

*see p. 348-349 for
discussion & additional
sites for buildings on Mall*

**DEPARTMENT OF THE INTERIOR AND RELATED
AGENCIES APPROPRIATIONS FOR 1973**

Return to Mr Jameson
HEARINGS

BEFORE A

**SUBCOMMITTEE OF THE
COMMITTEE ON APPROPRIATIONS
HOUSE OF REPRESENTATIVES**

NINETY-SECOND CONGRESS

SECOND SESSION

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

JULIA BUTLER HANSEN, Washington, *Chairman*

DAVID R. OBEY, Wisconsin

JOSEPH M. MCDADE, Pennsylvania

SIDNEY R. YATES, Illinois

WENDELL WYATT, Oregon

NICK GALIFIANAKIS, North Carolina

DEL CLAWSON, California

GEORGE E. EVANS and BYRON S. NIELSON, *Staff Assistants*

PART 3

**American Revolution Bicentennial Commission
Bureau of Outdoor Recreation**

- ✓ **Commission of Fine Arts** *p. 128*
- Franklin Delano Roosevelt Memorial Commission**
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- ✓ **National Foundation on the Arts and the Humanities** *p. 496*
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- ✓ **Woodrow Wilson International Center for Scholars** *p. 770*

Mr. YATES. Is that true at the National Endowment on the Arts?

Mr. BROWN. There we have the Federal Council on the Arts and Humanities which acts as an instrumentality by which just this kind of thing happens. I now have two seats on that. I am very encouraged at the use of that potential for just this reason, for intercommunication, and a very active program is now underway in assessing what could be done by various agencies of the Government to promote the arts. This Council gives us a forum for discussing this and translating it into action on the part of the constituent members.

Mr. YATES. Thank you.

Mr. McDADE. It is a pleasure to have heard you.

Mrs. HANSEN. Thank you very much.

MONDAY, MARCH 13, 1972.

SMITHSONIAN INSTITUTION

WITNESSES

S. DILLON RIPLEY, SECRETARY
 JAMES BRADLEY, UNDER SECRETARY
 ROBERT A. BROOKS, DEPUTY UNDER SECRETARY
 CHARLES BLITZER, ASSISTANT SECRETARY (HISTORY AND ART)
 DAVID CHALLINOR, ASSISTANT SECRETARY (SCIENCE)
 WILLIAM W. WARNER, ASSISTANT SECRETARY (PUBLIC SERVICE)
 RICHARD L. AULT, DIRECTOR OF SUPPORT ACTIVITIES
 T. AMES WHEELER, TREASURER
 JOHN F. JAMESON, DIRECTOR OF PROGRAMING AND BUDGET
 RICHARD S. COWAN, DIRECTOR, NATIONAL MUSEUM OF NATURAL HISTORY
 MICHAEL COLLINS, DIRECTOR, NATIONAL AIR AND SPACE MUSEUM
 THEODORE H. REED, DIRECTOR, NATIONAL ZOOLOGICAL PARK
 DANIEL J. BOORSTIN, DIRECTOR, NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY
 JOHN R. KINARD, DIRECTOR, ANACOSTIA NEIGHBORHOOD MUSEUM
 DAVID F. HERSEY, DIRECTOR, SCIENCE INFORMATION EXCHANGE

Mrs. HANSEN. The committee will come to order.

The next agency to appear before the committee is the Smithsonian Institution. Our principal witness is Dillon S. Ripley, the Secretary. It is always a pleasure to welcome you, Mr. Secretary.

INTRODUCTION OF WITNESSES

We usually have a very stimulating discussion and it should be a very interesting day.

Please introduce your staff who are present today. It is also a pleasure to welcome Mr. Bradley, the Under Secretary.

Secretary RIPLEY. On the right is Dr. Cowan, the Director of the Museum of Natural History. On the left is Mr. Jameson, head of our budget unit, and Dr. Challinor who is the Assistant Secretary for Science.

Dr. Reed has become slightly hirsute in recent years. He is the Director of the National Zoological Park. He is getting ready to go look at pandas.

Mrs. HANSEN. I thought Mr. Reed would be on his way to deliver the Musk Ox.

Secretary RIPLEY. Mr. Brooks, who is acting as Deputy this year to Mr. Bradley, and Mr. Warner who is our Assistant Secretary for Public Service. Mr. Wheeler, the Treasurer of the Institution. Dr. Hersey, Director of the Science Information Exchange. Mr. Kinard, Director of the Anacostia Neighborhood Museum.

Mrs. HANSEN. We are delighted to have you here, Mr. Kinard.

Secretary RIPLEY. Mr. Collins, my friend from Apollo XI, is in charge of the Air and Space Museum.

Dr. Boorstin, the Director of the Museum of History and Technology, and Mr. Blitzler, Assistant Secretary for History and Art.

We are here to answer any questions you may have and discuss our hopes and plans for future years.

Mrs. HANSEN. Please insert your general statement in the record at this point and summarize it for the committee.

(The statement follows:)

Madam chairman and members of the committee: It is a pleasure to be here today to review the Smithsonian Institution's program plans and to share with you some of the progress and notable accomplishments we have had over the past year. Our many public services in the form of basic research, exhibitions, lectures, publications, performing arts, and both general and specialized education have been made possible by congressional support of our work. We are deeply appreciative of this interest.

NOTABLE EVENTS OF THE PAST YEAR

Our 125th year has been a very good one, although the employment control has slowed our efforts to develop the levels of support staffing approved in the fiscal year 1972 appropriation. Primarily this control has had an adverse effect on the National Museum of Natural History, the National Zoological Park and the Buildings Management Department where there were major employment increases allowed in the current budget year. This effort continues to have our high priority.

With so many notable events of the past year to report, I must be selective in the interest of conserving time today. A fuller report appears in the "Smithsonian Year." Those events I would like to mention vividly illustrate the scope of our present activities. They serve to document at least in small measure our accomplishments with the resources you have provided. They also show our strong efforts to obtain financial and other support for our work from private sources.

Our visitor attendance in fiscal year 1971 to buildings on and in the vicinity of the Mall was 13,800,000, an increase of about 200,000 over the previous year. An additional 5 million persons visited the National Zoological Park and about 50,000 came to the Anacostia Neighborhood Museum. This makes a grand total of almost 20 million persons who used the Institution's educational and cultural resources.

The Smithsonian's professional staff, alone and in collaboration with others, produced almost 1,000 research, exhibition, and other scholarly publications.

Thanks to initial funding in this year's budget, the Smithsonian Astrophysical Observatory, in cooperation with the University of Arizona, is developing a multi-mirror telescope. This will be the world's largest infrared and third largest optical telescope.

We are well along in completing the redesign for the National Air and Space Museum. The President has approved our requesting construction funds in the fiscal year 1973 appropriation. Air and space exhibits, which have been scattered in several buildings, will be consolidated in a new and modern structure on

Independence Avenue between 4th and 7th Streets. This museum will display the progress that America has made in aeronautical and space science during the past 200 years. Opening in 1976, as a major feature of Washington's Bicentennial celebration, this center of exhibition, exposition, and education will be visited by an estimated 6 million visitors annually. A taste of the kind of exciting exhibits being planned for this museum is the ballooning exhibit which opened 2 weeks ago, visited by several members of the Congress, and the recreation of a World War I front line fighter airfield to be opened on March 31.

Activity at the Harbor Branch Foundation Laboratory at Fort Pierce, Fla., intensified. This is a new marine research facility, affiliated with the Smithsonian, on the Indian River Inland Waterway. The Johnson-Sea-Link, a 9-ton acrylic and aluminum research submersible capable of extended underwater observations at depths up to 1,200 feet, was constructed with private funds and donated for use. A former Coast Guard cutter is being refitted for oceanographic work and as a tender for the submersible. In addition, a laboratory building has been completed to support scientific investigations related to the underwater studies. Support for this program has been from private sources.

Present land acquisition goals for the Chesapeake Bay Center for Environmental Studies have been almost realized. Negotiations are underway for two additional tracts to be purchased in 1972. This will bring the total land holding of the Center to 2,500 acres. During the coming year, scientists from four bureaus of the Smithsonian and three local universities will be using this splendid natural area for environmental research on the bay and adjoining lands.

