FEES ABOVE AND BELOW \$200 BY FISCAL YEAR

NUMBER OF EXHIBITS WITH RENTAL FEES ABOVE \$200 BY FISCAL YEAR

NUMBER OF EXHIBITS WITH RENTAL FEES BELOW \$200 BY FISCAL YEAR



SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

NATIONAL MUSEUM ACT

(Dollars in thousands)	<u>Base</u> <u>FY 1973</u>	<u>Increase</u> <u>Requested</u>	<u>Est.</u> <u>FY 1974</u>
No. of Permanent Positions.....	<u>3</u>	<u>-</u>	<u>3</u>
11 Personnel Compensation.....	34	1	35
12 Personnel Benefits.....	3		3
21 Travel & Trans. of Persons..	15		15
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	4		4
24 Printing and Reproduction...	2		2
25 Other Services.....	1		1
26 Supplies and Materials.....	1		1
31 Equipment.....	3		3
32 Lands and Structures.....			
41 Grants.....	<u>735</u>	<u>100</u>	<u>835</u>
TOTAL	<u>798</u>	<u>101</u>	<u>899</u>

Analysis of Increase

Pay Increase.....	1	.
Program.....	100	

Specification of Increase (Program):

Technical Assistance Grants to the Museum profession (\$100,000). Funds appropriated to the Smithsonian Institution for the implementation of the National Museum Act (P.L. 91-629 authorized \$1,000,000) are made available, primarily by grants and contracts, to museums, professional associations, and individuals. The National Museum Act is a technical assistance program granting funds for specific proposals which advance the museum profession at large, either through training, research, publication, or professional assistance. During FY 1973 approximately 200 proposals totaling \$9 million are expected to be received while only \$798,000 will be available, of which \$200,000 must be transferred to the National Endowments for the Arts and Humanities. The \$100,000 requested increase will enable the Smithsonian to fund additional worthy proposals.

NATIONAL MUSEUM ACT

1972 Actual.....	\$600,000
1973 Appropriation.....	\$798,000
1974 Estimate.....	\$899,000

Public Law 91-629, approved December 31, 1970, reauthorized appropriations for the National Museum Act through FY 1974 and funding of \$1,000,000 to the Smithsonian Institution each year. Of this amount \$798,000 was appropriated for FY 1973, of which \$100,000 was transferred to the National Endowment for the Arts and to the National Endowment for the Humanities as required by the legislation.

Funds appropriated to the Smithsonian Institution for the implementation of the National Museum Act are made available, primarily by grants and contracts, to museums, professional associations, and individuals. Such funding is made in concert with the National Museum Act Advisory Council appointed for this purpose by the Smithsonian Institution. The membership of the Advisory Council encompasses the principal museum disciplines--art, science, and history--and is broadly representative of all regions of the United States. The Council advises and assists the Secretary in determining priorities and assessing the quality of individuals and programs seeking support under the Act.

The needs of the museum profession are great. The National Museum Act is a technical assistance program granting funds for specific proposals which advance the museum profession at large, either through training, research, publication, or professional assistance. Through these programs, current museum personnel have the opportunity to improve their skills and new personnel entering the profession have the opportunity to receive training which was not available previously.

Need for Increase

In the current fiscal year a total of 17 projects have been funded in the amount of \$290,740. The balance will be awarded at the February 1973 and May 1973 meetings of the Advisory Council. Nine of these proposals were in the area of training museum personnel; for example--(1) stipend support for graduate training in conservation, (2) a program to develop a series of technical training audio cassette tapes for personnel of history museums, (3) stipend support for graduate students in museum studies for members of minority groups, and (4) support for six regional seminars on the problems of urban museums. Three other proposals will provide professional assistance and consultation to small museums in the area of paper conservation and general management. Two projects will support publication--(1) in the area of craft documentation and (2) on historical preservation agencies and museum practices. Three proposals support research projects--(1) preservation of wooden ethnographic specimens, (2) computerization and data banking for museums, and (3) an analysis of financial resources and salary structure of the nation's museums.

For the first half of FY 1973, ninety-nine proposals have been received. The total sum of these applications exceeds \$4.5 million. It is reasonable to expect the number of proposals and sum to more than double by the end of the fiscal year. In funding proposals the Advisory Council has insisted that all proposals clearly demonstrate how the project will upgrade the profession--its techniques, methods, and approaches.

In addition to reviewing and processing grants, the Office of Museum Programs received over 750 inquiries about museum methods, problems, and opportunities. At the working level, the Smithsonian Institution and the National Endowment for the Arts and the National Endowment for the Humanities through their respective offices of museum programs, regularly consult and review programs in order to avoid overlap.

Based upon the positive response of the museum profession to the National Museum Act, the quality of the specific requests, and the great needs of the profession, funding at the \$899,000 level will permit the Smithsonian to support more fully all aspects of the National Museum Act.

SMITHSONIAN INSTITUTION SPECIAL PROGRAMS

These special programs have as their goal the use of total Institutional resources, including staff research competence, collections, and space for exhibits, to produce outstanding scholarship, exhibits and other presentations, and additional opportunities for public education. These special programs include:

- The Bicentennial of the American Revolution Program which will advance the Institution's efforts to celebrate and portray "The American Experience," the first two-hundred years of American history and what they may mean for the future.
- The Environmental Sciences Program is designed to shed light on complex biological processes which need to be better understood before solutions to nationalecological problems can be determined.
- The Major Exhibits Program is aimed at planning and producing new permanent exhibits of unusual national significance and timeliness.
- The Academic and Educational Programs budget provides opportunities for outstanding pre- and post-doctoral investigators from across the nation to be selected for work under the supervision of the Institution's professional staff. External education services are provided by means of popular museum tours for school children and other education services.
- The Research Awards Program enables the Institution to fund especially meritorious studies through a competitive selection process.

Full descriptions of these programs appear in the following sections of this budget.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>2</u>	<u>-</u>	<u>2</u>
11 Personnel Compensation.....	141	147	288
12 Personnel Benefits.....	12	12	24
21 Travel & Trans. of Persons...	11	52	63
22 Transportation of Things....		30	30
23 Rent, Comm. & Utilities.....	1	4	5
24 Printing and Reproduction...	9	99	108
25 Other Services.....	520	415	935
26 Supplies and Materials.....	10	165	175
31 Equipment.....	50	76	126
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>754</u>	<u>1,000</u>	<u>1,754</u>

Analysis of Increase

Pay Increase.....	-
Program.....	1,000

Specification of Increase (Program):

Scholarly, Exhibits, and National Outreach Projects (\$1,000,000). An increase of \$1,000,000 for a total planned program effort of \$1,754,000 is requested to produce an array of scholarly, exhibit, and national outreach projects in celebration of the Nation's 200th anniversary. These will include major exhibits in six museums and galleries, important documentary and bibliographic projects concerning American Art and North American Indians, traveling exhibits, a major Festival of American Folklife, and an exhibits production training laboratory for minority group persons.

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

1972 Actual.....	\$ 356,000
1973 Appropriation.....	\$ 754,000
1974 Estimate.....	\$1,754,000

The Smithsonian Institution is preparing to play a central and major role in the celebration of the American Revolution Bicentennial in the Nation's Capital as well as throughout the country. Taking the purpose, in President Nixon's words, of "...a new understanding of our heritage," the Smithsonian has chosen as an overall theme for its Bicentennial program, The American Experience. Many aspects of man's life and work in America, both past and present, are being researched. Individual projects encompass his social, political, and military institutions; his fine arts, his applied arts, and his performing arts; his use of natural resources; and his adventures of exploration on this planet and into outer space. Almost every department is engaged in Bicentennial related projects ranging from scholarly studies on our American past to major exhibits and an entire new museum.

The program will phase out after 1976, but most of the projects are being designed to produce accomplishments which will remain for permanent inspiration and education.

An appropriation of \$1,754,000 will be used for the continued development of the following projects.

Special Bicentennial Exhibits

"A Nation of Nations" (National Museum of History and Technology)	\$ 800,000
"Ecology USA/200" (National Museum of Natural History)	\$ 140,000
"Centennial - 1876" (Arts and Industries Building)	20,000
"The Artist and the American Scene" (National Collection of Fine Arts) and "Design in the City" (Renwick Gallery)	90,000
Series of exhibits on the Revolution period (National Portrait Gallery)	<u>150,000</u>
	\$1,200,000

Scholarly Projects

Inventory of American Paintings before 1914 (National Collection of Fine Arts)	\$ 80,000
Bibliography of American Art (Archives of American Art)	50,000
Encyclopedia of North American Indians (Center for the Study of Man)	<u>30,000</u>
	\$ 160,000

National Outreach

Traveling exhibits	\$ 150,000
Bicentennial Festival of American Folklife (Division of Performing Arts)	150,000
Exhibits Design and Production Laboratory (Anacostia Neighborhood Museum)	<u>45,000</u>
	\$ 345,000
<u>Planning, Design, and Coordination</u>	<u>49,000</u>
	\$1,754,000

Full details on the Bicentennial program are contained in the special supplementary brochure submitted with the budget request.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

ENVIRONMENTAL SCIENCES PROGRAM

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>8</u>	<u>-</u>	<u>8</u>
11 Personnel Compensation.....	102	2	104
12 Personnel Benefits.....	9		9
21 Travel & Trans. of Persons..	32	-5	27
22 Transportation of Things....	1		1
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction..	7	-5	2
25 Other Services.....	75	-57	18
26 Supplies and Materials.....	14	-8	6
31 Equipment.....	33	-25	8
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>273</u>	<u>-98</u>	<u>175</u>
<u>Analysis of Increase</u>			
Pay Increase.....		2	
Program.....		-100	

Specification of Increase (Program):

Environmental Monitoring System. The Environmental Sciences Program was established in FY 1971 to provide coordinated environmental research at the Smithsonian. As a result of the Program a plan has been developed by the bureaus of the Smithsonian to assemble and analyze biological and physical data on specific important ecosystems to predict the consequence of environmental change. Two Smithsonian research facilities, the Smithsonian Tropical Research Institute and the Chesapeake Bay Center for Environmental Studies, are the principle sites being used to carry out these studies. The program will operate at a reduced level in FY 1974 because of the lower funding level that can be budgeted.

ENVIRONMENTAL SCIENCES PROGRAM

1972 Actual.....	\$268,000
1973 Appropriation....	\$273,000
1974 Estimate.....	\$175,000

The Smithsonian Institution has unique research capabilities as a result of experienced personnel and the largest collections of plants and animals in the world, with detailed distribution and abundance data. This provides the basis for an effective global environmental monitoring system. The Smithsonian has the capability to measure natural and man-induced variation in the characteristics of solar radiation reaching the earth and causes of such variations. The Institution is studying, as a function of time, various biological correlates. These studies are facilitated because it has permanent and protected field-research sites in both temperate and tropical zones. In addition, the Smithsonian enjoys particularly favorable relations with its scientific colleagues and institutions in virtually every country of the world.

The Environmental Sciences Program is a well integrated, inter-bureau plan with specific objectives. During FY 1971 and FY 1972, activity was limited to such priority items as monitoring rates of biological and physical change and using plants and animals as benchmarks and bioindicators in the establishment of environmental standards. In FY 1972 and 1973, increased financial support has enabled the Smithsonian to develop a plan to assemble and analyze biological and physical data on specific important ecosystems to predict the consequence of environmental change.

Two Smithsonian research facilities, the Smithsonian Tropical Research Institute and the Chesapeake Bay Center for Environmental Studies, are principally used to carry out these studies. The major objectives of the FY 1973 program are to study selected tropical and temperate areas to understand the factors contributing to the fluctuations in populations. This is being done in the following manner:

- a. by monitoring and evaluating the physical and chemical environments of selected study sites;
- b. by studying the biology and quantitative distribution of principal organisms at these sites; and
- c. by studying the interrelationships of the environment with these organisms and man.

As a result of the decrease in program funds that can be budgeted for FY 1974, the marine shallow water and deciduous forest ecosystems studies will operate at a reduced level of effort.

An increase of \$2,000 is requested for necessary pay.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

MAJOR EXHIBITION PROGRAM

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>-</u>	<u>-</u>	<u>-</u>
11 Personnel Compensation.....			
12 Personnel Benefits.....			
21 Travel & Trans. of Persons..	13	-5	8
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction..	20	-10	10
25 Other Services.....	630	-383	247
26 Supplies and Materials.....	4		4
31 Equipment.....	82	-32	50
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>749</u>	<u>-430</u>	<u>319</u>

Analysis of Increase

Pay Increase.....	-
Program.....	-430

Specification of Increase (Program):

Preparing Major Presentations for the Public (No increase required). The Smithsonian proposes to use \$319,000 of its appropriation for the first phases of three new permanent exhibits in order to continue the revitalization program initiated in FY 1972. With funding provided in FY 1972 and 1973, the Institution is preparing "It All Depends," an important exhibit on environmental awareness, and "Of the People, By the People, For the People," a major presentation on American government. The FY 1974 plan calls for work on three proposed additional such exhibits.

-An amount of \$248,000 will be spent on research, design, and preliminary production of "Benefits of Flight," an exposition of the many applications on earth of the extensive knowledge gained in the course of developing air and space flight. This exhibit will later be relocated in the new National Air and Space Museum.

-An amount of \$40,000 will be devoted to planning and designing an exhibit on Ecological Archaeology, replacing the 1954 Latin American Archaeology exhibit in the National Museum of Natural History with a fresh, new approach to the study of Western Hemisphere culture.

-Finally, an amount of \$31,000 will be used to plan a special exhibition, with the potential for a traveling version, drawing upon the Smithsonian's full resources relating to our national heritage.

MAJOR EXHIBITION PROGRAM

1972 Actual.....	\$525,000
1973 Appropriation....	\$749,000
1974 Estimate.....	\$319,000

The major permanent exhibitions of the Smithsonian Institution are nationally and internationally recognized as among the best examples of public communication and education in the museum world. In FY 1972, the Major Exhibition Program's approach to planning and budgeting was established to enable the Smithsonian to revitalize the permanent exhibit program by producing highly significant presentations on new and relevant knowledge in the fields of science, technology, and history. The new exhibits are installed in the existing public spaces of the Smithsonian museum buildings. With funding provided in FY 1972 and 1973 the Institution is preparing "It All Depends", an exhibit on environmental awareness, and "Of the People, By the People, For the People", a major presentation on American Government.

The purpose of museums is to educate as well as to entertain. In order to function effectively in both capacities, it is necessary to widen the scope of the visitor's participation in the museum experience. If the educational aspects of the museum are to have a lasting impact on the museum-goer, this is especially important. The presentation of new exhibitions on topics that are meaningful to the visitor and relate to his place in history, as well as his day-to-day existence, are essential to the museum function. Further, the museum must broaden the participation of the visitor by: properly orienting him, as he arrives, to the exhibits available; adequately explaining individual objects in the context of the particular exhibition; and providing educational materials that can be taken home to be read and studied. Each of the major exhibitions will include a related popular publication.

To continue this program, the first phases of the following permanent exhibition programs are proposed for FY 1974:

- "Benefits From Flight" in the National Air and Space Museum, \$248,000;
- "Ecological Archaeology" in the National Museum of Natural History, \$40,000; and a
- Special Museum Programs Presentation, requiring \$31,000.

Benefits From Flight (\$248,000)

The National Air and Space Museum proposes a unique major exhibition directed to two important goals:

1. Exemplifying the many applications on earth of the extensive knowledge gained in the course of developing air and space flight.
2. Communicating to the visiting public the myriad specific possibilities for further applications, using the museum as a catalyst in the transfer process.

Man's progress into the third dimension has been spectacular, resulting not only in diverse vehicles and systems, but in many novel materials, computation systems, manufacturing processes, power sources, electronic principles, and control methods.

How has our quality of life been affected by these expensive advances? To what extent has the American taxpayer benefited so far, and what can he expect in the future? "Benefits From Flight" will address itself to these questions.

Preliminary planning for the exhibit was begun in FY 1972 and is continuing through FY 1973. The exhibit will be designed to be one of the central, permanent exhibitions in the new National Air and Space Museum to be opened on the Mall in July 1976 (FY 1977). Modular design will allow it to open to the public in existing temporary quarters in FY 1975.

"Benefits From Flight" will use new techniques to transform complex principles and devices into easily understood examples of applications in such diverse fields as health care, housing, education, law enforcement, industrial productivity, recreation, personal transportation, waste management, and environmental effects. While designed primarily for the lay visitor, a catalog with an extensive list of source material will be available for those interested in pursuing further research. Thus the exhibit will not be an end in itself, but will serve as a catalyst for stimulating greater transfer of information between supplier and user. With an estimated four million visitors a year, "Benefits From Flight" can serve as a powerful and productive channel for this sorely needed technology transfer process. Sketches of tentative exhibits are shown on following pages.

The exhibition is estimated to cost \$468,000 and will require approximately two years to complete. \$248,000 is requested in FY 1974 for research, design, and preliminary production of exhibit structures. An amount of \$220,000 will be requested in FY 1975 to complete all exhibit content, graphics, and audio visual components, as well as publications related to the exhibit.

Ecological Archaeology (\$40,000)

This exhibition is planned to replace the oldest of the existing, permanent exhibitions in the National Museum of Natural History, the Hall of Latin American Archaeology, opened in 1954. The new exhibit will be on the same subject matter but in a dramatically new and updated scientific interpretation of the subject. The ecological approach of today's archaeologists and the theme of presentation completely outdates the existing exhibition. The exhibit will use specimens unique to the museum's collections and will be prepared under the direction of the museum's staff of scholars who are among the leading proponents of the science of archaeology as a study of human ecology.

Modern archaeology may provide a key and offer new insights for long-range predictions on man's utilization of his environmental resources. It is no accident that the high civilizations of the Western Hemisphere developed where they did. Archaeology--the science of reconstructing the history of man's past without the benefit of written records--is providing the information needed to better understand why certain societies flourished while others disappeared. These reconstructions lead into the early documented historical records and the early ethnological studies. Data on past cultures in the Western Hemisphere help in understanding present-day situations, clearly illustrating various adaptations and exploitations of man in environments that range from tropics through deserts and mountains to inter-montane valleys. The history of the development of the American Indian in the Western Hemisphere may well make meaningful and far-reaching contributions to modern civilization.

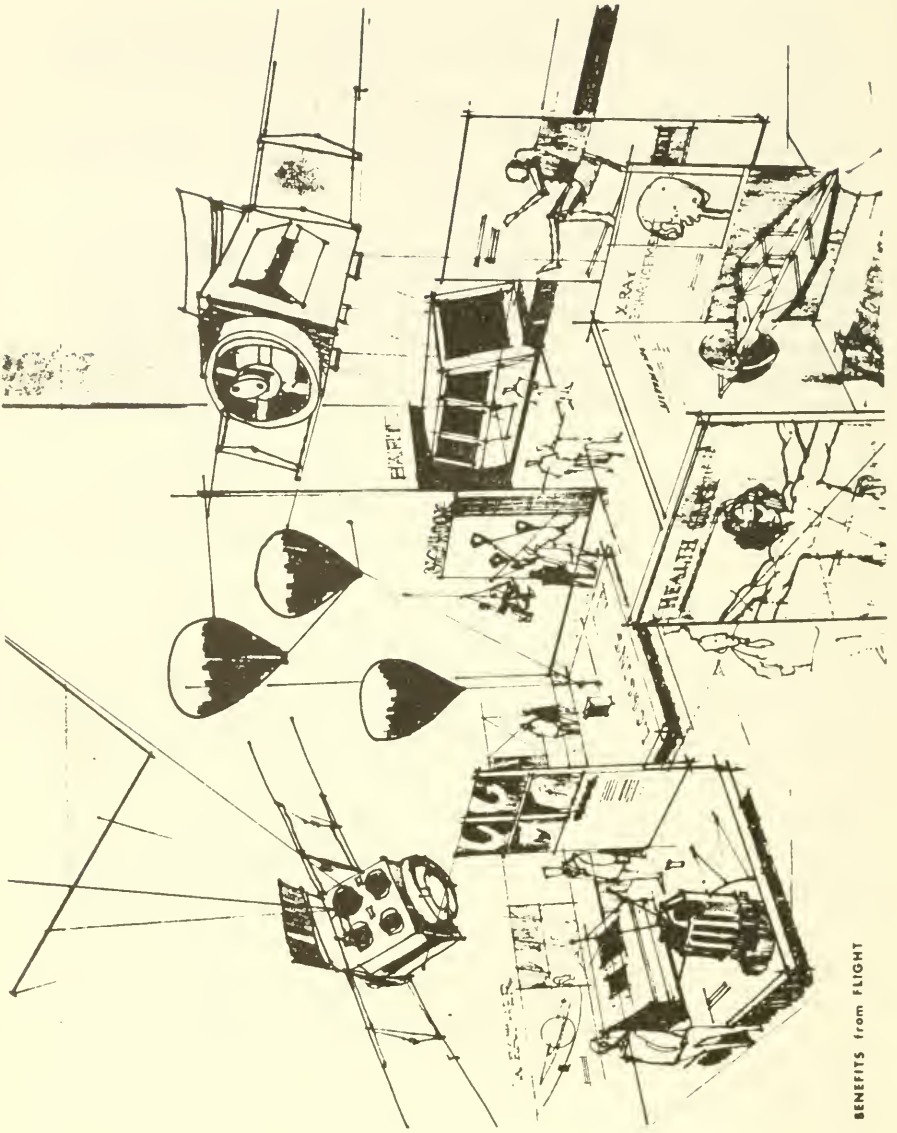
This exhibition will provide a new approach to the science of archaeology never before presented in any museum in the world. It will encourage the visitor

to appreciate the heritage of various cultures of the Western Hemisphere so that they can better understand the present situations and stresses as mankind seeks to adapt to a way of life balanced with his environment. The exhibition will require two years' effort to complete.

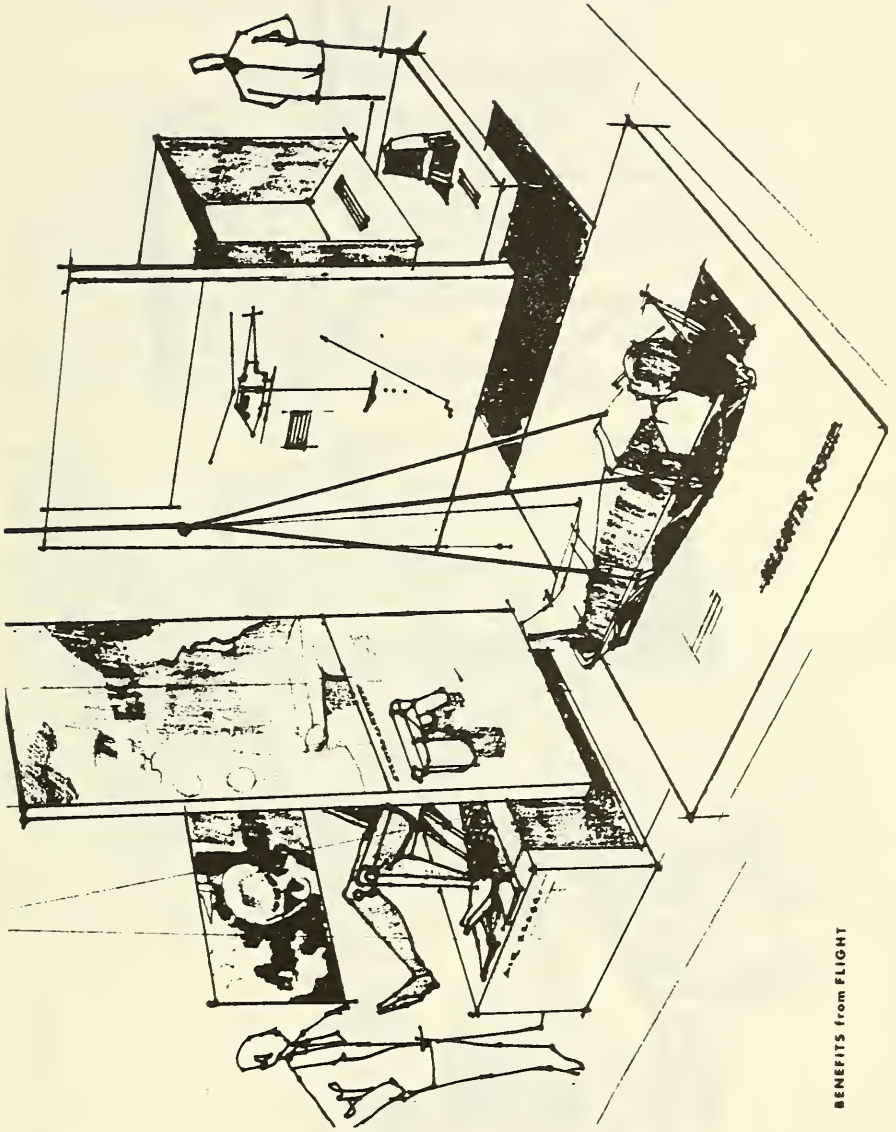
It is estimated that planning and design (\$40,000) can be completed in FY 1974. The costs of production and installation are estimated at \$425,000 which will be requested in FY 1975.

Special Museum Programs Presentation (\$31,000)

The Institution has the responsibility to produce special exhibitions utilizing the full expanse of Institution resources in public presentations. It is also important to investigate the communication potentials of all museum exhibition techniques and methodologies. As an initial program the Smithsonian would like to develop and plan a special exhibition to be presented on the Mall and, in a traveling version throughout the United States, on the theme of the Smithsonian Institution as a national center for the preservation, study, and presentation of our national heritage. Initial planning, requiring \$31,000, will be completed in FY 1974. These efforts will produce specific requests for detailed design and production funding in subsequent fiscal year budget requests.



BENEFITS from FLIGHT



BENEFITS FROM FLIGHT

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

ACADEMIC AND EDUCATIONAL PROGRAMS

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>23</u>	<u>1</u>	<u>24</u>
11 Personnel Compensation.....	236	18	254
12 Personnel Benefits.....	21	1	22
21 Travel & Trans. of Persons..	8		8
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...	8		8
25 Other Services.....	419	1	420
26 Supplies and Materials.....	27	1	28
31 Equipment.....	10	1	11
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>729</u>	<u>22</u>	<u>751</u>

Analysis of Increase

Pay Increase.....	7
Program.....	15

Specification of Increase (Program):

Elementary and Secondary Education (1 position; \$15,000). Among its other responsibilities, this program provides coordination, supervision, and directional development of docent and tour activities involving elementary and secondary school systems. It prepares teaching guides, audio-visual aids, and other educational materials directed at pre-college students. It conducts teacher workshops and provides a centralized focus for inquiries concerning various museum projects and activities of interest to school groups. In FY 1972 the program served 72,000 students in 2,467 scheduled tours; conducted 50 demonstrations in folk musical instruments in school classrooms; trained and administered volunteers for 350 weekend tours and for summer tours in Mall museums; and developed printed materials for self-directed tours in each Mall museum for grades kindergarten through third. In FY 1973 it will expand tour offerings and increase the number of students served to 78,000, extend additional services to the schools, and expand the bulletin for schools to six issues (now four) going to 1,000 schools in D. C. area. In order to meet a growing public service workload in existing museums and to begin to plan for the tour program of the new National Air and Space Museum, an additional staff associate position (\$12,000) and program funds (\$3,000) are requested in the FY 1974 budget.

ACADEMIC AND EDUCATIONAL PROGRAMS

1972 Actual.....	\$653,000
1973 Appropriation.....	\$729,000
1974 Estimate.....	\$751,000

A major Smithsonian objective is to make its resources for learning available to the formal education community and to the general public. These efforts take the form of programs in higher education, seminar activities, and offerings at the elementary and secondary education level.

The budget request for FY 1974 includes a request for an additional \$15,000 for the elementary and secondary education program and \$7,000 for necessary pay for current staff.

Need for Increase

Since 1965 in its higher education program the Smithsonian has offered support under its Office of Academic Studies to 108 Ph. D. candidates and 108 postdoctoral investigators to enhance their ability as scholars and teachers through collaboration and study with the Institution's research staff. Over 60 undergraduate and first and second-year graduate students have been offered the opportunity to consult the Institution's research staff and collections for short periods. These opportunities are extended both to strengthen the research capabilities of the Smithsonian and to make available to the scholarly and scientific community the Institution's specialized resources. Smithsonian research training augments formal academic studies. Its effectiveness derives from close cooperation with the nation's universities and colleges. They welcome opportunities for their students to receive specialized Smithsonian training which their own resources cannot provide.

The Office of Seminars is responsible for the Smithsonian's International Symposia Series, its biennial program of public activities centering on a single theme of contemporary importance, from which is published the collected original papers presented and other relevant material. Regular interdisciplinary lecture series are held annually, often in cooperation with other institutions of learning. The Office serves as a resource facility to universities, other organizations, and other branches of the government. In addition, the office coordinates special projects at the request of the Secretary and Assistant Secretaries.

Activities of the Office of Elementary and Secondary Education include the popular escorted lesson tours for school groups, the preparation of teacher guides, demonstrations, audio-visual and three dimensional object kits, and other services. The increasing demand by schools for use of the educational facilities of the Institution is leading to a heightened need for extending the offerings in several different and innovative directions. The following table shows the anticipated growth in services offered by this office.

	<u>FY 1972</u>	<u>FY 1973</u>	<u>FY 1974</u>
Docents	154	250	300
Tours	2,467	2,600	2,700
Students Served	72,000	78,000	82,000
Subject offerings	26	30	36

New tours will be developed in History and Technology around exhibits being planned for the Bicentennial celebration, and tours will be offered in Natural History with the opening of the new exhibits on Ecology. Projects will be

undertaken for the production of special kinds of teaching materials to be utilized both with lesson tours in the museums and the outreach programs in the schools.

One new staff associate position (\$12,000) is needed to provide a close working relationship with the staff of the National Air and Space Museum in the support of the docent program for that Museum. It will be timely as well for the Office of Elementary and Secondary Education to become engaged in the expanding development of educational offerings in the aerospace subject fields preparatory to the opening of the new Air and Space Museum.

Outreach programs will be expanded to answer the need for curriculum oriented materials applicable for classroom use in the schools of the local area. For teachers to become familiar with the use of such materials and for firsthand awareness of the offerings within the museums, workshops involving teachers, staff, and docents will be conducted. Opportunities will be afforded to students in schools of education to have assignments on a part-time internship basis to study and observe ongoing museum education activity.

Additional funding will be used as well for further expansion of the school tour program involving docent training and the preparation of teaching materials (\$3,000).

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

SMITHSONIAN RESEARCH AWARDS PROGRAM

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	-	-	-
11 Personnel Compensation.....			
12 Personnel Benefits.....			
21 Travel & Trans. of Persons..			
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....			
26 Supplies and Materials.....			
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....	<u>450</u>	<u> </u>	<u>450</u>
TOTAL	<u>450</u>	<u> </u>	<u>450</u>

Analysis of Increase

Pay Increase.....	-
Program.....	-

Specification of Increase (Program):

The Research Awards Program finances innovative, non-routine research projects which cannot be supported from the regular budgets of the bureaus. Since 1966, 329 proposals have been funded through the Program, and more than 200 publications which are directly related to the research have been produced. No program fund increase is being requested for FY 1974.

SMITHSONIAN RESEARCH AWARDS PROGRAM

1972 Actual.....	\$425,000
1973 Appropriation....	\$450,000
1974 Estimate.....	\$450,000

Prior to FY 1966, the Smithsonian Institution received funds from the National Science Foundation (NSF) for special research projects of individual staff members. In 1964, the Congress prohibited the NSF from making grants for scientific research to other Government agencies. The NSF instituted a further limitation that it would no longer make grants to any agency or institution receiving direct Federal appropriations. The Research Awards Program was begun in FY 1966 by an appropriation of \$350,000 to the Smithsonian Institution for the purpose of financing new or continuing research projects formerly eligible for support from NSF.

Proposals are submitted each year by members of the Smithsonian Institution staff to support new and innovative research. All proposals have undergone a careful scientific or scholarly review in their respective bureaus before they are reviewed by an Advisory Committee of scientists from outside the Institution. Projects are selected on the basis of their showing an imaginative and exciting approach to research and scholarship efforts that could not normally be carried out with regularly budgeted departmental funds.

The work supported by the Research Awards Program is often the best of the Institution's productivity and the reason for acquiring professional staff of the highest competence and imagination. If the Smithsonian cannot provide this kind of support, it might not attract high caliber persons, nor retain them. Further, the program provides an opportunity for our researchers to engage in collaborative field research with colleagues located in other institutions. Many opportunities for participation in expeditions and other field projects would be lost were it not for the Research Awards Program providing modest, but essential, research assistance. The problem affects all the research bureaus.

In FY 1973, members of the Smithsonian staff again submitted proposals for funding up to three years in order to provide for better stability, continuity, and planning of research. Of the 75 proposals received for FY 1973 amounting to \$1,685,648, 39 were funded in the amount of \$450,000. It is intended that the program will operate at this level in FY 1974.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF THE SECRETARY

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>24</u>	<u>1</u>	<u>25</u>
11 Personnel Compensation.....	326	31	357
12 Personnel Benefits.....	27	3	30
21 Travel & Trans. of Persons..	10		10
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	2		2
24 Printing and Reproduction...	1		1
25 Other Services.....	48		48
26 Supplies and Materials.....	7		7
31 Equipment.....	4		4
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>425</u>	<u>34</u>	<u>459</u>
<u>Analysis of Increase</u>			
Pay Increase.....		6	
Program.....		28	

Specification of Increase (Program):

A program assistant (\$28,000) in the Office of the Assistant Secretary is needed to provide the Executive Committee with a staff member to research problems and issues prior to their presentation before the Secretary and the Executive Committee.

OFFICE OF THE SECRETARY

1972 Actual.....	\$391,000
1973 Appropriation....	\$425,000
1974 Estimate.....	\$459,000

The Office of the Secretary is responsible for planning, implementing, and reviewing the progress of all Smithsonian operations.

The Office of the Secretary is composed of the immediate Office of the Secretary, the Secretary's Files, the Office of the Assistant Secretary, and the Curator of the Smithsonian Institution Building.

A program increase of \$28,000 is sought for FY 1974 and \$6,000 for necessary pay.

Need for Increase

The Secretary, Assistant Secretaries, Director of Support Activities, Treasurer, and General Counsel constitute the internal "Executive Committee." They meet weekly to review progress in various areas of management concern. This group is beginning a major effort to identify, define, and resolve significant operating issues related to all museum, gallery, and support operations in the Smithsonian complex. These issues relate both to the Institution's current operations and to its future growth and development.

A program assistant (\$28,000) in the Office of the Assistant Secretary is needed to provide the Executive Committee with a staff member to research problems and issues prior to their presentation before the Secretary and the Executive Committee.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF THE GENERAL COUNSEL

(Dollars in thousands)	<u>Base</u> <u>FY 1973</u>	<u>Increase</u> <u>Requested</u>	<u>Est.</u> <u>FY 1974</u>
No. of Permanent Positions.....	<u>10</u>	<u>1</u>	<u>11</u>
11 Personnel Compensation.....	170	27	197
12 Personnel Benefits.....	14	2	16
21 Travel & Trans. of Persons..			
22 Transportation of Things....			
23 Rent, Comm. & Utilities....	1		1
24 Printing and Reproduction...			
25 Other Services.....	2		2
26 Supplies and Materials.....	1		1
31 Equipment.....	4	1	5
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>192</u>	<u>30</u>	<u>222</u>
<u>Analysis of Increase</u>			
Pay Increase.....		5	
Program.....		25	

Specification of Increase (Program):

Legislative Assistant (1 position; \$25,000). An additional position is needed to assist in the analysis of Congressional activities and legislation in relation to Smithsonian programs and administration. The development of new areas of the law, both substantive and procedural, and the complexity and volume of Congressional inquiries place a premium on having one person fully conversant with Congressional protocol, legislative procedures, and the full range of Smithsonian programs, who would specialize in these matters and serve as a focal point for all Congressional related inquiries and referrals.

OFFICE OF THE GENERAL COUNSEL

1972 Actual.....	\$213,000
1973 Appropriation.....	\$192,000
1974 Estimate.....	\$222,000

The Office of the General Counsel handles the legal matters of some forty different line programs and ten staff offices of the Institution, and at the same time, advises the Secretary and the Board of Regents on the administration of the Institution as a whole. The legal problems of the Institution include those arising from the operations of a private, university-like, charitable corporation, as well as those common to Government organizations and include: the limitations and obligations of Smithsonian operations in relation to the functions, authorities, and regulations of other Government entities; its legislative histories and authorities and those of its offices and bureaus; the use of trust funds; litigation in which the Institution is a party; application of judicial decisions and Executive Branch directives and regulations to its administration; title to accessions by gift, loan, transfer, or purchase; proposed contracts and agreements; tort claims and settlements; excise, sales, and gift taxes, deductions, and exemptions; patents; copyrights; and many areas of international law.

The FY 1974 budget contains a request for \$25,000 for a senior legislative analyst and office support costs. A further amount of \$5,000 is required for necessary pay.

Need for Increase

An increasingly important and demanding function of the Counsel's Office is the analysis of Congressional activities and legislation in relation to Smithsonian programs and administration. The development of new areas of the law, both substantive and procedural (e.g. Environmental Law, Occupational Safety and Health Standards, Freedom of Information Act), and the complexity and volume of Congressional inquiries place a premium on having one person fully conversant with Congressional protocol, legislative procedures, and the full range of Smithsonian programs, who would specialize in these matters and serve as a focal point for all Congressional related inquiries and referrals. It is therefore proposed to establish within the Office the position of senior legislative analyst at a cost of \$24,000.

An increase of \$1,000 in support funds for library materials, for the continued legal education of the legal staff through the attendance of conferences, and for office equipment also is requested.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF THE TREASURER

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>35</u>	<u>1</u>	<u>36</u>
11 Personnel Compensation.....	408	22	430
12 Personnel Benefits.....	35	2	37
21 Travel & Trans. of Persons..	3		3
22 Transportation of Things....			
23 Rent, Comm. & Utilities....	233	10	243
24 Printing and Reproduction..			
25 Other Services.....	56		56
26 Supplies and Materials.....	11		11
31 Equipment.....	8		8
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>754</u>	<u>34</u>	<u>788</u>

Analysis of Increase

Pay Increase.....	9
Program.....	25

Specification of Increase (Program):

Postage Indicia (\$10,000). To fund the increased cost of postage indicia from \$220,000 in FY 1973 to an expected \$230,000 in FY 1974.

Accounting (1 position; \$15,000). To fund a cost accountant to implement the redesigned accounting system and to develop centralized cost accounting for such activities as buildings management and exhibits.

OFFICE OF THE TREASURER

1972 Actual.....	\$647,000
1973 Appropriation....	\$754,000
1974 Estimate.....	\$788,000

This office provides financial management assistance and technical services to the Smithsonian. It is composed of the Treasurer's immediate Office, the Office of Programming and Budget, and the Accounting Division. Financial planning, budgeting, accounting, insurance and contracts administration, and reporting are the responsibilities of these several units.

An increase of \$25,000 is requested to finance higher postal costs, and to provide for one additional staff member in the Accounting Division. An amount of \$9,000 is needed for necessary pay.

Need for IncreasePostage Indicia (\$10,000)

Funding of the Institution's postage indicia requirements is provided centrally from the Office of the Treasurer. An additional \$10,000 is required to meet the additional cost of postage. In FY 1972 postage was \$200,000. Increased use has resulted in this cost being \$220,000 in FY 1973. In FY 1974 the cost is expected to be \$230,000.

Accounting (1 position, \$15,000)

The volume of financial and accounting transactions has increased substantially over the past two years, partly as a result of increased Federal funding and partly from the addition of full accounting and payroll services for the National Zoological Park, Woodrow Wilson International Center for Scholars, and the Smithsonian Tropical Research Institute. A wide range of reports are produced reflecting financial data in various forms of classification and presentation. These are furnished recipients of Federal and private budgets as well as central management for review, monitoring, and control purposes.

The workload of this office will continue to increase reflecting the volume of transactions and the development of a restatement of accounting principles and standards and redesign of the accounting system to meet the approval requirements of the Comptroller General.

In FY 1974, the Office requires a cost accountant to implement the redesigned accounting system and to develop centralized cost accounting for activities such as Buildings Management and Exhibits.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF PERSONNEL ADMINISTRATION

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	33	-	33
11 Personnel Compensation.....	412	4	416
12 Personnel Benefits.....	35		35
21 Travel & Trans. of Persons..	1		1
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	1		1
24 Printing and Reproduction...	2		2
25 Other Services.....	27	10	37
26 Supplies and Materials.....	1		1
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>479</u>	<u>14</u>	<u>493</u>

Analysis of Increase

Pay Increase.....	4
Program.....	10

Specification of Increase (Program):

Training (\$10,000). The Office of Personnel Administration has responsibility for planning and arranging training programs for various levels and groups of Smithsonian personnel. An additional \$10,000 is requested for a program of executive training and development to ensure that Institutional managers are prepared to face the administrative challenges of the future.

OFFICE OF PERSONNEL ADMINISTRATION

1972 Actual.....	\$419,000
1973 Appropriation....	\$479,000
1974 Estimate.....	\$493,000

The Office of Personnel Administration has the responsibility for formulating policy over a wide range of activities for manpower planning and managerial development, through employee training, performance evaluation, and labor relations. These programs generally fall into six broad categories: consultant services; career development; administration and direction; technical, clerical and administrative support; recruitment and placement; and staff services.

The FY 1974 budget contains a request for an additional \$10,000 for executive training or development and \$4,000 for necessary pay.

Need for Increase

The availability of highly competent career executives is necessary to ensure the responsiveness of the Government to the needs of the society it serves. The Smithsonian must develop incumbent and potential executive talent to meet the challenges of the present and the future. Funding responsibility for training development programs for managers and executives is centralized in the Office of Personnel Administration. The requested \$10,000 will enable the Institution to strengthen its training efforts.

The following are some of the programs offered as assistance in planning to meet development needs of Smithsonian Institution managers, executives, and high potential middle managers. They are all continuing programs.

1. Legislative Operations Roundtable for Executives - increased knowledge of the organization and operations of the Congress
2. An Institute in the Legislative Function - intensive introduction to the organization, operations, and responsibilities of Congress
3. Education for Public Management - encourage agencies to identify men and women who have potential to hold high management positions
4. Executive Seminar Centers - designed to broaden conceptual understanding and to enhance the administration abilities of mid-level executives

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF AUDITS

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>6</u>	<u>2</u>	<u>8</u>
11 Personnel Compensation.....	92	28	120
12 Personnel Benefits.....	8	3	11
21 Travel & Trans. of Persons..	5		5
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....	1		1
26 Supplies and Materials.....	1		1
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>107</u>	<u>31</u>	<u>138</u>

Analysis of Increase

Pay Increase.....	1
Program.....	30

Specification of Increase (Program):

Reduction of Auditing Backlog (2 positions; \$30,000). The Institution's size, diversity, and variety of funding sources create a large volume of essential auditing assignments. Since its recent establishment, the Office of Audits has made important contributions to effective financial management; yet a large and growing backlog of important projects exists, beyond the capability of the current staff. With the addition of two auditors in FY 1974, the backlog of audit work can be significantly reduced. Also, this will enable the audit staff to re-audit functions on a more current basis to ensure implementation of previous recommendations.