The Carnegie Corporation agreed to give the Carnegie Mansion on Fifth Avenue at 90th Street in New York City to the Smithsonian for use of the Cooper-Hewitt Museum of Decorative Arts and Design. A \$500,000 grant was received from the Mellon Foundation toward renovation of the mansion.

At long last the Renwick Gallery's restoration has been nearly completed and the building was opened to the public in late January 1972. Originally opened in 1874, as the original Corcoran Gallery, situated opposite the White House and adjoining the Blair House, this Gallery should be an extraordinarily popular museum. Some 50,000 persons have visited the building in the first 6 weeks it has been opened. Under the administration of the National Collection of Fine Arts, it will be used to display changing exhibitions in the fine arts, the decorative arts, and in folk and cultural design.

As a result of substantial funding for the National Museum Act this year we have been able to respond with financial support to 18 significant projects in museum training, conservation, curriculum development, and museum administration. Over 100 requests for funds, exceeding \$2 million have been received thus far this year.

I am very happy to tell you that Mr. Hirshhorn is preparing to add some 300 additional works of art to his original gift to the Smithsonian. These works, which have been appraised at a total value of \$7,500,000, were chosen by the Museum director from the collections of Mr. Hirshhorn and the Hirshhorn Foundation on the grounds that they would add enormously to the coverage and the brilliance of the opening exhibit of the Joseph H. Hirshhorn Museum and Sculpture Garden. The willingness to commit these additional works to us now, under the same terms as the 1966 conditional gift, will make it possible for the Museum to proceed with plans for that exhibition and for its catalog.

The Festival of American Folklife, our fifth on the Mall, was even more successful than its predecessors. About 800,000 persons attended the 5-day event which included a special pavilion featuring the State of Ohio, the participation of Indians of the Northwest Coast and Alaskan Eskimos, and trade union exhibits, as well as the usual wide variety of folk arts and traditional music and dance.

The Anacostia Neighborhood Museum began work on a novel urban studies project funded by generous grants from the Carnegie Corporation, the Cafritz Foundation, and the Department of Housing and Urban Development. One of the results of this support has been an exhibit of Anacostia's history from 1608 to 1945 which opened at the Museum 2 weeks ago. Entitled "The Evolution of a Community," this exhibit portrays Anacostia's diversity and heritage from the views of its past and present residents.

The first television documentary under the series known as Smithsonian Adventure, produced in collaboration with the Columbia Broadcasting System, was broadcast to a prime-time Sunday night national audience. It concerned the excavations conducted by Dr. Iris Love on the Island of Knidos and her search for Praxiteles' renowned statue of Aphrodite. The documentary was favorably re-

viewed by Life magazine and produced a great volume of correspondence from students and the general public interested in archeology. The second film in the series, concerning the first voyage down the Colorado River by Maj. John Wesley Powell, who received Smithsonian support for various of his expeditions, is soon to be broadcast.

The Smithsonian magazine continues to do well in promoting the educational efforts of the Institution. Subscriptions are now over 300,000 and are projected at 315,000 for June 30, 1972, compared with 248,000 a year earlier. It is currently anticipated that the magazine will break even financially this fiscal year—a remarkable performance for this 2-year-old, privately funded venture.

BUDGET REQUESTS FOR FISCAL YEAR 1973

I would like to turn now to our budget requests for the coming fiscal year. Before summarizing these, it might be useful to mention very quickly some of our major objectives for the next several years. These are the goals that unify the Smithsonian and provide the context for the budgetary requirements of over 40 line items, including museums, galleries, research laboratories, a zoo, and supporting organization units.

Briefly stated, our program objectives are the following:

To nurture the basic scholarly program from which flows publications, lectures, exhibitions, symposia, and other services.—This goal can be accomplished by providing our scientists and historians with the resources that facilitate productive research—technicians and research assistants, library materials, electronic data processing, advanced scientific equipment, and funds for laboratory supplies and field research.

To strengthen the Institution's educational role.—Our efforts will take the form of new and exciting exhibits for the general public. Also guided tours and workshops will be arranged for elementary and secondary schoolchildren. We will prepare and distribute traveling exhibits and home and classroom-use publications and audiovisual materials. And we will offer training opportunities for students and others to use our collections, library, and research facilities under the guidance and supervision of our professional staff.

To contribute to the reappraisal of the American Experience by portraying our Nation's course over the past 200 years and by suggesting paths for our continued national development.—Our plans and preparations for the bicentennial are proceeding. They have met with an enthusiastic response from the American Revolution Bicentennial Commission, the Bicentennial Coordination Center, and the White House. As stated in the recent plan submitted to the President, Washington Bicentennial 1976 *The Living City*, "the Smithsonian Institution will play a major role in every aspect of Washington's bicentennial celebration." Through publications, traveling exhibits, and advice and assistance to State and local groups, we believe that our contributions also will be national and international in scope.

To improve man's understanding of the physical and natural environment upon which human society depends.—Our coordinated environmental research program is enabling our science bureaus for the first time to monitor, assemble, and analyze biological and physical data on specific important ecosystems. We hope to develop ways to help predict the consequences of environmental change and, thereby, contribute to the better management of our natural world.

To respond to the urgent request of the Nation's museums for help in serving several hundred million visitors each year.—Through the National Museum Act, we hope to provide improved systems for museum cataloging and access to data, museum laboratory centers, especially for conservation, training of personnel, research in museum techniques, and manuals of instruction.

To improve the management of scientific and scholarly information and the preservation of the sources of this information.—This effort includes the design and application of improved information storage and retrieval systems for collection data, conservation of the national collections including archival materials and the preservation, identification, and cataloging of our huge photographic collections for staff and public use.

In total, we are requesting appropriations of \$106,923,000 for fiscal year 1973. These budget requests are presented in four categories:

Salaries and expenses, the operating budget of the Smithsonian, \$52,964,000;
 Science information exchange, for maintenance of the data bank, \$1,600,000;
 Special foreign currency program, \$6 million; and

Construction and restoration and renovation of buildings and facilities, \$46,359,000 (including \$40 million for the National Air and Space Museum).

I would like to highlight these four appropriation accounts.

Salaries and expenses for regular and special programs

We are asking for a salaries and expenses increase of \$8,794,000 on an estimated base of \$44,170,000. It is our understanding that both of these estimates will increase as a result of decisions by the Office of Management and Budget on a supplemental appropriation request for fiscal year 1972 and a budgetary amendment for fiscal year 1973. These will provide funds for three recent pay raises affecting general schedule and wage employees. In total, these raises will cost the Smithsonian \$1,069,000 this year and \$1,769,000 next year. The current year's costs will be met, at least in part, by Smithsonian funds now held in reserve by the Office of Management and Budget as a result of the employment control.

The requested increase of \$8,794,000 (which includes \$1,082,000 for necessary pay for current staff of which \$410,000 is for the full year cost of the wage pay raise) is distributed as follows:

For the science programs we are seeking an additional \$2,199,000 (on a base of \$15,881,000). This includes \$755,000 for the National Museum of Natural History's research and electronic data processing programs; \$323,000 for the Smithsonian Astrophysical Observatory to continue the fabrication of its multi-mirror telescope; \$477,000 to enable the National Air and Space Museum to step-up restoration, research, and other preparations for a 1976 opening in its new building; and \$644,000 for all other science programs.

In the history and art area, our budget request is for a \$2,298,000 increase (on a base of \$5,615,000), of which the large increment, \$1,413,000, is for the one-time purchase of furnishings and equipment for the Joseph H. Hirshhorn Museum and Sculpture Garden scheduled to open in late 1973; \$304,000 are for the curation of the collections and accession of new objects in the National Museum of History and Technology; and \$581,000 are for our other art and history museums and activities.

In the public service area we are seeking an additional \$245,000 (to our base of \$937,000) of which \$80,000 are for the operating programs of the Anacostia Neighborhood Museum; \$88,000 are for the Folklife and College Theater Festivals and Indian awareness programs of the Division of Performing Arts; and an amount of \$77,000 is for other activities.