OFFICE OF AUDITS

1972 Actual.....	\$116,000
1973 Appropriation....	\$107,000
1974 Estimate.....	\$138,000

The Office of Audits, established in FY 1970, is responsible for performing all internal auditing functions of the Smithsonian Institution. In order to ensure the utilization of effective management practices it is the policy of this office to audit all principal programs, including administrative, financial and supporting programs, during each five-year period.

A program increase of \$30,000 is requested for FY 1974. In addition \$1,000 is requested for necessary pay.

Need for Increase

With more than fifty operating units, programs, and staff offices, six major appropriation accounts, and a wide variety of other funds, there is a large volume of auditing to be done. Since this office was established, the audit staff has made significant contributions to effective financial management. Audits to date have covered a wide range including reviews of several management systems and close-out audits of foreign currency grants. As a result of these audits, potential problem areas have been identified and corrected, and management improvements have been initiated. Yet a large backlog of other important work exists.

The requested increase will permit the addition of two auditors (\$30,000). Their addition will enable the audit staff to reduce significantly the backlog of audit work, which includes such major operating units as the Buildings Management Department and the National Zoological Park, and to re-audit functions on a more current basis to ensure implementation of previous recommendations.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF EQUAL OPPORTUNITY

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>3</u>	<u>2</u>	<u>5</u>
11 Personnel Compensation.....	53	38	91
12 Personnel Benefits.....	6	2	8
21 Travel & Trans. of Persons..	2		2
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...	1		1
25 Other Services.....			
26 Supplies and Materials.....			
31 Equipment.....	1		1
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>63</u>	<u>40</u>	<u>103</u>

Analysis of Increase

Pay Increase.....	-
Program.....	40

Specification of Increase (Program):

Extension of basic services (2 positions; \$40,000). To enable the Office to meet its responsibility to assure equality of opportunity in employment and in all policies and practices of the Institution, the following positions are requested: a civil rights officer, who will assist in the development of opportunities for minority employees and oversee the Civil Rights Compliance of Direct Assistance Programs and contracts and grants to insure that the recipients practice equal opportunity, and a Federal women's program coordinator, who will develop programs for the improvement of women's career advancement opportunities.

OFFICE OF EQUAL OPPORTUNITY

1972 Actual.....	\$ 64,000
1973 Appropriation.....	\$ 63,000
1974 Estimate.....	\$103,000

The Equal Opportunity Program, established by Executive Order 11246 and further implemented by the "Equal Employment Opportunity Act of 1972," enacted as Public Law 92-261, requires the Smithsonian to conduct a positive action program which will provide true equality in all Smithsonian employment practices.

A program increase of \$40,000 is requested in FY 1974 to permit the addition of a Federal women's program coordinator and a civil rights officer.

Need for Increase

The Secretary of the Institution has designated the Office of Equal Opportunity to develop and implement a program guiding the efforts of the Smithsonian Institution to provide equality of opportunity in all official actions.

Implementation of a recently issued comprehensive plan of action will provide improved recruitment practices, better utilization of minority skills, aid in the development of programs for career advancement for minority and women employees, and full implementation of a sixteen-point program for Spanish-speaking Americans.

A Smithsonian Women's Council has been established which will serve the unique concerns involving equal opportunity for women and will provide Federal and non-Federal women employees of the Smithsonian Institution a forum for the expression of mutual interests. The Federal women's program coordinator will develop programs for the improvement of women's career advancement opportunities and will work with the Women's Council.

The civil rights officer will work to develop opportunities for minority employees and oversee the Civil Rights Compliance of Direct Assistance Programs and contracts and grants to insure that the recipients practice equal opportunity.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

PHOTOGRAPHIC SERVICES DIVISION

(Dollars in thousands)	Base FY 1973	Increase Requested	Est. FY 1974
No. of Permanent Positions.....	<u>29</u>	<u>-</u>	<u>29</u>
11 Personnel Compensation.....	347	6	353
12 Personnel Benefits.....	30		30
21 Travel & Trans. of Persons..	1		1
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...	30		30
25 Other Services.....	15		15
26 Supplies and Materials.....	40		40
31 Equipment.....	57		57
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>520</u>	<u>6</u>	<u>526</u>

Analysis of Increase

Pay Increase.....	6
Program.....	-

Specification of Increase (Program):

Photographic services are provided centrally from this Division. These services include the following: photographs, slides, and transparencies for the general public, schools, research foundations, educational publications, other museums, and government agencies, as well as to meet the Institution's own research, publication, and exhibit needs. No program fund increase is requested for FY 1974.

PHOTOGRAPHIC SERVICES DIVISION

1972 Actual.....	\$368,000
1973 Appropriation....	\$520,000
1974 Estimate.....	\$526,000

The Photographic Services Division coordinates photographic activities and projects in the Institution and supplies technical photographic support to the curatorial, scientific, technical, and administrative staffs. It also provides photographs, slides, and transparencies to the general public, schools, research foundations, educational publications, other museums, and government agencies. Advice and guidance is provided by the technical photographers on Smithsonian projects and exhibits requiring photographic input. Preservation of valuable old photograph collections and documents is achieved through highly technical photographic processes.

The types of physical photographic support are in the fields of microfilming, copy, and restoration, microphotography, macrophotography, catalog photography, studio and field location assignments, motion picture photography, color and black and white processing, black and white printing, slide and transparency duplication, and exhibit and mural photographs.

Photographs are used for scientific and technical publications, lectures, education, distribution to the public, conferences and scientific meetings. They are also needed for accession records, preservation and restoration, and conservation of the Smithsonian collections.

Production figures for calendar year 1972 amounted to 7,500 job requests from Smithsonian sources and public sources, and comprised 1,750 photographic studio and location assignments and the preparation of 40,000 negatives, 10,000 items for copy, 500,000 frames of microfilming, 200,000 black and white prints, 5,000 color prints, and 30,000 original and duplicate slides and transparencies. The photographic library logged and filed approximately 50,000 new negatives and original slides and began the long-range task of captioning, indexing and computerizing the one million negatives and transparencies owned by the Institution.

There are also at least 30 million documents, papers, rare books and other valuable records in a state of varying deterioration that must be microfilmed and/or copied for preservation. These documents are in the Smithsonian Archives, Registrar's Office, National Collection of Fine Arts, Department of Anthropology, Museum of History and Technology and many other divisions. The Division is presently processing 1/2 million of these records per year.

No program increase is sought for the Division. Necessary pay in the amount of \$6,000 is required.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

INFORMATION SYSTEMS DIVISION

(Dollars in thousands)	Base FY 1973	Increase Requested	Est. FY 1974
No. of Permanent Positions.....	<u>17</u>	<u>1</u>	<u>18</u>
11 Personnel Compensation.....	270	21	291
12 Personnel Benefits.....	23	2	25
21 Travel & Trans. of Persons..	3		3
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	10	1	11
24 Printing and Reproduction...			
25 Other Services.....	13	3	16
26 Supplies and Materials.....	3		3
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>322</u>	<u>27</u>	<u>349</u>

Analysis of Increase

Pay Increase.....	7
Program.....	20

Specification of Increase (Program):

Scientific Research Application (1 position; \$20,000). In FY 1974, the Smithsonian's Collection Management System, designed to provide automated retrieval and indexing of data pertaining to the national collections, will be further developed and applied throughout the various museums. Additional development will be required for the National Collection of Fine Arts Bicentennial Inventory of American Paintings. Systems design and programming will be initiated to assist the Smithsonian Oceanographic Sorting Center in handling the inventory of ocean bottom photographs and to assist the National Zoo in handling animal records and work planning and control.

During FY 1974 the Division must also meet an increasing demand for mathematical computations support by researchers throughout the Institution. A current backlog of 20 highly sophisticated projects exists with a rising demand for the application of new mathematical techniques to solve research problems.

To provide continued support and expanded application in the collections management and scientific research area, a mathematician is required (\$16,000) with support funds of \$4,000.

INFORMATION SYSTEMS DIVISION

1972 Actual.....	\$267,000
1973 Appropriation.....	\$322,000
1974 Estimate.....	\$349,000

The Information Systems Division was established in 1966 so that the Institution could take advantage of computer technology. Computer specialists, mathematicians, and support personnel work with curators, historians, scientists, and management personnel to apply mathematical techniques to research problems and to develop automated administrative and collection management systems. Initially the Division's work concentrated largely on management support functions. Over the past three years, however, approximately 70 to 75 percent of the Division's resources have been expended in support of research and collection management.

A program increase of \$20,000 is requested for additional personnel and support funds. An additional \$7,000 is requested for necessary pay.

Need for Increase

In recent years, a better understanding of the computer's potential in relation to the programs of the museums, research areas, and galleries has evolved; and progress has been achieved. Presently scientific and collections management computer programs are being developed that can be utilized in several areas with minor modifications to reduce development costs. The Division maintains a computer program library containing 350 active programs and is currently serving researchers throughout the Institution. It provides statistical analysis assistance, designs mathematical models of research experiments, and researches and develops new techniques to analyze historical, biological, chemical, and geological data. Mathematical models and computer programs that have been developed are being used by the National Institutes of Health, Georgetown University, Brookhaven National Laboratory, and other organizations.

Significant ongoing projects include primate population dynamics research for the Division of Mammals to develop more effective gathering methods for medical research; a study for the Department of Anthropology to isolate skeletal disease patterns in different populations; a study for the Office of Environmental Sciences to explore the African antelope herd composition, behavior patterns, and extinction problems; and development of a multichemical model of tracing the manufacturing process of European medieval cathedral glass by analyzing neutron activation data of glass samples. Some 30 major projects were completed this past year. A current backlog of 20 increasingly sophisticated projects exists.

During FY 1974, the Smithsonian's Collection Management System, designed to provide automated retrieval and indexing of data pertaining to the national collections, will be further developed and applied throughout the various museums. Expected results will benefit the professional staff by providing catalogs, cross-referencing indices by categories for researchers and curators, better inventory control, and a future vehicle for responding to non-technical queries by the general public. Information that was formerly virtually impossible to obtain can now be made available with little effort once in computer form. The system also allows for economical means of exchanging data via magnetic tape without physically transporting the specimen or visiting other locations. Through an exchange program our own national collections can be enhanced.

Additional development will also be required for the National Collection of Fine Arts Bicentennial Inventory of American Paintings which will result in a descriptive subject file on each painting to assist the curator and to provide a tool for scholars.

In FY 1974, systems design and programming will be initiated for the Smithsonian Oceanographic Sorting Center to handle their inventory of ocean bottom photographs and for the National Zoo for handling animal records and for work planning and control.

In addition to the growth in computer projects related to collections management and systems support, the number of scientists requesting mathematical and statistical analysis and related computer programming has increased almost threefold over the past two years. Presently three mathematicians are providing support to approximately 78 scientists. In FY 1974 the number of scientists seeking support is expected to increase to 104.

To support these expanding efforts requiring the application of mathematical abilities, and to relieve the existing backlog of projects, the requirements are for a mathematician (\$16,000) with support funds (\$4,000).

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

SUPPLY DIVISION

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>21</u>	<u>2</u>	<u>23</u>
11 Personnel Compensation.....	260	20	280
12 Personnel Benefits.....	22	1	23
21 Travel & Trans. of Persons..			
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	8		8
24 Printing and Reproduction...			
25 Other Services.....	6		6
26 Supplies and Materials.....	106		106
31 Equipment.....	2		2
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>404</u>	<u>21</u>	<u>425</u>

Analysis of Increase

Pay Increase.....	6
Program.....	15

Specification of Increase (Program):

Purchasing Section (2 positions; \$15,000). During the past three years, the Institution has acquired new building space and additional staff, and its funds for general purchasing and contracting have grown very substantially. This overall growth has resulted in a much heavier workload for the Supply Division without an increase in personnel. In order to maintain effective operations in the future, an increase of two clerk typists for the purchasing section is requested.

SUPPLY DIVISION

1972 Actual.....	\$365,000
1973 Appropriation.....	\$404,000
1974 Estimate.....	\$425,000

The Supply Division procures supplies, materials, contractual services, and equipment for research, curatorial, exhibit preparation, and other Smithsonian activities. It stocks and issues office, laboratory, and other supplies required in daily management operations. It operates a property management program, obtaining excess property in lieu of new procurement wherever possible. The Division maintains property records and requires periodic inventories to insure adequate control and utilization of equipment items.

For FY 1974 a program increase of \$15,000 is requested for procurement personnel. An additional \$6,000 is needed for necessary pay.

Need for Increase

The growth in research, exhibit, and educational programs has increased the requests to this division for services and supplies. In addition, procurement requirements will be further increased by the recently opened Renwick Gallery and the new Hirshhorn Museum.

During the period from FY 1970 to FY 1973, the Supply Division has not increased its total number of positions from 21. During this same period the overall Smithsonian has acquired new building space and additional staff, and its funds for general purchasing and contracting have grown very substantially. This overall growth has resulted in a much heavier workload for the Supply Division without an increase in personnel. Staff must be added to maintain an effective operation in the future. For this reason, an increase of two clerk typists for the purchasing section is requested (\$15,000).

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

MANAGEMENT ANALYSIS OFFICE

(Dollars in thousands)	Base <u>FY 1973</u>	Increase <u>Requested</u>	Est. <u>FY 1974</u>
No. of Permanent Positions.....	<u>10</u>	<u>2</u>	<u>12</u>
11 Personnel Compensation.....	162	29	191
12 Personnel Benefits.....	14	2	16
21 Travel & Trans. of Persons..			
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...	1		1
25 Other Services.....	8		8
26 Supplies and Materials.....	1		1
31 Equipment.....			
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>186</u>	<u>31</u>	<u>217</u>

Analysis of Increase

Pay Increase.....	6
Program.....	25

Specification of Increase (Program):

Management Analyst and Trainee (2 positions; \$25,000). The Management Analysis Office performs management studies and analyses in support of the Office of the Secretary. It develops, recommends, and implements effective business administration and management improvement programs within the Smithsonian Institution. Each year continually increasing workloads have developed into a backlog of essential work. The additional management analyst and trainee can help this office to reduce the backlog and to be more responsive to management improvement programs.

MANAGEMENT ANALYSIS OFFICE

1972 Actual.....	\$168,000
1973 Appropriation.....	\$186,000
1974 Estimate.....	\$217,000

The Management Analysis Office performs management studies and analyses in support of the Office of the Secretary. It develops, recommends, and implements effective business administration and management improvement programs within the Smithsonian Institution. It provides management advisory services; makes studies and special surveys; develops organizational, functional, staffing, and flow charts; prepares procedural manuals; and manages administrative issuances and forms management programs.

The FY 1974 budget request provides for a program increase of \$25,000 to add management analysis staff and a necessary pay increase of \$6,000.

Need for Increase

For the past ten years substantial growth in facilities, programs, and staff of Smithsonian Institution has far out-distanced the capability of the Management Analysis Office. Each year continually increasing workloads have developed into a backlog of essential work creating a situation in which the Management Analysis Office is finding it increasingly difficult to meet the demands of the Institution's expanded management improvement program goals and objectives.

The following are examples of backlogged work: Initiate and/or participate in analysis of all facets of collections management. Make an analysis of shipping and receiving functions with particular emphasis on handling and controlling museum collections. Study internal mail-messenger service. Make a survey of all printing and reproduction and related functions. Implement fully postal improvement regulations published in 1970. Participate in project to assess and define all Smithsonian's public service activities. Assist in and/or implement approved recommendations resulting from the survey of protection and security activities, including safety and occupational health. Design and implement a formal system for delegations of authority.

If this office is to perform an effective role at the level and quality expected, it must obtain the necessary funds to augment its staff. This FY 1974 budget provides funds for the employment of one additional professional management analyst and one trainee management analyst at a cost of \$25,000. With this additional manpower, this office can begin a reduction of the backlog of essential work and become less deficient in its response and effectiveness in meeting the requirements of new, expanded, and aggressive management improvement programs related to all museum, research, and support operations in the Smithsonian complex.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OFFICE OF PROTECTION SERVICES

(Dollars in thousands)	<u>Base FY 1973</u>	<u>Increase Requested</u>	<u>Est. FY 1974</u>
No. of Permanent Positions.....	<u>332</u>	<u>46</u>	<u>378</u>
11 Personnel Compensation.....	3,209	282	3,491
12 Personnel Benefits.....	272	26	298
21 Travel & Trans. of Persons..	1		1
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....			
24 Printing and Reproduction...			
25 Other Services.....	240		240
26 Supplies and Materials.....	47	5	52
31 Equipment.....	11	5	16
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>3,780</u>	<u>318</u>	<u>4,098</u>

Analysis of Increase

Pay Increase.....	40
Program.....	278

Specification of Increase (Program):

Protection for New Halls and Exhibits (13 positions; \$75,000). Thirteen additional guards (\$75,000) are requested to provide adequate security for halls and exhibitions which have recently been opened or are to be opened to the public. Among these are the Book Store Exhibit, the Toy Exhibit, the Egyptology Hall, and the Planetarium/Spacearium. These new halls and exhibits have created additional posts and thereby seriously reduced the overall capability for Institutional surveillance and protection.

Hirshhorn Museum and Sculpture Garden (29 positions; \$170,000). An additional 29 guards (\$170,000) are needed for the protection of the Hirshhorn Museum and Sculpture Garden. The new museum will have initial occupancy early in FY 1974 and will open to the public in the latter part of FY 1974.

Overall Protection and Support (4 positions; \$33,000). Three additional guards (\$17,000) are requested to improve security at the major public entrances for proper surveillance and control, and an additional guard (\$6,000) is requested for necessary security outside the Smithsonian buildings. In addition, support funds of \$10,000 are also requested for supplies, materials, and equipment for the additional guards.

OFFICE OF PROTECTION SERVICES

1972 Actual.....	\$3,506,000	<u>1/</u>
1973 Appropriation.....	\$3,780,000	<u>1/</u>
1974 Estimate.....	\$4,098,000	<u> </u>

The Office of Protection Services, established in FY 1973, is responsible for the protection, security, and health and safety functions of the Institution. The Office's initial funds and staff have been drawn from current protection resources administered by the Buildings Management Department and current health unit staff administered by the Office of Personnel Administration. This separate and centralized identity, as a major institutional program, emphasizes the high importance and priority given to the safeguarding of buildings, collections, staff, and visitors. By centralizing Protection Services, the Institution will improve planning, personnel selections and assignments, rotation policies, performance rating of supervisory and non-supervisory personnel, and orientation and training of personnel. This will eliminate a previously unsatisfactory condition where protection service people received a "buildings management" orientation rather than the "museum, collections, and visitor" orientation appropriate to their role in the Smithsonian. It is anticipated that Protection Services will reach a higher level of professionalism needed to insure the security of the Institution.

Concern has been steadily increasing for the protection and security of the Smithsonian's collections and exhibits, its facilities, its visitors, and its staff. The growing nature of the threat can be indicated in part by the increase in misdemeanors and felonious incidents occurring at the Smithsonian from 122 in 1971 to 232 in 1972. Compounding this threat are such factors as the dramatic growth in the number of visitors, the increased scope, variety, and value of the exhibits, the mounting volume of collections, and the additional responsibilities in such areas as occupational safety and health. Occupational health and safety has been included in Protection Services because of their close working relationship. When an incident occurs involving the health and safety of an individual, the first person contacted is the nearest guard. It is the guards duty to notify the health and safety people and ask for assistance. In 1972 there were 208 such incidents. In order to meet and fulfill the Office's additional responsibilities, the following actions are being taken: expansion of employee safety and fire protection programs, increased application of professional and technical expertise in physical and procedural protection systems, and improvement of guard force training.

The FY 1974 requested program increase of \$278,000 is to meet the growing demands for the protection of exhibits and additional building space. Funding of \$40,000 is requested for necessary pay.

Need for Increase

The present protection staff of 330 guards and supervisors provides physical security for the Smithsonian museums, art galleries, and the property housed therein. They are responsible for the control and security of all persons using the facilities which includes over 20 million annual visitors.

Thirteen additional guards (\$75,000) are requested to provide adequate security for halls and exhibitions which have recently been opened or are to be opened to the public. Among these are the Book Store Exhibit and Toy Exhibit in

1/ Estimations of the cost of protection and safety separately identified from Buildings Management and health service costs from the Office of Personnel Administration to provide a funding history.

the Museum of History and Technology; the Egyptology Hall in the Museum of Natural History; and the Planetarium/Spacearium in the temporary Air and Space Building. These new halls and exhibits have created additional posts and thereby seriously reduced the overall capability for Institutional surveillance and protection.

An additional 29 guards (\$170,000) are needed for the protection of the Hirshhorn Museum and Sculpture Garden. The new museum will have initial occupancy in the early months of FY 1974 with the public opening scheduled for the latter part of FY 1974. The 29 guards are needed to adequately man 20 eight-hour posts.

Three additional guards (\$17,000) are requested to improve security at the major public entrances for proper surveillance and control and an additional guard (\$6,000) is requested for necessary security outside the Smithsonian buildings.

Support funds of \$10,000 are also requested for supplies, materials, and equipment for the additional guards.

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

OTHER CENTRAL SUPPORT

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>10</u>	<u>1</u>	<u>11</u>
11 Personnel Compensation.....	108	18	126
12 Personnel Benefits.....	8	1	9
21 Travel & Trans. of Persons...			
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	9		9
24 Printing and Reproduction...	2		2
25 Other Services.....	5		5
26 Supplies and Materials.....	15	10	25
31 Equipment.....		5	5
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>147</u>	<u>34</u>	<u>181</u>

Analysis of Increase

Pay Increase.....	12
Program.....	22

Specification of Increase (Program):

Duplicating (1 position; \$22,000). One additional multilith operator and support funds for supplies to assist in handling increased workload and for equipment to replace obsolete folding machine and three-hole punch are requested.

Travel Services. These services include assistance in planning travel itineraries, obtaining tickets and reservations, and arranging meetings and conferences. No program fund increase is sought for this activity.

OTHER CENTRAL SUPPORT

1972 Actual.....	\$165,000
1973 Appropriation.....	\$147,000
1974 Estimate.....	\$181,000

This category includes the Travel Services Office and the Duplicating Section. The FY 1974 budget contains a request for an additional \$22,000 for duplicating services. Necessary pay in the amount of \$12,000 is sought for these two units.

The Travel Services Office assists official Smithsonian travelers in developing domestic and foreign travel plans, determining the estimated cost of proposed trips, planning the most economical routings consistent with the traveler's needs and with Government and Smithsonian Institution regulations, and in helping to assure that excess foreign currencies are used in lieu of dollars in every possible instance. It applies tariffs to assure accuracy of charges quoted by the airlines; procures airline tickets and makes hotel/motel reservations within and outside the Washington area when requested; and assists in developing plans and budgets for conferences and meetings to be held in the Washington area and elsewhere throughout the world.

The Duplicating Section is responsible for producing a wide variety of printed materials for the Smithsonian Institution. Included are administrative issuances, news releases and reports, and informational materials produced by the research, curatorial, and exhibits activities.

Need for Increase

The service furnished by the Duplicating Section is important to the overall program functioning of the Smithsonian Institution. The personnel are well qualified and do an excellent job. But staffing and funding must increase to keep abreast of growing Institutional requirements. FY 1973 has started with a large increase in workload which was not anticipated. The current backlog of work is about four weeks.

The additional funds are necessary to meet the increased workload. One additional multilith operator is needed (\$7,000). One new folding machine and a three-hole punch are needed to replace the present obsolete machines. Additional funds are requested for supplies such as paper and ink (\$15,000).

SMITHSONIAN INSTITUTION - "Salaries and Expenses," Fiscal Year 1974

BUILDINGS MANAGEMENT

(Dollars in thousands)	Base	Increase	Est.
	<u>FY 1973</u>	<u>Requested</u>	<u>FY 1974</u>
No. of Permanent Positions.....	<u>521</u>	<u>73</u>	<u>594</u>
11 Personnel Compensation.....	4,571	595	5,166
12 Personnel Benefits.....	389	55	444
21 Travel & Trans. of Persons..	4		4
22 Transportation of Things....			
23 Rent, Comm. & Utilities.....	2,260	35	2,295
24 Printing and Reproduction...	3		3
25 Other Services.....	722		722
26 Supplies and Materials.....	395	6	401
31 Equipment.....	92	25	117
32 Lands and Structures.....			
41 Grants.....			
TOTAL	<u>8,436</u>	<u>716</u>	<u>9,152</u>

Analysis of Increase

Pay Increase.....	119
Program.....	597

Specification of Increase (Program):

Hirshhorn Museum and Sculpture Garden (28 positions; \$223,000). Requirements for nine mechanics and 19 custodians and laborers, in addition to the 11 positions and \$98,000 already authorized, are needed to staff this new museum.

Utilities and Communications (\$35,000). An additional \$35,000 is requested to cover the rise in cost and consumption of electricity in existing buildings and increased cost of the Federal Telecommunication System.

Shortages in Custodial and Building Services (45 positions; \$339,000). The application of cleaning standards has verified a shortage in custodial and building services personnel. Forty-three additional janitors and laborers are requested to bring the services in all buildings up to an acceptable level. A space analyst and an engineering assistant to oversee new construction and capital development are also required.

BUILDINGS MANAGEMENT

1972 Actual.....	\$6,988,000
1973 Appropriation....	\$8,436,000
1974 Estimate.....	\$9,152,000

Buildings Management supervises and provides those services which are essential to the operation and maintenance of nine major buildings, including the original Smithsonian Institution Building, the Arts and Industries Building, the Natural History Building, the History and Technology Building, the Air and Space Building, the Freer Gallery of Art, the Fine Arts and Portrait Galleries Building (housing the National Portrait Gallery and the National Collection of Fine Arts), the Renwick Gallery, and the Hirshhorn Museum and Sculpture Garden. The Department performs various combinations of the basic functions and supporting services for research, collection, special purpose, and support facilities, including the Oceanographic Sorting Center, the Belmont Conference Center, the Anacostia Neighborhood Museum, the Cooper-Hewitt Museum in New York City, and the Silver Hill facility (which provides for the restoration and preservation activities of the National Air and Space Museum, and houses reference collections of aircraft, and other objects of science, technology, art, and natural history).

Services include the provision of utilities, and the servicing, repair, and operation of extensive refrigeration, heating, temperature and humidity control systems. Motor vehicle transportation and communications services are provided as well as improvements and alterations to the buildings and facilities. Custodial, engineering, architectural, construction management, space management, horticultural and other related services also are provided.

The FY 1974 requested program increase is \$597,000 to meet increased demands for services, price increases in various areas, and the needs associated with additional building space. In addition, \$119,000 is being sought for necessary pay increases of current employees.

Hirshhorn Museum and Sculpture Garden (28 positions; \$223,000)

The Hirshhorn Museum and Sculpture Garden is scheduled for initial occupancy in the early months of FY 1974 with a public opening scheduled for later in that year. In order to prepare the museum for occupancy and the public opening, Buildings Management will be required to provide extensive supporting services.

In addition to the 11 positions and \$98,000 appropriated in FY 1973, an increase of 28 positions will be required to provide the necessary operating staff for custodial, laboring services, and mechanical operation and maintenance on a 24-hour basis, seven days a week. Funds in the amount of \$223,000 are required for the additional staffing level of nine mechanics and 19 custodians and laborers. No funds are requested for other expenses due to the fact that the base funds available in FY 1973 to purchase equipment and fire detection systems can be applied in FY 1974 to obtain necessary supplies and equipment. This is a requested increase of \$223,000 for the operation and maintenance of this new museum facility.

Utilities and Communications (\$35,000)

The requested increase of \$35,000 for utilities and communications is needed to cover the rise in cost and consumption of electricity in existing buildings (\$25,000). Alteration and renovation programs now in progress will result in more air-conditioned space with resultant increases in utility, service, and maintenance costs. Based upon a recent rise in the installation and monthly service costs for telephones, and an increase in the cost of the Federal Telecommunication System intercity telephone services, an additional amount of \$10,000 is being requested to cover these anticipated increases.

Shortages in Custodial and Buildings Services (45 positions; \$339,000)

The present buildings services staff of 260 performs services that include cleaning operations in reference collection areas, offices, restrooms, workrooms, laboratories, and exhibit areas. In addition, services also include moves of furnishings, equipment, collections, transporting museum objects, operating 55 elevators, pest control measures, horticultural services, and general administration of space and office needs with regard to Institutional management requirements.

After thorough study and analysis of the conditions, problems, and work load statistics, a work management program has been developed. This program is based upon evaluation of work units, frequencies of services, productive man-hour statistics, and related factors.

Because the physical plant and other facilities of the Smithsonian Institution have expanded in size and numbers, 43 additional janitors and laborers are requested to bring the services in all buildings up to the acceptable standards as determined by building surveys (\$253,000). In addition, the Institution should employ a space analyst for administrative work as regards future planning and analysis for bureau needs, and an engineering assistant to oversee new construction and capital development (\$55,000).

Support funds of \$31,000 are also requested for necessary supplies, materials, and equipment for these new employees.

FUNDING OF INCREASED PAY COSTS

Mrs. HANSEN. A total increase of \$4,805,000 is requested for salaries and expenses; \$750,000 is related to necessary pay costs.

This does not include costs from the January 7, 1973, pay raise. What do you expect these costs to be, and how much will be absorbed?

Mr. BROOKS. Madam Chairman, the cost of the General Schedule pay raise effective January of this year is not included in our budget request.

Mrs. HANSEN. Why not?

Mr. BROOKS. This is by direction of the Office of Management and Budget.

Mrs. HANSEN. How do you propose to meet those pay costs?

Mr. BROOKS. We understand they plan to request a supplemental.

Mrs. HANSEN. OMB has been impounding fiscal year 1973 funds in an effort to hold down spending and you say they plan to request a supplemental? That is sheer hypocrisy.

Mr. BROOKS. We have to do the best we can. We estimate the annualized cost of that raise will be on the order of \$2 million.

Mrs. HANSEN. Actually, you can say right now that \$2 million will be added to your estimate in a supplemental request?

Mr. BROOKS. That is correct, Madam Chairman.

Mrs. HANSEN. Unless OMB impounds \$2 million of your current funds and decides that the pay cost should be absorbed.

Mr. BROOKS. May I correct that slightly. I believe there are some Wage Board costs included in the estimate I gave you.

Mrs. HANSEN. I understand.

Mr. BROOKS. So, I should take those out of the \$2 million. It would be about \$1.6 million.

NATIONAL MUSEUM OF NATURAL HISTORY

Mrs. HANSEN. An increase of \$100,000 and five positions are requested for the National Museum of Natural History.

What specific scientific productivity increases have occurred as a result of the increased support provided in the last 2 years?

Mr. CHALLINOR. I would like to provide for the record the new publications that have resulted. That is one way we can measure scientific productivity.

Mrs. HANSEN. How many publications have there been?

Mr. CHALLINOR. I would have to prepare that precisely for the record.

Mrs. HANSEN. You know better than to ask to insert information in the record. The committee cannot ask questions of the record.

Mr. CHALLINOR. I would estimate we are talking about 30 or 40 scientific publications.

Mrs. HANSEN. What is the range of the publications?

Mr. CHALLINOR. They go from long, multivolume monographs to three- and four-page journal articles, covering the Museum of Natural History, from anthropology, to vertebrate marine biology, to analysis of meteorites and gems and minerals.

Mrs. HANSEN. How much of your output goes into the Smithsonian magazine?

Mr. CHALLINOR. None directly, Madam Chairman. The curators at the Museum of Natural History on their own time are allowed to submit articles for publication in the Smithsonian magazine completely separate from the Museum of Natural History.

ASTROPHYSICAL OBSERVATORY

Mrs. HANSEN. A \$100,000 increase is requested for the astrophysical observations to maintain the existing level of research support. You are requesting no new positions for this activity.

Mr. RIPLEY. No new positions.

Mr. CHALLINOR. The same number of permanent positions, yes.

Mrs. HANSEN. In spite of the fact that you say the study of astrophysics continues to grow in importance?

Mr. CHALLINOR. There is now a waiting line in back of every major telescope in every observatory in the country. At this point, if we were to hire new astronomers, there would be no place for them to observe until we can furnish more equipment for them.

CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES

Mrs. HANSEN. An increase of \$90,000 and 5 positions is requested for the Chesapeake Bay Center for Environmental Studies.

I am sure Dr. Long will have a question on this.

Mr. CHALLINOR. May I answer first, then, the justification for the increase here?

We are asking for 5 new positions and \$90,000 in program costs.

Mrs. HANSEN. What is the need for five new positions?

Mr. CHALLINOR. The five new positions are to allow us to respond to the demands we are now receiving from the National Science Foundation, from the Corps of Engineers, from the National Aeronautics and Space Administration, and from various officials in Anne Arundel County, for environmental baseline data which we have been recording at the station.

We are unable with the present staff to meet the demand for information which we are now receiving.

Mrs. HANSEN. What are the current numbers of inquiries or requests coming to the center?

Mr. CHALLINOR. These come in all forms, from a mere telephone call to a formal request.

Mrs. HANSEN. How many per year?

Mr. CHALLINOR. We are probably talking about 1 every other week, let us say 25 a year. That is not recorded each time a request comes in.

Mrs. HANSEN. What are these requests for?

Mr. CHALLINOR. For example, the Corps of Engineers has requested of the Smithsonian and three of its consortium members—we are a member of an organization called the Chesapeake Research Consortium, Inc.—an inventory of the biota of the bay. The Corps of Engineers wants to know what organisms are now in the bay swimming around so they can tell how the bay may change if they do certain things—dredge, spill oil, and all the other things that can happen to the bay. That is a specific request we have received.

EXAMPLES OF RESEARCH PROJECTS

Mr. LONG. What are some examples of research projects which are currently under way at the Chesapeake Bay Center for Environmental Studies?

Mr. CHALLINOR. The Bay Center has 15 miles of shoreline and encompasses virtually the entire shore of the Rhode River estuary which enters into the Chesapeake Bay about 7 miles below Annapolis. It is 2 rivers below the Severn. One of the things they have been monitoring there for the last 3 years is the characteristics of this estuary for such items as the salinity content, the dissolved oxygen content, the nitrogen content, the phosphate content, the turbidity, sediment load. For example, when massive die-offs of organisms such as clams occur, their deaths are often blamed on oil spills and such things as this. We have found, however, by monitoring this carefully, that there was a 90 percent die-off in a valuable commercial clam as a result of Hurricane Agnes last June, which dumped 10 inches of rain in a very short period of time, reducing the salinity in that estuary from the normal 10 parts per thousand down to 1 or 2. The water then became too fresh for these clams to live, and they all died.

Unless we had monitored this continually and were able to relate this to the amount of fresh water in the estuary, we would not have gotten this cause and effect.

Mr. LONG. That has been a widespread complaint throughout the Chesapeake.

Mr. RIPLEY. The soft shell clam has virtually disappeared as a result.

Mr. LONG. Fresh water coming into the Bay is a danger to all kinds of fishlife. I did not know it was merely confined to the problem of the clam.

Mr. CHALLINOR. The clam die-off was particularly spectacular. That is why I referred to that. It does affect all other organisms as well.

Mr. LONG. Are the things that you discover for the Rhode estuary applicable also to other parts of the Chesapeake, or are they confined to that part?

Mr. CHALLINOR. We are concentrating on the Rhode River estuary because it is what we refer to as an unstressed estuary. There are no housing developments or anything else along this 14 miles of shoreline. Therefore, what we find in this estuary we believe will be applicable to most other unstressed estuaries on the Eastern Shore as well as the Western Shore. There are not many left on the Western Shore, as you probably know.

Mr. RIPLEY. We are also conducting studies of controlled situations where we are working in a stressed estuary.

Mr. CHALLINOR. Just next door there is a large summer home development, that has now developed into an all-year-round basis, where we have considerable septic tank runoff into the bay.

One of the long-term experiments we will be performing is a model lagoon system for secondary treated sewer waste in a small housing project being built adjacent to us. Secondary treated effluent will be pumped into the lagoon. We will be able to turn a spigot and allow this to go right into the estuary, into Muddy Creek, to determine under controlled conditions how much effluent the natural organisms

in the bay will be able to cope with—break down, in other words. We will take effluent from this secondary treated lagoon and spray this on about a 5-acre spray system in the forest where we expect the natural organisms living in the forest floor to break down the excess phosphates and nitrates that will be in this secondary treated effluent.

INDUSTRIAL WASTES FROM BALTIMORE AREA

Mr. LONG. Do much of the industrial wastes from the Baltimore area, which is only 20 or 30 miles away, get down into your area?

Mr. CHALLINOR. It has not yet, Mr. Long. Right now the status of the Rhode River is that it is able to cope with all the runoff that is pouring into the bay.

Mr. LONG. I am hoping that does not spread. Baltimore Harbor is probably one of the most poisonous. There are 1,200 firms pouring poisonous chemicals of one kind or another into the bay every day, including Bethlehem Steel, which is the largest tidewater steel plant in the world.

Are you studying the methods of flood prevention as part of your model watershed study program?

Mr. CHALLINOR. In our case, we have one small creek called Muddy Creek. That we monitor with a weir, a V-shaped concrete barrier, with the water flowing through a V-shaped gap. This allows us to measure exactly the flow that comes through this creek.

EFFECTS OF CONSTRUCTION AND DEVELOPMENT

The answer is, yes. We also are particularly interested in the sediment load. Any time somebody builds a driveway or right-of-way clearing on this watershed, we can measure how much the sediment load increases and fills up the Rhode River, which we know has become a great deal more shallow than it was, say, 100 years ago when packet boats would stop there regularly on their way to Baltimore from Norfolk.

Mr. LONG. You can imagine what is right up in the Chesapeake off Baltimore County, where you have a population of 650,000 people, and the population has doubled in the last 10 or 15 years. There is construction going on everywhere. It is originally filling up every one of the rivers.

There even have been prophecies—how well justified, I do not know—that ultimately the Chesapeake Bay will be filled in completely.

Mr. CHALLINOR. In 50,000 years, the mouth of the Susquehanna will be down near Norfolk, may be sooner. It is hard to say.

FEASIBILITY OF DIKED DISPOSAL AREA

Mr. LONG. Plans are being made to build a diked disposal area at Hart-Miller Islands in my congressional district, which, is about 30 or 40 miles from your particular estuary. Are you being asked about this diked disposal area at all?

Mr. CHALLINOR. We have not, Mr. Long. I expect this could be a question that could be directed to the organization known as the Ches-

apeake Research Consortium, Inc. This consists of the Smithsonian, Johns Hopkins—

Mr. LONG. Of which you are a member.

Mr. CHALLINOR. Yes. Under this guise we have the facilities to direct an answer to that, if the question were asked, to the Corps of Engineers or the appropriate agency.

Mr. LONG. Who else is in the consortium besides Johns Hopkins and you?

Mr. CHALLINOR. The University of Maryland and the Virginia Institute of Marine Sciences down at Gloucester Point.

Mr. LONG. Let me give you my complaint. I want this on the record.

Johns Hopkins University, of course, is participating in the Chesapeake Bay thing. They are the advisers and the experts on it. They are getting paid for this. Obviously, they are not going to give an independent judgment. The same is true of the University of Maryland. It is a part of the State, and the Governor is pushing this Hart-Miller Islands thing. Naturally, they know which side of the bread the butter is on. This is what bothers me with a consortium like that, where they know by instinct what they are expected to come up with. You could scarcely get an objective opinion.

They will tell you privately what they think about it, but they won't tell you publicly. They won't come forth and give you their judgment on this.

Mrs. HANSEN. Would you say this is an example of the integrity in the academic field?

Mr. LONG. Having spent many years in academic life, I can tell you there is no more integrity there than elsewhere when money is concerned.

Mr. CHALLINOR. The Smithsonian likes to pride itself that it does have integrity. I will put it that way.

Mr. LONG. We are presenting this question to the Interior Department and the Corps of Engineers, asking for any report approving implicitly this diked area. I have characterized it as a "high-class brush-off." There is no question in my mind that it has not complied with the law. They have simply taken the judgment of the experts and dismissed other judgments with a sentence here and there.

For example, some of the experts testified that we are going to be having this sludge problem for a long time. Why not convert that from a liability into an asset and make bricks out of it? A Yale study has asserted this as a possibility, and the U.S. Corps of Engineers doesn't even challenge that proposal. They say presumably this has been tested and demonstrated. They merely dismiss the whole thing with the statement: "Where are you going to sell the bricks?"

I think that is not the kind of careful analysis that we are justified in getting in answer to that type of proposal. If we are going to keep on dredging all these estuaries with all the silt and junk pouring into them, we are going to have to find somewhere to put all this poison. If we can turn it into an asset, wonderful, we ought to be looking into it, instead of having people brushed off with a sentence.

Mrs. HANSEN. When the Bureau of Mines testifies, you may want to pursue this question with them based on their work in West Virginia in a similar field. There is a direct relationship.

Mr. LONG. I want to find out whether you would be one of the groups that will be asked questions about this Hart-Miller Island thing.

Mr. CHALLINOR. Not to my knowledge, Dr. Long.

Mr. LONG. Whom do they ask if they do not ask people like you?

Mr. CHALLINOR. I would imagine they are perhaps asking the Chesapeake Bay Institute.

Mr. LONG. No. They are already involved. They have compromised themselves. They are getting paid. So is the University of Maryland.

Who has this model basin they are talking about?

Mr. CHALLINOR. The Corps of Engineers has a request for an appropriation to build a model of the Chesapeake Bay. It will be about three football fields in size.

Mr. LONG. Some of the people who are proposing this diked area say we should wait until the model is built so we can test out in the model what would be the effect of building this diked area. What would be the effect on the currents, and all that kind of thing.

Others say you simply cannot build a model which is a true replica of the Chesapeake Bay because it would have to be distorted in one way or another. I think they are probably right. Would you agree with that?

Mr. CHALLINOR. I would. The model would give you more knowledge than you would have without it, but it probably would not be 100 percent.

LIST OF RESEARCH PROJECTS AT BAY CENTER

Mr. LONG. I wonder if you would give us a whole list of those research projects that you are working on.

Mr. CHALLINOR. I will be glad to. We have about \$325,000 in outside grants now underway at our Rhode River Center.

(The information follows:)

RESEARCH PROJECTS AT CHESAPEAKE BAY CENTER

Grants and contracts with other agencies (fiscal year 1973)

Rhode River research program (National Science Foundation) :

Principal Investigator, Dr. Blair Kinsman, Chesapeake Bay Center for Environmental Studies: Rhode River Research Program Manager ----- \$41, 091

Program Manager and Assistant coordinates the Rhode River research to keep all the projects functioning as an interdisciplinary research program.

Principal Investigator, Dr. Martin Buzas, National Museum of Natural History: Population Ecology of Foraminifera in Relation to Environmental Variable in Rhode River----- 11, 518

Looking for certain species of microscopic animal life as an indication of pollution.

Principal Investigator, Dr. David Correll, Radiation Biology Laboratory: Autotrophic and Heterotrophic Phosphorous Metabolism in Microbial Communities----- 32, 108

Chemically determine the amount of phosphorus nitrogen in fresh and saline water of the Rhode River watershed. Excessive amounts of phosphorus nitrogen allows algae growth which litter beaches, clog filters and create surface scum, in addition to depriving marine life of oxygen which results in fish kill.

Grants and contracts with other agencies (fiscal year 1973)—Continued

Rhode River research program (National Science Foundation)—Continued

Principal Investigator, Mr. Robert Cory, U.S. Geological Survey: Physical, Chemical and Biological Measures of Water Quality in the Rhode River.....	12, 118
Mechanically measures nine qualities of the water and air at the Rhode River in an attempt to determine the effect future additions of domestic sewage will have on marine life.	
Principal investigator, Dr. Bert Drake, Radiation Biology Laboratory: Marsh grass productivity in Rhode River.....	24, 089
Very closely measuring the absorption by marsh grasses of carbon, which is the basic element necessary for the formation of organic compounds. Without organic compounds, there is no life.	
Principal investigator, Dr. Edward Pluhowski, U.S. Geological Survey: Hydrology of the Rhode River basin.....	10, 718
Estimate the magnitude and quality of the surface and ground-water resources of the Rhode River basin, with specific emphasis on evaluating the major physical and chemical aspects within the fresh water portion of the basin's hydrological cycle.	
Principal investigator, Dr. Jack Pierce, National Museum of Natural History: Suspended and bottom sediments.....	13, 789
Taking samples of Rhode River sediments to determine their composition, to determine suspended sediment flux through the estuary and to isolate the main sources of this sediment.	
Principal investigator, Dr. J. Kevin Sullivan, Chesapeake Bay Center for Environmental Studies: Improved land use planning for the watersheds of estuaries, A case study for Chesapeake Bay	21, 905
To assist in the planning and decisionmaking by State and county agencies of land use, such as highway and powerline construction, sanitary land fill locations, marina development, utilizing results of scientific research from the Rhode River program.	
Principal investigator, Dr. Francis S. L. Williamson, Chesapeake Bay Center for Environmental Studies: Evaluation of remotely sensed data from the Rhode River estuary watershed.....	11,089
National Aeronautics and Space Administration (NASA) aerial photographs are closely examined to determine the actual species of the plant life on the ground. The Chesapeake Bay Center uses aerial photographs to map the vegetation of the	
Total	178, 425
Overhead	51, 320
Grand total.....	229, 745
Public environmental information research (Noble Foundation):	
Principal investigator, Dr. J. Kevin Sullivan, Chesapeake Bay Center for Environmental Studies.....	25, 000
Intensive interactions with citizens organizations and public agencies in the bay region are established to maintain an ongoing program of public involvement on environmental issues.	
Evaluation of remotely sensed data from the Rhode River estuary (National Aeronautics and Space Administration)	
Principal investigator, Dr. Francis S. L. Williamson, Chesapeake Bay Center for Environmental Studies.....	20, 000
This involves aerial photographing of the Rhode River watershed with color infrared and natural color film. Scientists at the center then relate the pictures to the area photographed to determine how different types of vegetation show up in the photograph. NASA hopes the techniques learned can be applied anywhere in the world to identify vegetation with the photographs taken by satellite.	

Grants and contracts with other agencies (fiscal year 1973)—Continued

Studies of avian ecology (Battelle Memorial Institute)	
Principal investigator, Dr. Francis S. L. Williamson, Chesapeake Bay Center for Environmental Studies.....	23, 000
Ongoing biological studies to determine the effects of the atomic explosion on animal life in Amchitka Island, Alaska.	

CONTRIBUTIONS TO KENNEDY CENTER

Mr. LONG. One more question. How much has the Kennedy family contributed to the JFK Center for the Performing Arts?

Mr. RIPLEY. I cannot give you that answer, Dr. Long. I do not know.

Mr. LONG. Can you provide it for the record?

Mr. RIPLEY. Yes.

[The information follows:]

Contributions by the Kennedy Family to the JFK Center

Joseph P. Kennedy, Jr. Foundation.....	\$500, 000
Kennedy family donations.....	60, 000
	<hr/>
	560, 000

Mr. LONG. I wonder if you could provide a list of all the contributions made to the Kennedy Center by the members of the board of trustees of the Kennedy Center.

Mr. RIPLEY. I am sure I can provide such a list.

FEDERAL SUPPORT OF KENNEDY CENTER

Mr. LONG. I also would like to have that in relation to the total cost of the Kennedy Center to the Government.

Mr. RIPLEY. That is the total construction cost of the Kennedy Center?

Mr. LONG. Yes. Is there anything else besides construction costs?

Mr. RIPLEY. I suppose only the National Park Service maintenance funds.

Mr. LONG. I think everybody contemplated that the Government would have to maintain it, once it was put in. Congress was asked to support this with the idea that this was largely a private thing, and we merely would supplement it. Instead, it turned out that this was a pump-priming thing. Of course, the Smithsonian thing was, to begin with. I suppose the most successful man ever in getting his name attached to a famous institution was Smithsonian. Right? He gave a very tiny contribution. I am not even sure the cash ever came through.

Mr. RIPLEY. Yes, it did; the equivalent of about \$10 million today.

Mr. LONG. I thought it was much smaller than that.

Mr. RIPLEY. \$508,000 in gold.

Mr. LONG. Oh, well. Let's not make it \$10 million. That was a substantial sum of money. There is no question about it. But he certainly got his money's worth. Would you not agree with that?

Mr. RIPLEY. I think he has gotten his money's worth, yes.

Mr. LONG. I don't quarrel with him. I think we all have to be on our guard when people come forth with a sum of money, and lead you to believe this will pay for it. They merely get you in trouble, and then the Government has to come along and pay vast sums.

I think this has been true of the Washington Stadium.

Mr. RIPLEY. Mr. Smithson died and, of course, he had no way of giving any more money. He simply said it was up to the Congress to accept it or not. After 8 years, they accepted it.

Mr. LONG. I think it was a great concept. I just think we ought to know about these things at the time.

Mrs. HANSEN. Unfortunately, you were not alive when Mr. Smithson donated the money.

Mr. LONG. I don't think so.

Mrs. HANSEN. I do not think you were.

Mr. LONG. This was 1842?

Mr. RIPLEY. He died in 1829.

[the information follows:]

Contributions by the Members of the Board of Trustees to the JFK Center

	<i>Amount</i>
Floyd D. Akers.....	\$108,000
Winthrop Aldrich.....	1,600
Robert O. Anderson.....	100,000
Ralph E. Becker ¹	7,000
K. LeMoyne Billings.....	2,000
Edgar M. Bronfman ²	100,000
Andrew H. Berding.....	700
Ernest R. Breech.....	1,000
Mrs. George R. Brown.....	74,000
John Nicholas Brown.....	15,500
Mrs. Donna S. Bradshaw.....	17,500
Senator Joseph S. Clark.....	2,500
Robert W. Dowling.....	2,100
David E. Finley.....	3,400
Mrs. Clifford Folger.....	107,000
Senator J. William Fulbright.....	700
Hon. Abe Fortas.....	775
Hon. Peter H. B. Frelinghuysen.....	6,300
Mrs. George Garrett ²	106,914
Henry C. Hofheiner, II.....	1,000
Frank N. Ikard.....	1,000
Thomas H. Kuchel.....	6,000
Mrs. Albert D. Lasker.....	142,000
Robert Lehmann ²	20,000
Gustave L. Levy.....	10,000
Sol M. Linowitz ²	15,000
Mrs. J. Willard Marriott.....	138,000
George Meany.....	1,000
Robert I. Millonzi.....	10,000
Senator Charles S. Percy.....	11,000
Frank H. Ricketson.....	25,000
Richard Rodgers.....	3,500
Representative Teno Roncalio.....	500
Senator Leverett Saltonstall.....	1,000
Mrs. Jouett Shouse.....	154,317
Robert L. Stevens ³	106,000
Henry Strong.....	32,000
Anonymous.....	1,218,000
Mrs. L. Corrin Strong.....	53,000
Robert W. Woodruff ²	100,000
Mrs. Jack Wrather.....	17,500
Senator Ralph W. Yarborough.....	1,000
Total.....	2,732,806

¹ Also contributed an estimated \$100,000 in professional services and expenses.

² Gift attributable to donor listed.

³ Also served as chairman without pay since 1961.

Appropriations totaling \$25.175 million were granted as the Federal Government's contribution to the costs of constructing the John F. Kennedy Center to match a like amount contributed by the public. In addition, \$20.4 million in loan authority was granted for the construction of the garage.

PROJECTS FOR ENVIRONMENTAL PROTECTION AGENCY

Mrs. HANSEN. Does EPA ask for your assistance on specific projects?

Mr. CHALLINOR. Yes; they do, Madam Chairman. They have come to us for specific projects.

The last one was the Panama Canal Zone, where they asked us to cover a long-term study of an oilspill on a tropical coral reef.

Mrs. HANSEN. Have they requested your assistance on the Chesapeake Bay?

Mr. CHALLINOR. Not specifically, yet. We have a proposal to present to the EPA.

Mr. EVANS. When they come to you, do they also bring money with them?

Mr. CHALLINOR. Yes; they do.

Mr. EVANS. Are these cost sharing or paid for entirely by them?

Mr. CHALLINOR. Cost sharing, generally. We furnish the equipment and the laboratory facilities. They usually pay us to hire a lab technician and certain new extra equipment that we would not normally have.

NATIONAL AIR AND SPACE MUSEUM

Mrs. HANSEN. You are requesting an increase of \$765,000 and 20 positions for the National Air and Space Museum. Of this total, \$470,000 is for exhibits, \$65,000 for three scientific and technical staff, \$172,000 for 16 curatorial and mechanical staff, and \$58,000 for spacearium/planetarium.

What is the requirement for the level of funding in fiscal year 1974?

Mr. RIPLEY. Let me briefly outline that, and then Mr. Collins can cite additional facts.

The funding we need for construction to liquidate our contract authority, as specified by the OMB in the allowance for our budget this year, is \$27 million. Of this, we actually need only \$17 million this coming year to meet contractor payments. We do not need \$27 million.

Under the procedures for construction, the implication is that we would ask for the full amount.

Mrs. HANSEN. The committee has had the policy of providing only the exact amount needed per year.

Mr. RIPLEY. Yes, Madam Chairman. I am pointing out the exact amount we do need is actually \$10 million less than the item given in our budget. The additional personnel and operating funds are needed as a phased proposition to be able to open the building 3 years hence.

Mrs. HANSEN. Will you explain the need for these funds at this point in time?

Mr. COLLINS. Madam Chairman, any large and complicated enterprise such as filling 200,000 square feet of exhibit space is one which has to be preceded by a great deal of planning.

Mrs. HANSEN. I understand.

Mr. COLLINS. Now is the time when we have to build the curatorial strength to do the research for the necessary exhibits which will fill the new building. Now is the time that we have to start restoring the old airplanes in the building. Now is the time that we have to build the planetarium staff expertise. We really will need a larger work force in this year than after the museum is open.

Mrs. HANSEN. You are requesting funds for a mechanical staff. What does this involve?

Mr. COLLINS. We have a number of electromechanical devices which we have planned for these various halls, audiovisual effects. We have to tell the Boeing 747 story in some other way than parking the Boeing 747, which is bigger than a whole building. We have this problem of telling the story; the history.

Two years ahead we need this staff. We need this expertise.

Mr. RIPLEY. We need to phase into the operation. We need technicians and other staff.

Mrs. HANSEN. These are purely the museum-type technicians?

Mr. COLLINS. If you could divide the new staff into two groups, one is workmen out at Silver Hill; skilled craftsmen who will be restoring these old artifacts. Second are the people on the Mall who are doing the necessary research and exhibit design to put it all together.

NATIONAL ZOOLOGICAL PARK

Mrs. HANSEN. You are requesting an increase of \$150,000 for the National Zoo. What are the details of this request?

Mr. RIPLEY. I think Dr. Reed is our specialist, and he had better speak to this.

Mr. REED. In this item we are asking for \$150,000 increase, which is a rather small percentage increase of our total operation. We consider this more or less of a holding budget. There are no new increases in staff requested. Mainly we are requesting a general increase for the cost of equipment, supplies, food, and services in small amounts with the exception of a \$70,000 item for the exhibits that we need at the zoo. As you know, for many years we were under the financial support of the District of Columbia. During that time we did not have the opportunity to develop a good exhibit program.

EDUCATIONAL EXHIBITS

Mrs. HANSEN. Give the committee an example of your educational exhibits.

Mr. REED. As an example, we are going to redo the monkey house. We are going to have a nice monkey house which will contain graphic displays of what a monkey is and how he relates socially to other monkeys and animals and the entire story of the monkeys through graphics. We are going to use all the museum types of display work.

I suspect when you come to the zoo and we have this proper exhibition of the living animals, you are going to know more about the monkey, and I hope that you will appreciate the monkey more because he is a very important part of life. If one wants to get involved, he is a very distant relative several times removed. This will be one of the things we are doing. We will have an exhibition which explains the

monkey in more detail than just enabling the visitor to see the monkey and read a simple label saying "Monkey—Africa." We want to explain the animals fully for the education of the people.

Mrs. HANSEN. I assume you want to explain in more detail your habitat program?

Mr. REED. Yes; habitat, ecology, life history of the monkey and his relationship to man and to the environment.

Mrs. HANSEN. Some people are not very interested in this relationship.

Mr. REED. We are much concerned with the animals that are threatened with extinction. I personally am very much convinced that when an animal becomes extinct and the habitat of the animal is destroyed, we ourselves are hurt. Eventually we may be left on a sterile desert, a miserable place with the rats and the cockroaches and human beings.

If you look into the future, what are we faced with? This is part of the educational thing in the zoo. I think we need to take the lead in developing this type of exhibit to tell the people about animals and the total relationship of all living things.

COMPARISON TO OTHER ZOOS

Mr. YATES. Is this one of the better zoos in the country?

Mr. REED. In many ways we are one of the better zoos. So far as science is concerned, we are making more contributions toward science than many other zoos. In the care and management of animals and the medical program, I think we are good. Exhibition, no.

Mrs. HANSEN. Would you describe the National Zoo as one of the worst?

Mr. REED. We are one of the worst major ones. I can always find a small zoo worse. I am from Norton County, Kans., and the zoo, I will say if Norton County had a zoo it would be worse than our zoo. Norton does not have a zoo. I can always find somebody worse, but I can always find a lot of people that are unfortunately better in exhibitory.

Mrs. HANSEN. Give us some examples of zoos that you would consider are better?

Mr. REED. Better in exhibitions?

Mrs. HANSEN. Yes.

Mr. REED. We start off with New York. There is a wonderful bird-house and a new technique they are using for their gorillas and orangutans in the Bronx. Philadelphia in some aspects, yes. Their new reptile house, new hummingbird exhibit. San Diego, Calif., they have fantastic exhibits and they have a little advantage in weather on us. The very finest penguin exhibit is in Detroit. Open moat-style exhibits are in Detroit, Brookfield, St. Louis, and Milwaukee.

Mr. LONG. Where would Baltimore stand with Norton County, Kans.?

Mr. REED. I was afraid you were going to ask that. Actually Baltimore is an old exhibit zoo. It is about as old as we are, maybe a little older. There is a little debate when it was actually founded. It was a very good zoo for its day when it was conceived and developed. It didn't quite keep up with the rest of the zoos and exhibitions. In the past 5 or 6 years they have come up very well and they are doing a much better job. They have a long way to go, but now I am talking

about my zoo, too. They say the same thing about our zoo. During the depression days we kept up fairly well, but in 1945, after the cessation of World War II, other zoos moved ahead and we built a stone toilet.

Mr. YATES. I thought that you had a good birdhouse. You compared with New York and you thought New York was better?

Mr. REED. New York has a brand new one, built since ours was remodeled.

Mrs. HANSEN. Wasn't your birdhouse recently remodeled?

Our 1925 birdhouse was remodeled in 1965.

Mr. REED. We spent \$1 million on a birdhouse and flight cage. That was the first of our restoration and redevelopment of the zoo. That was 7 years ago. At that time we had a program that was going to take 10 years to remodel the whole zoo.

MORE NATURAL SETTINGS

Mr. LONG. Are you moving in the direction of letting the animals live under more natural conditions instead of in cages?

Mr. REED. Yes. If you take a look at the birdhouse, we had 90 cages in the buildings, it is now reduced to 40 community cages with plants and naturalistic cage decorations. In our redeveloped hoofstock area, the pens are three and four times as large as they were before. Family groups, smaller number of species, fewer, different kinds of animals, but in family groups under simulated natural conditions is what we will have. Granted we will never have the African veldt or jungle here in Washington, but we can simulate them.

Mr. LONG. Are you doing this for all animals or just for the birds?

Mr. REED. We plan on doing it for all of the animals. When we get into the construction phase, I have the plans and can show you all sorts of what I think are very exciting things we are doing.

Mrs. HANSEN. Then somebody will give you a gift and you will have to rethink your plans again.

Mr. REED. At the present moment I don't know what somebody could give me, unless they found an abominable snowman or, out in your country, a sesquatch. Big foot.

Mrs. HANSEN. He is talking about the Big Foot in the foothills of Washington.

HEALTH PROGRAM AT THE ZOO

How is your health program proceeding at the Zoo? The committee is very interested in this activity.

Mr. REED. We think the health program is progressing very, very well. I don't have any startling announcements this year but maybe next year we will have very interesting things to tell you. The problem of selenium—vitamin E deficiencies, gets more and more complex and complicated. This is becoming so all over the Nation. We are finding ramifications of this problem going further than just the Zoo. We are continuing to develop the medical program with other zoos. I think we are taking leadership.

Mrs. HANSEN. You have complete exchange of information and material?

Mr. REED. Yes, ma'am. We have an exhaustive exchange of information with other zoos, both zoologically and medically, that do this. This

is part of our job, to gather information, find out new things. We have two veterinarians and a pathology service at the zoo. We are furnishing leadership to other zoos in gathering knowledge and disseminating it like we were told to do 127 years ago.

PANDA EXHIBIT

Mr. YATES. Doesn't your panda exhibit make you the envy of other zookeepers in the country?

Mr. REED. The panda makes me the envy of other zookeepers but it does cause troubles.

Mr. YATES. What is your trouble, keeping them alive?

Mr. REED. There is an old Russian saying, when the czar has a cold all Russia sneezes. We are concerned with the most precious animals in this country. It is quite a responsibility to have the pandas. We like them.

Mr. YATES. Has the President inquired about their health?

Mr. REED. He has not.

Mr. EVANS. How are they?

Mr. REED. Healthwise they are fine. They are great animals. Bring your family to the zoo. We have a golf cart and we can run around the zoo and see all the animals. I won't try to influence you.

Mr. YATES. Are they mean to each other?

Mr. REED. The male is 30 pounds lighter than the female, but he is slowly catching up with her. I might say that we do not wish to have female dominance so we won't put them together, until he is nearer her weight.

Mrs. HANSEN. You better choose your words carefully when you talk about female dominance.

Mr. REED. Madam Chairman, I invite you to come to the zoo. You and I will look at the beasts and have a talk about that, not on the record, as to why I do not want to have female dominance and need complete male dominance for about 1 hour a year and a half from now. After that she can dominate anything she wants.

Mr. LONG. We enjoy female dominance in this subcommittee.

Mr. REED. I am sure Hsing Hsing will agree.

Mr. YATES. What are the possibilities of getting other pandas for other zoos?

Mr. REED. I would suspect—and this is strictly my judgment—that obtaining additional pandas would be difficult.

Mrs. HANSEN. Is the panda an endangered species?

Mr. REED. I don't know. Only the Chinese know, and I have difficulty getting that information.

To answer your question as to my judgment of the situation in China, they know the value of these animals. They say that they are rare, but we could not get a definition of what the Chinese scientists feel was rare. They also know the political value of these animals, and they are not going to be passing them out. Other than Japan—this was on a very high level—and the United States, they have not given them to any other country.

I suspect they would keep the value of these animals up by letting only a limited number out. They will not deal in money. This is something that came across loud and clear; they are not interested in

our money. They are not interested in economic imperialism or scientific imperialism. They will be treated as equals.

Mr. YATES. You sound as though they had spayed the animals to make sure you don't get any more.

Mr. EVANS. Have you checked that?

Mr. REED. To the best of our ability we have checked. We will be able to tell you, I think, in about another year as to whether that is true. She is supposed to come into season in about another year. She is still young. I will keep you posted.

Do come out and we will have a talk.

Mrs. HANSEN. I will get there eventually.

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

An increase of \$150,000 and three positions is requested for the Museum of History and Technology for better collections management. What does this request envision?

Mr. BROOKS. I would like to ask Mr. Blitzer, Assistant Secretary for History and Art, to respond.

Mr. BLITZER. Madam Chairman, this is a continuation and an acceleration of the program begun with your help last year. We finally instituted a museumwide system of collections management and record-keeping in the Museum of History and Technology. As you know, some 16 million objects are in this collection. The problems vary between collections enormously.

Mrs. HANSEN. How many of your 16 million objects do you display at one time?

Mr. BLITZER. It would be a wild guess. Let me say 12 million of them are postage stamps. A small fraction of the 16 million are on display. On the other hand, there are enormous reference collections. We are not satisfied that we have proper control over them and knowledge of their whereabouts.

NATIONAL COLLECTION OF FINE ARTS

Mrs. HANSEN. You have budgeted for the National Collection of Fine Arts a \$97,000 increase. What does this involve?

Mr. BLITZER. Of that, \$75,000 is a program increase. The rest is necessary pay. The \$75,000 we are asking for is all for the additional expenses to the National Collection of Fine Arts of the Renwick Gallery that has proved to be enormously popular in a little more than a year.

Mrs. HANSEN. How many visitations do you have at the Renwick Gallery and the Portrait Gallery, per year?

Mr. BLITZER. Let me say, the figure for Renwick is something in excess of 200,000 a year. Because of the subway construction we can no longer sort out the visitors to the old Patent Office Building and say which goes to the National Collection of Fine Arts and which goes to the Portrait Gallery. The total for the building in this difficult time has been about a quarter of a million. In effect, the opening of the Renwick is virtually doubling the visits to the National Collection of Fine Arts, of which it is a branch.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

Mrs. HANSEN. Justify your requested increase of \$150,000 and 14 positions for the Hirshhorn to prepare for opening and operating the museum.

Mr. BLITZER. Madam Chairman, this request is simply for staff that we feel is necessary in the year in which the Hirshhorn Museum will open.

Mrs. HANSEN. What positions do you expect to fill?

Mr. BLITZER. Of the 14, 3 are to establish an education department in the museum.

Mrs. HANSEN. Which will encompass what?

Mr. BLITZER. It will prepare materials for schoolchildren and other educational audiences, and will run tours and the usual kind of educational programs for a major museum. Four people will be engaged in conservation and carpentry work in the Museum's own workshops.

Mrs. HANSEN. Continually?

Mr. BLITZER. Yes, ma'am. Such jobs as picture frames and cases and pedestals, and working on the collections themselves. One will be a photographer on the staff of the Museum. Four will be in registrar activities and administration of the Museum, and we hope in this coming fiscal year to be able to hire a Deputy Director and Secretary for the Deputy Director. This is called for in the act. We have not felt it was urgent to fill this job, but now, with the Museum becoming operational, we feel we should.

At the end, if we add 14 positions, that gives a total staff in 1974 of 37.

Mrs. HANSEN. You are a year away from the opening?

Mr. BLITZER. Yes.

ACQUISITION OF OBJECTS OF ART

Mrs. HANSEN. In relation to the National Collection of Fine Arts and the Portrait Gallery, is Congress requested to appropriate funds for the acquisition of objects of art? Aren't most of your objects of art secured through donations?

Mr. BLITZER. Appropriated funds have been used by the Portrait Gallery, which was started a few years ago with no collection to speak of at all, and by the National Collection of Fine Arts.

Mrs. HANSEN. Have you made any purchases in recent years?

Mr. BLITZER. Yes; we have. They have been described to you each year.

Mrs. HANSEN. Were you also involved in exchanges?

Mr. BLITZER. I think, Madam Chairman, you are referring to sales, which we used to have conversations about. There have been no dispositions by these museums. They have continued to purchase.

Mrs. HANSEN. How much per year do you spend on acquisitions?

Mr. JAMESON. The Portrait Gallery spends about \$100,000, or slightly over, out of its base for the acquisition of portraits.

Mrs. HANSEN. What does the Renwick Gallery spend?

Mr. BLITZER. The Renwick Gallery has no collection of its own.

Mr. YATES. What about the National Collection of Fine Arts?

Mr. JAMESON. They spend \$40,000 to \$50,000 a year for paintings, prints, and drawings.

Mr. BLITZER. Given current market prices, this is not even one major painting for either of those museums. The Portrait Gallery in particular, having started with a very large mission and very small collection, has been purchasing.

Mrs. HANSEN. Do you receive gifts for the Portrait Gallery?

Mr. BLITZER. Certainly. I would have to verify to be sure, but I would say in every case each museum gets more in gifts than it purchases.

Mrs. HANSEN. Please insert in the record a statement on purchase and gifts of works of art.

Mr. BLITZER. I will provide that information for the record.

[The information follows:]

PURCHASES AND GIFTS OF WORKS OF ART

	Fiscal year—		
	1971 (actual)	1972 (actual)	1973 (estimated)
National Collection of Fine Arts:			
Purchases.....	\$48,500	\$51,930	\$49,183
Gifts (estimated value).....	350,000	260,000	119,915
National Portrait Gallery:			
Purchases.....	103,000	78,000	136,500
Gifts (estimated value).....	78,500	174,500	42,000

Smithsonian budget justifications to the Congress have often mentioned the use of funds for purchasing works of art for the collections, noting that the amounts available for the purpose are too small. Regular mention of this subject has been made during the years since the 1968 opening of the National Collection of Fine Arts and the National Portrait Gallery in their permanent home in the old Patent Office Building. The reason is that the National Portrait Gallery is a new museum in the process of assembling a collection, and the National Collection of Fine Arts is a museum working at filling in the many gaps in a collection that was not assembled systematically. In both cases, the collection is the basis upon which the museum does its job.

Effective use has been made of the modest acquisition funds, due in great part to the help of the distinguished accessions committees of the National Portrait Gallery Commission and the National Collection of Fine Arts Commission.

The question of acquisition funds has not arisen in the budget justifications of the other Smithsonian art museums because none are using Federal funds for this purpose.

DISTRIBUTION OF GIFTS OF ART

Mr. YATES. If the Smithsonian receives gifts of contemporary American art, to whom will it go, to Hirshhorn or to the National Collection of Fine Arts?

Mr. BLITZER. There are two things. Most gifts come earmarked to one museum or another. If that case should arise, which is certainly possible, we now have an internal arrangement that the Director of each museum is on the Acquisitions Committee of the other museum. We hope in this way to keep things sorted out. I suppose finally it might come right down to the Secretary, who would have to make a Solomon-like decision about it.

Mr. YATES. Offer to cut it in half.

Mr. LONG. Would the chairman yield?

LOSS OF TAXES RESULTING FROM GIFTS

On this question of gifts, to what extent are they gifts and to what extent are they a drain on the U.S. Treasury in the form of tax deductions? I gather that there are all sorts of arrangements by which a person can give something which he got for nothing and get an appraisal, claim a tax deduction on it, and then give it away. Not just to the Government but to a museum. Does anybody estimate what these gifts are costing the taxpayers, the rest of the country, in terms of forgone taxes?

Mr. BLITZER. I don't think we have. I may say we have been by no means accepting everything offered to us. We have commissions or acquisition committees who decide what the museum gets.

Mr. LONG. You don't turn anything down on the ground it is costing the country money?

Mr. BLITZER. No; these are artistic judgments, not fiscal judgments.

Mrs. HANSEN. If I recall your testimony a couple of years ago, you were having some difficulties with the gifts because the stock market was down and therefore people were not contributing as they had in the past. Is that correct?

Mr. BLITZER. I think that is correct.

Mr. LONG. A gift of a painting or object is in a different category. If the money is given to the Smithsonian, it is well known what money is worth, so they are going to have to be taxed to pay. Now when a gift of a painting in a library is made to the Smithsonian or to Harvard, I don't think it is any secret that generous appraisals are gotten on this. They would never have gotten it if they had kept it in the family. If they kept that item in the family and gave it to a son, I bet you anything that the value at which it is given to the museum is never attached to that object at the time of the gift. It is partially inflated value and therefore a dead loss, it would seem to me, to the Treasury.

Mr. BLITZER. May I add two things to that?

All of our museums scrupulously avoid giving any financial appraisals of anything. This is not our concern.

Mr. LONG. They get them on their own?

Mr. BLITZER. That is between the donor and the IRS. The Internal Revenue Service has an art advisory panel made up of distinguished people to whom it turns for advice about that.

Mrs. HANSEN. Place the names of your art advisory panels in the record.

Mr. BLITZER. Each of our museums has one.

[The information follows:]

NATIONAL COLLECTION OF FINE ARTS COMMISSION

ACCESSIONS COMMITTEE

H. Page Cross.
Lloyd Goodrich.
Charles H. Sawyer.
Thomas C. Howe (ex officio).
Abram Lerner (ex officio).

NATIONAL PORTRAIT GALLERY COMMISSION

ACQUISITIONS COMMITTEE

David E. Finley.
 Wilmarth S. Lewis.
 Andrew Oliver.
 Edgar P. Richardson.

BOARD OF TRUSTEES, HIRSHHORN MUSEUM AND SCULPTURE GARDEN

COMMITTEE ON COLLECTIONS

H. Harvard Aranson, Chairman.
 Theodore E. Cummings.
 Taft Schrieber.
 Brian O'Doherty.
 William Seitz.
 Joshua C. Taylor (ex officio).

DECISIONS ON ACQUISITIONS

Mr. LONG. Do you check with each other?

Mr. BLITZER. With the IRS? Not usually.

Mr. LONG. Is there any attempt to make sure they agree on the value of a piece of art?

Mr. BLITZER. We don't deal in financial valuations for donors.

Mr. LONG. You simply—

Mr. BLITZER. We do when asked by the Congress. If a donor comes and says, "I have a painting"—

Mr. LONG. You don't find any value for it at all? Decide whether it is meritorious and accept it?

Mr. BLITZER. We simply decide whether we want it.

Mrs. HANSEN. If it belongs in the collection or not?

Mr. BLITZER. Yes.

Mr. LONG. Thank you.

ANACOSTIA NEIGHBORHOOD MUSEUM

Mrs. HANSEN. You are requesting an increase of \$31,000 for the Anacostia Neighborhood Museum. Please explain this increase.

Mr. BROOKS. To answer that and subsequent questions, may I introduce Mr. Julian Euell, our Acting Assistant Secretary for Public Service.

Mrs. HANSEN. We are delighted to welcome you.

Mr. EUELL. Thank you very much.

You might recall last year we said that we were starting out on a new venture in Anacostia with the Exhibits Design and Production Lab. We are well down the road in this respect. The increase, which is very small, provides for three positions. Of these three positions, two are related to the ongoing exhibits operation and the phasing in of the Exhibits Design and Production Laboratory. As you may know, we are now finalizing the negotiations with the National Park Service for the land at Fort Stanton for the Lab. The agreement is for a 50-year lease and took some time to negotiate. The architect has finished

a design, and I might add this is a predesigned, prefab-type moveable structure. We expect to be almost completely finished with construction by late summer or fall. We are also waiting now for the final word from a major foundation which will be coming up with a grant by March, we hope.

By the end of March we will know the exact dollar amount. The grant will be used to finance the training for the exhibits lab and to train community people as well as other minority people in the exhibit-making skills.

Mr. EVANS. One-time grant?

Mr. EUELL. No, we anticipate that this grant will extend over 5 years.

Mrs. HANSEN. For the benefit of the new members on the committee, I think the Anacostia Museum has been one of the most successful museums in the United States, particularly as it relates to people in poorer sections of the city. It has been really a center of interest for all of the people in the area. I am delighted to see that you plan to have the people work in the exhibits design and production with all of the varying crafts.

Mr. EUELL. I agree with what you are saying, but over and above that, the real significance of Anacostia is in the process itself, what we have learned from the whole notion of the community scene. As you know, many large museums across the Nation have been interested in what they call satellites. You have heard the word "storefront museum" bandied around for the last 10 years. There is no such thing realistically in terms of a museum. We discovered that. It has to be a much more viable program. Anacostia has established a model for other communities to follow if they want to get into this kind of thing.

Mrs. HANSEN. Haven't your visitations consistently grown?

EDUCATIONAL PROGRAMS

Mr. EUELL. Yes; especially in the education area. We have a mobile unit, which is one of the reasons we are asking for an additional clerk-typist position for the educational department. The mobile unit now has extended well beyond the metropolitan area and is getting requests from Maryland, Virginia, and other schools where Anacostia's is the only mobile unit, which goes out with exhibits, materials, show-and-tell type things. It is in line with what we are doing generally and what we need to do. In all the Smithsonian's educational areas, we are developing outreach-type programs. We have to go out to the schools as well as having schools come into the Mall. We really must begin to do this. I would like to provide for the record some statistics on our education efforts at this museum.

[The information follows:]

Anacostia Neighborhood Museum, education department, 1972 statistical summary

Total attendance at the museum.....	44, 597
Total number served through the mobile division.....	27, 274
Total	71, 871
Approximate number who came with tour groups.....	33, 000
Total number of institutions and groups served.....	177

LIST OF SCHOOLS AND OTHER INSTITUTIONS AND GROUPS SERVED BY THE EDUCATION
DEPARTMENT OF THE ANACOSTIA NEIGHBORHOOD MUSEUM

OTHERS (IN TOWN) (23)

Hagley Museum.
Museum Education Roundtable.
Peace Lutheran Church.
Bethesda Lutheran Church.
Montana Day Camp.
East Washington Heights Baptist Church.
FLOC Learning Center.
Rap Liberation School.
Early Childhood Learning Center.
St. Elizabeths Hospital.
Girl Scouts Conference (nationwide).
N.W. Settlement House.
LeDroit Park Senior Citizens.
First Mount Zion.
National Children's Center.
Israel Summer Academy.
Hunt Pl. Clinic.
Lincoln Center.
District of Columbia General Therapeutic School.
Anacostia School Project.
Salvation Army Senior Citizens.
Shiloh Baptist Church.
Ellen Wilson Center.

OTHERS (OUT OF TOWN) (2)

Shaw Junior High School (Philadelphia, Pa.)
Deveen High School (Chicago, Ill.)

MARYLAND SCHOOLS (11)

Fairmont Heights Senior High School.¹
Bladensburg Senior High School.¹
Oakcrest Elementary School.¹
Rosecroft Park Elementary School.
Greendale Elementary School.
John Carroll Elementary School.
Randolph Village Elementary School.
Model Cities Day Care.
Crosslands Senior High School.
Columbia Park Elementary School.
Sherwood Elementary School.

VIRGINIA SCHOOLS (6)

Braddock Elementary School.
Ravensworth Elementary School.
Hayfield Senior High School.
Wakefield Senior High School.
Langley Coop School.
Charlottesville, Va. High School.

COLLEGES, UNIVERSITIES, AND OTHERS (15)

Dunbarton College.
Baltimore Museum of Art.
National Park Service.
Smithsonian Institution:
 Friends of Music.
 Ladies Committee.
University of Islam.
D.C. Teachers' College.
University of Delaware.

¹ Visited by the mobile division of the museum.

Science Center Conference.
 Philadelphia College of Art.
 University of Maryland.
 District of Columbia Art Teachers.
 George Washington University.
 Federal City College.
 Washington Technical Institute.
 Howard University.

DISTRICT OF COLUMBIA SCHOOLS (10)

Clark Elementary School.
 Garfield Elementary School.
 Green Elementary School.
 Hendley Elementary School.
 Kimball Elementary School.
 McGogney Elementary School Annex.
 Orr Elementary School.
 Kramer Junior High School.
 Douglass Junior High School.
 Johnson Junior High School.

PRESCHOOLS (1)

Valley Green Preschool.

OTHER (2)

Walter Reed Hospital.
 District of Columbia Recreation Department Senior Citizen Program.

MARYLAND SCHOOLS (14)

Duval Senior High School.
 Central Senior High School.
 Rogers Elementary School.
 Fairmont Heights Senior High School.
 Fairmont Heights Elementary School.
 Bladensburg Senior High School.
 Seat Pleasant Elementary School.
 Douglass Senior High School.
 Oxon Hill Senior High School.
 Mt. Hope Elementary School.
 Indian Head Elementary School.
 Oak Crest Elementary School.
 F. B. Gwinn School for the Retarded.
 Samuel Mudd Elementary School.

DISTRICT OF COLUMBIA SCHOOLS (49)

Anacostia High School.
 Eckington Elementary School.
 Grimke Elementary School.
 Ann Beers Elementary School.
 Harris Elementary School.
 Alice Deal Jr. High School.¹
 Savoy Elementary School.¹
 16th & Butler Elementary School.
 Birney Elementary School.¹
 Rudolph Elementary School.
 Taylor Elementary School.
 Stevens Elementary School.
 West Elementary School.
 Bryant Elementary School.
 Barnard Elementary School.
 Randall Highlands Elementary School.
 Ketcham Elementary School.
 Draper Elementary School.¹
 Fillmore Elementary School.

See footnote on p. 990.

Congress Heights Elementary School.¹
 Green Elementary School.
 Coolidge High School.
 Watkins Elementary School.
 Gordon Jr. High School.
 Nichols Ave. Primary School.
 Seaton Elementary School.
 Moten Elementary School.¹
 Weatherless Elementary School.
 Lennox Elementary School.
 Bancroft Elementary School.
 Hart Jr. High School.
 Stanton Elementary School.¹
 Tyler Elementary School.
 Lewis Elementary School.
 Young Elementary School.
 Shepherd Elementary School.
 Taft Jr. High School.
 Capitol Hill Day School.
 Notre Dame Academy.
 Ballou Sr. High School.¹
 Houston Elementary School.
 Our Lady of Perpetual Help School.
 Kramer Jr. High School.
 Kimball Elementary School.
 Aiton Elementary School.
 LaSalle Elementary School.¹
 McGogney Elementary School.¹
 Jefferson Jr. High School.
 Eastern High School.¹

PRESCHOOLS, NURSERIES, HEADSTART (44)

Children's Place.
 Allen AME.
 St. Mark's Headstart.
 HEW Day Care Center.¹
 Wellington Park Day Care Center.
 Campbell Day Care Center.
 Hart Pre-School.
 Barry Farms Pre-School.
 Mt. Jezreal Nursery School.
 Lomax Child Care Center.
 All Of Us Day Care Center.
 Adams Day Care Center.
 Parkside Nursery.
 Woodridge Pre-School.
 15th St. Presbyterian Church.
 Sherwood Pre-School.
 Bald Eagle Pre-School.
 Alexandria Headstart.
 Anacostia Pre-School.
 Alice in Wonderland Nursery.
 Model Pre-School Headstart.
 Playmates Day Nursery.
 Ft. Davis Improvement Association.
 Fun Alley Day Care Center.
 Bethlehem Baptist Church Day Care Center.
 Ft. Greble Pre-School.
 Tyler House Day Care Center.
 Arboretum Pre-School.
 Hayes Day Care Center.
 St. Teresa's Headstart.
 Westmoreland Day Care Center.
 Ludlow Day Care Center.

See footnote on p. 990.

Edmonds' Nursery.
 Park Terrace Day Care Center.
 Augustana Pre-School.
 Howard Gardens Day Care Center.
 Salvation Army Day Care Center.
 Hopkins House Day Care Center.
 Paint Branch Play Group.
 Mary Poppins Nursery Group.
 St. Philip's Headstart.
 Emmanuel Headstart.
 Capitol East Children Center.
 Episcopal Center for Children.

¹ Visited by the Mobile Division of the Museum.

Mrs. HANSEN. I think it will be very significant in many States where they are some distance from a museum. They can be part of a total museum activity through this kind of outreach program.

EXCHANGE OF OBJECTS

Mr. YATES. May I return to the other museum for a second and ask you whether or not any of the museums other than Freer, I know has no power to exchange, but have any of the others other than Hirshhorn the power to exchange any of their objects for other objects? Who makes the values and so forth?

Mr. BLITZER. Any particular object is subject to the terms on which it came to us. Over the past 125 years, the Smithsonian has accepted some objects with an understanding it would always keep them.

Mr. YATES. Keep them and not exchange them or release them for other objects which they considered more valuable?

Mr. BLITZER. There is a whole spectrum of terms which our General Counsel has to advise us on.

For example, the Johnson Wax Co. about 6 years ago gave us a really first-rate collection of contemporary American paintings. My memory of that is that it came with at least an understanding, if not a real commitment, that we would maintain the artists represented in the collection, but if there were other paintings of the same artist that we preferred to the one in the collection, we could exchange it. They wanted the shape of the collection to stay the same.

There are others that simply cannot be disposed of at all. We now have for the National Collection of Fine Arts and the National Portrait Gallery a formal policy adopted by the Regents several years ago which we have told you about before.

Mrs. HANSEN. Please insert a copy of that policy in the record.

Mr. BLITZER. This requires a full number of approvals all the way up the line, starting with the curator and, if the amount is large enough, the Board of Regents.

(The information follows:)

POLICY ON DISPOSING OF ART WORKS

(Adopted at the Board of Regents meeting May 20, 1970)

Resolved. That no object of art in the permanent collection of the National Portrait Gallery or the National Collection of Fine Arts valued at more than \$1,000 shall be exchanged or sold without prior approval of the museum director, the museum's commission, the Smithsonian's Office of General Counsel, and of the Secretary;

That no object of art in the permanent collection of the National Portrait Gallery or the National Collection of Fine Arts valued at more than \$50,000 shall be exchanged or sold without prior approval of the museum director, the museum's commission, the Smithsonian's Office of General Counsel, the Secretary, and the Board of Regents;

That the exchange or sale of any object of art in the National Portrait Gallery or the National Collection of Fine Arts shall be reported to the Board of Regents by the Secretary; and

That the proceeds from any such sale shall be used solely for the acquisitions of works of art for the museum from which it came.

FREER'S ABILITY TO EXCHANGE OR ACCEPT GIFTS

Mr. YATES. Mr. Freer is long dead. Can those objects in his collections be replaced, exchanged, or moved with the consent of the heirs?

Mr. BLITZER. No, sir. This is final.