The special programs section of the operating budget contains a request for a further \$1,373,000 (on a base of \$2,902,000). This relatively large increase is for activities considered to be of particular importance because they permit many of our bureaus to enlarge and extend their research and public programs. Included in the additional funding we are seeking are \$600,000 for bicentennial preparations and activities for the celebration of the great national event, including exhibitions, surveys of American art and folk traditions, and outreach activities of our traveling exhibits and Anacostia programs. The special programs request includes \$250,000 for our major exhibitions effort which, with funding in the base, will permit us to complete one major new exhibit on the "World of Living Things," produce another "Of the People, By the People, For the People," and plan a third, "The Earthbound Benefits of Flight." An amount of \$400,000 is for the National Museum Act to bring this program of museum assistance to the full funding level of \$1 million as authorized by Public Law 91-629. The balance of the special programs request, \$123,000, is for academic and educational programs and research awards.

In a new category in our budget request, documentation and conservation, we are asking for an additional \$597,000 (on a base of \$1,759,000). This new category has been established to emphasize the functions in common of the Smithsonian Libraries and Archives, the Office of the Registrar, the Conservation Analytical Laboratory, and the Photographic Services Division which are so important in preserving, identifying, and cataloging the materials and documents that make up our collections.

For administrative and central support, an increase of \$541,000 (on a base of \$6,530,000) is proposed for the 1973 budget. This increase for central administration and technical services is essential in order to give support to program operations.

And, finally, we are asking for an additional \$1,541,000 (on a base of \$10,546,000) for buildings management. This request includes \$386,000 for necessary pay, \$410,000 for initial services to the Hirshhorn Museum and Sculpture Garden.

\$85,000 for Cooper-Hewitt Museum staffing, \$250,000 for utilities and communications, \$220,000 for protection and custodial personnel in our buildings, and \$190,000 for the rental of new space for administrative purposes.

Science Information Exchange

The requested budget of \$1,600,000 for the Smithsonian Science Information Exchange will meet the costs of input, that is, maintaining and developing the data bank of information on research projects which are planned or in progress. The exchange serves as a national information service to the research community. Users of the exchange pay for all services they receive. In other words, the costs of output are met by user charges. This income is estimated at about \$425,000 in fiscal year 1973 as compared with some \$325,000 in the current year. Use of the exchange is on the upswing. Numerous studies have concluded that it is a valuable information resource to scientists and science program managers. I should point out that not until user income rises to about \$650,000 will it begin to provide some margin that can be applied to meet the costs of input. For this reason, as well as the generally increased costs of basic operations each year, we must ask for an appropriation equal to prior years' funding.

Special foreign currency program

The special foreign currency program provides grants of excess currencies for oversea archeological work, systematic and environmental biological research, astrophysical and earth sciences studies, and museum programs. An appropriation of \$6 million is sought, an increase of \$2,500,000 over the current year's budget. The development and expansion of regular programs, as well as the opening up of important new research opportunities, especially in India and Poland, have resulted in a rising demand for these grants by American institutions of higher learning. Some 200 such institutions in 32 States have benefited or will be participating in this program.

Construction, restoration, and renovation of buildings and facilities

We are requesting \$46,359,000 for the planning, construction, restoration, and renovation of buildings and facilities. Many of these projects are meant to enhance our participation in the 200th anniversary of the Nation's independence. This request is distributed among four appropriation accounts:

Planning and repairs at the National Zoological Park.....	\$675,000
Restoration and renovation of buildings and facilities.....	5,409,000
Construction of the National Air and Space Museum.....	40,000,000
Planning for the construction of a bicentennial outdoor museum....	275,000

At our National Zoological Park, funds in the amount of \$275,000 are requested to cover architectural engineering fees for the construction design of an attractive, natural setting lion and tiger exhibit. This is in accord with preliminary site plans that have been developed under the current redesign effort for master plan for the redevelopment of the zoo. We are also seeking \$400,000 to continue the program for renovation and repairs to existing zoo facilities. This funding is required to keep the old part of the zoo in use for the visiting public; for the care and well-being of the animals; and to keep the newer facilities in good condition to guard against larger repair bills later.

Our total request for the restoration, renovation, and improvements to existing buildings totals \$5,409,000. Of this total, an amount of \$3,500,000 is for the air conditioning and renovation of the Arts and Industries Building for use for the "Year of the Centennial." This will be a recreation of the atmosphere and style of American life at the time of the Philadelphia Centennial Exposition of 1876 midway between our Nation's founding and its 200th birthday. I should point out that the air conditioning of this building is a permanent investment in one of our most important museum buildings on the mall, the timing of which is tied to the bicentennial, but the benefits of which will continue forever. This request also includes \$220,000 for road and power improvements at our Mount Hopkins, Ariz., Observatory; \$125,000 for the addition of a small storage building for the National Air and Space Museum's use at Silver Hill, Md.; and \$1,214,000 for general repairs and improvements to some eight museum buildings and research facilities. It also includes \$250,000 for planning for a sixth-floor addition to the History and Technology Building for use for a library of science and technology and \$100,000 for feasibility studies on visitor parking and a National Museum of Natural History Research Center.

For the National Air and Space Museum's construction, we are asking for an appropriation of \$40 million. This will permit the award of a construction con-

tract in mid-fiscal year 1973 and a construction schedule which will lead to an opening in July 1976. This building, in addition to being a showcase for historic machines, will have a wide variety of exhibits concerned with the science and technology of the space age. The public will be able to see, gathered under one roof for the first time, objects and explanations showing how man has used a broad range of disciplines to achieve flight. The impact of flight upon our environment and our culture will be displayed to the public using the latest multimedia techniques.

Legislation now before the Congress would authorize the establishment of bicentennial park at two federally owned sites on the Potomac River—Fort Foote, in Prince Georges County, Md., and Jones Point on the southern edge of Alexandria, Va. For planning this project, we are seeking an appropriation of \$275,000. This outdoor museum would include a small visitor center, parking and other necessary visitor facilities, a parade ground, a naval ordnance park, an outdoor theater, and a boat landing. Special attention will be given to exhibits having significance to the national bicentennial observance, such as a continental encampment and a palisaded fort.

This completes my summary presentation of the Smithsonian's budget request for next year. For over 125 years we have provided the American people with greater knowledge and appreciation of their environmental, cultural, and technological heritage. With the continued support of the Congress we are confident of our continued ability to serve.

Secretary RIPLEY. Thank you, Madam Chairman.

I shall begin by saying that although, as always, we have received very warm and generous treatment in the Congress, this year we were somewhat depressed to find that no sooner had our budget been approved by the Congress than its implementation was slowed with what is known as employment control. This has seriously affected our efforts to develop appropriate levels of support staffing.

As you recall, Madam Chairman, for some years we have been pointing out it is all very well to have these wonderful buildings and facilities which the public enjoys, but we have been seriously hampered by lack of support staff to service them and to serve the public.

This new control has had a particularly adverse effect in three areas, the Natural History Museum, Buildings Management, and the National Zoo. In these activities we were allowed major employment increases by the Congress but we were then forced to cut back.

We have as a high priority the eventual development of appropriate support staff.

Mrs. HANSEN. Dr. Ripley, why was the National Zoo program cut? It seemed to me last year you requested additional personnel on the basis of sheer necessity.

Secretary RIPLEY. That is right. It was an overall cut which affected most severely the filling of new positions and these three organization units are where we had most of the new positions. So many of the new positions remained unfilled rather than terminate on board employees. In other words, 197 new positions were actually granted us in the fiscal 1972 appropriation for a total of 2,570. We were cut back to a June 30, 1972, ceiling that would not allow a large number of these positions to be filled. In addition, we were assessed over \$1 million of salaries and benefits savings. We anticipate some relief in fiscal 1973.

I do think I should emphasize again this year that we have been trying hard with our efforts to create a balance in our appeals for private funds. It has always seemed to me the more the Smithsonian could do to enhance its traditional approach toward developing private support, the more interest and the more enthusiasm would be developed

within the Congress for our program. We want to show that we are out looking and searching eagerly for private support to complement the wonderful support we receive from the Congress.