Mr. YATES. That is a building that houses those objects until the end of time?

Mr. BLITZER. It is a growing collection if the Freer endowment is able, even with rising prices, to acquire fine things for the collection.

Mrs. HANSEN. Do you ever receive gifts for the Freer Gallery?

Mr. BLITZER. Yes; but it is a strange situation. The Freer Gallery was not allowed to accept gifts except from five people named in the will. The last survivor was Mrs. Agnes Meyer, of the Washington Post. Since she died, they have been unable to accept gifts from anyone.

Mr. YATES. They cannot accept gifts now?

Mr. BLITZER. Not works of art, but, please, for the record, they can accept gifts of money.

CONSERVATION-ANALYTICAL LABORATORY

Mrs. HANSEN. An increase of \$100,000 and 5 positions is requested for the conservation-analytical laboratory for preservation and conservation of Smithsonian collections.

Will you give us the highlights of this request?

Mr. BROOKS. Mr. Perrot appeared before you earlier today, but I would like to introduce him formally, as he joined us since your last hearing as Assistant Secretary for Museum Programs. He was formerly the director of the Corning Museum of Glass.

Mr. PERROT. The main reason for the increase is that the museums around the country are becoming increasingly aware that mere restoration of objects is no longer sufficient if we want to be able to pass on our collections to the future.

At the present time, it is estimated that in the Smithsonian alone, 32 man-years would be required to carefully examine and assess the condition of objects which are added yearly to the Smithsonian collection. There are at present 14 persons on the staff, of which 2 are apprentices provided by the Cooperstown graduate program conservation at Cooperstown, N.Y. Hence, there are 12 professional and permanent staff supported by 2 assistants.

The needs for conservation are great, not only in terms of the taking care of objects, but also in determining why certain types of objects disintegrate and what we can do to combat the problem of pollution as well as the inherent vice of materials which react to it.

Mrs. HANSEN. All part of museum management?

Mr. PERROT. Yes.

Mrs. HANSEN. Under changing conditions?

Mr. PERROT. Changing conditions and keeping up with the demand, not unfortunately in catching up with what has not been done in the past.

We estimate now at least 40 and possibly 50 to 60 persons would be needed in the conservation laboratory really to take care of the collections that have accumulated over the last 127 years.

The budget proposal for 1974 calls for five additional positions. Two are conservators, two are chemists, and one is a support assistant.

In addition, equipment has been included to allow these persons to carry out their task as they should.

Not having experience in this kind of testimony before, I do not know if I should refer to capital construction or at least space development, which is listed in another part of the budget.

OFFICE OF EXHIBITS PROGRAMS

Mrs. HANSEN. An increase of \$300,000 and 15 positions are requested for the Office of Exhibits Programs.

What are the details of this request?

Mr. PERROT. The Office of Exhibits is currently responsible for the entire exhibition activities of the Smithsonian with the exception of work done at the Freer, the National Portrait Gallery, and the National Collection of Fine Arts.

Most of the increase is in compensation, with a 15-position increase in personnel. These 15 persons are in the lower grade levels, and primarily will be assigned to maintenance tasks, keeping exhibition cases clean, removing cobwebs, and so forth.

We have found, over the years, that this aspect of upkeep has fallen somewhat behind desirable standards. A substantial part of the increase will be devoted to that.

Other areas of increase are to keep up with the growing demand on the part of museums for revamped exhibitions, particularly the Museum of Natural History, which has not received quite as much attention as it might have in the past as compared to some of the more active exhibit-oriented museums. Under its new leadership, it wants to catch up.

TRAVELING EXHIBITION SERVICE

Mrs. HANSEN. Justify your requested increase of \$80,000 and five positions for Traveling Exhibition Service.

What is the benefit in converting four private employees to the Federal payroll?

Mr. PERROT. The Traveling Exhibition Service until this year has been privately funded. It has been in existence for about 20 years. It provides low-cost exhibitions to hundreds of institutions around the country.

At the present time, there are approximately 1,700 institutions on its mailing list, and over 100 exhibitions are circulated.

This, in the past, has been a nearly breakeven proposition in that minimal rental fees were charged to defray the cost of the service. We are finding it increasingly difficult to keep the rental fees of these

exhibitions within reasonable bounds. With constantly increasing costs, smaller museums around the country, student unions, libraries just cannot afford to rent exhibitions from the other traveling exhibition services which are available.

The Smithsonian over the last 20 years has filled this gap. This is part of our outreach service.

In addition, we are conscious of the fact that we have vast resources in materials and expertise, and that these resources are not shared as much as they might be with the rest of the country.

We cannot break up the collections, obviously, but we can selectively choose items from the collections for traveling exhibition purposes.

Mrs. HANSEN. Give us an example.

Mr. PERROT. For example, exhibitions in ceramics, some types of Indian materials, and American glass. There is an increasing demand for exhibitions on urban problems, and particularly urban planning, photography, architecture, and so forth.

For some of these, we draw on the resources of other organizations, and we just circulate the exhibitions.

I do not like to see in the record the fact that less than 5 percent of the exhibitions now being prepared include objects from the Smithsonian collections. We want to increase this considerably. There is a demand on the part of the public.

The \$80,000 provided in the 1974 budget will enable us to increase the size of the staff and develop a cohesive pilot education program. Sending out exhibitions alone is not sufficient. They should be accompanied with supplementary material that can be shared with the schools so that the learning experience becomes more meaningful.

NATIONAL MUSEUM ACT

Mrs. HANSEN. You are requesting an increase of \$100,000 for grants under the National Museum Act.

What are the details of this program?

Mr. PERROT. The National Museum Act was funded for the first time in 1972. It is intended primarily as a professional upgrading program through the sponsorship of activities and of institutions that provide training, through the sponsorship of seminars and conferences in museum administration, and through the funding of training programs in colleges and universities.

We received in 1973 approximately \$800,000, of which \$200,000, \$100,000 each, by legislative requirement, goes to the National Endowments for the Arts and for the Humanities. This sum is used by these endowments for purposes which are germane to the general intent of the National Museum Act. That is, primarily for training within areas that the act itself does not support.

We have received for fiscal year 1973 over \$6 million of applications for support under the National Museum Act, but effectively have only \$600,000 to meet these needs.

We would like, eventually, for the act to reach its authorized ceiling of \$1 million. It has not been possible for us to reach this ceiling in the past, and it does not seem feasible for us to do so this year.

The requested increase of \$100,000 will be used primarily for upgrading, for workshops, seminars, conducted either by universities and colleges or by professional organizations.

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

Mrs. HANSEN. You are requesting \$1 million increase for the Bicentennial programs. You have specific projects listed as follows: "A Nation of Nations, Ecology USA/200, Centennial—1876," "The Artist and the American Scene," and a series of exhibits on the Revolutionary period. Scholarly projects listed as follows: "Inventory of American Paintings before 1914," "Bibliography of American Art (Archives of American Art)," and "Encyclopedia of North American Indians."

I thought the Indian encyclopedia was about to be completed?

Mr. BLITZER. The work is proceeding rapidly. The funds requested in the Bicentennial budget are for publication. That is, essentially for printing the encyclopedia.

Mrs. HANSEN. Will you charge for this publication?

Mr. BLITZER. I expect we will do it through the Government Printing Office, and it will be sold by the Superintendent of Documents for a reasonable price.

Mrs. HANSEN. This will be in high demand, at least by students of Indian history.

Mr. BLITZER. It will be the definitive work in one area.

Mrs. HANSEN. What do you envision your traveling exhibits will entail?

Mr. BLITZER. I have a brief statement prepared by the very bright and able man we have hired to help us on our traveling exhibition programs; a man who is famous for imaginative exhibits such as the one in New York called the Lower East Side, and the wonderful thing he did on the Erie Canal, an exhibit on a barge that went down the canal.

Mrs. HANSEN. Insert the statement in the record. We are very interested in this project.

(The document follows:)

SMITHSONIAN NATIONAL BICENTENNIAL TRAVELING EXHIBITION PROGRAMS

Washington will be the central arena for Bicentennial celebrations. Even though 25 million visitors may come to Washington to celebrate the Nation's 200th anniversary, over 200 million people will celebrate it at home. National celebrations will be different from local celebrations. National celebrations will be concerned with the broad outlines of American history, the growth of the entire Nation and all of its peoples. The local celebrations will clearly reflect the spirit of America; they will be people oriented; they will tell the stories of the people who founded local communities and the people who live there now. In these local celebrations there will be the opportunity for people all across the country to demonstrate pride in who they are, where they live, what they do, and where they come from.

The Smithsonian Institution is planning a wide range of exhibitions and related programs which should make it possible for every community to create its own celebration which will be clearly related to the main currents of the Nation's history, growth, and development. During the current year, we are working on several prototypes which demonstrate what these exhibitions will be and how these programs will function.

1. EXHIBITIONS OF ORIGINAL ARTIFACTS

Historical societies and museums will want to have exhibitions that include artifacts which are not represented in their collections or otherwise not available for people in their communities to see. We plan to produce "The Evolution of an American Culture," a series of 16 exhibitions which include the following subjects: (1) food-agriculture, (2) food-cooking, (3) shelter, (4) clothing, (5)

toys and games, (6) postage, (7) money, (8) glass, (9) silver, (10) ceramics, (11) furniture, (12) textiles, (13) advertising, (14) land transportation, (15) marine transportation, and (16) air transportation.

We estimate that each exhibition will be seen in at least 10 locations within the calendar year 1976, and that an average of 3,000 people will see it at each location. "The Evolution of an American Culture" series of exhibits with original artifacts should reach an audience of 480,000 during the calendar year 1976.

At this time, we are producing the first prototype for the series, "American Coverlets." In addition to including a group of coverlets from the collection of the Textile Division of the National Museum of History and Technology, the exhibition will include 20 illustrated and text panels that describe the history of coverlets and the processes involved in making them: Spinning, weaving, and dyeing. In addition, there will be a slide and audiotape sequence demonstrating a weaver singing traditional weaving songs while he works.

2. MULTIPLE EXHIBITS: POSTER-PANEL EXHIBITS

Many historical societies, museums, libraries, schools, colleges, and community centers will not be able to utilize exhibitions which contain original artifacts. They will be interested in exhibitions that are flexible and easy to display. Our poster-panel exhibits will consist of 20 lightweight sheets of paper, 25 by 38 inches, which can be displayed anywhere from a gallery to a gymnasium.

They will be used as a catalyst which provides a core of basic information to which people can add: Artifacts, photographs, films, audiotapes, videotapes, press clippings, pages from books, drawings, or anything else which they consider to be appropriate.

"The Evolution of an American Culture" will also be produced as poster-panel exhibits. Therefore, the same information which was assembled for an individual exhibition will be used again in mass-produced form and will be available at considerably less cost. During the coming year, the "American Coverlets" exhibition will be mass produced as the first multiple prototype.

We plan to have a press run of 1,000 editions of each title in "The Evolution of an American Culture" series. We estimate that each poster-panel exhibit unit will be seen by at least 500 persons. Therefore, these exhibits should reach at least 12 million persons in the calendar year 1976.

3. MULTIPLE EXHIBITS; EXHIBIT PORTFOLIOS

Many museums, historical societies, libraries, schools, colleges, and community centers will want to have informal exhibits dealing with additional subjects that cover a wider spectrum of interests. Therefore, we have created another series: "The United States: From the Age of Discovery to 1976." The 24 topics in this series include: (1) Native Americans (2) First Explorers (3) Colonization and Establishment of an American Identity (4) Crisis and Rebellion: 1764-76 (5) Signers of the Declaration of Independence: 1776 (6) Naval and Military Battles: 1775-83 (7) Birth of a New Nation (8) Opening the Frontiers (9) From an Agriculture Colony to an Industrial Nation (10) Centennial Years: 1876 (11) The Immigrant Experience (12) Slavery and Abolition (13) The Search for Utopia (14) Dissent (15) Disease and Hygiene (16) Mechanization of Labor (17) From an Industrial Nation to a World Power (18) Evolution of a Black Community (19) Evolution of an Urban Community (20) Evolution of a Suburban Community (21) Evolution of a Rural Community (22) American Artists: 17th and 18th Century (23) American Artists; 19th Century, and (24) American Artists: 20th Century.

With our exhibit portfolios teachers, students, librarians and community workers will be able to create their own exhibits of any size anywhere. Each exhibit portfolios will be a compact boxed portfolio considering of 50 photographs or illustrations, printed on 11 by 14 inch durable paper with a separate four-page insert. Each portfolio could be used to create an exhibit in itself, or it could become the core of an exhibit to which you could add press clippings, pages from books, other photographs, statements, drawings, and photographs or illustrations from other portfolios in the series.

With exhibit portfolios you can mix and match text and images from one portfolio with those from another. For example, if you wish to create an exhibit that surveys labor in the United States, you could combine selected illustrations from: First Explorers, Colonization and Establishment of an American Identity,

Opening the Frontiers, Slavery and Abolition, The Immigrant Experience, Mechanization of Labor, and From an Industrial Nation to a World Power. If you want to create an exhibit on American idealism, you could combine illustrations from: Colonization and Establishment of an American Identity, Signers of the Declaration of Independence, Opening the Frontier, The Immigrant Experience, The Search for Utopia, Dissent, and From an Industrial Nation to a World Power. The pictures and text from these 24 exhibit portfolios can be arranged in an almost infinite number of combinations

Mr. BLITZER. We have others, but this is the main thrust of our traveling exhibit program.

BICENTENNIAL FESTIVAL OF AMERICAN FOLKLIFE

Mrs. HANSEN. You also plan a Bicentennial Festival of American Folklife. Will that be located in Washington, D.C.?

Mr. BLITZER. Yes. We are also talking, I might say, with the State Department and the arts endowment about the possibility of getting more for our money by having them arrange to send these same groups around the country. We do not feel we are in a position to do that, but we are doing enormous research to get exactly the right people and to bring them here.

EXHIBITS DESIGN AND PRODUCTION LABORATORY

Mrs. HANSEN. What do you envision for your Exhibits Design and Production Laboratory at Anacostia?

Mr. BLITZER. That is the laboratory Mr. Euell was talking about.

Mr. EUELL. I had included that because each one is interrelated. The item here that we see for exhibits under Bicentennial for 1974 would then begin to give us funding to prepare exhibits not only for the metropolitan area, but also to travel.

These exhibits would be primarily focused on minority group topics.

I might add, in terms of the Division of Performing Arts and the Bicentennial, that this year we will begin to enlarge the program to 10 days so we may gain the kind of experience we need by 1976 to handle the tremendous logistics that will be involved in a 3- or 4-month festival.

We are changing the format somewhat, and experimenting with different kinds of formats at this point.

ENVIRONMENTAL SCIENCES PROGRAM

Mrs. HANSEN. Please explain the \$530,000 program reductions for the environmental sciences program and the major exhibition program. Why are there no staff decreases if the program is being reduced?

Mr. BROOKS. Dr. Challinor will speak to that.

Mr. CHALLINOR. These 8 positions in the environmental sciences program are people who are aware they are on a year-to-year basis. We have been able to absorb some of the equipment costs involved in the environmental sciences program in the various bureaus.

This particular environmental science program was initiated to allow different science bureaus of the Smithsonian to work on an integrated program dealing with the environment. This has now reached a point of success where the different bureaus are now working together well enough so they will not need this \$100,000. We will sacrifice \$100,000 because of the success of this operation.

OFFICE OF PROTECTION SERVICES

Mrs. HANSEN. Numerous small increases are being requested in the administrative and support activities area. By far the largest is \$278,-000 and 46 positions for the new Office of Protection Services.

What is the rationale for establishing this as a separate unit from the building management department?

Mr. BROOKS. We have Mr. Ault, who has appeared before you previously, as our Director of Support Activities. This comes under his jurisdiction, and he will testify on this.

Mr. AULT. Madam Chairman, in his introduction today, the Secretary told you again about the phenomenal growth of the Smithsonian over the years.

With the increasing growth of visitors, space, collections, objects, staff, we have felt a need for better identification for protection services. It has simply gotten beyond the span of control for one man in the Building Management Department, which accounts for a great proportion of our resources on the administrative side of the house. Accordingly, we conducted a 5 month survey this last year, including consultation with professionals from outside the Institution. The conclusion of this study was to establish a separate Office of Protection Services.

Mrs. HANSEN. Please provide for the record some workload statistics which justify the increase.

Mr. AULT. I will be happy to.

[The information follows:]

PROTECTIVE SERVICE WORKLOAD STATISTICS

The eight new halls which have recently opened or are scheduled to be opened in the very near future cover a total area of 68,238 square feet, of which over 21,000 square feet or nearly a third, fall into the high value category.

These halls have an average area in excess of 8,500 square feet but it is possible to combine the surveillance of certain adjacent halls and reduce the number of necessary guard posts to six. Applying the accepted manning factor of 1.67 will give a requirement for 10 positions ($1.67 \times 6 = 10.02$). One additional guard on each of the two main entrances to the Museum of History and Technology, and an outside security patrol around the buildings on the north side of the Mall on the second and third reliefs, will necessitate 4 more guard posts which call for 7 positions ($4 \times 1.67 = 6.7$), or a combined total of 17 additional guard positions.

The Hirshhorn Gallery, during the period between its acceptance and prior to being finished and opened to the public, will require the 11 guard positions authorized in fiscal year 1973 for this purpose, divided between entrance control and interior security patrols during the first relief, and outside and interior security patrols during the second and third reliefs. When the gallery and sculpture gardens are finished and opened to the public, these 11 positions will be combined with the 29 positions requested for fiscal year 1974 to attain the 40 positions required to man this facility in its normal posture. The additional posts will include control room and entrance monitoring, additional interior patrols, and supervision.

SUMMER EVENING HOURS

Mrs. HANSEN. How many of your buildings are open in the evening hours beginning on April 1?

Mr. AULT. We have the three major buildings—the Museum of History and Technology, the Museum of Natural History, and the Arts

and Industries Building, and the Temporary Air and Space Museum Building.

Mrs. HANSEN. What were your visitations last summer in the evening hours?

Mr. AULT. I can provide that for the record.

[The information follows:]

VISITOR COUNT NIGHT OPENINGS CALENDAR YEAR 1972, FROM 5: TO 9: P.M.

	Arts and Industries	History and Technology	Natural History	Total
April 1972.....	24, 818	81, 065	27, 036	132, 919
May 1972.....	20, 752	74, 536	22, 861	118, 149
June 1972.....	20, 834	65, 624	33, 386	119, 844
July 1972.....	34, 126	96, 158	44, 743	175, 027
August 1972.....	37, 950	85, 789	39, 867	163, 606
Sept. 4, 1972.....	4, 247	12, 467	4, 095	21, 664
Total.....	142, 727	415, 639	172, 843	731, 209

PURPOSE OF EVENING HOURS

Mrs. HANSEN. Do you have any additional problems of security because of evening hours?

Mr. AULT. I have not noticed any appreciable increase in security incidents as a result of that, no.

Mrs. HANSEN. The reason for opening the buildings in the evening was to provide a place for youngsters to go after dark rather than into the streets. It was also to provide our visitors who come to Washington a place to go in the evening.

Do you have a great deal of local visitations in the evening hours?

Mr. AULT. It is hard to ascribe it to the local population, Madam Chairman. I think we determined pretty well that about 75 percent of our visitors are from out of the city. We believe our evening visitation would reflect this percentage. In addition, I am sure, just from my own observation, that we are getting a fair number of people who might be engaged in less wholesome activities, yes. We are keeping them busy.

PROTECTION SERVICES FOR THE HIRSHHORN MUSEUM

Mrs. HANSEN. Twenty-nine of the positions you are requesting and \$170,000 are for the Hirshhorn Museum. Yet the museum does not open until May 1974, when fiscal year 1974 is just about over. Why do you need these positions now?

Mr. AULT. We will be accepting parts of the museum, hopefully, this summer.

Mrs. HANSEN. If 29 is only part, how many positions do you anticipate for the museum when it is completed?

Mr. AULT. We will have a total of 79 as support staff, 40 for protection and 39 for custodial and building services.

BUILDINGS MANAGEMENT

Mrs. HANSEN. An additional \$597,000 and 73 positions, including \$223,000 and 28 positions for the Hirshhorn, are requested for buildings management. What is the justification for this request?

Mr. AULT. Yes. We have increased our visitor count, over this past year tremendously, which results in a directly proportional increase in terms of building services; and, of course, the opening of the Hirshhorn Museum will increase it that much more.

We determine our needs for custodial services, for laborers, and to some extent for protection, based on standards that we have developed over a number of years.

We have adapted them from GSA standards. If anything, ours are somewhat less rigid than theirs.

Mrs. HANSEN. You are transferring your protective services from your buildings management account.

Mr. AULT. It was removed from buildings management this year, yes, but we do have very definitive work measurement standards for determining just exactly how many people we need in these buildings.

The requested increase would still not bring us up to those standards. We are hoping to achieve some improvement, however.

We feel we would be remiss if we did not make an effort to achieve optimum manning in support people, to enable us to present clean and safe buildings to the public.

SMITHSONIAN SCIENCE INFORMATION EXCHANGE, INC.

Mrs. HANSEN. We will insert justification pages B-1 to B-11 in the record at this point.

[The pages follow:]

SMITHSONIAN SCIENCE INFORMATION EXCHANGE, INC.

1972 Appropriation....	\$1,600,000
1973 Appropriation....	\$1,600,000
1974 Estimate.....	\$1,665,000

The Smithsonian Science Information Exchange (SSIE) is the only information system of its type in the world. The Exchange is designed to collect, index, store, and retrieve information about ongoing research supported by the Federal Government and non-Federal organizations in all areas of basic and applied research. It has been in existence since 1950 and covers the life, physical, behavioral, and engineering sciences. The Exchange provides services designed to help research program managers, administrators and individual scientists avoid unwarranted duplication of research efforts, evaluate existing research efforts, and plan for new research programs.

The Exchange not only provides information directly to users but provides data to a number of specialized information centers. A list of such centers is shown in Table I. These centers provide information in a wide range of subject areas and cover both ongoing research and publications resulting from research. Thus they reach an even wider total audience than the Exchange does through its direct users. In addition, information contained in the Exchange's data base is used to prepare catalogs of ongoing work in specific areas of research such as Water Resources Research, Health Services Research, Aquatic Pest Control and Pesticide Residues in Aquatic Environment, Dental Research, etc. These catalogs are published by Federal agencies in increasing numbers and areas of interest as illustrated by Table II. They make information available to large numbers of users on a significantly broader scale than in response to individual requests made to the Exchange.

Among SSIE's unique features is the ability to provide prompt response to both broad and specific requests for information on research on a multidisciplinary basis, regardless of the source of support. The Exchange achieves uniformity of indexing by means of a well-trained scientific staff and a well-developed data processing system, utilizing the latest computer equipment and technology available for input, storage, and retrieval of information.

A steady increase in the demand for SSIE services and in the income derived from user sources is reflected by the data provided in Table III. Total user revenues exceeded \$371,000 in FY 1972, an increase of 61 percent over FY 1971. Federal usage accounted for just under 60 percent of the total. In addition, benefits to the Federal Government were realized through non-Federal usage of the SSIE by contractors and grantees planning and managing research under Federal sponsorship.

Increases in income (from user charges) over the past several years have had a significant effect on the cost to the Federal Government of supporting the activities of the Exchange. Although it is not expected that direct Federal costs will be offset in any substantial amount until user income exceeds \$650,000, growing user revenues can be shown to be absorbing an increasing portion of the indirect, largely fixed operating expenses incurred by the Exchange. This offset of fixed expenses is reflected by the data in Table IV.

This progress has not been rapid enough, however, to avoid the necessity of steadily reducing personnel strength in order to offset the combined impact of reduced Federal support and rapidly rising costs. In FY 1973, as a result of the January 1972, comparability pay increase (not offset by an additional appropriation), a further reduction in the full-time input staff (from 71 to 70) was required.

In the past, SSIE has partially compensated for a decline in personnel strength through improved methods of data processing. Further significant improvements cannot be expected without funds to develop more sophisticated methods for reducing input costs. A shift from full-time employees to part-time personnel may allow the Exchange to keep from falling too far behind in input, but backlogs are expected to continue to rise. Table V summarizes the current backlog situation. An increase in input volume is expected in FY 1974 as a result of the impact of the General Accounting Office report of August 1972, entitled Usefulness of the Science Information Exchange Hampered by Lack of Complete, Current Research Information and the resulting efforts of the Smithsonian Institution, the Exchange and the Federal Council during 1972-73.

It would seem appropriate at this point to describe a number of actions which the Smithsonian and SSIE have taken in an effort to improve the problems noted in the CAO report regarding the completeness and timeliness of the SSIE data base.

--First, the Smithsonian Institution at the request of and in cooperation with the Office of Management and Budget has contracted for a user study to determine the need for SSIE and if the need exists, how the Exchange could improve its effectiveness, responsiveness, and value to research managers and scientists. This study is expected to be completed by the end of January 1973.

--Second, the Chairman of the SSIE Board of Directors and its President made a presentation to the Federal Council on Science and Technology and requested that group to consider ways to improve both input and use of the Exchange by Federal agencies. The Federal Council Chairman has asked the Committee on Scientific and Technical Information (COSATI) to study the problem and prepare a report on how the Federal agencies might improve both input and use of SSIE. This report should be completed by late January.

--Third, on the advice of the SSIE Advisory Council, the Secretary of the Smithsonian has requested the heads of several agencies, whose participation in SSIE has been less than complete or timely, to cooperate with SSIE in improving input. All of the agencies so contacted have agreed to work with SSIE to achieve these goals and are in the process of doing this.

--And, finally, the SSIE Board of Directors on the advice of the SSIE Council has acted to increase the size of the Advisory Council from eight Federal agency representatives to 16 representatives so that a better rapport and knowledge of SSIE will exist between the agencies and SSIE and problems of input and use can be more readily solved.

It is reasonable to expect that as a result of these activities as well as those of the CAO an increase in project input is quite likely.

Even without such an increase in volume the Exchange is faced with the problem of an increasing workload and constant staff. This increase, shown in Table VI, is a result of new summaries submitted by agencies on continuing projects. These new continuation summaries, which along with new projects, comprised 68 percent of the total input in FY 1968, rose to 86 percent of the total in FY 1972 as a direct result of increased agency efforts to provide more accurate summaries of their research projects. This development has significantly increased the workload on the Exchange's professional staff. The size of this staff has not been increased to cope with this growing workload of projects to be indexed but, rather, has remained essentially constant because of funding shortages.

An appropriation of \$1,665,000 is requested for FY 1974 to cover the costs of the staff currently supported by Federal funds and the Federal portion of anticipated increases in operating expenses many of which are fixed costs, e.g., building and computer equipment rental. The requested appropriation will only allow the Exchange to maintain its current data collection, indexing, and input shortage operation. The proposed FY 1974 budget is summarized in Table VII.

Table VIII presents revenue, expenditure, and related data from FY 1966 through projections for FY 1974. The table reflects a rapid reduction in the size of the SSIE staff during a period of rapidly rising personnel expenses. Attempts have been made to reduce the impact of this loss in staff through the development of increasingly sophisticated and efficient automated techniques. These attempts have been partially successful. User revenues have also provided an increasing share of the total costs of operation of the Exchange, although many of the larger contractual efforts also increase the requirement for outside services and service support.

TABLE I

List of Information Centers to Whom SCIE Provides Information Regularly on a Selective Dissemination Basis

FEDERAL

<u>Organization</u>	<u>Responsible Individual</u>	<u>Address</u>	<u>Subject Covered</u>
Information Center for Hearing, Speech and Disorders of Communication, The Johns Hopkins Medical Inst.	Mrs. Lois F. Lunin	310 Harriet Lane Baltimore, Md. 21205	Hearing, speech & language.
Information Unit - Viral Oncology, National Cancer Institute	Louis P. Greenberg	Wiscon Bldg., Rm. 4C-14 Bethesda, Md. 20014	Viral tumorigenesis reference code and carcinogenic viruses.
Program Statistics & Analysis Branch, NICHD, NIH	George Leverenz	Westwood Bldg., Rm. 809 Bethesda, Md. 20014	Preimplantation reproductive physiology, contraception, family planning services, demographic studies of fertility and population control.
NIMH, CSSP	Dr. Dan J. Lettieri	Room 12C16 5600 Fishers Lane Rockville, Md. 20852	Suicide.
National Clearinghouse for Smoking and Health	Dr. Daniel Horn	5401 Westbard Avenue Bethesda, Md. 20016	Smoking in regard to health, disease & tobacco.
Office of Communications, HSMHA, NIMH, NCDAI	Thomas J. Koehler	Parlawn Bldg., Rm. 8C-09 5600 Fishers Lane Rockville, Md. 20852	Drug addiction and abuse, all studies on psychotomimetics, marijuana, heroin, morphine, opium, and amphetamines (and all CNS stimulants).
National Institute of Mental Health	Dr. Nathan Rosenberg	5454 Wisconsin Avenue Chevy Chase, Md. 20015	Alcoholism - medical and behavioral.
ERIC Clearinghouse for Social Science Education	Mrs. Violet Wagner	855 Broadway Boulder, Col. 80302	Social studies or social science education.
Eric Information Analysis Center for Science and Mathematics Education	Robert W. Howe, Director	1460 West Lane Ave. Columbus, Ohio 43210	Science, Mathematics, and Environmental Education.
Educational Testing Service, ERIC Clearinghouse on Tests, Measurement and Evaluation	Richard C. Fortna	Princeton, N.J. 08540	Tests and measurement devices and procedures.
Research Relating to Children ERIC/RCI	Mrs. Dorothy O'Connell	805 W. Pennsylvania Ave. Urbana, Illinois 61801	Behavioral studies of children.
Office of Drug Abuse The White House	Dr. Alan Green	1600 Pennsylvania Ave. Washington, D.C.	Drug addiction and drug abuse. Basic and clinical pharmacology of narcotics, psychotomimetics, CNS stimulants and depressants, tranquilizers, and some experimental analgesics of unspecified addicting potential.
Office of External Research Department of State	Miss Idris M. Rossell	Room 8647 (INR/IR/ARD) Washington, D.C.	U. S. Government supported work in the social and behavioral sciences (including a selection of public health studies) in or about foreign countries.
Highway Research Information Service	Stan Schofer	2100 Pennsylvania Ave. Room 513 Washington, D.C. 20037	Transportation Engineering.
Water Information Center, Inc.	Ms. N. P. Gillies	44 Sineik Drive East Port Washington, N.Y. 11050	Investigations on the sub-surface disposal of waste.
Coffee Information Institute	Kenneth N. Anderson	Suite 1707 18 East 48th Street New York, N.Y. 10017	Coffee and caffeine.
Criminal Justice Newsletter National Council on Crime and Delinquency	Lawrence E. Resnick, Editor	RCED Center Params, N.J. 07652	Crime, juvenile delinquency.
African Studies Association Shiffman Center	Ms. Carl Von Hammann	Brandeis University Shiffman Ctr. - Rm. 205 Waltham, Mass. 02154	Studies in and about Africa.
World Rehabilitation Fund, Inc.	Ms. Susan Hammerman	400 East 54th Street New York, N.Y.	Rehabilitation of the physically disabled.
Bureau International de Documentation des Chemins de Fer	Victor Canyn, Director	27, Rue de Londres Paris (9e) - 75 France	Railroads - including related information.
Non-Profit Report, Inc.	Henry C. Suhake	205 Main Street Danbury, Conn. 06810	Recreation and Leisure, Tax Studies, Library and Information Services, Day Car Services, Education (pre-school and disadvantaged), Politics (community participation), Urban Government (and politics), etc. (See Request #SP(2)).

TABLE II

1970 - 1972
 Publications for which SSIE either prepared
 the material for publication or supplied
 material for use in the publication

<u>Title & Publisher</u>	<u>Prepared and Indexed Material for Publication</u>	<u>Supplied Input for Publication</u>	<u>No. of Copies Published</u>	<u>Agency or Organization Prepared for or Data Supplied to</u>
Vol. 7, Water Resources Research Catalog - Government Printing Office, 1972	Yes	Yes	3,500	Office of Water Resources Research, Dept. of the Interior
Environmental Protection Research Catalog	Yes	Yes	5,200	Environmental Protection Agency
Dental Caries Research Catalog	Yes	Yes	2,000	NIDR - NIH
Dental Research in the U.S. and Canada	Yes	Yes	3,000	NIDR - NIH
A Catalog of Research in Aquatic Pest Control and Pesticide Residues in Aquatic Environments	Yes	Yes	1,500	EPA
Catalog of Health Services Research	Yes	Yes	2,500	NCRS-R&D - HEW
Sustaining University Program Research - Government Printing Office, 1970	Yes	Yes	700	Office of University Affairs, NASA
Population Research 1969 - U. S. Department of Health, Education & Welfare	Yes	Yes	2,000	RICHARD - NIH
Environmental Pollution - A Guide to Current Research	---	YES	2,000	Crowell, Collier & MacMillan, New York
Earth Sciences Research Catalog	---	Yes	300	University of Tulsa
Marine Research in the Coastal Plains Region	Yes	---	2,000	Coastal Plains Center for Marine Development, North Carolina
Research on U. S. International Trade - Government Printing Office, 1970	Yes	---	500	Export Strategy Staff, U. S. Department of Commerce
Catalog of Federally Funded Housing and Building Research & Technology - Government Printing Office - 1970	Yes	No	Not known	Office of Urban Technology Research, U. S. Dept. of Housing and Urban Development
Catalog of Dental Health Manpower and Care Studies	Yes	Yes	200	Dental Health Institute, NIH
Outdoor Recreation Research 1970 - Government Printing Office	Yes	Yes	5,000	Bureau of Outdoor Recreation, Dept. of the Interior
Food Distribution Research Projects in Progress 1969 - Food Distribution Research Society, 1970	Yes	Yes	500	Food Distribution Research Society, Hyattsville, Maryland
	In Preparation			
Vol. 8, Water Resources Research Catalog	Yes	Yes		Office of Water Resources Research, Dept. of the Interior
Outdoor Recreation Research, 1972	Yes	Yes		Bureau of Outdoor Recreation, Dept. of the Interior
Marine Research Catalog, 1972	Yes	Yes		NOAA
Saline Water Catalog, 1972	Yes	Yes		Office of Saline Water
Research in Progress 1972-73	Yes	Yes		Academic Media, Inc. Los Angeles, Calif.

Table III
 Summary of Major Categories of Services Provided by SSIE
 (By Fiscal Year)

Major Category of Service	Includes	Type of User	Volume of Reports			Dollar Income					
			1970	1971	1972	1970	1971	1972			
Requests for Subject Information	Custom Subject Searches	Federal	790	901	1,423	\$27,840	\$38,728	\$ 66,233			
	Periodic mailing of Subject Searches	Non-Federal	1,338	1,938	2,680	41,924	44,738	98,489			
	Pre-run Subject Searches Historical Subject Searches	Total	2,128	1,939	4,103	69,774	83,466	164,722			
Requests for Searches on non-subject information	Investigator Searches	Federal	39,575	37,898	45,912	10,945	13,343	9,735			
	Searches by Document Number	Non-Federal	390	602	462	1,130	1,113	565			
	Automatic Distribution of Documents	Total	39,905	38,500	46,374	12,075	14,456	10,300			
Large Requests for Information by Administrative* or Subject Categories or Both	Negotiated Requests	Federal	41	37	60	43,581	29,773	42,918			
		Non-Federal	16	32	61	17,033	25,774	57,242			
		Total	57	69	121	60,614	55,547	100,160			
Preparation of camera-ready or tapes for catalogs of ongoing research in selected areas	Contracts	Federal	4	5	7	69,060	77,638	83,181			
		Non-Federal	--	--	1	--	--	12,836			
		Total	4	5	8	69,060	77,638	96,017			
Total Income			Federal			151,426			202,067		
			Non-Federal			60,097			169,132		
			Total			211,523			371,199		

*e.g., geographic location, supporting agency, etc.

Table IV

Cost Analysis: Input Costs vs. Incremental Costs of Output

<u>FISCAL YEAR</u>	<u>ACTUAL COST OF OPERATIONS</u>	<u>TOTAL COSTS OF INPUT OPERATIONS</u> ^{1/}	<u>ACTUAL FEDERAL COSTS</u>	<u>INCREMENTAL COSTS OF OUTPUT</u>	<u>ACTUAL OUTPUT REVENUES</u>	<u>CONTRIBUTION OF OUTPUT REVENUES TO INPUT COSTS</u>
1968	\$2,000,000 ^{2/}	\$1,757,000	\$2,000,000	\$243,000	--	(\$243,000)
1969	1,958,000	1,669,000	1,800,000	289,000 ^{4/}	\$173,000	(116,000)
1970	2,018,000	1,758,000	1,707,000	260,000	212,000	(48,000)
1971 ^{2/}	1,921,000	1,633,000	1,680,000	288,000	231,000	(57,000)
1972	1,922,000	1,623,000	1,550,000	299,000	371,000	72,000
1973 ^{5/}	2,025,000	1,707,000	1,600,000	318,000	425,000	107,000
1974 ^{2/}	2,150,000	1,805,000	1,665,000	345,000	485,000	140,000

^{1/} Based on the estimated cost of operating an input processing activity without output operations.

^{2/} \$1,976,000 in FY 1968 costs plus balance forwarded from previous years included here to establish baseline.

^{3/} 10 month fiscal year extrapolated to 12 months to yield comparable data.

^{4/} Although use of Exchange services between FY 1969 and FY 1970 decreased significantly as a result of the inception of user charges, the incremental costs of output did not decrease correspondingly; the reason is initiation of intensive user education activities designed to rebuild use of Exchange services on a fee basis.

^{5/} Projected.

Table V

Backlog and Workload Analysis

Fiscal Year	Total Number of Grants Registered	Indexing Staff Size	Total Continuations W/New Summaries and New Projects:		Project Workload per Scientist		New Project Backlog
			Received	Indexed	Assigned	Completed	
1968	97,400	31.5	65,700	71,112	2,086	2,258	1,047
1969	89,000	28.0 ^{1/}	69,100	58,804	2,468	2,100	7,064
1970	79,800	26.9 ^{2/}	59,900	69,940	2,227	2,600	3,457
1971	96,600	21.0	82,600	58,697	3,933	2,795	8,969
1972	92,400	19.8	79,100	68,781	3,995	3,474	10,241

^{1/} Adjusted to reflect impact of RIF on December 6, 1968.

^{2/} Adjusted to reflect impact of RIF on March 28, 1970.

Table VI

Relationship of Projects Registered to Size of Professional Staff

FY	Grants Registered	New Projects	Continuations with		Total # of New Projects and Continuations with New Summary	Continuations with Identical Summary	Size of ¹ Professional Staff	Other Staff	Total ² Staff
			New Summary	Identical Summary					
FY 72	92,400	36,800	42,300	79,100 (86%)	13,300	25	58	83	
FY 71	96,600	39,000	43,600	82,600 (85%)	14,000	26	64	90	
FY 70	79,800	35,000	24,900	59,900 (75%)	19,900	32 ³	73	105	
FY 69	89,000	45,300	23,800	69,100 (78%)	19,800	47 ⁴	90	137	
FY 68	97,400	40,800	24,900	65,700 (68%)	31,700	45	99	144	

¹This includes total professional staff for both input and output operations.

²Figures are man-years available at the beginning of each fiscal year.

³RIF occurred March 28, 1970.

⁴RIF occurred December 6, 1968.

TABLE VII

SMITHSONIAN SCIENCE INFORMATION EXCHANGE, INC.

PROPOSED BUDGET FY 1974

	<u>Total Cost of Operations</u>	<u>Federal Support Requested</u>	<u>User Support</u>
Personnel	\$1,546,285	\$1,207,197	\$339,088
Salaries	1,355,273	1,057,410	297,864
Benefits	191,011	149,787	41,224
Contract Services			
Travel	9,000	6,500	2,500
Transportation of Things	2,000	1,600	400
Rents			
Telephone	10,000	8,000	2,000
IBM	260,315	203,833	56,482
Xerox	10,000	7,650	2,350
Building	104,400	80,700	23,700
Other	9,000	5,200	3,800
Printing	4,000	2,700	1,300
Other Services			
Equipment Maintenance	5,000	3,620	1,380
Other	34,000	17,500	16,500
Supplies	21,000	14,000	7,000
Acquisition of Capital			
Equipment	10,000	6,500	3,500
TOTAL	\$2,025,000	\$1,565,000	\$460,000
SI Services	<u>125,000</u>	<u>100,000</u>	<u>25,000</u>
GRAND TOTAL	\$2,150,000	\$1,665,000	\$485,000

Table VIII
 SSIE Revenues & Expenditures
 (1966 - 1974)

SSIE Fiscal Year	Equivalent Full Time Staff Availability Average	Staff Salaries and Benefits		ADP Equipment Expense		Other Operations Expense	
		Actual (1,000)	% Increase (Decrease)	Actual (1,000)	% Increase (Decrease)	Actual (1,000)	% Increase (Decrease)
1966 (Base Year)	164	1,364	--	171	--	331	--
1967	155	1,380	1%	178	4%	313	(5%)
1968	139	1,427	5%	217	27%	331	-0-
1969	134	1,330	(2%)	246	44%	382	15%
1970	88	1,396	2%	254	4%	368	11%
1971	87	1,363	-0-	250	4%	309	(7%)
1972	87	1,439	5%	258	51%	301	(9%)
1973	85	1,471	8%	240	40%	314	(5%)
1974	85	1,546	1%	260	52%	344	4%

SSIE Fiscal Year	Total Cost of Operations		Direct Federal Support		SSIE Revenues		Input Processing Volume	
	Actual (1,000)	% Increase (Decrease)	Actual (1,000)	% Increase (Decrease)	Actual (1,000)	% Increase (Decrease)	Actual (1,000)	% Increase (Decrease)
1966 (Base Year)	1,866	--	1,902	--	--	--	--	--
1967	1,871	-0-	1,850	(3%)	--	--	--	--
1968	1,976	6%	2,000	5%	--	--	65,700	--
1969	1,958	5%	1,800	(5%)	173	--	69,100	5%
1970	2,018	8%	1,707	(10%)	212	-4	59,900	(9%)
1971	1,921	3%	1,680	(12%)	231	9%	82,600	26%
1972	1,922	3%	1,600	(16%)	371	75%	79,100	20%
1973	2,025	8%	1,600	(16%)	425	100%	82,000	25%
1974	2,150	15%	1,665	(13%)	485	129%	92,000	40%

¹10 month fiscal year projected on a 12 month basis.

²Projection based on current budget limitations.

³Projection based on projected requirements.

⁴1970 was selected as a base year for comparison of revenues as cost recovery program covered only a portion of FY 1969.

⁵Includes continuations with new summaries and new projects only (see Table V). Pre-1968 data is not available.

NEED FOR FUND INCREASE

Mrs. HANSEN. You are requesting an additional \$65,000 for the Smithsonian Science Information Exchange, Inc., for a total of \$1,665,000.