NUMBER OF VISITORS TO THE SMITHSONIAN

This year I estimate we had about 18 million visits. I include within that the zoo itself. I would hazard we have an inflated figure in our statement which I have submitted for the record. The number of visitors to the zoo was nearer 4 million than 5 million. But to visualize 4 million people annually visiting some 156 acres of the zoo property is pretty impressive. This would make, along with over 50,000 visitors who came to Anacostia, and close to 14 million who came to the mall and adjacent buildings, almost 18 million persons.

RESEARCH PUBLICATIONS

Our staff has been active and has produced close to 1,000 research and other publications in spite of the continuing difficulty we have in making the costs of their printing by our Smithsonian Press. As you know the high cost of printing is a perennial headache everywhere in the United States today, whether it is the GPO or any other agency that has to print publications. We are terribly strapped for funds to pay the bills.

Mrs. HANSEN. What do you estimate the cost of printing has escalated in the past 10 years?

Secretary RIPLEY. I would hazard a guess that over the past 10 years it has been about 100 percent.

Mrs. HANSEN. Are printing costs one of the largest inflationary items?

Secretary RIPLEY. It seems to me it is. I don't know whether Mr. Blitzer or Mr. Boorstin who are very much in the business of printing would agree with me. It seems to me this has escalated out of proportion to other items.

MULTIMIRROR TELESCOPE

I am happy to report that as a result of the really important funding we received this year from the Congress, we proceeded with work on the multimirror telescope in Arizona. This we are doing in conjunction with the University of Arizona. As you will recall, this is a new concept in design in which we take six mirrors which had been previously obtained by the University of Arizona as a residual of a Department of Defense project and put them together into one telescope. By having the six, we will achieve the effect of one enormous mirror. The expense of building an enormous mirror telescope, as you know, runs into the multimillion dollars. This new technique of putting six mirrors together and maximizing the effect of the six into one beam will greatly reduce costs.

Mrs. HANSEN. What portion of the cost did the University of Arizona bear?

Secretary RIPLEY. They are sharing it with us about half and half. Of course, it is true that they obtained the mirrors from a project funded by the Air Force. I can't guarantee they are producing private

funds entirety. They are also contributing indirectly the grant funds derived from the Government by providing the residual mirror blanks.

Mrs. HANSEN. Why the Air Force?

Secretary RIPLEY. The Air Force is very active in optical technology and in astronomy.

Mr. BRADLEY. I might contribute that the Air Force prepared these disks in the interest of the technology of preparing disks with the idea they could eventually be used by those more scientifically interested in the research application to which the disks could be put. So this was really a windfall that we were able to get the disks.

Mr. McDADE. What would be the total cost of the telescope?

Mr. BRADLEY. First, our cost is a million and a half; and then the University of Arizona will contribute about the same amount, including the disks, professional services, technicians, and laboratory studies and tests, as well as what dollars they have. I would say the grand total is \$3 million.

Mr. McDADE. Have you compared it in any way yet with the cost of the single mirror?

Secretary RIPLEY. That would be between \$10 and \$20 million.

Mr. McDADE. Are you saying you are able to produce a telescope for \$3 million with the same effect?

Mrs. HANSEN. As of yet you don't have a definitive answer?

Secretary RIPLEY. Not until we are further along. In terms of the cost savings, it is fantastic. We understand that this is an item of high priority which the National Astronomy Survey Committee, set up by the National Aeronautics and Space Administration and the National Science Foundation through the National Academy of Sciences and National Research Council, has recommended. If someone can make a breakthrough in this technique, it will be just sensational. We are very excited about it. Our own astrophysical people had decided some time ago to see if they could do this project.

Mr. McDADE. I see it is also supposed to be infrared?

Secretary RIPLEY. Yes.

Mr. McDADE. Is there a new technique involved there, too?

Secretary RIPLEY. Yes.

Mr. McDADE. The same kind of cost advantages?

Secretary RIPLEY. Yes. By choosing proper mirror coatings and by reducing the metal interferences with the beam, we will achieve an optical instrument with infrared capability. We are asking for the second year's funding for our portion of the project, an increase of \$250,000 on a base of \$500,000. We anticipate it will be completed about 2 years from now.

Excuse us for being enthusiastic, but we are enthusiastic.

Mrs. HANSEN. I have never failed to see you not enthusiastic on anything.

Secretary RIPLEY. Thank you.

NATIONAL AIR AND SPACE MUSEUM REDESIGN

We are well along in the redesign of the Air and Space Museum. As you know, the fiscal 1972 appropriation contained an amount of \$1.9 million for redesign of the building. The main thrust of our request for those funds was that if we lived with the congressional au-

thorizations and approval of 1966, we would be fighting to try and construct an air and space museum which would be costing up in the \$70 million bracket. It seemed to us not only prudent but wise to attempt to come back to the Congress and ask to redesign a smaller, more tidy, and more compact building for the cost of what the original authorization and approval had contemplated in 1966. As you will recall, Madam Chairman, that cost was \$40 million. This is what we believe we can build the redesigned museum for.

FORT PIERCE, FLA., MARINE FACILITY

As far as some of our private enterprises are concerned, that is, those using private funds, we are happy to report that we combined with the Harbor Branch Foundation in Fort Pierce, Fla., to set up a base for marine studies, an activity in which the Smithsonian has had a long-term interest. We have the submarine, the *Johnson-Sea-Link*, which I described last year, which has been built with private funds. I am happy to say I made a descent in it myself. I am now a submariner and enjoyed it very much. It appears to be a totally innovative design for an underwater submarine for marine studies. It permits outside observation and also has an airlock chamber so divers may proceed from the submarine to reconnoiter and study corals and reefs, the general state of health of reefs, the population of reef fish, and indicated possible pollution.

I found to my great interest that the Corps of Engineers has been doing extensive dredging operations off Key West and that, as a result, several miles out in the shallow waters of that part of the Atlantic which encroaches on Key West you can find dead corals now. I was able to go along in a bubble, like the front of a small helicopter, and actually observe the dying corals. This is an area where they jump the spoilage from the dredging, it gradually settles down on the reef, and the individual particles settle down in the cores of the coral animals and plug them up so the animals die. Dead coral reefs end up being no-good coral reefs.

Mr. YATES. Were you able to stop the dredging of the Corps of Army Engineers with your finding?

Secretary RIPLEY. It did not occur to me I would have any ability to stop the Corps of Engineers in anything.

Mr. YATES. You were just on a voyage of discovery.

Secretary RIPLEY. I was on a voyage of observation.

CHESAPEAKE BAY CENTER FOR ENVIRONMENTAL STUDIES

In the same way we have been working hard at our Chesapeake Bay Center on the western shore of the Chesapeake Bay. I hope that sooner or later the center will become a national center for environmental studies. We have now acquired or will acquire this year a total of approximately 2,500 acres with funds we have raised. This will be the most important facility near Washington for environmental studies.

In New York, the Carnegie Corp. has agreed to give us the Carnegie House for use of the Cooper-Hewitt Museum. This represents a grant equivalent to several million dollars. We have received also a grant of \$500,000 from the Mellon Foundation toward the renovation of that house where we hope to establish a national museum of design.

RENWICK GALLERY

The Renwick Gallery, as you may have noticed from reading in the papers about my fandangoes there, has opened and we had a fine opening. It has already been visited by about 50,000 people. As anticipated when we received the building with the approval of President Johnson, the President's Office and nearby offices have expressed great interest in the fact that this building is now open. It provides a splendid kind of association with the nearby Corcoran Gallery. We emphasize, of course, the fact that the Renwick Gallery is the original Corcoran Gallery Building. The additional museum in the neighborhood has increased the visitation of the Corcoran Gallery.

One of my hopes has been that we would somehow be able to stimulate private galleries in this town as well as private museums around the country just to make people more interested and more excited about going to museums.

So we think this will have a very good affect. In any case the Renwick Gallery is extraordinarily handsome and a fine setting for a museum of design and folk and cultural design as well. We have a splendid exhibition of Indian pottery there from the Pueblo culture at the moment.

NATIONAL MUSEUM ACT

The National Museum Act funding this year has been very heartening to all of us. We have awarded 18 grants out of over 100 requests for funds that have come in for museum training, conservation, curriculum development, and other aspects of museum activity which are not essentially the province of the arts and humanities endowments. We continue to feel that what the Smithsonian can offer in technical expertise is something that it owes the museums of the Nation. The National Museum Act program makes patent something we have been trying our best to do over the years in the past.

As you recall, Public Law 91-629 required that we give a proportion of the funds appropriated to us to the arts and humanities endowments. We transferred \$100,000 under the authorizing language to each of the Endowments. I assume we will be getting reports from them on their uses of the \$200,000. They have been grateful for this addition.

HIRSHHORN ART GIFTS

Mr. Hirshhorn has added additional works, as you probably noticed, Madam Chairman, to his collection. This has turned out to be a bonanza. Under the agreement with Mr. Hirshhorn, he was obligated to give us another \$1 million worth of art. In fact, he and the Hirshhorn Foundation have just given us over 300 additional works of art appraised at a total value of over \$7.5 million.

The reason for the announcement at this time is because we have to get a catalog printed. We had been told by the publisher that if we did not get word to him on the catalog contents by last week, he would not be able to get these works into the catalog appropriately.

So I was amused when it happened to come out just the week before our hearings, which made it sound as if we were doing a Hill ballyhoo on the side.

Mr. YATES. Is Mr. Hirshhorn retaining any part of his collection?

Secretary RIPLEY. Yes, sir, but we anticipate that virtually everything will come to the museum. He is buying a few things he thinks he will put into his house. He has bought a house in Washington. Those things are not the major works he has been buying for the museum.

As an example, there is a quaint looking early cubist Picasso sculpture in the house. He said, "I bought it specifically because it is one of the rarest pieces of Picasso. In 25 years there won't be any more. And this is for the museum." He is thinking museum all the time.

(Discussion off the record.)

Secretary RIPLEY. This has been very pleasing to us in terms of the success of the museum. I think it is going to make the museum enormously successful, and I think it is going to mean that we will have enough sculpture in reserve to be able to rotate and change the material with great frequency.

FESTIVAL OF AMERICAN FOLKLIFE

I am happy to report that last year our Festival of American Folk Life seemed to be even more successful than its predecessor. We estimate that about 800,000 persons attended. We featured Ohio, trade union exhibits, and a number of Indian tribes. We particularly had demonstrations by Northwest coast Indians and Alaskan Eskimos which was completely fascinating to me. I believe some of the Indians came and called on you.

Mrs. HANSEN. The Makahs.

Secretary RIPLEY. Yes. I am sorry you were not able to get down and see it yourself.

(Discussion off the record.)

Mrs. HANSEN. What programs do you plan for the Mall this year?

Secretary RIPLEY. This year the State involved is Maryland. They are the sponsoring State. We are going to have a very considerable number of Indian programs which Mr. Warner can tell about.

Mr. WARNER. This year the Indian presentation will focus on the Southwest.

Mrs. HANSEN. Will the Navajos and the Hopis participate in that program?

Mr. WARNER. Yes.

Mrs. HANSEN. Please proceed, Mr. Ripley.

ANACOSTIA NEIGHBORHOOD MUSEUM

Secretary RIPLEY. The Anacostia Neighborhood Museum has begun work on a new urban studies project funded by generous grants from the Carnegie Corp., the Cafritz Foundation, and the Department of Housing and Urban Development. We have just opened a fascinating exhibit Sunday before last, which I hope some members will have a chance to see, called the "Evolution of a Community." It concerns the evolution of Anacostia since 1608 when Captain John Smith came. Mr. Kinard is here and could explain any of it you would like to hear about. I was thrilled to see the community participation that was involved in this. It was by far the most sophisticated exhibit of its type I have ever seen.

Mrs. HANSEN. You have a continuing community participation through a wide range of programs.

Secretary RIPLEY. We do.

Mrs. HANSEN. The committee has taken a great interest in this program.

Secretary RIPLEY. This is a tremendous project. And the degree to which people from other agencies of the Government and elsewhere have come and watched the project has been very satisfying to us. They are interested in the possibility of community museums now. This is quite a breakthrough for us. We can pioneer something like this, and then the major Government agencies realize it is effective and is working. We are working now to obtain a large grant from a foundation. It is somewhat contingent on our being able to erect a small, temporary, mobile building in the Anacostia area for about \$200,000. If we can get that structure, we believe we will have a very major foundation grant for a 5-year period to offer technical training to disadvantaged and minority persons in exhibit preparation techniques.

After that 5-year period, we hope to get other grants or funding from Government agencies or others that are getting interested in using museums and neighborhood museums to train technicians from an area like Anacostia, who then can go out and build low-cost exhibits for schools, community centers, and for similar areas in urban centers around the country.

This is what we have been trying desperately to do for about 3 years. Our first effort with two of the senior foundations in this country failed because they said the project isn't education and it isn't an art museum. So the project fell between two potential sources of support. They were all programmed for big departments. We believe that if we can receive funds from the Congress in the fiscal 1973 appropriation to erect a small training facility near the Anacostia Museum, we can then get a major grant of possibly over \$1 million, to support the training of technicians. This will be a wonderful thing for the whole exhibits enterprise across the country.

SMITHSONIAN TELEVISION PROGRAM

Again on the non-Federal funds side, we had our first essentially national television documentary under the series known as "Smithsonian Adventure," produced in collaboration with CBS. It concerned Dr. Iris Love who was seeking the lost sculpture of Aphrodite by Praxiteles. Our next program is going to be on Maj. John Wesley Powell who, as you recall, was the founder of the Bureau of American Ethnology in the Smithsonian and the Geological Survey in the Department of the Interior and employed by the Smithsonian for over 30 years. Powell's trip down the Colorado is the second in the series.

(Discussion off the record.)

SMITHSONIAN MAGAZINE

Secretary RIPLEY. The magazine "Smithsonian" I am happy to say is doing very well. We now have over 300,000 subscriptions nationally, and this includes, of course, all States. We are projected to break even

financially this fiscal year, which means we will establish a near record for a startup magazine. It will be 2 years old in April of this spring. We are very pleased with it.

MAJOR OBJECTIVES

I would like to turn now to our budget requests for fiscal 1973. The items in these budget requests will contribute to the achievement of some major objectives which I would like to review briefly. First, they will nurture the basic scholarly programs which result in public services. We cannot produce good exhibits, we cannot produce good publications or any good products which appear in the public view, without basic research by historians and scientists and the supporting help that they need from technicians, research assistants, library materials, and others.

Our second major thrust is toward fulfillment of our educational role. As I left the Institution this morning, there was a meeting of docents who are dedicated to the school programs being undertaken by the Smithsonian. I feel one of the most significant aspects of getting educated today is to be able to go through open education techniques you get through museums. We are working on guided tours and workshops, audiovisual materials for home and classroom use, and increasing, as we can, the role of our Traveling Exhibition Service which is privately funded. But we interlock this closely with a local program for the schools which we are trying constantly to develop and build up.

(Discussion off the record.)

Secretary RIPLEY. Our third goal is to make a major contribution to the reappraisal of the American experience. As you know, Madam Chairman, we have been planning our bicentennial programs for some time. We are anticipating that with your help, we will continue to plan and move into their implementation. We have had enthusiastic response from the American Revolution Bicentennial Commission, from the Coordination Center for the District, and from the White House itself. We are very pleased and very enthusiastic about our bicentennial program.

The Smithsonian is highlighted in the plan submitted to the President called "Washington Bicentennial 1976—The Living City." As stated in that plan, we will "play a major role in every aspect of Washington's Bicentennial celebration."

Our environmental programs are developing well throughout the scientific bureaus of the Institution. We have a great deal of inter-bureau cooperation for the general environmental research program which is going on from the Arctic all the way down into the tropics. As a major objective, we hope to be able to develop predictive techniques on environmental changes and monitoring techniques which will be of significance and use once we have pioneered them, to the major Government agencies.

Our Museum Act, as I have mentioned, is working quite well. We have had some 18 grants so far in the areas of improved systems for museum cataloging, access to data, and laboratory centers, especially for conservation. Conservation is going to get to be the worst problem for museums everywhere in the world within the next 20

years. The provision of museum training for these kind of technical personnel, research in various sorts of techniques for exhibits, and the preparation of manuals of instruction are important objectives for the Institution in responding to the needs of museums.

And, finally, we are working to improve the management of scientific and scholarly information and the preservation of the sources of this information.