Your justifications tell of increasing backlogs in this activity. Why cannot the user fees be raised in order to take care of this problem?

Mr. BROOKS. Madam Chairman, we have Dr. Hersey here, who is President of the Smithsonian Science Information Exchange, Inc.

Mr. HERSEY. I am indeed pleased to appear again, Madam Chairman.

Mrs. HANSEN. Please insert in the record what your user fees are.

Mr. HERSEY. Yes, I will be pleased to do so.

[The information follows:]

SMITHSONIAN SCIENCE INFORMATION EXCHANGE, INC.—FEE SCHEDULE

(Effective March 15, 1973)

1. *Computerized subject and/or administrative searches.*—\$50 per search. All searches will be screened by SSIE's staff of professional scientists.

This price is for a search retrieving 100 documents or less. The average number of documents retrieved per search has been 60 in recent years. If more than 100 documents are sent, there is an additional charge of \$15 for each additional 100 documents or fraction thereof.

2. *Periodic mailings (selective dissemination).*—Periodic mailing of subject information (semiannually, quarterly, or monthly); \$60 for initial search and setup costs of user profile; \$40 for each subsequent mailing.

This price is for a search retrieving 100 documents or less. There is an additional charge of \$10 for each additional 100 documents or fraction there.

3. *Investigator searches per name searched.*—\$2 (\$6 minimum) a request for research associated with a given name (investigator).

4. *Accession number retrieval per number.*—\$1 (\$5 minimum) a request for a research project identified by an agency or SSIE accession number.

5. *Standard computer tabulation of projects.*—\$160 plus unit charge of \$0.07 per project. Existing programs are available which will list all projects based on any selection criteria in various sequences, with appropriate totals and sub-totals. Data shown for each project may include the supporting organization, principal investigator, location (city and State), school department, project title, and funding (where authorized for release). Duplicate copies generated with multiple part paper \$0.02 per project per each multiple copy (up to 3 copies) (minimum charge \$10 per multiple copy).

6. *Historical searches.*—

(a) *Historical subject searches* (from 1965 to current year) per search: \$150 and \$0.50 per document copy provided (if produced from microfilm).

(b) (1) *Historical investigator searches* (from 1965 to current year) (latest notice of research project, with funding summary) per name searched, \$6.50; (2) *Historical investigator searches* (from 1949 to 1964) (latest notice of research project with funding summary), per name searched, \$6.50.

6. *Prerun searches.* \$35 per search, if more than 100 documents are sent there is an additional charge of \$10 for each additional 100 documents or fraction thereof.

7. *Interchange tapes.*—

(a) Search charge: \$50 plus \$0.50 per project.

(b) The above prices do not include indexing. Up to 3 levels of indexing can be provided at an additional cost of \$0.50 per project.

9. *Computer time.*—IBM 370-135: \$65 per clock hour.

10. *SSIE Science Newsletter.*—(10 issues annually) \$6 per year, \$8 foreign).

11. *Automatic distribution of agency research projects:* \$0.10 per sheet.

12. *Subject indexes (computer generated):* \$2 per copy of index (minimum charge of \$50).

INCREASING USE OF THE EXCHANGE

Mrs. HANSEN. Is the pattern of use increasing?

Mr. HERSEY. Yes, it is. For example, last year you recall we brought in revenues of \$371,000. This year we expect to make \$450,000.

As of the end of February, we had \$299,000. It is increasing significantly; not as rapidly, of course, as we would like.

Mrs. HANSEN. Why isn't it increasing more rapidly?

Mr. HERSEY. One of the things we have not been able to do is to get additional funding to help make people more aware of the services. We are hoping that one of the outcomes of the user study completed this year will be a statement from the Office of Management and Budget bringing to the attention of the Federal Government agencies the fact that we are an integral part of their research management process, and they should, therefore, be encouraged not only to provide input to the exchange of their research program on a regular and timely basis, but also to make more use of the services.

Mrs. HANSEN. How many agencies currently use your service?

Mr. HERSEY. I would say about 25 Federal agencies.

AGENCIES PROVIDING DATA TO THE EXCHANGE

Mrs. HANSEN. How many agencies provide data?

Mr. HERSEY. Virtually all of the larger ones. There are a few smaller ones which do not, such as the Small Business Administration, the Civil Service Commission, and the General Services Administration.

Mrs. HANSEN. Which agency supplies the greatest amount of data?

Mr. HERSEY. The Department of Health, Education, and Welfare.

Mrs. HANSEN. Who is the second largest?

Mr. HERSEY. The next on the list is the Department of Agriculture. The third largest would be the Department of Defense.

Mrs. HANSEN. What amount of input does the Department of Interior provide?

Mr. HERSEY. They do fairly well. They have fairly significant input to us.

Mrs. HANSEN. Please insert in the record a list of the agencies who are your major users.

[The information follows:]

Federal agencies using SSIE

	<i>Number of projects</i>
Department of Health, Education, and Welfare.....	19, 921
Department of Defense.....	10, 315
Department of Agriculture.....	10, 924
Department of the Interior.....	4, 374
National Science Foundation.....	8, 362
Veterans' Administration.....	3, 512

Mrs. HANSEN. The committee will adjourn until 10 a.m. Monday morning.

MONDAY, MARCH 19, 1973.

MUSEUM PROGRAMS, SCIENTIFIC AND CULTURAL RESEARCH (SPECIAL FOREIGN CURRENCY PROGRAM)

Mrs. HANSEN. The committee will come to order.

This morning we continue with the Smithsonian Institution. We will insert justification pages C-1 through C-7 in the record at this point.

[The pages follow:]

SMITHSONIAN INSTITUTION
MUSEUM PROGRAMS, SCIENTIFIC AND CULTURAL RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

1972 Appropriation	\$3,500,000	
1973 Appropriation	\$3,500,000	Equivalent in "Excess"
1974 Estimate	\$9,000,000	Foreign Currencies

An appropriation of \$9,000,000 in foreign currencies determined by the Treasury Department to be in "excess" to the normal needs of the United States is requested for Fiscal Year 1974. The appropriation will be used:

1) To continue a program of grants to United States institutions for field research in those countries where "excess" local currencies are available. The research will be performed in the following general areas of Smithsonian Institution interest and competence:

Commitment of Funds by Program Area

	<u>FY-1966-72</u> <u>Cumulative</u> <u>Commitments</u>	<u>FY-1973</u> <u>Estimated</u> <u>Commitments</u>	<u>FY-1974</u> <u>Appropriation</u> <u>Request</u>
Archeology and Related Disciplines	\$9,025,275	\$1,400,000	\$2,000,000
Systematic and En- vironmental Biology	6,304,544	1,400,000	2,000,000
Astrophysics and Earth Sciences	982,591	500,000	750,000
Museum Programs	178,000	190,000	220,000
Grant Administration	73,590	10,000	30,000
	<u>\$16,564,000</u>	<u>\$3,500,000</u>	<u>\$5,000,000</u>

2) To complete with one final payment of \$4,000,000 equivalent in "excess" Egyptian pounds the United States' contribution to UNESCO's international campaign to preserve archeological monuments in Nubia which are inundated by Nile River waters regulated by the Aswan Dam. This payment will support the preservation of the monuments on the Island of Philae as proposed by President Kennedy in his letter to the Congress dated April 6, 1961.

ON-GOING RESEARCH GRANTS PROGRAM

In its seven years, the Smithsonian Foreign Currency Program has awarded 362 grants for field research totalling almost \$16,600,000 equivalent in "excess" foreign currencies to United States institutions of high learning. It has thus benefited more than 200 museums, universities and research institutes in 32 states. Benefits include research opportunities for more than 214 post-doctoral scholars and more than 221 pre-doctoral students. Benefits also include major additions to the study collections of more than 28 museums and universities in 18 states.

NEED FOR INCREASE

In FY 1972, obligations for field research totalled \$3,400,000 equivalent in "excess" foreign currencies out of a total appropriation for that year of \$3,500,000 equivalent. In addition, awards totalling \$922,000 equivalent remained unfunded pending completion of host country clearances.

An increased appropriation is essential in FY 1974 to cover unfunded awards and to meet the demand reflected by the constant flow of new and meritorious research proposals. Applications known to be in preparation total at least 73. This level of activity persists in spite of the removal of Israel, one of the most active areas of Smithsonian sponsored research, and Morocco from the list of "excess" currency countries. This level of activity persists also in spite of the removal, in all but name, of Yugoslavia from the list since funds there are no longer adequate to support new research.

An increased appropriation is essential also to respond to the high priority assigned by both the United States and by "excess" currency host countries to research which includes a phase devoted to applying the results of the basic studies. This means, for example, that in archeology, Smithsonian funds flow to planning the utilization of sites for cultural tourism and to planning and executing ecological research hand-in-hand with host governments in order to provide data which will contribute to sound economic and pollution control programs.

Moreover, in India alone, 36 projects, primarily in the field of environmental assessment, are in different stages of development, eight of them emerging in recent months.

Renewed interest in research collaboration in Pakistan is contributing to the momentum of new applications also. Bi-national scientific discussions looking toward preparation of eight major proposals in the fields of environmental assessment and conservation were initiated by United States and Pakistani institutions in recent months.

In Burma, development of two proposals, one in archeology and one in wild life conservation, to be undertaken by United States institutions in collaboration with UNESCO and the International Union for the Conservation of Nature and Natural Resources respectively, provide the first indications of renewed Burmese interest in associating with the United States in research in many years.

As a result of President Nixon's visit to Poland, 11 joint research proposals are in preparation with the encouragement of the Polish government. This represents a reversal of past practice there where Smithsonian activities have been essentially limited to exchanges of individual scholars.

Moreover, on-going Smithsonian sponsored research continues in all the excess currency countries without interruption, including India and Egypt despite changing political winds at the governmental level in those countries.

And finally, the increased appropriation is essential to ensure support for new and on-going research which contributes to United States national programs under, for example, the International Biological Program, the International Decade of Ocean Exploration, the National Aeronautics and Space Administration, the National Academy of Sciences, the United States National Museum and the Department of Interior's cooperative programs abroad under the Endangered Species Conservation Act.

The appropriation increase to \$5,000,000 equivalent requested for grants for field research in FY 1974 is essential to meet these on-going and new demands. This request is, however, \$1,000,000 equivalent lower than the \$6,000,000 equivalent requested for FY 1973. This is so because Israel and Morocco have been removed from the list of "excess" currency countries and Yugoslavia is probably soon to follow.

OUTSTANDING PROGRAMS

Outstanding field research programs receiving Smithsonian Foreign Currency Program support include:

1. Denison University's archeological excavations at Sirmium in Yugoslavia where research has provided new understanding of the nature of Roman rule in its provinces and particularly of the processes of change in these areas as the empire declined and control passed to the "barbarian hordes".
2. Yale University's basic ecological studies in the Gir Forest Sanctuary of India which have been adopted as a model by Indian National Parks and by conservation officials there for further ecosystem studies leading to development of sound park management programs.
3. Utah State University's pioneering computer-programmed studies of desert ecosystems in the United States which have been extended to Tunisia and are planned for India as well. In these two countries, the studies can be expected to have special importance because of the dramatic annual degradation of scarce agricultural land into desert wasteland.
4. The Smithsonian Institution's studies, carried out by its Center for the Study of Man, synthesizing the current understanding of anthropologists around the world about what hinders educational reform. The work of specialists in the transmission of culture through educational systems is being assessed for publication in a form intended to aid governments and educators in their efforts to improve educational systems.

FINAL U.S. CONTRIBUTION TO UNESCO'S NUBIAN MONUMENTS CAMPAIGN

The Smithsonian is seeking an appropriation of \$4,000,000 equivalent in excess Egyptian pounds, in addition to the \$5,000,000 equivalent requested for grants for field research, to complete with one final payment the United States' contribution to UNESCO'S international campaign to preserve the temples on the Island of Philae. This payment was proposed by President Kennedy in his letter to the Congress dated April 6, 1961. In President Kennedy's words, "The Temples on the

Island of Philae are known as the 'Pearl of Egypt' ... there would be no more effective expression of our interest in preserving the cultural monuments of the Nile Valley than an American offer to finance the preservation of these temples. I am directing that the Egyptian pound equivalent of 6 million dollars be set aside for this purpose. When required, an appropriation to cover the use of this sum will be sought."

The Smithsonian is seeking four million dollars equivalent in Egyptian pounds, not the six million equivalent proposed by President Kennedy, because the United States would now be only one of many nations contributing to the salvage of the Philae monuments not the sole donor as President Kennedy originally proposed. The total cost of this salvage program will probably exceed \$16 million in convertible and local currencies. This substantially higher cost results from both rising prices and an improved salvage plan. Some \$10 million of this total has already been pledged by other nations.

The institution is seeking this appropriation at this time because about two-thirds of the needed funds, including the necessary convertible currencies, has been pledged and, as a consequence, work on the Coffe dam has begun.

This appropriation is requested by the Smithsonian because of the Institution's traditional concern for the preservation of all forms of cultural expression. It is requested also because the function of making grants for archeology abroad using "excess" foreign currencies was approved by the then Bureau of the Budget for transfer from the Department of State to the Smithsonian beginning in FY 1966 after two earlier United States contributions to UNESCO's Nubian Monuments Campaign had been made. Before FY 1966, the Department of State awarded grants totalling \$1.5 million equivalent in Egyptian pounds to United States archeological research institutions for salvage excavations in the areas of Egypt and the Sudan to be inundated by Nile River waters impounded by the Aswan High Dam. These monies, as well as a \$2.5 million equivalent contribution toward the cost of the UNESCO program to salvage lesser temples in the same area, were appropriated to the Department of State in FY 1962. In FY 1965, that Department sponsored a further contribution of \$12 million equivalent toward the salvage of the massive temples at Abu Simbel. Each of these contributions, like that for the preservation of the temples on the Island of Philae, was proposed by President Kennedy in 1961.

It is in the United States interest to contribute to the preservation of the Temples of Philae because of their interest to our scholars for generations to come. Moreover, by continuing cooperation in the Nubian Monuments Campaign, we maintain today's rich opportunities for American institutions of higher learning to conduct studies in Egypt and we enhance United States' cultural relations with that country. In proposing that the United States join in this UNESCO campaign, President Kennedy said in his letter of April 6, 1961 to the Congress that he considered it "to be in the interest of the United States to assist in rescuing these historic remains of a former civilization from destruction--and to join the international effort to conduct exploration and research in the threatened area of Nubia before it is submerged for all time". Today, in the absence of diplomatic relations with Egypt, the Smithsonian's request for funds to complete the United States contribution to this international campaign takes on even greater significance in maintaining the basic cultural associations which are the most enduring form of contact between nations. In this context, the United States has received the priceless Temple of Dendur from Egypt in appreciation for our Nubian Campaign support.

The temples on the Island of Philae, located between the new Aswan High Dam and the old Aswan, or Low Dam, are the most important archeological monuments in Egypt of their periods and are symbols of the heritage of western man. The temples, built in Pharaonic, Greek and Roman times, stand side-by-side on an island no more than 420 yards long and 150 yards wide. They subsequently long served as Christian chapels as their rich inscriptions attest. Major structures include the Temple of Isis started by Pharaoh Nectanebo in the 4th Century B.C., the Portico of Augustus and Tiberius and the Kiosk of Emperor Trajan. All are today completely submerged by the Nile which is maintained at a constant level between the two dams for hydro-electric and irrigation purposes.

The salvage plan finally adopted by UNESCO's international advisory group, with the advice and concurrence of an American engineer, provides for a Cofferdam to be erected around the Island of Philae to permit the lowering of the water for removal of the Temples. They are then to be re-erected on the nearby Island of Agilkia in a setting like the original one. There they will be safe from further erosion by the river, and accessible to all.

USE OF FOREIGN CURRENCIES SAVE HARD DOLLARS

Special Foreign Currency Program appropriations are an advantageous source of research monies. This is so because they are not new appropriations of tax dollars and because delay in the use of the "excess" accounts means continuing losses to the United States Treasury as these accounts lose value through inflation and devaluation. Moreover, these appropriations do not add significantly to the President's budget total because the Commodity Credit Corporation reduces its appropriation request by an amount equal to the amount of foreign currencies expended.

At the same time, Special Foreign Currency Program appropriations contribute to essential national research objectives abroad without contributing to a balance of payments deficit. Moreover, Smithsonian Foreign Currency grants frequently serve as dollar-saving supplements to the dollar grants of both public and private agencies like the National Endowment for the Humanities, the National Science Foundation, the National Institutes of Health, the National Aeronautics and Space Administration, the World Wildlife Fund, the National Geographic Society, the John D. Rockefeller III Fund and the Wenner-Gren Foundation. In such cases, the foreign currency grants cover costs in the host country; the dollar grants are expended in the United States for equipment not available in "excess" currency countries, for American salaries, laboratory fees and the like.

Direct dollar costs to the Smithsonian for its Foreign Currency Program are limited to those for administrative personnel in Washington. During fiscal year 1973 six people were employed in the Office of International Activities for this purpose at a total cost of about \$114,000.

One additional person is requested in fiscal year 1974, a regional coordinator for South Asia (\$16,000) for a total cost of \$130,000 for administration of the Foreign Currency Program. This increase is essential to meet the special demands of growing research activity in South Asia. (See Salaries and Expenses justification for the Office of International Activities).

This Special Foreign Currency Program request, as in the past, is based on budget projections for on-going research and on pending and new research proposals which include firm research proposals, those postponed by lack of sufficient funds, and other sample or illustrative proposals based on firm indications of interest both within and without the Smithsonian. They represent the Institution's selection of possible projects which appear most promising for successful development and implementation during fiscal year 1974. A list of such projects is submitted as a supplement to the Smithsonian's Fiscal Year 1974 budget request. It should be noted, however, that actual implementation of these projects will be contingent upon three factors: review by the Smithsonian's national scientific advisory councils, review and approval by American embassies overseas, and appropriate cooperative arrangements with host-country institutions or Governmental authorities.

MUSEUM PROGRAMS, SCIENTIFIC AND CULTURAL RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

Commitments of Funds by Country

Fiscal Years 1972, 1973, and 1974

Country	FY 1972 Actual	FY 1973 Estimate	FY 1974 Estimate
Burma	\$ 200	\$ 8,000	\$ 12,000
Egypt	674,400	500,000	4,680,000
Guinea	-	2,000	8,000
India	555,500	1,200,000	1,350,000
Israel	506,600	-	-
Morocco.....	73,500	160,000	-
Pakistan.....	13,500	200,000	650,000
Poland.....	69,200	230,000	650,000
Tunisia.....	502,600	400,000	500,000
Yugoslavia....	999,900	800,000	1,150,000
	<u>\$3,395,400</u>	<u>\$3,500,000</u>	<u>\$9,000,000</u>

INTRODUCTION OF SMITHSONIAN ASSISTANT

Mrs. HANSEN. Would you like to introduce your very charming and pretty associate?

Mr. RIPLEY. I would indeed, Madam Chairman, I would like to introduce Mrs. Margaret Gaynor, who has joined our staff as my legislative assistant.

Mrs. HANSEN. Very good. We are happy to welcome you Mrs. Gaynor. There are all too few women who appear before this committee.

SPECIAL FOREIGN CURRENCY PROGRAM

You are requesting a \$5.5 million increase for your special foreign currency program; \$4 million of this is for a contribution to UNESCO to help preserve the archeological monuments in Nubia, Egypt. What is the nature of the U.S. obligation for this project? Is it a treaty agreement, understanding, or what?

Mr. RIPLEY. Madam Chairman, it is not a treaty as I understand it, but what it is implementing is an act of Congress and a Presidential message. As I recall, during 1960, Congress passed a Mutual Security Act, which called upon the President to submit his recommendations for participation in the campaign to salvage the monuments. In 1961, President Kennedy submitted his recommendations to the Congress. It is in accord with that congressional action and President Kennedy's message that we are carrying out our traditional concern and interest in archeology, and acting as an agent, as it were, for the United States to request these funds.

Mrs. HANSEN. Please insert a copy of the Mutual Security Act in the record.

Mr. RIPLEY. Yes; we will do so.

[The information follows:]

PUBLIC LAW 86-472, APPROVED MAY 14, 1960, 74 STAT. 139, SECTION 502 (c)

(c) It is the sense of the Congress that prompt and careful consideration should be given to participation by the United States in an internationally financed program which would utilize foreign currencies available to the United States to preserve the great cultural monuments of the Upper Nile. Accordingly, the President is requested to submit to the Congress on or before March 1, 1961, his recommendations concerning such a program.

CONTRIBUTIONS FROM OTHER COUNTRIES

Mrs. HANSEN. What other countries are contributing?

Mr. RIPLEY. We will place a list of those in the record. I know that a large sum has been raised, including money pledged by Egypt itself, but under UNESCO a number of foreign countries have pledged funds.

Mrs. HANSEN. Will you place a list of the countries in the record?

Mr. RIPLEY. We will place the list in the record.

[The information follows:]

*Countries contributing to UNESCO's Philae account as of June 30, 1972*¹

Governments:	
Belgium -----	\$11, 155. 73
Cuba -----	1, 000. 00
Cyprus -----	2, 394. 90
Egypt -----	² 5, 500, 000. 00
Germany -----	615, 670. 23
France -----	229, 990. 80
Ghana -----	3, 021. 69
India (in kind) -----	41, 214. 45
Italy -----	319, 797. 10
Japan -----	30, 000. 00
Khmer (Cambodia) -----	1, 000. 00
Kuwait -----	10, 000. 00
Lebanon -----	6, 557. 37
Malta -----	239. 98
Netherlands -----	45, 000. 00
Nigeria -----	43, 134. 15
Qatar -----	5, 000. 00
Spain -----	200, 000. 00
Sudan -----	2, 000. 00
United Kingdom -----	149, 936. 32
Total -----	7, 217, 112. 72
Other contributions:	
World food program (in kind) -----	2, 443, 000. 00
African emergency program -----	20, 717. 65
Miscellaneous private sources -----	5, 249. 81
Total -----	2, 468, 967. 46
Grand total -----	9, 686, 080. 18

¹ Source : UNESCO Doc. 17C/72, Sept. 12, 1972.

² Approximately (promised to pay one-third of total).

Mrs. HANSEN. Is Russia contributing?

Mr. RIPLEY. I doubt it. I don't know.

Mrs. HANSEN. Didn't Russia contribute to building the Aswan Dam?

Mr. RIPLEY. She did.

Mr. EUELL. We know that France and England have contributed. I don't think Russia has.

Mrs. HANSEN. How many African countries are participating?

Mr. EUELL. Several African countries are participating. I don't remember the exact countries. Their participation is on a smaller scale than the larger ones.

Mr. BROOKS. I have a list. It includes Ghana, Nigeria, Sudan; that is it.

PREVIOUS APPROPRIATIONS

Mrs. HANSEN. Has any money been previously appropriated for this purpose?

Mr. RIPLEY. No.

Mrs. HANSEN. Why not?

Mr. RIPLEY. I don't believe that any money has ever been appropriated.

Mr. EUELL. No, sir.

Mrs. HANSEN. Why not?

Mr. RIPLEY. I don't know why. We have not asked for any funds prior to this time.

Mrs. HANSEN. Why not?

Mr. RIPLEY. I don't know.

Mrs. HANSEN. Why have you chosen this particular budget year to request funds?

Mr. RIPLEY. Madam Chairman, it seems to me any budget year is as bad as any other as far as that is concerned.

Mrs. HANSEN. This is relatively worse.

Mr. RIPLEY. We have been requested to ask for it. It is as simple as that.

Mrs. HANSEN. Who requested that you ask for funds?

Mr. RIPLEY. The UNESCO people said that they are now getting their sums pledged and ready, and work has actually started and they would like to have a go ahead on it.

Mrs. HANSEN. Did your request go through the Office of Management and Budget?

Mr. RIPLEY. Yes; our request has been through the Office of Management and Budget.

Mrs. HANSEN. They approve the strangest projects at OMB.

Mr. RIPLEY. That is why we have included it in our budget. I believe the balance of dollar equivalents held in Egypt now is over \$200 million, so that there are ample funds in escrow in Egypt in these equivalents, from which this would be a contribution.

Mrs. HANSEN. Will the other nations be prepared to start at the same time?

Mr. RIPLEY. Yes.

Mrs. HANSEN. Will the universities be involved?

Mr. RIPLEY. You mean using our additional funds?

Mrs. HANSEN. Yes.

Mr. RIPLEY. No; I don't think universities are involved in this. It is an engineering plan to put a coffer dam around the temples themselves, cut the base away, level a hill on a nearby island, and then place the temples on top of the island.

Mrs. HANSEN. What further U.S. funds will be required?

Mr. RIPLEY. None; this is a one-time pledge. I have photographs if the committee is interested.

LOCATION OF THE PHILAE TEMPLES

Mr. LONG. These are up above the Aswan Dam or below the Aswan Dam?

Mr. RIPLEY. Just above the old Aswan Dam, that is upstream in that sense, although they are south of that Aswan Dam. Philae lies between the old and new Aswan Dams.

Mr. LONG. These would be flooded?

Mr. RIPLEY. These are already being flooded by the lake between the two dams; yes.

Mrs. HANSEN. How much of the temple has to be moved?

Mr. RIPLEY. The entire temple. This is the proposal. Some \$16 million is needed. The \$4 million represents the U.S. contribution.

Mr. LONG. How long has this been going on, this work in moving the temples?

Mr. RIPLEY. They have not been moved yet, but the work of the engineering study has been going on for many years. It has required international engineers. I cannot at this point document whether American engineers have been involved. Essentially, it has been an international operation.

Mr. LONG. In the record, if it is all right with the Chairman, I would like to have the story myself for my own personal information on allowed travel of American nationals.

Mr. RIPLEY. All right.

Mr. LONG. I would hope that Congressmen aren't on special lists of people who are especially restricted.

[The information follows:]

American nationals have been permitted to travel quite freely to the Aswan Dam, as have other foreigners since the brief interruption caused by the 1967 war. The only standard limitation imposed on all foreigners is on travel by car from Luxor to Aswan. Occasionally, air travel to Aswan has been banned or limited to special flights for tourists. But ever when these limits have applied, Aswan has been accessible by train from Luxor or by hydrofoil after flying to Abu Simbel. Occasionally flights serving Aswan have landed at an airport about 60 miles away across the desert with bus connection to Aswan. Moreover, to facilitate matters, the U.S. interest section of the Spanish Embassy in Cairo has been able to obtain waivers for U.S. Congressmen from the air travel restriction to group flights whenever it has been in effect.

The principal factor inhibiting travel to Aswan has been the time required to make the necessary connections. Travelers can not be assured of making the round trip to Aswan from Cairo within a 24 hour period.

LOCATION OF TEMPLES

Mrs. HANSEN. Are you moving the temple so that it is out of the way of the military operations?

Mr. RIPLEY. Yes; entirely.

Mr. EUELL. It is on a plateau, Madam Chairman, an island very nearby its original site.

Mr. RIPLEY. It will be put on a plateau.

Mr. EUELL. They will level off the top of the hill and the temples will be put well above the high-water mark.

Mrs. HANSEN. Will terrorists be able to destroy it as it is being assembled?

Mr. RIPLEY. I would not sit here, Madam Chairman, and ask for funds to move a temple if I thought for one moment that this was going to be put up just for Egyptians to see and not for the world to see. The project would be of much less concern to me, I assure you.

Mrs. HANSEN. I understand, but I think there should be some arrangements made with the Egyptians on security in the future.

SCOPE OF THE PROJECT

Mr. YATES. What is the extent of the movement? How many of the ancient ruins are being moved? This project on which you are testifying refers only to the Temple of Philae.

Mr. RIPLEY. That is right, only to the Temple of Philae. Abu Simbel has been moved and the adjacent temples have been moved, as I understand it. They were moved by a U.N. effort to raise some \$42 million in which many American citizens participated. I think the total provided by this country was somewhere in the neighborhood of \$12 million for the Abu Simbel project.

Mr. YATES. Are there others to be moved in the future, or is this the last?

Mr. RIPLEY. As far as I know this is the last. This is it. There have been a number of smaller temples moved. As you know, one is in storage in New York, waiting to be erected there. This was the Egyptian gift to the United States for recognition of our participation in the program, in response to President Kennedy's pledge. The Egyptian Government gave to the Temple of Dendur, which is going to be erected in New York City.

Mr. YATES. How many of these temples are submerged?

Mr. RIPLEY. None of the main temples except Philae are submerged at the present time. The others have been moved or are relatively insignificant, but much of the archeology, of course, had to be done on a crash basis to excavate tombs and so on, before the floodwaters came. That was the so-called Nubian campaign.

ROLE OF THE SMITHSONIAN IN THE PROJECT

Mr. YATES. What is the relationship of the Smithsonian to this? Are you intermediary for putting the money up or will you finance scholars or engineers or what?

Mr. RIPLEY. We will simply be the intermediary for a pledge. The funds are released to us in Egypt, so that we can pledge the funds in Egyptian pounds as part of the UNESCO campaign.

Mr. YATES. Once having given the money this is the end of your responsibility?

Mr. RIPLEY. It is then UNESCO's responsibility, and they are the ones who conduct the operation.

Mr. YATES. And Smithsonian's task is through?

Mr. RIPLEY. Of that part, yes, indeed. Of course, the United States is officially represented on the special UNESCO committee and has followed the Nubian campaign from the outset and United States archeologists have followed the Philae planning and found the current plan feasible.

OTHER PROJECTS IN EGYPT

Mrs. HANSEN. You also have \$680,000 budgeted in addition to the \$4 million you are requesting for UNESCO for work in Egypt.

Mr. RIPLEY. An amount of \$680,000, that is right.

Mr. LONG. Would the chairman yield?

Mrs. HANSEN. Yes.

Mr. LONG. You say tourists in abundance are making the trip up the Nile to see these things. When I was in Cairo there were very few tourists. Have you been to Cairo, Mr. Ripley?

Mr. RIPLEY. Off and on for a number of years, yes.

Mr. LONG. When I went there in 1971 there were very few people on the plane from Athens to Cairo. There were few Americans in Cairo except those who were attached in some diplomatic or business way, so

I wasn't aware that we were having very many tourists not only from the United States but from any country.

Mr. RIPLEY. We do have tourists who go there and are still allowed to go there, and we do not anticipate that this situation that you describe is going to continue forever.

Mr. LONG. I am not saying there weren't tourists there, but very few.

Mrs. HANSEN. Your work in Egypt involves archeology projects with various universities; is that not correct?

Mr. RIPLEY. That is right.

Mrs. HANSEN. This is an arrangement with the universities?

Mr. RIPLEY. That is right, American universities continuing a long tradition of research in Egypt. I might point out that this proposed pledge to the Philae campaign involves a multiyear project. Of course it is a construction project.

Mrs. HANSEN. How long will the reconstruction take?

Mr. RIPLEY. At least 3 more years. Contracts have already been let by the Egyptian Government with UNESCO-sponsored firms for the beginning of the reconstruction. It will go on for a number of years.

ANTICIPATED ACCOMPLISHMENTS

Mrs. HANSEN. What specific accomplishments do you expect from the additional \$1.5 million you are requesting for your special foreign currency program?

Mr. RIPLEY. We expect to be able to satisfy more of the requests that we receive. Each year we receive far more requests than we are able to supply. These are from American institutions, universities, museums, and various institutes. We are unique in that we require these institutions to collaborate and work with institutes abroad, whereas other uses of the funds by agencies of the Government involve simply grants or block donations to foreign institutes or contract-like arrangements, which do not bring this person-to-person sort of contact that we are interested in. We feel that our scholarly tradition requires that scholars in particular institutions in this country work with scholars in these countries abroad so that we obtain a two-way-street relationship.

COMMITMENTS OF FUNDS BY COUNTRY

Mrs. HANSEN. Your total 1974 estimate for Burma is \$12,000; Egypt, \$4,680,000; Guinea, \$8,000; India, \$1,350,000; Pakistan, \$650,000; Poland, \$650,000; Tunisia, \$500,000; and Yugoslavia, \$1,150,000.

[Discussion off the record.]

Mr. RIPLEY. We are rather pleased that for the first time there appears to be a chance of developing some projects in Burma, which has been on the excess currency roster for many, many years. We have two possible projects, one in archeology and one in wildlife conservation, which would involve an interplay between American institutions and Burma institutions.

WORK IN BURMA AND OTHER PROJECTS

Mrs. HANSEN. What specific answers are you going to secure in Burma?

Mr. RIPLEY. Dr. Challinor will respond to that.

Mr. CHALLINOR. I can answer as to the archeological project, Madam Chairman. It is beginning to develop that civilization, as we understand it, when people started to move from a hunter gatherer society to an agrarian one, probably first occurred in northern Thailand and eastern Burma rather than in the Tigris and Euphrates Valley, as we have been traditionally taught. One of the things we are looking for in Burma is the records of the first neolithic people who came out of the woods, so to speak, and started to plant rice, make pots, and develop communities. We now believe we have good evidence that in northern Thailand and extreme eastern Burma these cultures existed perhaps several thousand years before they existed in the Tigris and Euphrates, which we had previously considered as the cradle of civilization. I have not read the specific proposal but that is one of the things we are particularly anxious to get into Burma to study.

Mrs. HANSEN. What will be the goal of the conference on African anthropology?

Mr. RIPLEY. This is a conference which would develop contacts between international scholars specializing in the study of the traditional and contemporary culture in rapidly changing and developing Africa. The conference aims to bring together in the form of publishable proceedings information that has been learned and to chart the course of future scholarly studies which would contribute to the solution of the problems of modernization in the African Continent. That would be an undertaking of the Center for the Study of Man at the Smithsonian.

WORK IN INDIA

Mrs. HANSEN. You plan to support the Center of Art and Archeology in India. Please explain this project, Dr. Challinor?

Mr. CHALLINOR. This is No. 18 on page 11. The American Institute of Indian Studies, Madam Chairman, is a consortium of American universities that are particularly interested in this.

Mrs. HANSEN. Will you place in the record the names of the universities?

Mr. CHALLINOR. I will, Madam Chairman.

Mr. RIPLEY. There are 30 of them.

[The information follows:]

AMERICAN INSTITUTE OF INDIAN STUDIES CONSORTIUM MEMBERS

1. American University.
2. California, University of.
3. Carleton College.
4. Chicago, University of.
5. Claremont Graduate School and University Center.
6. Colgate University.
7. Columbia University.
8. Cornell University.
9. Duke University.
10. Hawaii, University of.
11. Illinois, University of.
12. Kansas State University.
13. Massachusetts Institute of Technology.
14. Michigan, University of.
15. Minnesota, University of.
16. Missouri, University of.
17. Northern Iowa, University of.

18. Oakland University (Rochester, Mich.).
19. Pennsylvania State University.
20. Pennsylvania, University of.
21. Rochester, University of.
22. Rutgers University.
23. State University of New York.
24. Sweet Briar College.
25. Syracuse University.
26. Texas, University of.
27. Virginia, University of.
28. Washington, University of.
29. Wisconsin, University of.
30. Wooster. The College of.

INDIAN ART TREASURES AND CRAFTS

Mr. CHALLINOR. What we are trying to do with our Indian colleagues is to make a record of the art and archeological treasures of India. India, along with many other countries, is now subject to a tremendous pressure from the art market to bring out of India, in many cases illegally, statues, painting and scrolls which now find a ready market in the international art world. What we are trying to do now is to make an inventory of the great Indian treasures in art and archeology, in an effort to reduce this illegal international trade.

The scholars in these 30 universities will work with their Indian colleagues in putting together such an inventory.

Mrs. HANSEN. Another project is entitled, "Studies of Rapidly Disappearing Crafts at the Village Level in India." What does this involve?

Mr. RIPLEY. As you know, Madam Chairman, these crafts are beginning to disappear in India at a rate similar to the way they have already disappeared in large parts of the United States. Many of these crafts will only be known through documentation and some training centers, unless something is done to make records and record them before they go out.

Mrs. HANSEN. Give us an example of some of the crafts?

Mr. RIPLEY. I can specifically speak to the work that is being done by the cultural center in Bombay, where they are working on preserving records, tapes, and photographs of particular types of musical instruments, the making of these instruments, the playing of them, and the techniques by which the artists actually have developed their craft.

Mr. YATES. You are not talking of the sitar.

Mr. RIPLEY. The sitar is a very common instrument, Mr. Yates, which is in effect taking over in the place of many variants of stringed instruments, which are rapidly disappearing. One is called the rubara, I remember. The artists now are going to play the sitar, because they feel that Ravi Shankar has made a great reputation internationally and everybody knows about sitar music. As a result they are giving up these other instruments which were regional and local all over the country, and turning to sitar playing. It is just, for example, as if the violin was now the only stringed instrument in the orchestra in this country, and people had given up the cello, bass, the larger viola, and so on. It is quite extraordinary how this rapid shift comes through film, radio, and TV in India causing many of the traditional instruments to be abandoned.

ADDITIONAL FOREIGN CURRENCY PROJECTS

Mrs. HANSEN. You show nothing in the way of commitment of funds for Israel, and yet you have several projects listed for Israel? How do you explain this?

Mr. EUELL. Madam Chairman, the excess currency program in Israel is now diminished. We include the projects because they are ongoing and funds have been committed, but we have no more Public Law 480 money in Israel.

Mrs. HANSEN. You plan a great many projects in Poland and Yugoslavia.

Mr. RIPLEY. Yugoslavia is particularly rich in archeological projects, because it occupied historically a central position between the world of Greece and the world of Italy. Relatively little is being done to document the cities and early cultural centers set up from the bronze age right on through. We have a good field in archeology developing there.

Mrs. HANSEN. Explain the project being conducted by the Southern Methodist University in Dallas, Tex., on recent development in techniques of analysis of old stone age artifacts.

Mr. RIPLEY. In this project they are using computer techniques in analyzing distribution of tools in prehistoric settlements to show what the pattern of community and family life was. This will be a project which really doesn't involve digging, but involves using computers which are already available. I believe one of the computers is the one that has been given to Poland by the National Academy of Sciences to celebrate the 500th anniversary of Copernicus' birth.

Mr. YATES. May I ask a question?

Mrs. HANSEN. Yes.

USE OF FOREIGN CURRENCIES TO PURCHASE OBJECTS

Mr. YATES. Mr. Ripley, is this the highest and best use we can make of our Public Law 480 funds in these countries? I know that the zoo director of Lincoln Park Zoo in Chicago has been trying to get a tiger from India for a long time. I don't know why Public Law 480 funds couldn't be used for that purpose. Could they?

Mr. RIPLEY. You mean to purchase a tiger?

Mr. YATES. Yes; I see our expert, Dr. Reed, in the rear would like to address himself to that question. I assume you will have to wait until seniority prevails.

Mr. RIPLEY. We breed tigers in this country, and, of course, the Indians are breeding them to a certain extent.

Mr. YATES. This is a special kind of tiger.

Mr. RIPLEY. The white tiger, I suppose.

Mr. YATES. I saw a picture of the white tiger who had just been mated. This was in the paper this morning. This was a special kind of tiger that you couldn't get anywhere except India.

Mrs. HANSEN. Is it on the list of endangered species that cannot be brought into the country?

Mr. RIPLEY. The tiger is now going on the endangered species list. The new endangered species convention will prohibit their export unless some special permit can be given for scientific conservation purposes.

Mr. YATES. The tiger is one example of what I have in mind. I am sure there are museums all over the country, too, that would like artifacts or antiques of various kinds, which may be available in one or more of these countries. Isn't this a program that could be used for that purpose?

Mr. RIPLEY. We have never approached it on the basis of simply buying objects at all. We have had occasional purchases for research collections, but we have not authorized others to use these funds as a means of buying objects.

Mr. YATES. Why should it not be used for that purpose, if there is some rare object that the Government of the country where the funds are deposited might want to release?

Mr. RIPLEY. In principle I see no reason why it shouldn't be used.

Mr. YATES. I just wonder why it has never been explored.

Mr. RIPLEY. I suppose the question hasn't ever come up.

Mrs. HANSEN. They have as much pride in their treasures as we do.

Mr. YATES. This is true except they may have two, three, four, or five of a particular treasure.

Mr. RIPLEY. The Archeological Survey of India, for example, would rather exchange. They would like to get a collection, for example, of pottery of the new world in exchange for something from the old world, that kind of thing.

Mr. McDADE. Would you yield?

Aren't we inhibited from using Public Law 480 funds to take things out of a country?

Mr. YATES. I don't think so. I think with the government's consent, you can do it.

Mrs. HANSEN. I don't think anybody has ever made that proposal in this committee.

Mr. McDADE. What does the budget officer say?

Mr. JAMESON. We do have reasonably specific language in our appropriation act which cites the uses to which these funds can be put. I suspect part of the answer to your question is that frequently the countries would prefer to get dollars, wherever they could. And, finally, these currencies prescribed to our use must be made available to American universities for use in those countries. As Mr. Ripley has said, from time to time we have made collections as part of a research endeavor. These have then been made available to museums for use in this country. I think we cite that in our budget justification. I think, however, that direct artifact purchase is largely an untested area.

USE OF FUNDS FOR TRAVELING EXHIBITS

Mr. YATES. It certainly could be used for traveling exhibits and shows of objects that belong to those countries?

Mr. RIPLEY. Oh, yes, certainly. We could use such funds for a traveling exhibit, because that would not imply any change of ownership. The problem, of course, is that most of the countries in which the excess currencies occur are limited really in the number of treasures that they have that they would be willing to export. They have quite restrictive regulations in many of these countries about the export of things that are described as national treasures. Even in the area of archeology they might be willing to let the tools, stone or bronze

tools, whatever they may be, pots and so, on, out for a time for study, but they usually require that these be returned to the museum centers in that country.

Mr. YATES. That is what I had in mind really. Russia is letting the Hermitage paintings come to this country. I am sure there are no Public Law 480 funds in Russia.

Mr. RIPLEY. No. We have just opened an exhibition on Thursday of this past week in the Renwick Gallery on contemporary Indian paintings from India, which was organized in celebration of the silver jubilee of the Indian Republic, their 25th anniversary.

Mr. YATES. Will that exhibit's expense be paid for by Public Law 480 funds?

Mr. RIPLEY. As I understand it, Mr. Yates, the Indian Government itself assumes the expense of sending it over here, but we are putting it on and showing it, and helping them travel it, as a contribution, feeling that this was a very worthwhile and valuable thing to do.

ACCOMPLISHMENTS FROM AWARDS TO DATE

Mrs. HANSEN. What has been accomplished with the \$16,600,000 in grants awarded to date under this program?

Mr. RIPLEY. We could submit a statement for the record.

Mrs. HANSEN. Please do.

[The information follows:]

SMITHSONIAN FOREIGN CURRENCY PROGRAM ACCOMPLISHMENTS

Two hundred twenty institutions of higher learning, including consortia members, have benefited from Smithsonian foreign currency grants.

Thirty-two States and the District of Columbia have benefited.