BUDGET REQUESTS FOR FISCAL YEAR 1973

We are requesting this year total appropriations, Madam Chairman, of \$106,923,000 which breaks down into the following: for salaries and expenses, the operating budget of the Smithsonian, we are requesting \$52,964,000 representing an increase of \$8,794,000 on our estimated base.

For the Science Information Exchange, about which you have heard recently in our request for supplemental funds, we are seeking \$1,600,000 for maintenance of the data bank.

The Special Foreign Currency Program is asking for an appropriation of \$6 million, an increase of \$2,500,000 from the present level which this past year has been at \$3,500,000.

For construction and restoration and renovation of buildings, we are seeking \$46,359,000 of which \$40 million is for the National Air and Space Museum and most of the remainder is for restoration and renovation of buildings and facilities, the major item being for the air conditioning and renovation of the Arts and Industries Building in time for the Bicentennial.

SALARIES AND EXPENSES

For our science programs under "S. & E. budget," we are asking for an increase of \$2,199,000 on a base of \$15,881,000. The major item of this is \$755,000 for National Museum of Natural History research and data processing; \$323,000 for the Astrophysical Observatory principally for the multimirror telescope; \$477,000 are to enable the National Air and Space Museum to step up restoration, research, and preparations for a 1976 opening in its new building; and \$644,000 are for all other science programs.

In history and art more than half our requested increase of \$2,298,000, is for the one-time expenditure for the Hirshhorn Museum furnishings and equipment. This amounts to \$1,413,000. In addition, \$304,000 are for the curation of the collections and acquisition of new objects in the National Museum of History and Technology, and \$581,000 are for our other art and history museums and activities.

In the public service area we are requesting an additional \$245,000 to our base which is close to \$1 million of which \$80,000 are for the Anacostia Neighborhood Museum; \$88,000 are for the Folk Life and College Theater Festivals and the Indian awareness programs; and \$77,000 are for other activities.

Our special program section of the operating budget contains a request for a further \$1,373,000 on a base of \$2.9 million which will allow us an additional \$600,000 to develop research and public programs in the area of Bicentennial preparations. It will also develop

our major exhibition efforts, \$250,000, and provide an additional \$400,000 to add to the base of \$600,000 appropriated this year for the National Museum Act to bring us up to the authorized funding level.

EARTHBOUND BENEFITS OF FLIGHT

Mrs. HANSEN. You plan an exhibit entitled "The Earthbound Benefits of Flight." Will this encompass the whole broad spectrum of space technology?

Secretary RIPLEY. Yes.

Mrs. HANSEN. I think the average individual today is unaware of the techniques and technologies currently being used in a myriad of programs developed from our space program. Is there a way to present what has been developed so the people of this Nation have a good understanding of the benefits that have accrued from our space program?

I visited an industry in my district, which is about as far removed from the space program as you could imagine, and yet they were using in their technology some of the results of space technology.

If the space exhibit is limited to Washington, D.C., I am afraid only those individuals who visit the Capital will realize the benefits which have accrued. It seems to me people all over this Nation should be informed of our achievements.

Secretary RIPLEY. We have had requests from our regents to see if there were not ways by which we could enhance public understanding of science at this time. I have talked to the President of the National Academy of Sciences and the Director of the National Science Foundation about some of their programs which are rather underfunded. The NSF program in public understanding of science is very small. But I also reminded them that we hope to have this Air and Space Museum in which we will show results of high-grade technological breakthroughs in everything from computers to Teflon and those strange fabrics that have been developed for medical use.

Mrs. HANSEN. I am sure our very distinguished witness, Astronaut Collins, is familiar with these developments.

Secretary RIPLEY. Some people walking around today are doing so because of some surgical techniques to insert special kind of fabrics to bypass blood vessels which were developed as byproducts of the space program. This kind of thing is something we hope to have not only in our Air and Space Museum where we already have some pilot exhibits of this sort, but also in our Traveling Exhibition Service. We have now 200 such exhibits.

NEED FOR PUBLIC EDUCATION ON TECHNOLOGY

Mrs. HANSEN. In this day to get a message across you almost have to use the mass media.

Secretary RIPLEY. You are correct. Would you care to have Mr. Collins talk to this?

Mrs. HANSEN. The committee would be delighted.

Mr. COLLINS. Thank you very much. I couldn't agree with you more about this lack of knowledge. This exhibit would go a long way toward presenting some additional facts. But I think even more than

that it would give us an opportunity to have a series of symposia where we would bring together the potential users of this knowledge who today don't know about its existence. The medics know a little bit about their specific area, and certain manufacturers and computer experts know about theirs. The idea would be to use this exhibit as a focal point and catalyst to bring these people together, say, "Look, this is what is available to you in your particular industry or as an aid in solving your particular problems."

Mrs. HANSEN. I couldn't agree with you more because the fallout in knowledge has been tremendous. Yet the slogan of the day is to be against the space program. It is an able way to spend money. You have to make the people of the United States aware of what the space program is contributing to our society if it is going to continue at an acceptable level.

Secretary RIPLEY. We have had some interest in this connection from the President's Office, Madam Chairman. We are planning an exhibit on productivity. I am sure that within this exhibit, which will be installed in the Museum of History and Technology, there will be some recognition of technological breakthroughs accomplished as a byproduct, as it were, of these kinds of programs.

Mrs. HANSEN. The media has to relay the message that it is no longer the fashionable thing to look down on technological advances. These technological advances are going to save mankind itself, particularly in the world of conservation. The world of ecology is more than not stepping on a worm. It is a matter of developing some input on how to live in the framework of forests, water, air, et cetera.

Secretary RIPLEY. I am afraid "ecology" is a hopelessly misunderstood word.

Mrs. HANSEN. The environment isn't something to look at. The environment is something to live with.

ROLE OF SMITHSONIAN MUSEUMS IN TECHNOLOGY EDUCATION

Secretary RIPLEY. Right. Well, I think that our two great museums, the Museum of History and Technology and the Museum of Air and Space of the Future, are both going to demonstrate to Americans more clearly than anything else that if we have anything to be proud of in this country, and I am convinced we have very many things, our technological expertise is by all odds the outstanding contribution to human culture that we have made.

In years past we thought it was our expressions of religious faith and independence. This is all very well and has existed in other parts of the world as well, as we are now discovering, but it seems to me that from the point of view of our skills in evolving methods and techniques in what we now call popular technology, we are preminent. This has been done by Americans in America.

Mr. McDADE. Off the record.
(Discussion off the record.)

DOCUMENTATION AND CONSERVATION

Secretary RIPLEY. I should speak briefly about my interest for the Institution in documentation and conservation. We feel that this is an area where in the next generation, museums, libraries, and archives

throughout the world are going to be focusing particular strength. There is some interest, I notice, in the Senate, in thinking about some kind of conservation laboratories. We have volunteered our interest because we think we are involved, and we feel this is terribly important.

BUILDINGS MANAGEMENT

For buildings management, we are asking an additional \$1,541,000. This request includes \$386,000 for necessary pay; \$410,000 for the initial buildings management services for the Hirshhorn Museum which, as you know, is scheduled to be completed by the end of this year and in which we hope to have some beneficial occupancy before the end of this year. Amounts of \$85,000 are for Cooper-Hewitt Museum staffing, \$250,000 are for utilities and communications, \$220,000 are for protection and custodial personnel where we continually feel shortages in our own buildings and where the employment ceiling hit us very badly this year, and \$190,000 are for the rental of new space for administrative purposes.

SCIENCE INFORMATION EXCHANGE

Our budget for the Science Information Exchange, Madam Chairman, I think you already know a great deal about. I have Dr. Hersey here, and later he will be prepared to testify about user income and other matters, but we have the problem of maintaining our employment for the staff in the meantime.

SPECIAL FOREIGN CURRENCY PROGRAM

For our foreign currency program, we seek an increase up to \$6 million, the purpose being that in certain countries, such as India and Poland, opportunities for grants to American scientists working abroad have greatly increased. We have now a record of about 200 institutions in 32 States that have benefited or will be participating in our program. Almost everywhere I go in the country today I run into institutions, as in Cincinnati 2 weeks ago, where the principal support for their work in Israeli archeology has come through help from our foreign currency program abroad.