Two hundred fourteen postdoctoral scholars have pursued their professional specialties.

Two hundred twenty-one predoctoral students have received advanced training or conducted dissertation research.

Two hundred thirty-nine publications have been received by the Smithsonian (Archeology and Related Disciplines, 134; Systematic and Environmental Biology, 87; Astrophysics and Earth Sciences, 16, and Museum Programs, 2).

Twenty-eight museums and universities in 18 States have obtained important additions to their study collections as a result of research conducted with Smithsonian foreign currency program support.

Outstanding research results include:

Confirmation that migrating birds transport infectious viruses between continents. Some of these viruses which can also cause fevers in man are very serious health problems in temperate zones. Such fevers as West Nile, Kemerovo, and Sindbis have been identified in migrating birds in the Nile Valley, Smithsonian-Yale Arbovirus Laboratory.

A 28-million-year-old fossil skull and jaw of the common ancestor of all higher primates, including apes and man was discovered by Yale paleontologists.

The basic principles and techniques of plasma physics have been successfully applied to the study of the motion of the stars and galaxies, opening up vast new fields for the study of the universe—Smithsonian Astrophysical Observatory.

Excavation of Tel Gezer in Israel has provided training in modern archeological techniques to a generation of American biblical scholars. The excavation has also demonstrated that Nebuchadnezzar destroyed this city which had been the dowry given King Solomon by Pharaoh Shishak when his daughter became Solomon's queen—Hebrew Union College, Cincinnati, Ohio.

Thousands of hard research dollars were saved the United States by studies in Israel of the migration of marine life through the Suez Canal. This study provides a tested model for similar studies of the Panama Canal, sea-

level plan. These studies in Israel have shown that the majority of commercially valuable fish taken in the Eastern Mediterranean had originated in the Red Sea. These studies, together with those of the Erie and Welland Canals are evidence of man's impact on his environment—Smithsonian.

Applying modern computer methods to the scattered stones of the Egyptian Temple of Akhaten dismantled in antiquity has reconstructed for modern eyes the facade of this historic temple. This project has been given extensive publicity by publications such as *Life*, the *National Geographic*, the *New York Times*, and the *Washington Star*, and a definitive book on the project will soon be published—the University of Pennsylvania Museum.

ADDITIONAL ON PHILAE PROJECT

Mrs. HANSEN. Are there any more questions on the foreign currency program?

Mr. McDADE. I would like to go back once again, if I can to our contribution to UNESCO. That is a 25-percent underwriting of the total cost; is it?

Mr. RIPLEY. The total cost is \$16 million.

Mr. McDADE. So it is 25 percent?

Mr. RIPLEY. Yes.

Mr. McDADE. How is that figure arrived at; do you know?

Mr. RIPLEY. As I understand it, the campaign simply arrived at a point where they knew the cost and had raised or had pledged the rest of the money. They then came and asked us if, in view of the passage of the Mutual Security Act of 1960, and President Kennedy's message specifically mentioning this, did we have any interest in participating in the campaign.

Mr. McDADE. They being whom? Who came and asked?

Mr. RIPLEY. UNESCO, with the support of the Egyptian Government.

Mr. McDADE. And approval of our State Department.

Mr. RIPLEY. Yes; very definitely.

Mr. McDADE. Does this represent the total outlay?

Mr. RIPLEY. This is a one-time expense; right.

Mr. McDADE. How much is the Egyptian Government itself contributing; do you know?

Mr. RIPLEY. Mr. Euell, do you happen to know?

Mr. EUELL. Yes. They are putting in a third of the total cost. That cost has escalated to about \$16 million since the original estimate which was about \$13 million some years ago. They have already, as I said, contracted out, and they feel the cost will run closer to \$16 million. President Kennedy's original recommendation was \$6 million in equivalent Egyptian pounds. We have been asked now, since other countries have become involved and are beginning to tool up and start working, if we would contribute.

Mr. McDADE. That was some 10 years ago.

Mr. EUELL. Yes.

Mr. McDADE. Why did it take 10 years? Was it a question of getting pledges or what?

Mr. RIPLEY. I think it was partly a question of manpower because the major project was saving Abu-Simbel further south near the Sudan border. That took a tremendous amount of energy because there just wasn't enough labor and engineering know-how to do it all at once. They have finally come to Philae, which is the last project.

Mr. McDADE. Thank you.

Mrs. HANSEN. Mr. Veysey.
 Mr. VEYSEY. No questions.
 Mrs. HANSEN. Mr. Evans.

REVIEW OF PROJECT PROPOSALS

Mr. EVANS. I just have one question. That is how these various projects are developed, the ideas. Do they originate with the Smithsonian? Do they come to you from the colleges?

Mr. RIPLEY. They come to us from the universities or colleges.

Mr. EVANS. Except those projects of which you are a participant.

Mr. RIPLEY. Except, of course, our own scientific or technical staff may originate projects themselves and submit them to us in the normal course of events, like any other proposals. We have outside panels of advisers who come and meet, just as foundations have, to judge the merit and the value of each one of these projects.

Mrs. HANSEN. Please insert in the record the panelists who selected this list of projects.

Mr. RIPLEY. I will be very happy to list the names of the panelists. [The information follows:]

PANELS OF ADVISERS—SMITHSONIAN FOREIGN CURRENCY PROGRAM

(March 1, 1973)

NATIONAL MUSEUM ACT ADVISORY COUNCIL

Mr. William T. Alderson, director, American Association for State and Local History, Nashville, Tenn.

Mr. Charles E. Buckley, director, City Art Museum of St. Louis, St. Louis, Mo.
 Mr. W. D. Frankforter, director, Grand Rapids Public Museum, Grand Rapids, Mich.

Dr. Giles W. Mead, director, Los Angeles County Museum of Natural History, Los Angeles, Calif.

Mr. Frank Taylor, research associate, Smithsonian Institution, Washington, D.C.

Mr. Vernal L. Yadon, director, Museum of Natural History, Pacific Grove, Calif.

Mr. Paul Perrot, chairman of the National Museum Act Advisory Council; assistant secretary, museum programs, Smithsonian and National Museum programs.

Mr. T. Mlake, director of programs, Ontario Science Center, Toronto, Ontario, Canada

Mr. Lloyd Hezekiah, director, Brooklyn Children's Museum, Brooklyn, N.Y.

Mr. Lawrence J. Majewski, chairman, Conservation Center of the Institute of Fine Arts, New York University, New York, N.Y.

ARCHEOLOGY AND RELATED DISCIPLINES ADVISORY COUNCIL

Dr. Klaus Baer, The Oriental Institute, Chicago, Ill.

Prof. Joseph W. Elder, Department of Sociology, University of Wisconsin, Madison, Wis.

Dr. Clifford Geertz, Institute for Advanced Study, Princeton, N.J.

Prof. Oleg Grabar, Department of Fine Arts, Fogg Art Museum, Harvard University, Cambridge, Mass.

Dr. Frank Hole, Department of Anthropology, Rice University, Houston, Tex.

Prof. Henry S. Robinson, Department of Classics, Case Western Reserve University, Cleveland, Ohio.

Dr. Alexander Spoehr, Department of Anthropology, University of Pittsburgh, Pittsburgh, Pa.

Dr. T. Dale Stewart, Department of Anthropology, Smithsonian Institution, Washington, D.C.

Prof. Homer L. Thomas, Department of Art History and Archeology, University of Missouri, Columbia, Mo.

ASTROPHYSICS AND EARTH SCIENCES ADVISORY COUNCIL

- Dr. Louis Walter, Goddard Space Flight Center, NASA, Greenbelt, Md.
 Dr. Henry Faul, University of Pennsylvania, Philadelphia, Pa.
 Dr. Felix Chayes, Geophysical Lab, Carnegie Institution, Washington, D.C.
 Dr. Victor Szebehely, Institute for Advanced Studies in Celestial Mechanics,
 Department of Aerospace Engineering, University of Texas at Austin, Austin,
 Tex.
 Dr. Paul Hodge, Department of Astronomy, University of Washington, Seattle,
 Wash.
 Prof. Thornton Page, Houston, Tex.
 Dr. Charles A. Lundquist, Smithsonian Astrophysical Observatory, Cambridge,
 Mass.
 Dr. William Melson, Department of Mineral Sciences, National Museum of Nat-
 ural History, Smithsonian Institution, Washington, D.C.
 Dr. William H. Klein, director, Radiation Biology Lab, Rockville, Md.

BIOLOGICAL SCIENCES ADVISORY COUNCIL

- Dr. Robert D. Barnes, Department of Biology, Gettysburg College, Gettysburg,
 Pa.
 Prof. Kenneth W. Cooper, Department of Biology, University of California,
 Riverside, Calif.
 Dr. John F. Eisenberg, Research Division, National Zoological Park, Smithsonian
 Institution, Washington, D.C.
 Dr. William E. Hazen, Program Director, Ecosystem Analysis, National Science
 Foundation, Washington, D.C.
 Prof. Paul L. Illg, Department of Zoology, University of Washington, Seattle,
 Wash.
 Dr. Bostwick H. Ketchum, associate director, Woods Hole Oceanographic In-
 stitution, Woods Hole, Mass.
 Dr. Watson M. Laetsch, director, Lawrence Hall of Science, University of
 California, Berkeley, Calif.
 Dr. Peter H. Raven, director, Missouri Botanical Garden, St. Louis, Mo.
 Dr. Robert Selander, Department of Zoology, University of Texas, Austin, Tex.
 Dr. Norman F. Sohl, U.S. Geological Survey, Washington, D.C.

VOLUME OF REQUESTS

Mr. EVANS. I notice there are between 180 and 190 different studies that are going on. How many total requests did you have? I assume these were the ones that were approved and several were not.

Mr. RIPLEY. These include the ones approved. Do you have any figures on that?

Mr. EUELL. I don't know the exact number of proposals. The total in the past year is about 120. We always have at least 25 percent more requests than we can fund.

Mr. RIPLEY. We try to satisfy about 75 percent of our applications.

Mr. EVANS. And many of these are projects that require more than 1 year for completion, I would suppose.

Mr. RIPLEY. Yes, some of them are, certainly. The archeological ones, of course, often are long-term projects.

Mr. EVANS. Your screening board does monitor these as well as review the conclusions, the end studies?

Mr. RIPLEY. Yes, annually, and we try to assess whether a project is worthwhile assuming, if it is a long-term project, on the basis that we may not have funds in succeeding years.

Mr. EVANS. In all instances does this country have the right to all information that is developed?

Mr. RIPLEY. Yes, we have complete frankness and openness in publications and in the work, in the research.

PHILAE TEMPLES

Mr. McDADE. How long have these temples been under water?

Mr. RIPLEY. They are now under water all year round, but have not always been. One of the problems has been that the earlier of the two dams, going back to fairly early times, go through dry seasons or they let out the water for irrigation. Then the water ebbs and flows causing erosion. In some seasons you could have seen almost all of the temples, but this new dam regulates the water so that they are completely flooded out. In this case the erosion is becoming more rapid, because there is a good deal of current. This is washing the sandstone. People come there in boats to examine it. They bump into the carvings and there is danger that the interior carvings on the roof will just fall down.

Mr. McDADE. Who in the State Department acts as your counsel on a question like this from UNESCO? Does it come from our Ambassador to the U.N., from the Secretary of State, or who?

Mr. RIPLEY. We see it from the cultural side, the Assistant Secretary for Cultural Affairs, with whom we maintain close relations.

Mr. McDADE. Who is that?

Mr. RIPLEY. Mr. John Richardson.

Mr. McDADE. But is there no conversation with our representative to the U.N. on a matter like this, since it is a UNESCO request?

Mr. RIPLEY. I am sure that there is, but we would not handle it directly. It would come through the State Department.

Mr. McDADE. In other words, when you got this request from UNESCO, you simply talked to the U.S. Assistant Secretary at State for Cultural Affairs for approval?

Mr. RIPLEY. I placed this request before our Board of Regents and the Regents asked me to check both with the Assistant Secretary for Cultural Affairs and also the Assistant Secretary for the Middle East, in this case Mr. Joseph Sisco, to see whether it was consonant with U.S. official policy. I received assurance from both of them that this was consonant with U.S. policy. There was no objection to it, in other words.

CONSTRUCTION PROGRAM

Mrs. HANSEN. We will insert justification pages D-1 through D-12 in the record at this point.

[The pages follow:]

SMITHSONIAN INSTITUTION CURRENT BUILDING PROGRAM

<u>Project</u>	<u>Appropriated to Date</u>	<u>Fiscal Year 1974 Request</u>
Construction and Improvements, National Zoological Park	\$9,578,000	\$3,850,000 <u>1/</u>
Restoration and Renovation of Buildings	13,887,000	1,220,000 <u>2/</u>
Construction:		
Hirshhorn Museum and Sculpture Garden	15,000,000 <u>3/</u>	...
National Air and Space Museum	14,900,000 <u>4/</u>	27,000,000 <u>5/</u>

1/ Planning parking, operations and maintenance, exhibit, and visitor facilities; construction of large cat exhibit; and building and facilities repairs.

2/ Further improvements to electrical power distribution system and access road at the Mt. Hopkins observatory; library addition planning; repairs and improvements to buildings and facilities; and development of a master plan for Smithsonian Institution facilities.

3/ Excludes \$200,000 for relocation of the Armed Forces Institute of Pathology and \$1,000,000 committed by Mr. Joseph H. Hirshhorn for construction.

4/ Plus an additional \$27,000,000 in contract authority.

5/ Appropriation to liquidate contract authority.

CONSTRUCTION AND IMPROVEMENTS,
NATIONAL ZOOLOGICAL PARK

1972 Appropriation....	\$ 200,000
1973 Appropriation....	\$ 675,000
1974 Estimate.....	\$3,850,000

An appropriation of \$3,850,000 is requested for construction of Lion Hill (large cat exhibit); for planning the terraced parking and operations and maintenance facility; for tentative design of the primate exhibit and development of adjoining Rock Creek Valley; designing the Elephant House exterior paddocks, modified interior treatment, landscaping, and walks; designing the Bird House environs, waterfowl pond, crane yard, sanctuary, walks, and graphics; designing the Harvard Street restaurant; and for the program of renovations and repairs of existing facilities at the National Zoological Park. Schematic designs for these facilities were included with the Master Plan for the Zoo which received approval from the Commission of Fine Arts on July 12, 1972, and the National Capital Planning Commission on September 7, 1972.

Funds are requested in the following categories:

1. Construction of Lion Hill (Large Cat Exhibit) (\$3,000,000)

An appropriation of \$3,000,000 is requested for the large cat (lion and tiger) exhibit. This will replace the present Lion House constructed in 1890 which is a dangerous fire hazard. The old building is substantially as it was built, no large scale remodeling has ever been done, and the small and confined exhibit cages are typical of zoo exhibit techniques at the turn of the century. Rehabilitation is undesirable from an animal exhibition and management viewpoint, and uneconomical from a design and construction viewpoint. The new lion and tiger exhibit will feature large outside exhibit yards or grottos fronted by wide visitor walkways interspersed with seating and viewing areas. Wide water moats will be used to contain the animals. Extensive landscaping will be employed to present a natural environment with the illusion of freedom for the animals. The necessary shelters, cubbing dens, and animal holding and service facilities, including curator's offices and laboratories, will be underground structures so as to minimize the impact of architectural structures upon the landscape. Indoor animal viewing for visitors who frequent the Zoo during periods of inclement weather will be provided. Planning funds (\$275,000) for this major new exhibition are in the FY 1973 appropriation.

2. Planning (\$620,000)

--Visitors Parking and Operations and Maintenance Structure -- \$300,000

An amount of \$300,000 is sought for design of tentative plans for the entire Terraced Parking Structure and operations and maintenance quarters at ground level, and for detailed plans for Phase I. This is phase one of the improved parking facilities for the visiting public, many of whom are now unable to park at the Zoo on peak visitation days. The tentative plans will provide accurate layout, engineering analysis, and a phased construction program.

Design of the terraced parking will include underground parking areas in a ratio of one space on a terrace to two spaces in an underground structure. The total number of spaces will range from 1,500 to 2,200 cars. The higher number is the recommendation of the parking consultants in the Master Planning. There will be 140,000 square feet of the underground structure used to house the

maintenance shops and warehousing operations, commissary, and police ready rooms. These operations are now scattered throughout the Park in crowded and inadequate quarters causing many control, supervision, and operation problems.

--Primate Exhibit and Development of Adjoining Rock Creek Valley -- \$100,000

Funds in the amount of \$100,000 are requested for tentative design of the Primate Exhibit to be located in Rock Creek Valley near the Calvert Street Bridge. This design will approximate a habitat environment for the primates currently housed in cramped, barred cages. These facilities will afford opportunities to rear family groups of primates and for behavioral research, which cannot be carried out in the present primate facilities. This amount is estimated to include tentative design work for Rock Creek bank protection and the required access road to permit a link-up between the Zoo trackless train and the Metro Station at Connecticut Avenue and Calvert Street.

--Elephant House -- \$100,000

An amount of \$100,000 is sought for design of the Elephant House exterior paddocks, modified interior treatment, and landscaping and walks. Included in this work are expanded exterior pachyderm paddocks, using water moats to confine the animals. Visitor viewing will be enhanced by the reduction of visual barriers, the widening of walks, and the inclusion of graphic educational material. Appropriate landscape development is also contemplated. Interior treatment will be limited to rehabilitation of animal doors and redevelopment of animal spaces. Attention will be given to improvement of interior appearances with strategically placed plant material and color treatment.

--Bird House Environs -- \$60,000

Funding of \$60,000 is sought for design of the waterfowl pond, crane yards, sanctuary, and walks and graphics. The waterfowl pond anticipated in this development will contain islands planted with ornamental grasses to create a habitat for the birds. The outdoor crane yards will be flanked by a pergola through which visitors will walk to observe the birds in a garden setting. A sanctuary for observing native birds in a garden setting will, along with graphic educational material, develop and encourage viewers to have a greater awareness of native birds and their role in local environmental settings. Completion in time for the Bicentennial year is contemplated.

--Harvard Street Restaurant -- \$60,000

This new food handling facility is badly needed to replace the existing restaurant which was not designed to handle mass production of convenience foods required by the constantly increasing number of visitors to the Zoo. Design for this item would be through contract drawings and, with construction funding in a subsequent budget, would permit the new restaurant to be available for the Bicentennial year. The existing structure will serve as an interim visitor information center.

3. Repairs and Renovations (\$230,000)

An amount of \$230,000 is required to continue the program of renovation and repairs of existing facilities. This funding is required to keep the old part of the Zoo in use for the visiting public; for the care and comfort of the animals; and to keep the new buildings in good condition so that in the future the Zoo

will not be faced with an overwhelming workload of repairs necessary to keep the buildings open. While priorities have not been established, it is planned to use these funds for the following projects:

- a. Insulation of steam lines in tunnel and extension of tunnel.
- b. Installation of heat exchangers at all buildings to convert steam into hot water.
- c. Replacement of Reptile House and Small Mammal House roofs.
- d. Repairs to stone retaining wall along the service road.
- e. Installation of air curtains at hoofed stock buildings.
- f. Miscellaneous electrical improvements including new transformers and distribution panels within buildings.

These renovation and repair projects will be accomplished, keeping in mind the Master Plan for the renovation of the Zoo and the projected life expectancy in relation to eventual replacement.

RESTORATION AND RENOVATION OF BUILDINGS

1972 Appropriation..... \$ 550,000
 1973 Appropriation..... \$5,014,000
 1974 Estimate..... \$1,220,000

An appropriation of \$1,220,000 is requested for the following projects in Smithsonian Institution facilities:

1. Mt. Hopkins, Arizona, Observatory road and power improvements	\$385,000
2. Silver Hill improvements and development	250,000
3. General building and facility repairs and improvements	315,000
4. National Museum of History and Technology Library addition planning	100,000
5. Conservation-Analytical Laboratory space preparations	50,000
6. Smithsonian Tropical Research Institute repairs and improvements	45,000
7. Smithsonian Facilities Master Plan	<u>75,000</u>
Total	\$1,220,000

Mt. Hopkins, Arizona, Observatory Road and Power Improvements

An appropriation of \$385,000 is requested for further road and power improvements.

With the \$120,000 appropriated in FY 1973, the Smithsonian Astrophysical Observatory has undertaken a major renovation of the electrical power system at its Mt. Hopkins, Arizona, Observatory, so that it will match the rapidly increasing observational potential of the installation. The Corps of Engineers has completed the first draft of its study of a power distribution improvement for the ridge and summit. It includes properly buried cable and lightning protection as well as provision for communications, data lines, and water pipes. After this draft is reviewed, and any necessary modifications made, bids will be invited for the first construction phase of this project. All this is expected to take place before the end of this current fiscal year. The initial construction contract will be let this year. The FY 1974 request of \$300,000 will complete the project of bringing safe and reliable electrical power to the mountain's summit.

The most dangerous sections of the Mt. Hopkins access road are being repaired and improved in FY 1973 with the \$100,000 appropriated. Plans call for continued improvement of hazardous sections of road in FY 1974 and following years. An appropriation of \$85,000 is requested for FY 1974. This work will be accomplished by the use of outside contractors as well as the use of temporary personnel with purchased materials. This project will require about five years for completion at a total cost of \$800,000.

Silver Hill Improvements and Development

An appropriation of \$250,000 is requested for the Silver Hill, Maryland, storage and restoration facility.

The Institution faces harsh pressures for additional storage and work space. Mall buildings are crammed to the rafters. Exhibits halls in buildings on the Mall have been removed from public use when absolutely necessary to house national collections. Loan programs intensify. Acquisition and retention practice is under active review at many levels. Material inventories are reduced, but growth and use of national collections exceed any limited gains from such measures. For partial relief, off-Mall storage options have been developed wherever feasible for housing materials requiring only limited access.

In 1970, a 96,000 square foot warehouse in the Federal Records Center in Alexandria was assigned to the Institution. It is now used by 14 Smithsonian bureaus and organizations. But on 10 March 1975, it becomes the exclusive property of the City of Alexandria as deeded to it by the U.S. Government. GSA assistance in finding equivalent space is being sought; however, no assurances of replacement have been received. The Institution must seek to cover its own needs to the greatest extent possible.

At Silver Hill the growing collections of the National Air and Space Museum require additional safe housing. Exhibits development for the forthcoming major new National Air and Space Museum on the Mall demands additional work space. Although the need for off-Mall storage will continue indefinitely beyond the opening of the new museum (only a small percentage of the study collection can be housed on the Mall), the years immediately ahead, FY 1974 and FY 1975, are critical for assuring effective development of the NASM curation, restoration, fabrication, and exhibit preparation. The Museum of Natural History must gain additional off-Mall storage space as soon as possible to manage effectively its immediate Mall space problems. Other Mall activities are pressed hard to relocate to off-Mall those of their activities that can be carried out effectively so placed. The Photographic Services Division's processing laboratory is a prime example. Centralized Office of Exhibits workshops is another.

All these needs speak to the value of the fullest use possible of remaining development options at the Institution's 21 acre Silver Hill (Suitland, Maryland) site for low-cost, temporary structures. Twenty-one structures, totaling 265,000 square feet, have been built at the site since 1953. An estimated additional development of 90,000 square feet of comparable configuration (low-cost, single-level structures) is practicable. For FY 1974 there is sought \$250,000 to achieve the next stages of improvement and development of the site. This will permit between 20,000 and 30,000 square feet of additional development for storage and work space through construction of simple, low-cost structures and modifications and additions to present structures--a level of development comparable to that of several earlier years. Site studies are underway to set the most efficient combination of renovation, extension, and construction of low-cost structures.

General Building and Facility Repairs and Improvements

An appropriation of \$315,000 is requested for several Smithsonian buildings and facilities to make improvements and repairs to prevent further deterioration, ensure public safety, enhance appearance, and facilitate the program operations of the research organizations, museums, and galleries using these spaces.

Fine Arts and Portrait Galleries Building

An appropriation of \$50,000 is required for the following projects:

--Landscaping of the courtyard, replacement and repair of the sidewalks, and the repair and reactivation of the two fountains. This work will complete the restoration of the courtyard which was curtailed during the building renovation due to lack of funds. The courtyard has a great aesthetic impact on the building and offers the opportunity for outdoor activities in a pleasing setting (\$25,000).

--Roof repairs are necessary to forestall deterioration of the structure as well as prevent damage to art treasures housed within the building. This necessary work was deferred from the previous renovation project and should be accomplished as soon as practical (\$25,000).

History and Technology Building

An appropriation of \$50,000 is requested for the following work:

--The installation of fire control systems has been planned to coincide with revisions of the exhibition halls to reduce the costs and length of time that an area will be out of public service. This program extends the fire control work which was done following the disastrous fire on the third floor of the building on September 30, 1970 (\$50,000). This is one increment of a five-year program estimated to cost \$250,000.

Smithsonian Institution Building

An appropriation of \$20,000 is sought for the following project:

--The repair of existing roadways, the installation of curbs, and the replacement of sidewalks to correct deteriorated conditions and surface drainage problems is required. The improved appearance and reduced possibility of pedestrian injuries due to faulty surfaces make this a most important project (\$20,000).

Freer Gallery of Art

An appropriation of \$15,000 is needed for the following work:

--Recurring blistering of roof covering and leakage around skylights and flashings cannot be economically combatted without removal of existing unsatisfactory materials and replacement with a heavy duty roof covering. This work is necessary for the preservation of the building and to remove any possibility of rain water damage to the irreplaceable objects in the collections (\$15,000).

Natural History Building

An appropriation of \$125,000 will be used for the following projects:

--The existing climate control systems utilize a single filtering media for the air intake systems. These filters cannot remove sufficient dirt particles to maintain satisfactory interior conditions since they only remove approximately 25 percent of atmospheric dust. The excessive dirt deposits cause deterioration of invaluable objects in the collections, require excessive clean-up efforts, and add to the cost of maintenance and operation of the building. This project involves the installation of a second filtering stage to the system which will reduce atmospheric dust by 85 percent and control the excessive dirt problem more efficiently. Modifications to the 10 existing air handling systems, installation

of gauges and controls, and installation of high efficiency air filters will result in long term savings and provide improved environmental conditions for personnel, visitors, and the collections (\$40,000).

--The automatic fire control systems should be extended to public areas, reference collection areas, offices, and workrooms. This work has been planned as an incremental project to coincide with other alteration and exhibition changes that are programmed for the building. In this way a total coverage can be obtained after several years of continued work without disruption of ongoing activities. The project will improve the protection of museum objects, reduce the fire potential where burnable materials are present, and provide a significant improvement to the safety of the occupants of the building (\$25,000). This is the first increment of a \$500,000 program.

--It is important to convert existing space into more usable areas to accommodate pressing needs for office, research, and curation purposes in the Natural History Building. These improvements will permit consolidation of activities with attendant increased efficiency, better coordination of internal programs, and adequate working conditions for the staff (\$60,000).

The project will include completion of an existing partial second floor level; installation of partitions; revisions of heating, ventilating, and air conditioning systems; installation of modern lighting, adequate electrical and communications systems, floor coverings, fire detection and security systems.

Anacostia Neighborhood Museum

An appropriation of \$25,000 will be used for the following work:

--The museum serves over 50,000 visitors each year with a wide variety of exhibits, classes, discussion groups, and other community participation services. The museum itself is a converted movie theatre. Classes and other programs are held in old neighborhood buildings not originally designed for heavy visitor use. Conditions in each of these buildings do not meet acceptable functional, environmental, or safety standards. An appropriation of \$25,000 is requested for electrical and plumbing work; roof, wall, and floor repairs; improved lighting; painting; and other work.

Chesapeake Bay Center for Environmental Studies

An appropriation of \$30,000 is requested for the following work:

--The Chesapeake Bay Center for Environmental Studies' (CBCES) pier on the Rhode River, while still having sound pilings, has deck planking which is gradually rotting. Most of the deck should be replaced to make the pier safer for vehicles (oil trucks, etc.) and personnel. In addition, the boat launching ramp needs to be widened and extended for ease and safety of launching and removing boats (\$9,000).

--The Poplar Island group, of which the Smithsonian owns two islands, is being eroded away by storms. Jefferson Island contains a lodge, caretaker's cottage, and numerous out-buildings and is valued at something over one million dollars. In order to start to protect this property from erosion, some bulkheading should be erected. The caretaker's cottage on this island is also in need of repairs. With aluminum siding and some internal renovation, this cottage would be expected to give additional years of service. The remote location of the island requires that it be self-contained. Electricity is generated by diesel generators. Two generators are required to assure a constant supply of

electricity (which in turn runs pumps for water, radio service, etc.). One generator has been rebuilt this year and is now in good repair. The other generator is World War II surplus and should be replaced to assure the electric supply (\$9,000).

--The parking area at CBCES is frequently filled to overflowing with the increased popularity of the Center as a site for research and meetings of environmental groups. Expansion of the parking area cannot take place until temporary structures are moved, certain utility lines relocated, and the area graded and resurfaced (\$3,000).

--The main gate at CBCES needs to be replaced with a modern electronic gate. Currently the single gate from the main access road into CBCES is locked by a large padlock. Personnel wishing to enter the area at night or on the weekends must wait for the security guard to come to the entrance and unlock the gate. A modern electronic gate with entry to authorized personnel using a laminated magnetic card would free the security guard for patrols around the Center (\$2,000).

--Several existing structures at the Center are in need of routine maintenance. The main office/laboratory needs to be resurfaced and painted, the roof on one building needs painting, and the lock system in the main building needs to be converted from the home-type system currently being used to a system which allows the use of a single master key by authorized personnel and individual keys to personnel allowed into only certain areas of the building (\$7,000).

National Museum of History and Technology Library Addition Planning

An amount of \$100,000 is requested to finish architectural plans and specifications for construction of additional library space in the National Museum of History and Technology. The FY 1973 appropriation contained \$150,000 for the first stages of detailed planning. The steady growth of the NMHT collections and the intensification of the Museum's research programs have made its present library facilities and study areas inadequate to the needs of its staff and the many visiting scholars it receives each year. Thousands of rare and important books are in storage and totally inaccessible for research purposes. It is evident that this problem will become more severe in the years ahead. The Institution must provide for its solution.

In addition to this urgent general need, the Institution wishes to provide appropriate facilities for a great collection of rare books on the history of science and technology that may be offered as a gift. This collection has been appraised conservatively at substantially more than a million dollars. Its acquisition by the NMHT would greatly enhance the Museum's department of science and technology and establish the Smithsonian as a national center for the history of science and technology.

The original architect of the History and Technology Building has developed preliminary plans for a sixth-floor addition that would tastefully and economically meet both the overall requirements and the particular need for added library space. This additional \$100,000 would enable detailed plans and specifications to be made and also enable the Smithsonian to obtain an accurate estimate of construction costs.

Conservation-Analytical Laboratory Space Preparations

The Laboratory currently has its staff of 12, visiting interns, books, benches, shelving, and \$120,000 worth of scientific equipment multilayered into 2,600 square feet. The space is desperately overcrowded to the point of

endangering museum objects under treatment. One other staff member occupies a corner of another office's workroom. Two additional interns have desks in the Underwater Laboratory.

It is now planned to acquire about 2,000 square feet of adjacent space to be relinquished by the Office of Exhibits by FY 1974. It will have to be re-equipped with: a fume extraction system, dust-proof ceilings, humidity control, sinks, water, properly located power supplies, resilient-tile floor covering, workbenches, matching lighting, and walls painted to compensate for lack of any windows.

With careful organization, this refurbished space will immediately relieve a badly over-crowded situation and may later house additional staff requested to begin correction of the deficiencies in the Smithsonian conservation program.

An appropriation of \$50,000 will accomplish this preparation.

Smithsonian Tropical Research Institute Repairs and Improvements

An appropriation of \$45,000 is requested for necessary repairs, improvements and enlargement of present facilities.

All buildings at Smithsonian Tropical Research Institute (STRI) are loaded to the rafters with people, labs, and materials. Simple enlargement and limited addition of work facilities where possible is the only practical course to accommodate the active uses of the place by ongoing programs in research and conservation, serving hundreds of participants from universities and labs from throughout the country.

At the same time that its buildings are over committed in terms of demand, the special costs of maintaining these buildings in the tropical environment must be borne. Despite modern methods of wood treatment, damage caused by termites, ants, bat guano, and dry rot in the humid forest environment cannot be fully stopped. Use of insecticides is extremely hazardous to the research done by STRI, especially on the island. Future construction on the island will be mainly of concrete block, but restoration of already damaged buildings will be necessary over a period of several years until new structures can be built.

The appropriation request will permit limited accomplishment of these needs on a priority basis. This work will be accomplished by contractual services or by using existing staff labor. The funds requested will be used to purchase services, necessary supplies, and construction material.

Smithsonian Facilities Master Plan

An appropriation of \$75,000 is requested to undertake the study and development of a master plan for Smithsonian facilities in the Washington, D. C. area.

The Institution occupies 2.7 million square feet of net working space at 20 different sites in the Washington Metropolitan Area. Authorized programs, collections, work staffs, educational programs, research efforts, conservation efforts, support, protection, and maintenance needs consume this resource totally. Growing National Collections, now upwards of 70,000,000 in number, are predictable consumers of major volumes of additional space. The collections, of no value if not cared for, preserved, and made available for study and sharing, demand improved and expanded housing along with associated conservators, researchers, students, and concerned public. Bicentennial emphasis simply accelerates national

interest in understanding the Nation's history through its artifacts. Environmental and social concerns intensify demands for mining the wealth of information possessed by the National Collections. These efforts demand new space. Short-term solutions, partial to some of the needs, have been practically exhausted.

Of the net working space cited above, 1.7 million feet are on the Mall; and it is with programs housed in the Mall structures that the principle growth requirement exists. Preserving space for enlightenment and education of the public, the highest priority for employment of Mall space, conflicts inevitably with growth of collections and their necessary work staffs. Something must give.

The alternatives are to seek short-term remedial relief again and again, or, instead, to establish a balanced program with each subsequent proposed construction effort, starting in the balance of the 1970s and continuing for the next immediate decades of national growth, fitting together into an overall logistical system. There appears no logical choice other than to move assemblies of collections and employees to an off-Mall support center coordinated with the most effective possible use of remaining on-Mall opportunities. The key to such efforts is to understand clearly the spatial and cost concomitants of interrelating the Institution's 40 separate bureaus, organizations, and services. Methods must be outlined and assessed for the most feasible and effective use of present and future space and the transfer of information and objects between sites. Study must be made of spatial relationships of acquisitions, accessions, preservation, conservation, exhibitions planning, development and maintenance, reference and research, and varied administrative and support activities. In effect, an overall logistical systems analysis must be made delineating the most efficient assemblies of activities on present and potential sites.

CONSTRUCTION

(Liquidation of Contract Authority)

1972 Appropriation.....	\$ 5,597,000	<u>1/</u>
1973 Appropriation.....	\$13,000,000	<u>2/</u>
1974 Estimate.....	\$27,000,000	<u>3/</u>

The Act of August 12, 1946, established the National Air Museum as a bureau of the Smithsonian Institution. The Congress included provisions for selecting a site for a National Air Museum building to be located in the Nation's Capital. By the Act of September 6, 1958, the Congress designated a site for a building to be on the Mall from Fourth Street to Seventh Street, Independence Avenue to Jefferson Drive. Public Law 89-509 in 1966 authorized the construction of the National Air and Space Museum. At that time approved plans were developed for the building's construction at a cost of \$40 million but actual appropriations and construction were held up by Southeast Asia military expenditures.

In order to keep the costs of this major new museum building at \$40 million, the Smithsonian Institution requested and was appropriated \$1,900,000 in FY 1972 to redesign this National Air and Space Museum. This new design was approved by the Commission of Fine Arts on May 17, 1972, and the National Capital Planning Commission on September 7, 1972. In FY 1973 \$13,000,000 was appropriated for the National Air and Space Museum plus \$27,000,000 in contract authority. It is requested that \$27,000,000 be appropriated in FY 1974 to liquidate the balance of the contract authority.

Excavation for the building is well underway and the foundation work has been started. Bids have been awarded for the structural steel, marble, foundations, metal decks, electrical and mechanical systems, skylights, window walls, elevators, and roofing. By the spring of 1973 contracts for the entire project will have been awarded. This means, that except for a small reservation and a contingency fund, most of \$41,900,000 will have been obligated. The project is now on schedule with expected substantial completion in late summer of 1975 ready for the installation of exhibits and a target opening date of July 4, 1976. Annual attendance of six million visitors is expected to this major new center of exhibition, exposition, and education in the history, science, and technology of man's air and space explorations.

1/ FY 1972 \$3,697,000 was appropriated toward the liquidation of contract authority for the Joseph H. Hirshhorn Museum and Sculpture Garden and \$1,900,000 for planning the National Air and Space Museum.

2/ \$40,000,000 was authorized in contract authority for the National Air and Space Museum of which \$13,000,000 was appropriated.

3/ Liquidation of balance of contract authority.

NATIONAL ZOOLOGICAL PARK

Mrs. HANSEN. \$3,850,000 is requested for construction improvements for the National Zoological Park. The master plan for the zoo was approved by the National Capital Planning Commission on September 7, 1972. These funds are requested to begin implementation of that plan. What are the total costs estimated for bringing the zoo into the conformance with the plan?

Mr. RIPLEY. I would like to ask Dr. Reed to testify to this point if I may, Madam Chairman, because he not only knows all about tigers but he knows all about master plans.

Mr. REED. May I present the master plan report as approved by the Fine Arts and National Capital Planning Commission? In answer to your question as to the total amount of moneys needed to bring the present zoo into conformance with the master plan at the present time, I would estimate that with the broad, schematic plans and very rough cost estimates that we now have, it would be about \$80 million over a period of many years.

Mrs. HANSEN. How many years are involved?

Mr. REED. We are figuring 20 years on this. If we were appropriated a higher level of funds on annual increments, then we could build faster and it wouldn't cost so much to build in the end. We have had, as you know, 1 percent a month, 10 to 12 percent a year, cost construction inflation the past few years. If we had continued our 10-year program that we started in 1961, we would be done now, and we wouldn't be looking to twenty years in the future.

Mr. McKAY. Maybe you will be building it over again.

Mr. REED. I hope not, sir.

Mr. RIPLEY. Building cycles should be every 25 years I believe for a zoo. Mr. McKay, but unfortunately they are usually every 100 hundred years.

Mr. REED. It certainly seems to be that way and certainly by the time we get all the advice from the reviewing bodies we certainly build buildings that are going to last for a considerable time. The program that we presently have, as you know, through reprogramming approved by this committee and the Senate subcommittee on appropriations is for three items. The rhino pens are coming along very nicely. Work is in progress on the second phase of the panda house and that also is coming along very nicely. There will be no overrun on either one of those. We insisted that construction costs be kept within the reprogrammed amounts. The plans for remodeling the monkey and the Puma houses are about 80 percent complete now, and probably will go out to construction bid this summer sometime, probably June or July.

FUTURE CONSTRUCTION PLANS

Mrs. HANSEN. Page 22 and 23 of the master plan report gives your construction outlook. Is this correct?

Mr. REED. This is a construction outlook. On any one of these designs and plans you have to make some sort of a cost projection. I personally didn't want to make a projection because we are committing ourselves to the future. This is the best that we could do figuring a long period of time. Some this timespan is due to the fact that we cannot build one object until another object is built. For instance, the site of the

miserable 1914 bear pens is where we are going to put a new primate exhibit for some of the smaller monkeys, but we can't do that until we move the bears. We can't move the bears until we move the dogs. We will have to play this game of musical chairs.

Mr. RIPLEY. Musical bears.

Mr. REED. And lions and monkeys and geese. We have got the most musical animals you ever saw. For 1976 obviously we cannot have the center of the zoo decimated by construction. So the construction being done at that time will be on the periphery of the zoo, not in the center of the zoo.

ALLIGATORS AND CROCODILES

Mrs. HANSEN. Mr. Yates wants to know the difference between a crocodile and an alligator. Will you enlighten him?

Mr. REED. Certainly. First of all we go back, this is a very old, old story. The alligator is found only in Southern United States and China, so anything else you run across any place else in the world is a crocodile.

Mr. YATES. That is the difference.

Mr. REED. That is the simplest difference for an old horse doctor like me. The basic difference shows in the webbing between the claws, the protuberance of nostrils and visibility of the teeth when the mouth is closed. The best way you can tell the difference is when an animal has its mouth shut. If you can see the fangs sticking up then it is a crocodile. If it has got its mouth closed and you can't see the teeth showing then it is an alligator. Regarding the location of the nostrils, the alligator has a smooth nose while the crocodile has one little periscope or protuberance for the nostrils.

Mr. YATES. No difference in size?

Mr. REED. Oh, yes a difference in size. There must be 24 or 25 different species of crocodiles? Some of them are about 3 feet long, the little dwarf crocodiles from Africa and then the salt water crocodile is over 25 feet long, much bigger than an alligator. Do come out to the zoo and I will show you the little one and big one and a couple in-between.

Mr. YATES. Okay, I will be there.

Mr. RIPLEY. We would love to show you the pandas. We can show you the pandas if you come on your way to work some morning. We can have a quiet little showing before too many people are around. That is the best time to see them.

Mr. REED. They are most active early in the morning. Really they are a lot cuter than crocodiles.

Mr. YATES. How early?

Mr. REED. About 8:30 or earlier.

Mr. YATES. When are they the most active?

Mr. REED. Between 8:30 and about 9:30. They are fed at 9:30 in the morning. We usually turn them out about 8 and they play around in their yards. They are active, anticipating their meal. Usually they take a bath before they go in and have breakfast. Like all growing children after they have had their food they want to take a nap. So they sack out when all the people are coming, thousands of visitors coming to see the sleeping pandas.

I have had some very difficult letters to answer on that.

ESTIMATED TOTAL COST OF ZOO CONSTRUCTION

Mrs. HANSEN. You haven't given us the total cost yet of the zoo construction.

Mr. REED. We are anticipating the cost to be \$70 million over a period of 20 years.

Mrs. HANSEN. Is it going to be a larger sum any one particular year than another due to the type of construction?

Mr. REED. Yes, it will, particularly those years in which we are building some of the larger features. It is my hope that we can bring it up to a general level of funding of about \$6 million a year. However, as you know, it must go through the Office of Management and Budget and other reviews before we can come to you and ask for an appropriation. I hope that we can keep it at about that level but it will vary from year to year due to items that are being constructed.

LARGE CAT EXHIBIT

Mrs. HANSEN. \$3 million is requested for construction of a large cat exhibit. Is all the necessary planning completed for this project?

Mr. REED. It is not completed as yet. We have the plans here if you would care to see them. This is a set of the plans as we have them now. We are now into the final working drawings. We have the tentative plans. We know what it is going to look like.

Mrs. HANSEN. When will those be complete?

Mr. REED. They should be done sometime late this summer. Then through the General Services Administration we review the documents and issue the bids. We hope to be in construction by January or February of 1974.

Mrs. HANSEN. Is \$3 million the total cost for the cat exhibit?

Mr. REED. Yes, ma'am.

Mrs. HANSEN. Why did you decide to proceed with this project first?

Mr. REED. Dr. Ripley and I agreed that the present lion house is the most miserable building that we have.

Mr. RIPLEY. It is the worst.

Mr. REED. It is the worst.

Mr. RIPLEY. We have had disease. It was built in 1890 and we felt that it was really the highest priority because these large cats are an enormous, popular attraction. People constantly are saying, "How can you keep these cats in this miserable place? How can you have these magnificent animals in such antiquated and miserable quarters?" Our answer is we have had this since 1890 and it was good enough in 1890, so we have been stuck with it.

Mr. MCKAY. How many cats do you have?

Mr. REED. At the present time we have about 15 cats, that is, lions, tigers, leopards, jaguars, pumas and cheetahs, the larger size cats. There are about 17 of the smaller size cats, for example, bobcats.

Mr. MCKAY. What is the total cat population? Thirty-five?

Mr. REED. The total cat population is now 32 animals. I hope it fluctuates upwards by births.

Mr. RIPLEY. We have, of course, bred many lions and some tigers over these years and occasionally some of the smaller cats.

Mr. REED. I think our breeding record considering the rather old-fashioned inadequate quarters has been quite satisfactory. It is not what I personally would like to have, but then I am sure it will be much better when we have adequate quarters with cubbing dens, the isolation of the females, and with lots more space for the animals to exercise in.

PLANNING ADDITIONAL FACILITIES

Mrs. HANSEN. \$620,000 is requested for planning of five structures at the zoo. Will construction funds be requested next year and what will be the total cost of these structures?

Mr. REED. At the present moment I am unable to tell you what the total cost for these structures will be based on the very preliminary plans that we now have; that is, we haven't got a cost estimate on these yet.

We will be requesting construction funds for some of these plans. What I feel we must do, is get our plans ahead of our construction requests, so that we have a solid set of plans. I want to be able to present to you complete documentation and say, "Here are the construction documents" instead of walking in and saying "Here are 80-percent complete plans," or tentatives.

Mrs. HANSEN. Have you been behind in your planning?

Mr. REED. The phasing of planning, construction, getting approvals, and appropriations has not always been on the same level at the same time. We want to get on a solid basis. This request for design money will help bring us into schedule.

Mrs. HANSEN. Of the projects listed in your justifications which are your high-priority items?

Mr. REED. My personal priority items for construction of those items we are requesting planning funds for would be enlarging the outside pens of the elephant house, and then the tentative plans for the primate exhibit.

The primate quarters are pretty miserable, small prison-cell type cages now. We want to get a tentative plan for the downstream of the valley of Rock Creek which will include flood control—as you know, we had Agnes last year which caused us quite a bit of trouble—the sheep and the goats, the primate quarters, and a tractor-train connecting pathway between that area and the Calvert Street and Connecticut Avenue corner which will be a block away from the subway. The connecting trainway will give our visitors an opportunity to come to the zoo from the subway with only a block's walk. Otherwise they have to walk 2,000 feet to get from the subway station to the pedestrian entrance of the zoo.

The other project, the birdhouse environs, including fixing small outside cages, of course, is very dear to my heart because I would like to get that outside area to be equal to the modernized inside area.

The proposed Harvard Street Restaurant is a facility for our visitors. This is certainly badly needed by the zoo. The present restaurant was built in 1941.

Mrs. HANSEN. Is this operated by a concessionaire?

Mr. REED. By a concessionaire; yes. It has returned to the Government over four times its original investment price.

Mrs. HANSEN. Please insert in the record what the restaurant has returned to the Government.

Mr. REED. Certainly; I would be delighted to.

[The information follows:]

RECEIPTS FROM ZOO RESTAURANT

The receipts from the zoo restaurant from 1965 through 1972 amounted to \$644,437.14. No records are currently available on the receipts from 1941 through 1964. The restaurant cost \$75,000 to construct, so the return on this investment must be 10 times.

REPAIR AND RENOVATION FUNDS

Mr. REED. The \$223,000 requested for repairs and renovation is a continuing requirement to keep the zoo going and to keep us from getting into the position of increasing deterioration where we were several years ago and still are to some extent.

We must maintain the plant. We must keep up roof and sidewalk repairs.

PARKING FACILITY

Mrs. HANSEN. The planning of the visitor parking and operation and maintenance structure is the last of your priorities? Is that correct?

Mr. REED. Madam Chairman, you have asked me if this is the last of my priorities. As an animal man I am always going to put the priorities on the animals first. However, we are going to have to review all priorities when we have more of the plans developed to see where visitor parking fits into the total development.

As an animal man I want to take care of the animals. Dr. Ripley has to keep telling me I have to take care of visitors, too.

Mrs. HANSEN. Isn't the operation of the Metro going to change your automobile situation?

Mr. REED. I get so many different opinions. If you want to say Metro is going to help, you can get experts who say it will. If you want to say Metro isn't going to help you can get experts who say it isn't going to make any difference.

There is some debate as to whether people who will use the Metro for daily commuting will also use Metro for a weekend or holiday family outing to the zoo. This person may want to put the family in the car and take them to the zoo. I have no idea.

Really, I am in no position to judge how it is going to affect us. I hope that it does help. I hope that people come to the zoo by Metro.

Mrs. HANSEN. Don't you think you should ask Metro for better statistics on this before you get into this section of your construction program?

Mr. REED. Madam Chairman, I will go again. Yes, I have been many times to Metro.

[The information follows:]

METRO

A request has been made to Metro for information on the numbers of visitors who can be expected to come to the zoo via Metro instead of by car. When their response is received a copy will be provided the committee.

Mrs. HANSEN. I think you should have a study on likely use of the Metro on, say, a Saturday and Sunday. I think you have to face the fact that the whole traffic pattern is going to change because of the transit and our current energy situation. If the transit is going to be successful it has to be operative on Saturday and Sunday.

Mr. REED. I can say that the ultimate parking capability that our traffic consultants say that we will need is a good deal more than that which we are going to be able to furnish. We are not meeting what the traffic consultant says is the ultimate need.

We have reached a compromise to what we think will be satisfactory to the people for parking most of the time.

Mr. RIPLEY. If I could interject, Madam Chairman, one of the highest priorities to me with regard to this parking study is that if we can get this parking garage area we can rehabilitate 12 acres for the zoo. That is, we can make a net increase of 12 acres to the visitor and exhibit part of the zoo because it is now flattop with asphalt.

After all, we don't have an endless size zoo. It is only 165 acres.

Mr. REED. Of this 165 acres, there are about 20 acres that are going to be unusable because of the terrain.

Mr. RIPLEY. There are about 145 acres that can really be used for the zoo, so every 12 acres is a tremendous asset to us for the beauty and the landscaping, visitor use, and, of course, the animal exhibits.

PAID PARKING

Mr. McDADE. The future parking at the underground garage, if you get that, is to be paid parking?

Mr. RIPLEY. Yes, and we are now hoping with the institution of paid parking to develop some revenue to help to start our kind of matching fund, as it were, for this.

Mr. McDADE. What do you envision the future to be, an appropriation from this committee for a certain percentage of the costs of construction of the parking area and a match from revenues? Is that it?

Mr. RIPLEY. We do not have an estimate, but we want to try and help ourselves as much as we can. We really do.

Mr. McDADE. Well, the reason I ask is of course as you know we have a GAO report in here on the parking facility at the Kennedy Center which was done not that way but through a bond issue and it is apparently never going to pay for itself and we just want to be, on all squares about where you are going to go and how much of the people's money is going to be required to do what you want to do.

Well, we will watch it. Thank you.

Mrs. HANSEN. Do you intend to issue revenue bonds?

Mr. RIPLEY. We haven't made any decision on that about how to raise to this money for the parking.

Mrs. HANSEN. The first thing you have to have are your plans.

Mr. RIPLEY. Yes; that is correct.

Mrs. HANSEN. The revenue bond would depend on how many cars you are able to handle.

Mr. RIPLEY. We would study the possibility of writing that off.

REPAIRS TO ZOO FACILITIES

Mrs. HANSEN. You are requesting \$230,000 for repairs and renovations.

Mr. REED. That is right, such things as insulating the steam lines and extension of the steam tunnels, installation of heat exchangers in all buildings to convert from steam to hot water, roof replacements, repair of an old stone retaining wall, along the road going up to the administrative office, which is about ready to go out, and other miscellaneous repairs and improvements.

Mrs. HANSEN. As you perform your maintenance work, do you keep in mind what you expect to replace?

Mr. REED. Oh, yes. This is what we are working at right along. In fact there are some buildings that will not be touched, repaired, because we know we are going to replace them.

RESTORATION AND RENOVATION OF OTHER BUILDINGS AND FACILITIES

Mrs. HANSEN. \$1,220,000 is requested for Restoration and Renovation of Buildings. This involves the Mount Hopkins, Arizona, Observatory road and power improvements; Silver Hill improvements; general building and facility repairs; National Museum of History and Technology library addition planning; Conservation-Analytical Laboratory space preparation, Smithsonian Tropical Research Institute repairs and improvements; and Smithsonian Facilities Master Plan.

Please explain these projects for the committee.

MOUNT HOPKINS OBSERVATORY

Mr. BROOKS. I can speak to those projects, Madam Chairman.

Starting with the Mount Hopkins Observatory, Ariz., road and power improvements, we have made a beginning with the \$220,000 that was appropriated to us by the Congress in the present year. In the case of the power improvements, the \$300,000 that we are requesting for 1974 will complete the project of the major power renovation.

That is essentially a hookup with commercial power in that area. We are now using on-site generators. The road is a continuing requirement for which we are requesting \$85,000 in addition to the \$100,000 appropriated by the Congress to us in 1973. That work is proceeding satisfactorily.

Mrs. HANSEN. What is the length of this section of the road?

Mr. BROOKS. The total road length, Madam Chairman, is between 15 and 17 miles. We are not doing it in increments of road but rather in terms of improving, moving forward and then improving sections of the road.

I have a photograph if you would like to see it.

Mrs. HANSEN. What is going to be the total cost?

Mr. BROOKS. We estimate the total cost of the road will be \$800,000 over a period of approximately 5 years.

Mr. RIPLEY. It is a tremendously rugged mountain.

SILVER HILL PROJECT

Mrs. HANSEN. Yes. That is the first project.

What do you plan at Silver Hill?

Mr. BROOKS. At Silver Hill, Madam Chairman, the motivating factor is that we have learned since last year's hearing that we must move out of the building leased in Alexandria, building 3 on the Alexandria waterfront, in 1975.

We are seeking therefore \$250,000 for approximately 20,000 to 30,000 square feet of space at Silver Hill which will partially accommodate the materials which we have to move out of building 3 in Alexandria.

Mrs. HANSEN. This is where you have been storing your National Air and Space Museum materials?

Mr. BROOKS. Yes, we have several kinds of storage there.

Mrs. HANSEN. Will these materials go into the new Air and Space Museum?

Mr. RIPLEY. Some of them, but not all.

Mr. BROOKS. The collection space in the new Air and Space Museum is very limited. We are planning that primarily as a public access museum on the Mall, and Mr. Collins can speak to the collection space.

Mr. COLLINS. That is exactly right, Madam Chairman. Of our study collection, for example, only a small fraction of it will fit inside the new building so there would have been some overflow into building 3 in Alexandria. We are looking for alternate space for some of our items which will never make it into the Mall.

Mrs. HANSEN. In your new Air and Space Museum will you be rotating your exhibits?

Mr. COLLINS. Yes. We will have rotating exhibits, Madam Chairman.

Mr. McDADE. Is this going to satisfy your requirements for space for housing artifacts for the Air and Space Museum?

Mr. COLLINS. We are never really satisfied, Mr. McDade. It is a step in the right direction.

Mr. BROOKS. They have made very substantial progress, Mr. McDade, in the last year or two with the money appropriated by this committee.

Mrs. HANSEN. How much additional money are you going to have to have beyond this request?

Mr. BROOKS. At Silver Hill, Madam Chairman?

Mrs. HANSEN. Yes.

Mr. BROOKS. We have no contemplated additional requirements of this kind. We do have, and this I speak to in connection with the master plan for Smithsonian facilities, a potential requirement for space which may be of a different kind and Silver Hill is one of the locations we are contemplating for that possibility. This would not be limited to the National Air and Space Museum's needs. It would be an institutionwide study of space requirements for collections and support activities.

GENERAL BUILDING AND FACILITY REPAIRS AND IMPROVEMENTS

Mrs. HANSEN. Your request of \$315,000 for general building and facility repairs and improvements is broken down as follows: The Fine Arts and Portrait Galleries Building, \$50,000; the History and Tech-

nology Building, \$50,000; Smithsonian Institution Building, \$20,000; Freer Gallery of Art, \$15,000; Natural History Building, \$125,000; Anacostia Neighborhood Museum, \$25,000; and the Chesapeake Bay Center for Environmental Studies, \$30,000.

Do you want to review these projects for us briefly?

Mr. BROOKS. Yes, Madam Chairman.

In general these projects break down into several categories. One of these is necessary repairs.

Mrs. HANSEN. Such as?

Mr. BROOKS. Such as the roof on the Fine Arts and Portrait Galleries Building; the roof at the Freer, sidewalk repair at the Smithsonian Institution Building, very much needed repairs at the Anacostia Neighborhood Museum which was, as you know, an old movie theater, and needs repairs for the comfort and safety of the public attending it, and repairs to facilities at the Chesapeake Bay Center such as the pier and the headquarters building.

Mrs. HANSEN. You plan some replacement on the dock.

Mr. BROOKS. Yes; the pier, Madam Chairman; and the Poplar Island bulwark work and cottage also. The repairs in total, Madam Chairman, account for \$112,000 out of the \$315,000. We also have a request here for certain improvements, mechanical improvements, in the building in the matter of fire control and air filtration. We consider fire control as a very high priority, both in the History and Technology Building and in the Natural History Building. This is a phased program initiated after the fire we had in one of the exhibit halls in History and Technology. We feel that the modern systems which are now available will be both safe as far as the exhibits are concerned and will also help to protect against this very real hazard.

The air filtration system, which is the other part of the Natural History Building request, is simply to prevent the present excessive accumulation of dust and dirt in the building by adding a second stage filter system, removing 85 percent of the dust instead of the present 25 percent.

Mr. McDADE. Will you yield?

Mrs. HANSEN. Yes.

Mr. McDADE. What kind of a fire system are you going to have installed in the museum? What is the nature of it?

Mr. BROOKS. It will be basically a sprinkler system, Mr. McDADE.

Mr. McDADE. Based on heat?

Mr. BROOKS. It is based on two things, on heat and smoke detection devices. It is a fail-safe kind of system. We have been concerned about sprinkler systems because a sprinkler head can get broken accidentally and ruin exhibits.

The proposed system is not charged under this new concept until the smoke detection devices and the heat detection devices have sensed the danger.

The system then becomes charged and at a certain point it releases the water.

Mr. McDADE. Do you have any kind of cost of square foot for your protection?

Mr. BROOKS. We do have those. We don't have them here.

Mr. McDADE. Put it in the record.

Mr. BROOKS. Yes.
[The information follows:]

COST OF FIRE CONTROL SYSTEMS

The average cost per square foot of fire control systems currently being installed in Smithsonian buildings is \$0.50 per square foot. This figure can be used for the National History Building and the Museum of History and Technology Building fire control systems requested in the fiscal year 1974 budget.

Mr. McDADE. Thank you.
Thank you, Julia.

Mrs. HANSEN. Please proceed, Mr. Brooks.

Mr. BROOKS. Finally, we have under this same general category funds sought for improvements and additions to both public and staff space. The public space at the Fine Arts and Portrait Gallery is, of course, the interior courtyard, which is a handsome public space if it can be fixed up, and the public parking at the Chesapeake Bay Center is also included. Also we have funds budgeted for interior space for staff primarily in the Natural History Building at \$60,000 for improving our ability to house our staff there properly.

That completes the general repairs.

MUSEUM OF HISTORY AND TECHNOLOGY LIBRARY ADDITION

Mrs. HANSEN. What is going to be the total cost of your library space addition at the National Museum of History and Technology?

Mr. BROOKS. Can I ask Mr. Blitzer to speak to that?

Mr. BLITZER. The estimate that we have from the General Services Administration is \$4 million. Based on that estimate, we asked you for \$250,000 in fiscal 1973 for the architectural planning. We were given \$150,000, and our request this year is simply for the other \$100,000 to pay the original architect of the building.

Mrs. HANSEN. Will this complete the planning?

Mr. RIPLEY. Yes, this is to complete the planning of which we already have the first increment.

Mr. BLITZER. If I might add, we have had preliminary approval from the National Capital Planning Commission for this general concept.

Mr. McDADE. Refresh my recollection. How is the construction to be accomplished?

Mr. BLITZER. It is to be on top of the History and Technology Building. The building now is five stories above ground. Around the edge of the roof there is a kind of false wall to hide a lot of machinery. The original architect has figured out that it will be possible to roof over part of that space and gain 30,000 or 40,000 very badly needed square feet without appreciably changing the appearance of the building at all.

Mr. McDADE. Thank you.
Thank you, Julia.

CONSERVATION-ANALYTICAL LABORATORY SPACE IMPROVEMENTS

Mrs. HANSEN. An amount of \$50,000 is requested for space improvements for the Conservation-Analytical Laboratory. Please explain this request, then cover the request for the Tropical Research Institute.

Mr. BROOKS. That is one of our most important repair and rehabilitation requests. It is, as you may recall, to match the request that Mr. Perrot spoke to on Thursday for additional staff.

In order to have the additional staff we must have additional space and this is a generally modest step toward meeting our very real and very major conservation requirements in the institution, an appropriation of \$50,000.

On the Smithsonian Tropical Research Institute, we have a continuing requirement there for protection of the buildings against the tropical environment. An amount of \$45,000 is sought for repairs and improvements.

Mrs. HANSEN. Are these wooden buildings?

Mr. BROOKS. Some of them are, yes, and they require constant protection. Some of them, the more recently built ones, are concrete block construction which do not require maintenance but we still have to maintain some of the older buildings.

FACILITIES MASTER PLAN

Mrs. HANSEN. Justify your request of \$75,000 for your facilities master plan.

I am almost scared to let you loose with another master plan.

Mr. BROOKS. I would say, Madam Chairman, that the intent of this master plan, for which we are requesting \$75,000, is going to be concentrated on the use of the facilities that we have. The Smithsonian now occupies about 3,700,000 feet in the Washington area, a very large amount of square feet for the operating budget that we have. It is our need, as we see it, to get the best possible use of out of these facilities.

Mrs. HANSEN. This could mean a readjustment of your space usage?

Mr. BROOKS. That is the intention, yes, ma'am. Such things as, can we use more compacted storage systems for our collections and what is the minimum requirement for construction? We have, for example, construction that costs \$10 a square foot at Silver Hill. We have construction that costs \$80 a square foot on the Mall. We want to be sure that we are having the appropriate kind of things in that construction for the cost of it, and that we are not housing items or functions in expensive areas that should be more properly devoted to public use.

APPROPRIATION FOR THE NATIONAL AIR AND SPACE MUSEUM

Mrs. HANSEN. \$27 million is being requested to liquidate contract authority for the Air and Space Museum. How much of the \$13 million appropriated in 1973 has been obligated?

Mr. COLLINS. About \$12 million at the end of February, Madam Chairman.

Mrs. HANSEN. What is the unobligated balance expected for the end of 1973?

Mr. COLLINS. We do not expect any. The request for 1974 is to pay our anticipated business. This estimate comes from a GSA computer run. We estimate that we will need a minimum of \$17 million in fiscal 1974.

Mrs. HANSEN. You don't need the full \$27 million you are requesting?

Mr. COLLINS. No, we don't, Madam Chairman. We asked for the full \$27 million at OMB's request as a more simplified bookkeeping system.

Mrs. HANSEN. So they can impound it?

Mr. COLLINS. No, no, Madam Chairman.

Mrs. HANSEN. Nonsense.

Mr. COLLINS. In point of fact we do need \$17 million to pay our bills.

SQUARE FOOT CONSTRUCTION COSTS

Mr. YATES. While you are waiting, may I ask him what kind of construction will require a cost of \$80 a square foot?

Mr. BROOKS. That is our present estimate, Mr. Yates, for the Air and Space Museum.

Mr. YATES. Why so much? My good friend on my left says they are building a hospital which requires public money for a \$35 a square foot. Why do you require \$80 per square foot?

Mr. BROOKS. It is the type of public access space and the kind of construction that is required on the Mall, Mr. Yates. I would say that this is in line considering the escalation of construction costs, with the construction costs of the Museum of History and Technology, and with those of the Hirshhorn Museum.

Mrs. HANSEN. Please insert in the record at this point what the escalation of construction costs have been in the District of Columbia?

Mr. BROOKS. Yes, ma'am.

[The information follows:]

CONSTRUCTION COSTS ESCALATION

According to the BEOCKH Index, published by the American Appraisal Co. and considered the official construction industry guide, construction costs in the Washington Metropolitan area have escalated an average of 6.5 percent a year between the years 1965 and 1972. This yearly average of escalated costs has increased to 10.79 percent a year between 1969 and 1972.

Accordingly, if we were to build the Museum of History and Technology Building today instead of completing it in 1965, it would cost \$58 million instead of under \$36 million.

Mrs. HANSEN. This committee is beginning to have a very dismal view of construction in the District of Columbia because the costs have gone up so rapidly. I may say there is a wide differential in costs between Utah and the District of Columbia.

Mr. MCKAY. I would say there is. We could build two or three of those in Utah compared to here.

Mrs. HANSEN. What would be the effect on the construction program if only half of the \$27 million were appropriated this year?

Mr. COLLINS. We would be in deep trouble, Madam Chairman.

Mrs. HANSEN. Why would you be in deep trouble?

Mr. COLLINS. We need \$17 million just to pay our bills in fiscal 1974. We would just grind to a halt toward the latter part of 1974 should less than that amount be provided.

Mr. YATES. It occurs to me that you just didn't answer my question as to why you need \$80 a square foot.

Mrs. HANSEN. He didn't.

Mr. YATES. You just said this is what it costs here. Is that the only answer? Or is it a special kind of construction?

Mr. RIPLEY. I think there are a variety of reasons quite aside from any reasons that one can deduce or guess about as far as building in the District of Columbia.

One of the particular reasons is that this building has to go through many, many approvals in the process of being approved and that means the Commission of Fine Arts, for example, who may reject the plan, because it is not esthetically sufficiently good, or the National Capital Planning Commission who may reject the plan because it doesn't have some aspect of construction which they approve of under the codes of the District.

Mr. McDADE. Don't all buildings face that in Washington?

Mr. RIPLEY. Yes, they do, but, of course, our public buildings are again slightly different because they are in the area where they are considered to be the cynosure of all eyes so the Fine Arts Commission makes, I think, perhaps a particular effort to be sure that esthetically they are as pleasing as possible.

Mr. YATES. I am just listening. I know I am expressing a little shock and bewilderment but it is a staggering price.

Mr. RIPLEY. It is true.

It is true, second, that there are many areas in Washington from Connecticut Avenue down on to the Mall where you are building on top of a former riverine system, a system of creeks and brooks and rivers. In this area you have to make especially sure that your construction is weighted underground sufficiently to act as kind of pad on which to support the building to keep it, metaphorically speaking, from floating away because of this tremendous subsurface water.

Mrs. HANSEN. Is the Metro running into those situations in this area?

Mr. RIPLEY. I am not acquainted with that but I wouldn't be surprised.

And third, because we are a public building situated where we are, we have been requested, in fact required, to include parking as a component and this dates back to the 1950's when the first plans were prepared for this building. If we are going to put in parking this is always quite expensive.

COST OF PARKING

Mrs. HANSEN. What part of the \$80 would you assign to parking?

Mr. RIPLEY. I don't know that we would have any breakout of that.

Mrs. HANSEN. The GSA should have some figures that you might insert in the record.

Mr. COLLINS. I would be delighted to.

[The information follows:]

COSTS OF GARAGE

As concerns the parking garage, we have been informed by the architect that a rough estimate of cost would be approximately \$30 per sq ft. This figure is based on the construction of 270,000 sq ft of garage space at a total cost of \$8 million.

OTHER COMPONENTS OF COSTS

Mrs. HANSEN. Public safety is one of the great problems in public buildings.

Mr. COLLINS. Another factor is the great high ceilings, Madam Chairman. We could divide our per foot cost in half by doubling the number of floors that we have in our building but it is simply not practical with something as large as the machines we intend to put inside the Air and Space Museum.

Mr. RIPLEY. These exhibit factors and the public visitation also add to it. It is not purely for ceremonial purposes.

Mr. YATES. Have the contracts been let yet?

Mr. RIPLEY. Yes.

Mr. YATES. Who is the contractor?

Mrs. HANSEN. He testified at length on this subject earlier.

Mr. RIPLEY. The Gilbane Company is the construction manager.

Mr. COLLINS. There are 23 separate contraction packages.

Mr. YATES. Will there be overruns?

Mr. COLLINS. No, there will not.

Mrs. HANSEN. You are on schedule?

Mr. RIPLEY. We are coming in under the budget quite satisfactorily so far.

Mr. McDADE. It isn't really proper, is it, to compare the cost of this building because of the way it is designed and constructed and its purpose with a normal type of building?

Mr. RIPLEY. No, it is not. You could build an office building for a different figure per sq ft.

Mrs. HANSEN. Please insert in the record the factors that result in your costs being in this range.

Mr. COLLINS. Yes, Madam Chairman.

[The information follows:]

NATIONAL AIR AND SPACE MUSEUM COST FACTORS

The building will contain approximately 632,700 square feet of space which would put the square foot cost at an overall average of approximately \$64.

This average, however, masks the differences in costs for constructing garage capacity within the building and costs for the balance of the structure. Garage costs are approximately \$30 per square foot for 270,000 square feet, including pro rata share of common costs such as foundation, mechanical services, and so forth. The balance of the museum structure costs approximately \$88 per square foot.

There are many reasons for this cost, probably the most significant being the nature of the building itself. It is 90 feet high with only three levels above ground and the three levels are not found throughout the building. In the three large glassed-in bay areas the museum will have only one level. As indicated earlier, these high ceilings are necessary for the exhibition of large air and space artifacts. Other important factors which affect costs can be found in the location of the project. Costs attendant upon construction on one of the public's most precious preserves exceed that for comparable structures in outlying locations. Disruption of the mall must be kept to an absolute minimum. Staging areas are smaller; and, consequently, transportation costs, somewhat greater. Importantly, also, the architectural qualities of the building must satisfy reviews by authorized bodies to guarantee that it will be consonant with the quality of the surrounding environs and public structures. Compromises in materials to reduce costs are not possible on such a site. Engineering and equipment costs are additional factors. The building must be capable of receiving millions of visitors each year. It must be able to provide for the feeding of visitors and for moving large numbers of people by elevator and escalator. It must contain equipment for the protection of the collections, as well as protection of the public. All of these extra, but necessary, items add to the cost.

It is difficult to compare costs of building construction accurately. If a comparison must be made, it must be made between buildings of similar use even though on less demanding sites. In an effort to make a comparison we have

checked the cost of several museum construction projects in other parts of the country and find that costs range from \$94 per square foot for the Lehman Wing addition to the Metropolitan Museum of Art in New York City to \$50 per square foot for the Los Angeles County Museum.

MUSEUMS IN OTHER REGIONS

Mr. McKAY. Will you yield?

Mrs. HANSEN. Yes.

Mr. McKAY. Is there any particular reason why we have to have all the exhibits in Washington? Is there any reason why they couldn't be built in some other regions?

Mr. RIPLEY. This goes back perhaps to the statute incorporating the Smithsonian which said that there shall be an institution in Washington, D.C., for the increase and diffusion of knowledge. Over the years the Congress has supported the concept of public visitation and public exhibits, so this in effect incorporates that original legislation.

Mr. McKAY. You get an impaction of people; you are not going to be able to get the people in to see them. They all want to come and they seem to come at the same time. You have them all so compacted in this one area.

Mr. RIPLEY. In Washington, D.C.

Mr. McKAY. But as this expands you get an Air and Space Museum and the next thing you will get trams and trains.

Mr. RIPLEY. We have already, I think, a very healthy visitation in our temporary air and space building and in the Arts and Industries Building where the present air and space exhibits are.

Mrs. HANSEN. Do you contemplate in the future looking at some other area of the United States for certain specific exhibitions?

Mr. RIPLEY. The Regents have not encouraged us in this. They have felt that we should confine our exhibits to one principal location.

Mrs. HANSEN. Is it the feeling that you would be in competition with State museums?

Mr. RIPLEY. I don't think so much that as they just don't want the Smithsonian to get too big or to accept too many responsibilities to have to fund. We are constantly being asked to take on museums or other public exhibits and in general their attitude has been quite restrictive.

They felt that we should not take on too many additional responsibilities.

Mr. McDADE. How does that square with the building in New York City, for example, the Cooper-Hewitt?

Mr. RIPLEY. The Regents specifically voted in that case to take on the Cooper-Hewitt.

Mrs. HANSEN. In other words, this has to be by vote of the trustees?

Mr. RIPLEY. That is correct.

Mr. McDADE. Were they all donations?

Mr. RIPLEY. Yes. We didn't acquire them by purchase.

Mr. McDADE. So if you are offered something of interest to the museum, of course the Regents would look at it, too.

Mr. RIPLEY. We have turned down things in the past.

In the case of the State of Washington, for example, the Pacific Science Center asked if we would take over the tenantry of the building. The Regents were inclined to say that they did not want to even though it involved no cost to us.

COMPARATIVE COSTS FOR OTHER MUSEUMS

Mrs. HANSEN. Please insert in the record at this point comparisons of building costs of similar types of buildings in Los Angeles, Cleveland, New York, Chicago, New Orleans, et cetera?

Mr. RIPLEY. Many museums in other cities are conducting building programs right now. We will provide a listing.

[The information follows:]

COSTS OF MUSEUM CONSTRUCTION ACROSS THE NATION

The following are a few square-foot construction figures supplied by the director, or administrator, of a selected list of recent museums:

Los Angeles County Museum of Art, California: To include carpets and interior finish. Completion date indefinite-----	\$50.00
Kimbell Art Museum, Fort Worth, Tex.: Completed 1972—Excluding all furnishings, carpets, etc.-----	50.00
Detroit Institute of Arts, Detroit, Mich.:	
Wing completed 1971—Ready for occupancy-----	50.00
Wing completed 1966-----	38.00
Indianapolis Museum of Art, Indianapolis, Ind.: Completed 1970. Ready for occupancy-----	67.10
Chicago Historical Society, Chicago, Ill.: Alteration and new construction completed 1972—Ready for occupancy-----	50.00
Wadsworth Atheneum, Hartford, Conn.: New wing to old building; 1968-69-----	46.00
State Museum, Albany, N.Y.: Cost of whole building, including library—no way to separate museum part. To open 1974-75-----	75.00
New Orleans Museum of Art, New Orleans, La.; Average cost of three wings completed late 1971-----	40.00
Art Institute of Chicago, Chicago, Ill.: Estimated opening 1975-----	62.00
Metropolitan Museum of Art, New York City: Lehman Wing-----	94.00
Cleveland Museum of Art, Cleveland, Ohio: Estimated \$58. Finished for occupancy. Opened 1970-71-----	68.00
National Gallery of Art, Washington, D.C.: East building, now estimated to cost \$44 million with total area 591,000 sq. ft., including underground connecting link. Completion 1976-----	74.40

MT. HOPKINS OBSERVATORY

Mrs. HANSEN. Does any member have a question at this point?

Mr. VEYSEY. Referring back to the Mt. Hopkins, Ariz., Observatory, you refer to rapidly increasing observational potential there. What change is that?

Mr. RIPLEY. That is use of the instrumentation. Is that what you mean, Mr. Veysey?

Mr. VEYSEY. From your page D-5 you you are going to put in a power system and a road to match the rapidly increasing observational potential of the installation.

Mr. RIPLEY. By observation we mean the use of the instruments now there or being fabricated. We are constructing a multimirror telescope which will be completed and will require power and road access. Isn't that right, Dr. Challinor.

Mr. CHALLINOR. Yes. Using these photographs, pictures I might explain it a little more clearly.

As you come from the road the highest peak there is where we are putting the new instrument. Here is a view from the top of the hill down.

[Another picture.] Just above this peak where these buildings are now they are on a ridge. Back where this picture was taken from the very tip of the mountain, about 900 feet higher. That is where the multiple mirror telescope will be located.

Mr. VEYSEY. That multiple mirror telescope is what you refer to as the increased potential.

Mr. CHALLINOR. Yes, sir.

Mr. VEYSEY. What will that be?

Mr. CHALLINOR. This will be the third largest telescope in the world. It is the equivalent of a 176-inch optical telescope. We have taken six 72-inch mirrors and alined these to obtain the light gathering potential or a single large mirror.

It is an entirely new technique that will allow us to build a telescope of this size for about \$4 million as opposed to conventional cost with a single lens of about \$10 billion.

Mr. VEYSEY. That is in another appropriation someplace else?

Mr. CHALLINOR. This is under the Smithsonian Astrophysical Observatory budget request for construction funds, that we testified about earlier. The telescope itself is being fabricated with funds now in the Observatory's base.

Mr. VEYSEY. Thank you.

Thank you, Madam Chairman.

Mrs. HANSEN. Thank you.

JUSTIFICATION MATERIAL

Please insert justification pages E-1 through E-29 in the record at this point.

[The pages follow:]

SMITHSONIAN INSTITUTION
"Salaries and Expenses"

Report of Obligations by Objects
(In thousands of dollars)

	<u>1972</u> <u>Actual</u>	<u>1973</u> <u>Estimate</u>	<u>1974</u> <u>Estimate</u>	<u>Increase</u> <u>'74 over '73</u>
11 Personnel Compensation.....	28,969	31,994	34,639	2,645
12 Personnel Benefits.....	2,419	2,741	2,966	225
21 Travel & Transportation of Persons.....	463	557	622	65
22 Transportation of Things....	241	233	287	54
23 Rent, Communications, and Utilities.....	2,754	3,532	3,621	89
24 Printing and Reproduction...	761	736	856	120
25 Other Services.....	4,330	5,939	6,614	675
26 Supplies and Materials.....	1,741	1,979	2,537	558
31 Equipment.....	2,370	2,736	2,984	248
32 Lands and Structures.....	1	1	2	1
41 Grants.....	432	1,185	1,310	125
42 Insurance, Claims and Indemnities.....	<u>2</u>	<u>...</u>	<u>...</u>	<u>...</u>
Total Obligations.....	44,483	51,633	56,438	4,805
Lapsing.....	<u>18</u>	<u>...</u>	<u>...</u>	<u>...</u>
Total Appropriation.....	44,501	51,633	56,438	4,805

SMITHSONIAN VISITORS
(By fiscal year)

Fiscal Year	Smithsonian Institution Building	Arts and Industries Building	Museum of Natural History	National Air & Space Building	Freer Gallery of Art	Museum of History & Technology	Fine Arts & Portrait Gallery	Renwick Gallery	Total ^{9/}
1961	1,024,526	2,912,371	2,047,973	987,858	130,746	(1)	(3)	(10)	7,103,474
1962	1,222,112	3,471,050	2,113,053	1,986,319	130,597	(1)	(3)	(10)	8,923,131
1963	1,630,280	3,534,182	2,288,397	2,673,618	183,359	(1)	(3)	(10)	10,309,836
1964	1,311,061	2,457,243	2,512,306	1,854,186	168,625	2,509,774 ^{1/}	(3)	(10)	10,813,195 ^{2/}
1965	1,065,635	2,028,175	3,051,472	1,705,683	210,972	5,091,776	(3)	(10)	13,153,713
1966	870,010	1,746,715	2,988,006	1,494,922	222,089	4,829,112	(3)	(10)	12,150,854
1967	1,020,312	1,638,873	3,409,957	1,484,422	212,920	5,546,102	(3)	(10)	13,312,586 ^{4/}
1968	847,176 ^{5/}	1,344,622	3,257,957	1,123,698	169,533	4,750,023	30,888	(10)	11,523,897 ^{7/}
1969	275,259 ^{5/}	1,493,141 ^{6/}	2,916,749	1,225,959	179,374	4,174,071	166,177	(10)	10,430,730 ^{8/}
1970	681,255	2,557,155 ^{6/}	3,269,791	1,839,373	217,305	5,483,555	216,523	(10)	13,583,702 ^{8/}
1971	819,617	1,985,732	3,456,755	1,337,445	190,425	5,955,128	194,468	(10)	13,801,208
1972		2,306,071	3,414,640	1,104,151	230,475	6,808,526	246,657	105,186	15,035,323

1/ Museum of History and Technology opened January 1964

2/ July-August 1964, certain Smithsonian Institution buildings were open 4:30 to 10 p.m. for the first time.

3/ National Collection of Fine Arts opened May 1968 and the National Portrait Gallery in October 1968.

4/ Reflects the significant decrease in visitors to the Nation's Capital in the first six months of CY 1968 due to unsettled local conditions.

5/ Building closed for renovation October 1968.

6/ Since the first display of the lunar sample in September 1969, visitors to this building have averaged approximately 270,000 per month.

7/ Fiscal year 1969 visitor totals represent the effect of local conditions in late 1968 on visitor attendance. During CY 1969, a total of 12,438,909 visitors came to the Smithsonian, an increase of 25 percent over CY 1968.

8/ Reflects a significant increase of 30 percent in visitors to the Smithsonian's Museums and Galleries.

9/ An additional 5,000,000 visitors to the National Zoological Park annually and 50,000 to the Anacostia Museum are excluded from these totals.

10/ Renwick Gallery opened January 1972.

Financial Report

FY 1972

It is a rare experience for educational and research institutions to have adequate funds to take care of all their pressing needs and promising opportunities for improvements and imaginative new projects. In this respect, the Smithsonian Institution is no different from its counterparts. Nevertheless, fiscal year 1972 was one from which the Institution may derive a degree of satisfaction from improvements on a number of budgetary fronts—many of these resulting from programs initiated in previous years.

Increased FY 1972 federal appropriations, which account for over three-quarters of our total financial support, moved toward easing accumulated research support shortages and also made possible additional services to our visitors and the start of certain important new research projects. Private unrestricted fund accounts, vital to the unique character of this Institution, showed a favorable balance between income and expenditures for the first time in five years. This welcome result followed introduction of improved accounting and budgeting methods, tighter control of expenditures, a gradual extension of fund-raising efforts, and modest improvement in a number of revenue-producing areas. In addition, increased donations for specific purposes and larger grant and contract awards also benefited the many projects covered by these restricted-purpose funds. New policies adopted this year with respect to the handling of investment funds of the Institution are expected to bring important benefits in future years.

Overall Sources and Application of Financial Support

Total support of the Institution from all sources for operating purposes approximated \$62,700,000 in fiscal year 1972, compared with \$52,800,000 in the previous year. In addition, \$6,347,000 was received for construction projects, somewhat less than the \$7,125,000 in FY 1971. Sources of support for the last four fiscal years 1969-1972 are shown below (in thousands):

	<i>FY 1969</i>	<i>FY 1970</i>	<i>FY 1971</i>	<i>FY 1972</i>
OPERATING FUNDS				
Federal appropriation				
Salaries and expenses	\$29,150	\$32,679	\$36,895	\$46,301
Special Foreign Currency Program . . .	2,316	2,316	2,500	3,500
Subtotal	\$31,466	\$34,995	\$39,395	\$49,801
Research grants and contracts	11,624	10,825	9,312	8,088
Nonfederal funds:				
Gifts (excluding gifts to endowments)				
Restricted purpose	1,806	2,290	1,905	2,618
Unrestricted purpose	181	17	356	171
Income from endowment and current funds investment				
Restricted purpose	924	999	1,115	1,178
Unrestricted purpose	441	281	330	334
Miscellaneous	476	503	406	548
Total Operating Support	<u>\$46,918</u>	<u>\$49,910</u>	<u>\$52,819</u>	<u>\$62,738</u>
CONSTRUCTION FUNDS (Federal)				
National Zoological Park	\$300	\$600	\$200	\$200
National Air and Space Museum	-0-	-0-	-0-	1,900
Joseph H. Hirshhorn Museum	2,000	3,500	5,200	3,697
Restoration and renovation of buildings .	400	525	1,725	550
Total	<u>\$2,700</u>	<u>\$4,625</u>	<u>\$7,125</u>	<u>\$6,347</u>

It may be noted that in FY 1972 approximately 79 percent of the Institution's operating funds were supplied by federal appropriations, with an additional 13 percent coming in the form of research grants and contracts and only 8 percent being represented by private donations, investment income, and other miscellaneous nonfederal sources.

The application of these funds (with the exception of Special Foreign Currency Program funds and construction funds) in FY 1972 is indicated in Table 1, similar to the one provided for the first time in last year's annual report. Further detail on all of these funds follows.