We are requesting, as I have noted already, \$46,359,000 for planning, construction, restoration, and renovation of buildings.

It breaks down into planning and repairs at the zoo, \$675,000; restoration and renovation of buildings and facilities, \$5,409,000; construction of the Air and Space Museum, \$40 million; and planning for a bicentennial outdoor museum, \$275,000. I think we can discuss those in detail.

We are particularly hopeful that the Bicentennial Outdoor Museum will get underway in the planning stage this year. It has been approved as part of the bicentennial program for the District and is a part of the President's message on that.

OBJECTS FOR DISPLAY

I have some "show and tell" objects in case you are interested in some of the things we have been acquiring, or would you rather see them at the conclusion?

Mrs. HANSEN. I think the committee would like to see them now.

Secretary RIPLEY. We have some interesting currency that we brought along from States where this national currency was certified for the eighties under the Territorial Act. We have a small item here that is worth \$20,000 from Oregon City, a beaver coin, 1849.

We have some stamps from the original territory; stamps, letters, and covers on the left, and then first day covers given to the Institution years later by Mr. Farley from the States as they celebrated different State events in the thirties. These are mostly from the State of Washington. We have a commemoration issue on Mount Rainier which is worth a quarter of a million dollars.

We have the first airmail letter ever sent. This was sent by Benjamin Franklin's son, his illegitimate son, to his son who was working in the U.S. legation in Paris. It was sent in 1789 in a balloon across the channel. This is in our ballooning exhibit, which is great fun, on the development of ballooning as a science. It is in the Arts and Industries Building. We have had a facsimile made of this in case any of the members are interested. We would be glad to send it to you. It is a fun letter, very interesting.

Mr. YATES. I would like it very much.

Secretary RIPLEY. Then we have some marvelous minerals to show you. This is a sulfur oxide from Green River Gorge in King County in Washington, perfectly beautiful. This is a quartz formation in King County which has produced amethyst at the tip end which, of course, is very valuable, and nobody will admit where it comes from but they are hoping to develop a commercial production. It is a great secret. I suppose it is like the gold rush. They don't want to tell where the quarry is. Isn't that handsome?

Then this is a uranium source, low grade, so it is not radioactive, autunite, from Daybreak Mine near Spokane. Isn't that beautiful?

Mr. YATES. I saw these in your museum yesterday.

Secretary RIPLEY. These quartz?

Mr. YATES. Yes. I must say your museums were beautiful yesterday. I was at the Museum of History and the Museum of Natural History, too, and went through it.

Secretary RIPLEY. It is interesting. In another State, in Nevada, there is an opal mine known but the opal has always been very friable. It breaks easily and now there is apparently a secret process again being developed. If this opal from the Virgin Valley Mine can be effectively made into jewelry it will be equivalent to the Australian opals.

Mr. YATES. What did you say about the opal?

Secretary RIPLEY. Virgin Valley in Nevada has a mine where there are very beautiful examples of opal but they are very friable and they break up. There is apparently a secret process being worked on now, however, which if it can be developed will make the opal usable for jewelry which then would rival the Australian opals. We get involved in this because our Department of Mineral Sciences is the most active in the world largely due to the funds that were received years ago from the Roebing family and others. With these funds we have been able to buy specimens all during the depression in the years when mineralogy sank into the bottom of the barrel. It shows

how important it is to be able to keep some of these things going through bad times. The Mineral Sciences Department is tremendously involved with possible commercial development of this sort.

CONTRIBUTIONS TO THE SMITHSONIAN

Mr. YATES. How many families have contributed to the progress of the Smithsonian?

Secretary RIPLEY. I don't know the sum total of the individual families but it must run into very considerable numbers starting with notable people like Freer, Mellon, Hirshhorn, and Roebling in this case, Abbott, Walcott, one of my predecessors, left a considerable amount for scientific research. Of course, now we have small gifts through the development of the Smithsonian Associates so there must be several thousand families and individuals in total.

These were some of the items we thought would interest you, Madam Chairman.

Mrs. HANSEN. They are very interesting.

RECORD OF APPROPRIATIONS

Please insert in the record your total appropriations by fiscal year for the last 10 years.

Secretary RIPLEY. We will do so, Madam Chairman.
(The information follows:)

Smithsonian Institution 1/
10-Year Appropriation History

	<u>Operating</u>	<u>Museum Programs</u>	<u>Construction</u> <u>3/</u>
1963	11,106,554	-	1,275,000
1964	13,191,000	-	1,275,000
1965	15,540,000	-	1,525,000
1966	18,921,000	1,300,000	3,787,000
1967	22,699,000	2,316,000	3,889,000
1968	24,340,000	2,316,000	2,328,000
1969	26,443,000	2,316,000	2,700,000
1970	29,965,000	2,316,000	4,625,000
1971	36,895,000	2,500,000	7,125,000
1972	46,001,000 <u>2/</u>	3,500,000	6,347,000
1973 est.	54,564,000 <u>2/</u>	6,000,000	46,359,000

1/ Excludes National Gallery of Art, John F. Kennedy Center for the Performing Arts and the Woodrow Wilson International Center for Scholars.

2/ Includes Science Information Exchange operating.

3/ Includes three construction accounts: Construction and Improvements, National Zoological Park; Restoration and Renovation of Buildings; and Construction

Mrs. HANSEN. What was your appropriation in fiscal year 1963?

Secretary RIPLEY. For 1963 our total appropriation for "S&E" was \$11,060,550, and for zoo construction, \$1,275,000. Authorized positions were 1,292. The year before that we had a major construction item of \$4,736,000 which was for the additions to the Museum of Natural History. Of course, our budget has ups and downs with construction items. The year following that, in 1964, we had again zoo construction funding of \$1,275,000, a total "S&E" of \$13,191,000, and for the Portrait Gallery and Fine Arts Galleries renovations, \$5,976,000.

BUDGET INCREASE

Mrs. HANSEN. I notice \$55.8 million was appropriated in 1972. You are requesting \$106.9 million in 1973 for an increase of about \$51 million.

Secretary RIPLEY. That is right.

Mrs. HANSEN. In view of the overall condition of the national budget please explain why you are requesting this large increase in fiscal year 1973.

Secretary RIPLEY. Well, we would be very happy to explain this, Madam Chairman. The essential reason for the large jump in our budget is construction and, of that, the principal item is \$40 million which would be the requested sum for the Air and Space Museum. We are aware that the Congress does not usually approve of a construction authorization spread over several years. This amount of \$40 million, in fact, represents money which we would be expending for the next four or five years. We do not actually need \$40 million for the National Air and Space Museum in fiscal 1973. We need only a fraction of that amount, plus authority to enter into a contract for the building.

If you take into consideration that \$40 million, other substantial items are \$1,400,000 for the onetime purchase for the Hirshhorn Museum of furnishings and equipment not in the original construction contract: \$3,500,000 is for the air-conditioning and restoration of the Arts and Industries Building which we hope to complete by the bicentennial; and \$1,541,000 are for buildings management. Aside from these, Madam Chairman, the only other major item is an increase of \$2,500,000 for our special foreign currency program.

As you recall, we have asked for major increases every year and for a number of years we have not been granted them. Last year we had our first major increase in the foreign currency appropriation and we still feel that the demand, the concern, and the use of these funds by American institutions is so great that we must keep asking for them.

ADDITIONAL POSITIONS FOR FISCAL YEAR 1973

Mrs. HANSEN. You are requesting an additional 244 permanent positions for 1973. This is an increase from 2,570 positions you had authorized in 1972, to 2,814 in 1973. As you know, this committee reviews budget estimates of many of the bureaus of the Department of the Interior and other large organizations in the related agency section of the bill. For example, in Interior we find many of the bureaus with greatly expanded workloads as a result of additional legislation having little or no increase in permanent positions, notwithstanding the

additional duties. The increase in personnel for the Forest Service is only 28 positions for activities funded by appropriations approved in this committee.

In view of this generally severe limitation on personnel in other agencies of the Government, may we have your comments as to why permanent positions in the Smithsonian should be increased by about 10 percent in 1973?