TABLE 1.—Source of applications of funds (in thousands) year ended
30 June 1972

Funds	Federal funds	Non-federal funds				
		Total	Unrestricted			Grants and con- tracts
			General	Revenue producing	Restricted	
FUND BALANCES—						
1 July 1972.....	\$ -0-	\$ 3,773	\$ 1,720	\$ -0-	\$ 1,762	\$ 291
FUNDS PROVIDED						
Federal Appropriations	\$46,301					
Investment Income ..		\$ 1,512	\$ 334	\$ -	\$ 1,178	\$ -
Grants and Contracts ..		7,847	-	-	-	\$7,847
Gifts		2,789	26	145	2,618	-
Sales and Revenue ...		7,157	831	6,196	130	-
Less: Cost of Sales ..		(4,838)	(813)	(3,999)	(26)	-
Other		565	219	104	242	-
Total Provided..	46,301	15,032	597	2,446	4,142	7,847
Total Available	46,301	18,805	2,317	2,446	5,904	8,138
FUNDS APPLIED						
<i>Science:</i>						
Environmental Science	1,110	975	62	-	204	709
Nat'l Museum of Nat. Hist.	5,679	1,205	20	-	250	935
National Zoological Park	3,827	46	1	-	6	39
Fort Pierce Bureau...	-	788	-	-	788	-
Science Information Exchange	1,600	-	-	-	-	-
Smithsonian Astro. Observatory	2,653	4,880	1	-	124	4,755
Other Science	3,496	1,243	25	-	252	966
Total	18,365	9,137	109	-	1,624	7,404
<i>History and Art:</i>						
Nat'l Portrait Gallery .	924	42	4	-	38	-
Nat'l Collec. of Fine Arts	1,221	45	15	-	28	2
Freer Gallery	78	861	-	-	861	-
Nat'l Museum of Hist. and Tech.	2,457	140	44	-	73	23
Other History and Art	1,605	740	3	-	633	104
Total	6,285	1,828	66	-	1,633	129
<i>Public Service:</i>						
Revenue Producing Activities						
Smithsonian Press	816	135	-	135	-	-
Performing Arts ..	265	593	-	179	28	386
Other	-	2,273	-	2,273	-	-
Anacostia Museum ..	206	141	29	-	97	15
Other	806	387	90	-	297	-
Total	2,093	3,529	119	2,587	422	401

TABLE 1.—*Source of applications of funds (in thousands) year ended 30 June 1972—Continued*

Funds	Federal funds	Total	Non-federal funds			
			Unrestricted			Grants and contracts
			General	Revenue producing	Restricted	
<i>Museum Programs</i>						
Libraries.....	864	51	50	-	1	-
Exhibits.....	3,105	76	-	-	76	-
Other Programs.....	1,912	9	9	-	-	-
Total.....	5,881	136	59	-	77	-
<i>Buildings Management</i>						
Dept.	\$10,442					
Administration:.....	3,235	\$2,643	\$2,643	\$ -	\$ -	\$ -
Overhead Recovered ..		(2,639)	(2,639)	-	-	-
Transfers for Designated Purposes.....		(717)	179	(141)	(909)	154
TOTAL FUNDS APPLIED.....	\$46,301	\$13,917	\$ 536	\$2,446	\$2,847	\$8,088
FUND BALANCES—						
30 June 1972.....	\$ -0-	\$ 4,888	\$1,781	\$ -0-	\$3,057	\$ 50

Federal Appropriated Funds

Operations (Salaries and Expenses).—As shown above in the tabulation of sources of support, Congress increased the Smithsonian's appropriation for regular operations by over \$9,400,000 in FY 1972. Of this amount, however, \$1,600,000 represented an appropriation for the Smithsonian Science Information Exchange (Table 1) which had been funded since 1964 by grants from the National Science Foundation. Nearly \$2,000,000 of the increase in appropriations, furthermore, was necessary merely to meet legislated increases in federal salaries. Continued inflationary cost increases for supplies and other services absorbed additional monies. Nevertheless, the remaining increase of more than \$5,000,000 included provision for an important start on correcting the serious imbalance between professional research and curatorial efforts, on the one hand, and the level of technical support for these efforts, on the other. Such technical support had been eroded in previous years as the limited funds available had to be increasingly devoted to salaries of the professional

staff, leaving progressively lesser amounts for technicians, assistants, equipment, and supplies. Accessions of new or expanded collections meanwhile accentuated such needs. Increases in appropriations provided in FY 1972 were the first step toward elimination over a three-year period of these shortages in the National Museum of Natural History.

Similarly, a \$500,000 increase for the National Zoological Park made possible improved veterinary treatment and research. An allowance of \$600,000 was received to implement the program of the National Museum Act, authorized in 1970; of this amount, \$200,000 was transferred by legislative requirement to the National Endowments for the Arts and Humanities. Other major benefits from increased Congressional support were directed toward the visiting public: funding of a major new exhibit, "The World of Living Things," provision for longer visitor hours for our Mall museums, the opening of the Renwick Gallery, and stepped-up preparations for the opening of the Hirshhorn Museum. Finally, \$500,000 was provided for Smithsonian's share of a group effort to establish a new, large, low-cost, multi-mirror telescope which should represent a breakthrough in instrumentation of this type and lead to important new discoveries in astrophysics.

The division of the Institution's federal appropriations for operating purposes (excluding special Foreign Currency Program) in recent years, among its broad areas of services, has been as follows (in thousands):

	<i>FY 1969</i>	<i>FY 1970</i>	<i>FY 1971</i>	<i>FY 1972</i>
Science	\$10,467	\$11,761	\$13,495	\$18,365*
History and Art.	4,287	5,081	5,878	6,285
Public Service	1,159	1,445	1,442	2,093
Museum Programs	3,260	3,592	3,744	5,881
Administration	2,526	2,733	3,051	3,235
Building Maintenance	7,451	8,067	9,285	10,442
Total	<u>\$29,150</u>	<u>\$32,679</u>	<u>\$36,895</u>	<u>\$46,301</u>

*Includes \$1,600,000 for the Science Information Exchange which had been funded since 1964 by grants from the National Science Foundation.

After allowance for the change in form of funding of the Science Information Exchange in FY 1972, the percentage share of each of the service areas has remained fairly constant in this four-year period, except that the combined share of Administration and Building Maintenance has fallen from 34 to 31 percent, with slight percentage increases in Science and Public Service.

Special Foreign Currency Program.—Since 1966 the Smithsonian has been administering a program of grants benefiting more than 200 museums and universities in the United States in order that they may carry on research in certain foreign countries where blocked currency credits, usable only in those countries, are available to the United States in return for services previously provided. Annual appropriations to the Smithsonian from available blocked currency to fund such grants increased in FY 1972 from \$2,500,000 to \$3,500,000. Use of such grant monies in FY 1972 was as follows (in thousands):

	<i>Archeology</i>	<i>Systematic and environ- mental biology</i>	<i>Astrophysics and earth sciences</i>	<i>Museum programs</i>	<i>Grant adminis- tration</i>	<i>Total</i>
India	\$ 374.8	\$ 144.9	\$ 22.8	\$ 8.4	\$ 4.6	\$ 555.5
Israel	373.7	21.9	108.2	1.0	1.8	506.6
Morocco	6.2	63.0	-	1.3	-	70.5
Pakistan	5.0	8.5	-	-	-	13.5
Poland	51.4	8.0	3.2	4.6	-	67.2
Tunisia	135.1	355.7	9.1	.6	2.1	502.6
UAR-Egypt	511.2	31.0	111.9	3.7	1.6	659.4
Yugoslavia	227.8	774.4	-	4.9	1.8	1008.9
Burma1	.1	-	-	-	.2
Total	<u>\$1685.3</u>	<u>\$1407.5</u>	<u>\$255.2</u>	<u>\$24.5</u>	<u>\$11.9</u>	<u>\$3384.4*</u>

*Unobligated balance of FY 1972 appropriation carried forward for use in FY 1973.

Construction.—From the tabulation of sources of support, it can be seen that Congress appropriated to the Smithsonian Institution in FY 1972, a total of \$6,347,000 for construction purposes. Of this, \$3,697,000 represented the final balance of the \$15 million authorized by Congress for the Hirshhorn Museum construction, which is to be completed in FY 1973. In addition, \$1,900,000 was granted to cover the planning and redesign of the new National Air and Space Museum on the Mall, construction of which was authorized in 1966. Another \$750,000 was appropriated for completion of the Renwick Gallery renovation plus various relatively minor improvements elsewhere.

Research Grants and Contracts

An important part of the Institution's research work is funded by grants and contracts received from federal agencies. Following is a

tabulation (in thousands) of such grants and contracts in recent years, the data being expressed in terms of expenditures as being the most meaningful indicator of research activity funded by this means since the awards themselves are spread over varying and extended periods of time.

	<i>FY 1969</i>	<i>FY 1970</i>	<i>FY 1971</i>	<i>FY 1972</i>
Department of Health, Education, and Welfare . . .	\$ 272	\$ 326	\$ 297	\$ 132
Department of Defense	1,667	1,086	843	916
National Aeronautics and Space Administration. . .	7,265	6,561	4,930	4,605
National Science Foundation	2,099	2,246	2,028	560
Other.	321	606	1,214	1,875
Total	<u>\$11,624</u>	<u>\$10,825</u>	<u>\$9,312</u>	<u>\$8,088</u>

The decline in the total for FY 1972 compared with FY 1971 was caused entirely by the elimination in this past year of the National Science Foundation grant for the Science Information Exchange. In FY 72 Smithsonian took over the responsibility for the funding, as well as the management of, the Exchange with its \$1,600,000 becoming a new separate Smithsonian federal appropriation rather than being received in the form of a contract. With this exception, there has been an increase in federal grants and contracts received during the past year.

It may be noted from Table 1, that the major recipient of grants and contracts is the Smithsonian Astrophysical Observatory, with a total of \$4,755,000 for FY 1972. Grants to the Observatory covered, among other things, work done on tracking of satellites, monitoring of stellar observations from the telescope satellite and experiments concerning continental drift. A large share of the remaining research grants and contracts went to the scientists of our National Museum of Natural History and the Office of Environmental Sciences covering a variety of studies from sources of endemic Asian diseases to analysis of the contents of areas of the oceans. Grants and contracts also extended beneficially the work of our Oceanographic Sorting Center, Tropical Research Center, and Division of Performing Arts. A major contract, received near the close of the fiscal year, will fund worldwide population studies by our Interdisciplinary Communications Program.

Private Trust Funds

As mentioned earlier, the largest part of the funding of the Institution comes from federal appropriations, augmented further by substantial

amounts of grants and contracts from federal agencies. Equally important in many ways, however, is the "private side" of the Institution, since, the Smithsonian derives its unique character in large part from this combination of Governmental and private support, permitting operating flexibility, nonpolitical objectivity, and greater attraction to its many private donors.

The resources for the Smithsonian private side are in the form of income from endowment funds, donations from foundations, corporations or individuals, and to a lesser extent, receipts from concessions and miscellaneous sources. In appraising these resources an important distinction must be made between income received for unrestricted as compared with restricted purposes. The largest share of both the investment and gift income is for specific (restricted) purposes, with only a regrettably small unrestricted portion which can be directed to support Institutionally determined priority needs or promising program opportunities.

In fiscal year 1972 the private fund income, excluding gifts to endowment funds, for both restricted and unrestricted purposes totaled \$4,849,000 as follows (in thousands):

	<i>Unrestricted purposes</i>	<i>Restricted purposes</i>	<i>Total</i>
Investments	\$334	\$1,178	\$1,512
Gifts	171	2,618	2,789
Concessions and Miscellaneous	306	242	548
Total	<u>\$811</u>	<u>\$4,038</u>	<u>\$4,849</u>

Not included in the above figures are the results of our revenue-producing activities, such as, the *Smithsonian* Magazine and museum shops, since on balance these activities do not yet produce net income although they are expected to do so in the future.

Unrestricted Private Funds.—The most significant fact about this important segment of the Smithsonian's financial affairs is that in FY 1972 a favorable balance was reestablished between income and expenditures. The gain of \$61,000 was, of course, small, but it was achieved at a time when many educational institutions and museums are reporting serious financial losses. It was also achieved despite the continued rise in costs and pressing needs for greater services—factors that contributed heavily to the Smithsonian's own losses of private unrestricted funds in the previous four years.

As may be seen from these figures, the improvement in FY 1972 resulted principally from (1) control of administrative expenses and their recovery through proper charges to grants and contracts, revenue-producing activities, and other privately funded programs of the Institution, and (2) the nearly \$400,000 reduction in the loss of our revenue-

	<i>FY 1969</i>	<i>FY 1970</i>	<i>FY 1971</i>	<i>FY 1972</i>
INCOME:				
Investment	\$ 379*	\$ 323	\$ 334	\$ 334
Gifts	181	18	304	26
Concession & Misc.	244	540	215	197
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Income	804	881	853	557
EXPENDITURE:				
Admin. Expense	2,983	3,256	2,723	2,994
Less Admin. Recovery	2,390	2,435	2,254	2,639
Net Admin. Expense	<u>593</u>	<u>821</u>	<u>469</u>	<u>355</u>
Revenue Producing Activities				
Magazine	(70)	(472)	(209)	2
Shops	(25)	(28)	(80)	19
Press	(127)	(200)	(159)	(111)
Associates	57	(41)	10	74
Performing Arts	(60)	(167)	(78)	(50)
Other Activities	<u>(231)</u>	<u>(133)</u>	<u>(18)</u>	<u>(75)</u>
Total Activities	<u>(456)</u>	<u>(1,041)</u>	<u>(534)</u>	<u>(141)</u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Expenditures	<u>1,049</u>	<u>1,862</u>	<u>1,003</u>	<u>496</u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Net Gain (Loss)	<u>(245)</u>	<u>(981)</u>	<u>(150)</u>	<u>61</u>
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Ending Balance	<u>\$2,851</u>	<u>\$1,870</u>	<u>\$1,720</u>	<u>\$1,781</u>

*In thousands.

producing activities. Together these two factors more than offset the absence in FY 1972 of a special one-time \$300,000 gift for unrestricted purposes, which was so beneficial in FY 1971.

The gain of \$61,000 in FY 1972 reversed the down-trend in the balance of our unrestricted funds and increased it slightly to \$1,781,000 at 30 June 1972. This figure, however, is still well below a comfortable level for current working funds of the Institution. Intensive steps must be continued to rebuild this working capital by more than \$1 million to at least the \$2,851,000 figure existing at the end of 1969. More than \$1 million of such working capital is required to support grant and contract work performed before payment is received, another \$700,000 for investment in inventories, and at least \$1 million more must be maintained for payrolls, accounts receivable, and cash fluctuations of a seasonal nature.

There is, however, reason to believe that improvement in this direction lies ahead. Our Development Office, together with the National Associates

Organization, is now working on a program which will hopefully produce an annual flow of donations and bequests from an increasingly large number of interested parties. Approximately \$171,000 of gifts for unrestricted purposes were received in FY 1972 in addition to much larger grants, principally from foundations, for specifically designated purposes (see "Restricted Private Funds" below).

At the same time our revenue-producing enterprises show promise of producing significant income in the next several years to bolster our private resources. Additional data on the finances of these revenue-producing activities in FY 1972 are as follows (in thousands):

	Total	Museum shops	Press*	Magazine	Associates	Per- forming arts	Other**
Sales and Revenues . .	\$6,196	\$1,374	\$127	\$3,307	\$872	\$130	\$386
Less Cost of Sales . . .	3,999	812	103	2,483	489	2	110
Gross Income	2,197	562	24	824	383	128	276
Gifts	145	-	-	-	145	-	-
Other Income	104	-	-	104	-	-	-
Total Income	2,446	562	24	928	528	128	276
Expenses	2,207	424	115	776	412	162	318
Income (loss) before charge for adminis- trative costs	239	138	(91)	152	116	(34)	(42)
Less Administrative Costs	380	119	20	150	42	16	33
Net Income (loss) . . .	<u>\$ (141)</u>	<u>\$ 19</u>	<u>\$(111)</u>	<u>\$ 2</u>	<u>\$ 74</u>	<u>\$(50)</u>	<u>\$(75)</u>

*The privately funded activities of the Press as opposed to the federally supported publication of research papers.

**Includes Traveling Exhibitions, Belmont Conference Center, Photo Sales, and the "Commons" Restaurant.

In FY 1972 the *Smithsonian Magazine* again made excellent progress. Circulation increased from 275,000 at 30 June 1971 to 330,000 National Associate Members by 30 June 1972. Despite the unusual expenses related to the circulation-building efforts, financial results were greatly improved, registering \$2,500 net income for the year compared with a loss of \$209,000 in the previous year.

The Museum Shops showed a sharp 35 percent increase in volume this year. Financial results moved from previous losses to a gain of \$19,000 and should show increasing gains in the future. Shop areas were expanded

and a new shop will open at the Renwick Gallery in mid-1972. Two sales exhibitions and increasing emphasis on offering educational items reflecting the various museum exhibits contributed to the progress of these auxiliary operations.

The closely related program of product development is now underway. If successful it should become an important element in improving the balance between private and federal resources of the Institution. Equally important, this program is directed toward spreading nationally the Smithsonian's educational efforts through the distribution by independent manufacturers of authenticated items related to our collections. Great care will be taken with this program to maintain strict standards of quality, authenticity, and good taste.

As may be noted from the preceding tabulation, two other activities, the Smithsonian Press and the Division of Performing Arts, have required subsidies from our private funds in recent years. These programs provide both educational and entertainment value, but strenuous efforts are being directed toward elimination of their financial losses while preserving their cultural values.

Restricted Private Funds.—Additions to "restricted" funds dedicated to specific purposes (exclusive of gifts to endowment funds) totaled \$5,151,000 in FY 1972, but this included a special transfer of \$612,000 from the principal of Endowment Fund No. 3, in part to allow completion of the renovation of the research vessel *Johnson* at Fort Pierce, and in part as an advance against FY 1973 operating funds for this bureau. Including this special transfer, \$2,082,000 came from endowment funds, \$2,618,000 from donations, and \$451,000 from miscellaneous sources. The major bureaus and programs supported by these funds, together with their total related income and expenditures in FY 1972 were as follows (in thousands):

Bureau	<i>Additions to funds</i>				Deductions	Net increase (decrease)	Ending fund balances
	Investment	Gifts	Misc.	Total			
Freer Gallery	\$ 679	\$ 7	\$ 84	\$ 770	\$ 861	\$ (91)	\$ 120
Fort Pierce	1,012*	-	5	1,017	788	229	484
CBCES Land Program	-	360	58	418	392	26	158
Cooper Hewitt—Operating	32	128	15	175	234	(59)	243
Cooper Hewitt—Renovation		792		792	20	772	806
Reading is Fundamental		296		296	293	3	65

Anacostia Museum		63		63	97	(34)	26
Archives of American Art	4	40	99	143	126	17	86
Subtotal	<u>1,727</u>	<u>1,686</u>	<u>261</u>	<u>3,674</u>	<u>2,811</u>	<u>863</u>	<u>1,988</u>
Other Restricted Funds	355	932	190	1,477	1,045	432	1,068
Total	<u>\$2,082</u>	<u>\$2,618</u>	<u>\$451</u>	<u>\$5,151</u>	<u>\$3,856</u>	<u>\$1,295</u>	<u>\$3,056</u>

*Including \$612 special transfer from principal of Endowment Fund No. 3.

The Freer Gallery is largely supported by income from endowment funds originally provided for this purpose by Charles Freer at the time of the construction of the Gallery; it also receives some federal support. Inflationary cost increases of recent years have made it increasingly difficult to operate within available income.

The Fort Pierce, Florida, oceanographic facility is supported entirely by income from Endowment Fund No. 3, donated to the Smithsonian for this purpose during the past two years. The Center's expenditures have been principally for research operations of the Center's oceanographic submersible, the *Johnson-Sea-Link*, and for renovation of the tender ship, *R/V Johnson*. These renovations, to be completed in September 1972, caused FY 1972 expenditures to exceed available endowment fund income, necessitating a one-time withdrawal of funds in FY 1972 for this purpose from the principal of the endowment fund itself.

Two important new gifts in support of the Chesapeake Bay Center's land acquisition program were received during this year—\$200,000 from the Richard King Mellon Foundation and \$120,000 from The Scaife Family of Pittsburgh. These gifts made possible the repayment of a \$175,000 loan previously incurred for land purchases, as well as the purchase of an additional parcel of land, and brought to \$1,669,000 the total thus far received for this project. Most of the major plots of land have now been obtained and negotiations are in progress for the remaining areas. Substantial additional sums will still be required to complete payments for these acquisitions.

The planned renovation of the Carnegie Mansion in New York City to house the Cooper-Hewitt Museum was launched in a most encouraging way in December 1971 by a grant of \$500,000 from the A. W. Mellon Foundation. Nearly \$300,000 more of renovation funds has also been received from other sources. In addition, gifts totaling \$128,000 were received during the year toward the operating programs of the Museum. This Museum will need greater financial support for both purposes in future years.

The Reading Is Fundamental Program, initiated by Mrs. Robert S. McNamara and now operated in association with the Smithsonian, has

been generously supported by the Ford Foundation, and the program has now been awarded a new grant from the Edna McConnell Clark Foundation totaling \$1,130,000 over a three-year period. This should enable R.I.F. to become self-sustaining thereafter.

A complete list of donors for FY 1972 is included at the end of this financial report.

Endowment Funds.—The Smithsonian endowment funds are handled in three separate investment accounts, namely, the Freer Fund, dedicated entirely to the operation of the Freer Gallery of Art; Endowment Fund No. 3, devoted entirely to oceanographic research; and the Consolidated Fund in which all other endowment and similar funds of the Institution are pooled for common investment although maintained separately for accounting and administrative purposes. A listing of individual funds included in our Consolidated Fund and their related book values, market values, net income and unexpended income balances are set forth in Table 2.

The growth of these endowment funds in recent years is shown in the following comparison of their market values at intervals since 1960 (in thousands):

	<i>30 June 1960</i>	<i>30 June 1965</i>	<i>30 June 1970</i>	<i>30 June 1971</i>	<i>30 June 1972</i>
Freer Fund	\$13,389	\$17,276	\$14,987	\$18,805	\$21,973
Endowment Fund No. 3	-	-	5,433	12,331	14,641
Consolidated Fund . . .	4,498	7,853	8,998	11,470	13,287
	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total	<u>\$17,887</u>	<u>\$25,129</u>	<u>\$29,418</u>	<u>\$42,606</u>	<u>\$49,901</u>

Of the \$32,014,000 total increase from 30 June 1960 to 30 June 1972, \$7,354,000 of Endowment Fund No. 3 and \$6,277,000 of Consolidated Fund was the result of additions from donations and reinvestment of income and the remaining \$18,383,000 represented an increase in the market values of securities. During the year ended 30 June 1972, net additions of new funds to the Consolidated Fund equaled \$131,000, while a net amount of \$891,000 was transferred from Endowment Fund No. 3 to current operating accounts; market appreciation of total funds in this year amount to \$8,055,000.

Effective 1 July 1971, management of these funds were distributed among three different investment managers with performance being monitored closely by the Investment Policy Committee and the Treasurer. The results achieved thus far have substantially exceeded the average rise in stock values in the 12-month period to 30 June 1972. A breakdown of

TABLE 2.—Consolidated fund, 30 June 1972

<i>Funds participating in pool</i>	<i>Principal</i>		<i>Income</i>	
	<i>Book value</i>	<i>Market value</i>	<i>Net income 1972</i>	<i>Unexpended balance</i>
UNRESTRICTED FUNDS. . .	\$4,320,791	\$5,020,577	\$196,411	\$ —
RESTRICTED FUNDS:				
Abbott, William L.	196,791	248,895	9,029	2,261
Archives of American Art.	22,107	26,365	1,245	—
Armstrong, Edwin James	3,561	3,849	134	—
Arthur, James.	63,649	96,774	4,571	8,409
Bacon, Virginia Purdy.	173,040	194,248	7,046	13,643
Baird, Spencer Fullerton	58,394	86,506	4,086	1,342
Barney, Alice Pike	45,647	69,349	3,276	3,025
Barstow, Frederic D.	1,887	2,383	86	1,601
Batchelor, Emma E.	63,205	69,231	2,411	117
Becker, George F.	297,170	336,207	12,196	23,987
Brown, Roland W.	52,090	66,140	3,124	3,334
Canfield, Frederick A.	60,592	106,623	5,037	1,742
Casey, Thomas Lincoln	23,661	29,985	1,088	51
Chamberlain, Frances Lea	44,817	68,092	3,217	7,283
Cooper, G. Arthur, Curator's Fund.	2,067	2,201	73	—
Cooper-Hewitt Museum	156,010	165,160	7,178	40,596
Division of Mammals Curator Fund.	3,419	3,955	183	1,194
Division of Reptiles Curator Fund.	552	668	32	79
Drake, Carl J.	275,890	303,741	13,830	14,690
Dykes, Charles	81,283	102,933	3,734	3,707
Eickemeyer, Florence Brevoort	17,299	26,273	1,241	8,836
Guggenheim, David and Florence	191,619	191,971	8,178	—
Hanson, Martin Gustav & Caroline Runice	16,784	21,255	771	11,045
Hillyer, Virgil.	12,409	15,724	570	6,461
Hitchcock, Albert S.	2,510	3,877	183	651
Hrdlicka, Ales and Marie.	97,214	120,480	5,691	4,081
Hughes, Bruce	30,462	46,337	2,189	21,092
Johnson, E. R. Fenimore	15,404	15,737	571	3,380
Kellogg, Remington, Memorial Lindsey, Jessie H.	23,697	24,661	750	393
	595	681	32	210
Loeb, Morris	164,803	210,802	7,647	361
Long, Annette E. and Edith C. Lyons, Marcus Ward.	864	1,349	64	358
	8,261	8,497	308	—
Maxwell, Mary E.	31,215	47,477	2,243	20,830
Myer, Catherine Walden	38,147	48,313	1,753	5,243
Nelson, Edward William.	37,955	53,764	2,540	798
Noyes, Frank B.	1,828	2,435	88	1,028
Pell, Cornelia Livingston	14,007	17,836	647	7,766
Petrocelli, Joseph Memorial	11,796	18,009	851	7,351
Rathbun, Richard Memorial.	20,094	25,555	927	9,220
Ramsey, Admiral and Mrs. Dewitt Clinton	516,264	537,382	19,414	61,730
Reid, Addison T.	33,581	42,523	1,543	248
Roebling Collection	192,112	290,428	13,719	2,546

TABLE 2.—*Consolidated fund, 30 June 1972—Continued*

<i>Funds participating in pool</i>	<i>Principal</i>		<i>Income</i>	
	<i>Book value</i>	<i>Market value</i>	<i>Net income 1972</i>	<i>Unexpended balance</i>
Roebing Solar Research.	\$46,823	\$54,944	\$1,993	\$ —
Rollins, Miriam and William. . .	288,488	390,434	18,016	9,472
Smithsonian Agency Account	135,939	136,876	3,805	—
Sprague, Joseph White	2,118,369	2,349,087	108,398	27,162
Springer, Frank.	28,541	43,338	2,047	18,866
Stevenson, John A.	9,665	11,774	556	211
Strong, Julia D.	18,888	24,014	871	2,495
T.F.H. Publications, Inc.	8,349	7,733	280	10,847
Walcott, Charles D.	184,921	244,216	11,270	1,838
Walcott, Charles D. and Mary Vaux.	732,340	1,111,955	52,526	14,141
Walcott Botanical Publications	92,223	134,887	6,372	—
Zerbee, Francis Brinckle.	1,510	2,279	108	1,544
Total Restricted Funds	\$6,770,814	\$8,266,208	\$359,838	\$387,267
Total Consolidated Fund	\$11,091,605	\$13,286,785	\$556,249	\$387,267

the three endowment funds as of 30 June 1972, showing types of investments held, with related book and market values, is given in Table 3. A listing of the individual investments held in the various endowment funds may be obtained upon request to the Treasurer of the Institution.

Much attention has been given to the management of the Institution's endowment funds during the past three years. In addition to the steps taken by the Board of Regents in FY 1971 to establish the Investment Policy Committee and, upon its recommendation, to appoint new investment managers with full discretion for the investment of the funds (subject to broad policies established by the Board and to prompt reporting of transactions), we have been investigating for some time the desirability of adopting "Total Return" as the investment goal of all of our endowment funds. Briefly, this concept of investment management is in two parts: first, it establishes maximum total return (interest and dividend income plus appreciation in market values), without assuming an inappropriate degree of risk, as the investment management goal; second, it provides that the income to be derived from the endowment funds, in lieu of interest and dividends received by the fund in that year, shall be a prudent amount determined in relation to the value of the funds, taking into account both present and future needs of the Institution. The purpose

TABLE 3.—*Endowment and similar funds summary of investments and other assets as of 30 June 1972*

<i>Funds</i>	<i>Book value</i>	<i>Market value</i>
INVESTMENT ACCOUNTS		
<i>Freer Fund:</i>		
Cash	198,100	198,100
Bonds	4,220,980	4,317,963
Convertible bonds	3,656,150	4,004,940
Convertible preferred stock	671,577	783,305
Common stocks	6,700,314	12,668,632
Total	15,447,121	21,972,940
<i>Consolidated Funds:</i>		
Cash	657,754	657,754
Bonds	3,500,791	3,499,813
Convertible bonds	396,092	502,125
Convertible preferred stock	247,581	164,000
Common stocks	6,289,387	8,463,093
Total	11,091,605	13,286,785
<i>Endowment Fund No. 3:</i>		
Cash	443,234	443,234
Bonds	163,123	175,773
Common stocks	6,414,077	14,021,797
Total	7,020,434	14,640,804
<i>Miscellaneous:</i>		
Bonds	10,064	9,875
Common stocks	3,321	18,402
Total	13,385	28,277
Total investment accounts	33,572,545	49,928,806
<i>Other Accounts:</i>		
Notes receivable	95,316	95,316
Loan to U.S. Treasury in perpetuity	1,000,000	1,000,000
Total other accounts	1,095,316	1,095,316
Total Endowment and Similar Fund Balances	34,667,861	51,024,122

of the policy is to allow investment in the most attractive securities from the point of view of expected total investment return without the need to restrict them to those providing higher current yields.

With the agreement of the Board of Regents, this policy has been followed during the past year for "quasi-endowment" funds (namely those in which the principal, as well as interest and dividend, yields may be used for the purposes specified), a course of action now followed by many

leading universities since adoption of the policy was first recommended by a study financed by the Ford Foundation. More recently, the Institution has received from the Washington firm of Covington & Burling a strong legal opinion supporting its use of the Total Return policy for true endowment funds as well as quasi-endowment funds. Based upon this opinion and upon the recommendation of our Investment Policy Committee, the Board of Regents, in May 1972, authorized adoption of the Maximum Total Return policy as the goal for all of our endowment funds. It is believed that this policy, which also has the full support of our three investment managers, will enable our endowment funds to show an improved record in future years.

The Board of Regents also approved the recommendation of the Investment Policy Committee that the prudent amount of income to be derived from the endowment funds should be 4½ percent annually based upon the moving five-year average market values of each of the funds. Insofar as income is concerned, there will be little immediate effect on any of the funds except the Freer Fund; endowment income to the Freer Gallery will increase immediately by over \$100,000 per year and bring beneficial relief to that gallery in keeping abreast of its expenditure requirements.

Accounting and Auditing.—As mentioned earlier the improved financial results in FY 1972 were aided in no small measure by beneficial changes in accounting and budgeting procedures and reports instituted by our Accounting, Budgeting and Grant Administration offices over the past two or three years. The control budgets, reporting of monthly operations, and regular monthly financial review meetings, combined with increased participation in the planning and budgeting process at bureau and administrative levels have all served to clarify the Institution's basically complex financial affairs. Increasing use of computer program aids is a part of these efforts. Appreciation is expressed herewith to the staffs of these offices for their initiative shown in this important work.

Private side finances of the Institution are annually audited in full by independent public accountants; their report for FY 1972 on following pages includes comparative balance sheets and a statement of changes in balances in all the various funds. Grant and contract monies received from federal agencies are audited annually by the Defense Contract Audit Agency. Audits of federally appropriated funds, as well as portions of the Institution's non-federal funds, are conducted regularly by our own internal audit staff, and from time to time by the General Accounting Office. Special Foreign Currency grants are also audited by the internal auditing staff aided by foreign independent accountants, and in some cases by the audit staff of the U.S. Department of Agriculture.

Donors to the Smithsonian

The Smithsonian Institution gratefully acknowledges gifts and bequests received during fiscal year 1972 from the following:

\$100,000 or more:

The Ford Foundation	The Andrew W. Mellon Foundation
Mrs. Enid A. Haupt	Richard King Mellon Foundation
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Newark Museum Association	Mrs. Rose Saul Zalles

We also gratefully acknowledge other contributions in the amount of \$141,749.00 received from 1,196 persons during 1972.

PEAT, MARWICK, MITCHELL & CO.
CERTIFIED PUBLIC ACCOUNTANTS
1025 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20036

*The Board of Regents
Smithsonian Institution:*

We have examined the balance sheet of private funds of Smithsonian Institution as of 30 June 1972 and the related statement of changes in fund balances for the year then ended. Such statements do not include the account of the National Gallery of Art, the John F. Kennedy Center for the Performing Arts, nor other departments, bureaus and operations administered by the Institution under federal appropriations. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As explained in note 1 of the notes to financial statements, the Institution has consistently followed the practice of reflecting in its financial statements as fixed assets only museum shops and computer equipment and other fixed assets acquired through gift or through use of gift funds. Generally accepted accounting principles for non-profit organizations require the recording of all fixed assets in the financial statements.

In our opinion, except for the method as discussed in the preceding paragraph, the accompanying balance sheet and statement of changes in fund balance of private funds present fairly the financial position of Smithsonian Institution at 30 June 1972, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

PEAT, MARWICK, MITCHELL & CO.

29 August 1972

SMITHSONIAN INSTITUTION BALANCE SHEET OF PRIVATE
FUNDS 30 JUNE 1972

(With comparative figures for 1971) (Note 1)

Assets

	1972	1971
CURRENT FUNDS:		
Cash:		
In U.S. Treasury	\$ 172,821	\$ 413,857
In banks and on hand	290,917	155,997
Total Cash	<u>463,738</u>	<u>569,854</u>
Investments - at cost (market value \$49,530; \$2,735,996 in 1971)	<u>4,186,224</u>	<u>2,868,032</u>
Receivables:		
Accounts	774,332	774,722
Advances - travel and other	160,106	194,835
Reimbursements - grants and contracts	986,797	1,369,306
	<u>1,921,235</u>	<u>2,338,863</u>
Inventories at lower of cost or net realizable value	567,210	522,908
Prepaid expense	114,047	116,988
Deferred magazine expenses (note 2)	749,226	404,472
Equipment (less accumulated depreciation of \$189,804; \$71,636 in 1971) (note 1 and 3)	408,211	521,325
Total Current Funds	<u>\$ 8,409,891</u>	<u>\$ 7,342,442</u>
ENDOWMENT AND SIMILAR FUNDS:		
Cash	\$ 1,299,088	\$ 165,033
Notes receivable	95,316	96,663
Investments - at cost: (market value \$48,629,718; \$42,467,439 in 1971)	32,273,457	31,288,633
Loan to U.S. Treasury in perpetuity	1,000,000	1,000,000
Total Endowment and Similar Funds	<u>\$34,667,861</u>	<u>\$32,550,329</u>
REAL ESTATE ACQUISITION FUNDS:		
Real estate at cost or appraised value at date of gift (note 1)	\$ 2,326,956	\$ 2,176,219
Total Real Estate Acquisition Funds	<u>\$ 2,326,956</u>	<u>\$ 2,176,219</u>

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION BALANCE SHEET OF PRIVATE
FUNDS 30 JUNE 1972

(With comparative figures for 1971) (Note 1)

Liabilities and Fund Balances

	1972	1971
CURRENT FUNDS:		
Notes payable (note 3)	\$ 383,691	\$ 654,613
Accounts payable	421,213	814,581
Accrued liabilities	669,065	570,068
Deferred income:		
Magazine subscriptions	1,931,311	1,400,926
Other	<u>117,019</u>	<u>130,249</u>
Total Liabilities	<u>3,522,299</u>	<u>3,570,437</u>
Fund balances:		
Unrestricted	1,781,105	1,719,657
Restricted:		
Unexpended income from endowments	550,580	651,889
Grants and Contracts	50,001	290,741
Gifts	<u>2,505,906</u>	<u>1,109,718</u>
Total Fund Balances	<u>4,887,592</u>	<u>3,772,005</u>
Total Current Funds	<u>\$ 8,409,891</u>	<u>\$ 7,342,442</u>
 ENDOWMENT AND SIMILAR FUNDS:		
Fund balances:		
Endowment funds	\$29,320,809	\$27,391,201
Funds functioning as endowments	<u>5,347,052</u>	<u>5,159,128</u>
Total Endowment and Similar Funds	<u>\$34,667,861</u>	<u>\$32,550,329</u>
 REAL ESTATE ACQUISITION FUNDS:		
Mortgage notes payable (note 4)	\$ 353,138	\$ 293,641
Fund balance	1,973,818	1,882,578
Total Real Estate Acquisition Funds	<u>\$ 2,326,956</u>	<u>\$ 2,176,219</u>

SMITHSONIAN INSTITUTION
PRIVATE FUNDSStatement of Changes in Fund Balances
Year ended 30 June 1972*Current Funds*

	<i>Unrestricted funds</i>			<i>Restricted funds</i>		
	<i>Total</i>	<i>General</i>	<i>Activities</i>	<i>Income from endowments</i>	<i>Gifts</i>	<i>Grants and contracts</i>
Balance at 30 June 1971	\$ 3,772,005	\$1,719,657	\$ -	\$ 651,889	\$1,109,718	\$ 290,741
Additions:						
Net sales	7,157,260	831,190	6,195,741	111,474	18,855	-
Less: cost of goods sold	4,837,761	812,401	3,998,872	26,488	-	-
Gross profit	2,319,499	18,789	2,196,869	84,986	18,855	-
Grants and contracts - Net	7,847,612	-	-	-	-	7,847,612
Investment income	1,512,396	334,055	-	1,145,245	33,096	-
Gifts, bequests and foundation grants	2,789,036	25,591	145,357	11,094	2,606,994	-
Rental and commission	170,562	170,562	-	-	-	-
Other	395,377	49,178	103,981	2,640	239,578	-
Total additions	\$15,034,482	598,175	2,446,207	1,243,965	2,898,523	7,847,612
Deductions:						
Salary and benefits	8,952,275	2,413,352	1,505,521	514,005	960,308	3,559,089
Purchases for collection	209,465	523	-	154,037	54,287	618
Travel and transportation	834,418	76,114	52,384	31,838	151,229	522,853
Equipment and facilities	638,087	138,154	45,981	30,508	96,049	327,395
Supplies and materials	730,206	81,171	93,267	30,076	181,937	343,755
Rent and utilities	103,806	44,954	6,315	-	15,966	36,571
Communications	139,593	67,361	14,698	558	13,759	43,217
Contractual services	3,063,447	142,116	399,983	285,809	925,288	1,310,251
Computer rental	41,038	32,729	-	-	8,309	-
Promotion and advertising	67,429	-	67,429	-	-	-
Depreciation	22,244	-	22,244	-	-	-
Administrative expenditures applied	(167,090)	(2,638,646)	379,737	87,083	214,399	1,790,337
Total deductions	\$14,634,918	357,828	2,587,559	1,133,914	2,621,531	7,934,086
Transfers	716,023	(178,899)	141,352	(211,360)	1,119,196	(154,266)
Net increase (decrease) in fund balances	1,115,587	61,448	-	(101,309)	1,396,188	(240,740)
Balance at 30 June 1972	\$ 4,887,592	\$1,781,105	\$ -	\$ 550,580	\$2,505,906	\$ 50,001

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Statement of Changes in Fund Balances
Year ended 30 June 1972

Endowment and Similar Funds

	<u>Endowment funds</u>				<i>Funds functioning as endow- ments</i>
	<i>Total</i>	<i>Total</i>	<i>Freer</i>	<i>Other</i>	
Fund balances at 30 June 1971 as previously reported	\$32,550,329	\$27,495,256	\$13,328,493	\$14,166,763	\$5,055,073
To correct error in classification of Smithsonian Agency Acct.	-	(104,055)	-	(104,055)	104,055
Fund balances at 30 June 1971 as adjusted	<u>32,550,329</u>	<u>27,391,201</u>	<u>13,328,493</u>	<u>14,062,708</u>	<u>5,159,128</u>
Additions:					
Gifts and Bequests	43,830	38,069	-	38,069	5,761
Net Gain (Loss) on Sale of investments	2,880,965	2,723,293	2,118,628	604,665	157,672
Income added to principal . .	95,178	91,740	-	91,740	3,438
Transfer from Current Funds— Smithsonian Agency Acct. . . .	21,053	-	-	-	21,053
Total Additions	<u>3,041,026</u>	<u>2,853,102</u>	<u>2,118,628</u>	<u>734,474</u>	<u>187,924</u>
Deductions:					
Transfer to Current Funds . . .	923,494	923,494	-	923,494	-
Fund balances at 30 June 1972 .	<u>\$34,667,861</u>	<u>\$29,320,809</u>	<u>\$15,447,121</u>	<u>\$13,873,688</u>	<u>\$5,347,052</u>

Real Estate Acquisition Fund

Fund balance at 30 June 1971	\$1,882,578
Additions:	
Land Acquisition - Chesapeake Bay Center Property	280,503
Deductions:	
Land sales	
Ft. Pierce, Fla.	\$181,011
Chesapeake Bay Center	8,252
Fund balance at 30 June 1972	<u>\$1,973,818</u>

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Notes to Financial Statements

30 June 1972

1. *Accounting Principles.*—The institution follows the accrual method of accounting except that accrued vacation pay has not been reflected on the accompanying financial statements.

Fixed assets are recorded as follows:

Museum shops and computer equipment: Those purchased from private funds are capitalized in the current fund.

Land and buildings: Those acquired by gift or by use of gift funds are recorded in the real estate acquisition fund at cost or appraised value at date of gift, except for gifts of certain islands in the Chesapeake Bay and the Carnegie Mansion which have been recorded at nominal values.

All other land, buildings, furniture, equipment, works of art, living or other specimens are not reflected in the accompanying financial statements.

Museum Shops and computer equipment are depreciated on a straight line basis over an estimated useful life of five years. In accordance with generally accepted accounting principles for non-profit organizations, depreciation is not provided on non-income producing assets.

2. *Deferred Magazine Expenses.*—This amount represents promotional expenses incurred in connection with the *Smithsonian* magazine. These expenses are to be amortized over a period of twelve months.

3. *Note Payable.*—The note payable in the principal amount of \$383,691 is secured by computer equipment and is payable in monthly installments of \$7,993 to 30 June 1976.

4. *Mortgage Notes Payable.*—The mortgage notes payable are secured by first deeds of trust on property acquired in connection with the Chesapeake Bay Center. Funds for the curtailment of these notes will be transferred from restricted funds—gifts, designated for the development of the Chesapeake Bay Center. The details of the mortgage notes payable are as follows:

- a. A \$226,100 note on property acquired for \$376,000. The note is payable in nineteen consecutive semi-annual installments of \$13,300, plus interest at the prevailing prime rate on the due date of payment but not less than 8% with the final payment due 1 July 1980.
- b. A \$37,038 note on property acquired for \$118,533. The note is payable in monthly installments of \$451, including interest at the rate of 6%, with the final payment due on 1 November 1989.
- c. A \$90,000 note on property acquired for \$120,000. The note is payable in three consecutive annual installments of \$30,000, plus interest at the rate of 7 percent on the unpaid balance, with the final payment due 1 November 1974.

5. *Real Estate Acquisition Funds.*—The real estate acquisition funds include certain land and buildings acquired by gift or purchased from restricted funds. This property is currently being used for museums, the Chesapeake Bay Center and a conference center. Previously this property was included as part of the endowment and similar funds. The prior year's financial statements have been reclassified to reflect this change.

Mrs. HANSEN. Dr. Ripley, may I express my own and the committee's appreciation for a very excellent and an interesting presentation. We always enjoy the Smithsonian as much as any agency that comes before us. Thank you all for contributing to our general knowledge.

Mr. RIPLEY. Thank you very much, Madam Chairman.

Mr. McDADE. Madam Chairman, I echo your sentiments and urge you to keep up the good work. We know you will.

Mr. RIPLEY. Thank you very much.

Mrs. HANSEN. You are going to have the entire committee out to look at the zoo some day.

Mr. RIPLEY. I am so glad. I hope you will come early to see the pandas.

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