Secretary RIPLEY. Madam Chairman, we are requesting additional positions for an increase of about 9 percent for the following major reasons: 38 new positions are for the National Museum of Natural History to continue the program which has been discussed with this committee in the past to raise the level and ratio of support personnel to the professional research staff. As we have demonstrated in the past, Madam Chairman, our ratio of support level for our scientists is now about one-half the amount recommended and suggested by all scientific surveys of manpower. We are very much understaffed in the support level and this is something that we have been talking about and hoping to be able to raise over a 3-year period.

Second, 20 additional positions are for the National Air and Space Museum to step up collections restoration, research, and exhibit planning pointing to the opening of a new museum building. As I discussed with this committee in 1964, the first year that I came to the Institution, we must phase operational growth over about a 4-year period for opening any museum building. If we are going to open a major museum of any sort we have to start building an operating budget and a supportive personnel base about 4 years ahead of time in order to be able to open the museum. We would appear ridiculous in the public eye if we finished a building, finished the bricks and mortar, for the Hirshhorn Museum or any other public museum and simply kept the doors closed. The public expectations would not be satisfied in any sense.

This was the plan with the Fine Arts and Portrait Galleries Building which I inherited from my predecessor as a project approved by the Congress in 1962. The restoration and renovation of that building with funds appropriated in 1964 and 1965 for an opening in 1968 meant that I began appealing to the Congress and to the Bureau of the Budget for supporting personnel in 1964. So on a 4-year schedule you must build up some base in order to be able to open the building at all.

In the case of our buildings management department we are requesting 84 additional persons. This will provide for an initial staffing of 44 for the Hirshhorn Museum for one-third of a year during fiscal 1973. Nine positions of a custodial and mechanical maintenance nature are requested for the Cooper-Hewitt Museum. And for guard protection and custodial shortages in Smithsonian buildings we are asking for 31 more positions. I am sure, Madam Chairman, you have heard about this problem in connection with other bureaus which come under the jurisdiction of this committee. Today we estimate that a supervisory person is needed for four guard level positions, whereas when I came to the Smithsonian there was need for no more than one supervisor for seven guards.

Mrs. HANSEN. What has been the cause?

Secretary RIPLEY. The cause has been a general deterioration, I should say, in the level of interest of the persons that can be recruited

for these relatively poorly paid positions and a heightening of the expectations of those persons to be recruited who feel that the amount of work demanded of them is significantly less, if you see what I mean.

Mr. CLAWSON. Madam Chairman, may I ask a question in that connection?

Mrs. HANSEN. Surely.

Mr. CLAWSON. Have you made a cost analysis; you have gone from seven to four in what length of time?

Secretary RIPLEY. Well, this has been in my experience.

Mr. CLAWSON. Since you have been with the Smithsonian?

Secretary RIPLEY. Yes; 8 years. Perhaps we are getting to this all over, Mr. Clawson.

Mr. CLAWSON. You require review then, I think.

PERSONNEL CONTROLS

Mr. YATES. I don't understand the logic of requiring an executive agency such as the Smithsonian to cut back on its employees and then turn to the committees of Congress and request the privilege of hiring more of them.

Secretary RIPLEY. Mr. Bradley, would you like to talk to that?

Mr. BRADLEY. May I try to answer you, sir? We live, of course, as a part of the executive branch for many purposes although we do have a private nature. Within the executive branch when the word was passed that "you shall cut back," we cut back \$1.1 million worth of employment which probably ran about 125 employees. But next year is another year and we wouldn't be doing our job if we didn't come back here to the committee and set before you what we think our programs really require for employment in fiscal year 1973.

Mr. YATES. Yes, but you cut back on 125 employees and then you are going to rehire them, aren't you?

Mr. BRADLEY. Well, they won't be the same people.

Mr. YATES. You are going to have to train another group of people, then, aren't you?

Mr. BRADLEY. That is correct, although the reduction in force procedure was not followed.

Mr. YATES. Presumably attrition.

Mr. BRADLEY. Essentially attrition. The Science Information Exchange, of course, is a special case where we are really up against it.

Mr. YATES. OMB must see the fallacy in this, must they not? Have you pointed it out to them?

Mr. BRADLEY. Yes, we have. In fact, we got what we considered to be some employment relief from the \$1.1 million reduction in that they permitted us to take—this is rather technical—a portion of the \$1.1 million which fell out of our appropriation base for 1972, the fiscal year we are in, and they permitted us to build it back into our base for 1973. Technically as a budgeteer, I believe this helps a great deal because they recognized that we were getting additional buildings, we were getting ready for additional occupancy, we were opening the Renwick Gallery, and we didn't have enough guards, custodians, and other employees. We have surveyed and studied this.

I can assure you we have brought in experts and find we could use many more guards. There is no question about that. So we appear be-

fore you each year and tell you what the next year's requirements really are even though we take our lumps during the current year.

VANDALISM

Mr. YATES. How do you know you could use many more guards? Are you suffering as a result of vandalism through inadequate guard service?

Mr. BRADLEY. Yes, sir.

Secretary RIPLEY. We have shown in the past, Mr. Yates, examples of rare art objects defaced because there were not enough guards to keep on eye on them, particularly in exhibit areas of relatively low visitation. If you have 200 people in a small exhibit area the chances are that nobody is going to do anything bad to the objects. If you have four or five people or one person at that moment and the guard turns his back or takes one of his allowed coffee breaks, something may happen.

Mr. BRADLEY. The statistics on vandalism show 262 cases of reported vandalism in 1970, 335 in 1971, and 193 for the first 7 months of 1972, so let us say an annual rate of about 350 for the fiscal year that we are in, 1972. We don't like to introduce that in the record but there it is. That is the record of reported vandalism incidents.

Mr. CLAWSON. Do you have a dollars and cents value?

Secretary RIPLEY. Yes. We don't like to introduce this in the record because it might appear in some print and that might encourage more vandalism. This is the escalation phenomenon that is seen in television when there is trouble.

Mr. CLAWSON. I still don't understand how OMB operates. They require a cutback by this sum of money and then approve your coming to this committee requesting more employees?

Secretary RIPLEY. Yes; that is correct.

Mrs. HANSEN. The committee had a lengthy discussion of this action as you recall last fall. We considered at that time transferring funds to meet the supplemental requests. This seemed to us a strange procedure to request additional funds when cuts were being made.

Mr. YATES. I think it is wishful thinking by the administration in trying to cut down the size of the deficit and hoping that next year it won't be as great.

Secretary RIPLEY. We have figures on particular items of vandalism.

Mr. YATES. On the cost?

Secretary RIPLEY. Yes.

Mr. YATES. Of restoring?

Secretary RIPLEY. Well, with respect to a Japanese scroll painting, for example, a child just drawing a mark with heavy chalk on it may mean 6 months' work and at a possible cost of over \$100,000.

Mr. YATES. What is the value of the scroll?

Secretary RIPLEY. The scroll is probably worth \$250,000. It could be if it is particularly early and particularly rare.

Mr. YATES. Why don't you put it behind glass?

Secretary RIPLEY. Some we do, but we don't put all of them behind glass. We vary the exhibits.

Mr. YATES. That is not the same thing. I agree with the thrust of it but at least in one case you have an opportunity to protect it by putting it behind glass and the other you don't.

Secretary RIPLEY. Off the record, Mr. Yates.
(Discussion off the record.)

NUMBER OF PERMANENT POSITIONS IN FISCAL 1972

Mrs. HANSEN. What are the number of permanent positions funded in your 1972 appropriation?

Secretary RIPLEY. Mr. Bradley.

Mr. BRADLEY. Madam Chairman, we have authorized 2,570 permanent positions in 1972.

Mrs. HANSEN. What is the personnel limitation under which you are now operating?

Mr. BRADLEY. A June 30, 1972, actual employment in permanent positions of 2,202.

Mrs. HANSEN. What are the projected savings for 1972?

Mr. BRADLEY. \$1,100,000.

Mrs. HANSEN. What are the projected savings for 1973?

Mr. BRADLEY. Projected savings related to the employment control?

Mrs. HANSEN. Yes. Insert the information in the record.

(The information follows:)

EMPLOYMENT CONTROL SAVINGS—FISCAL YEAR 1973

Office of Management and Budget letter of September 20, 1971, which established the employment control and related dollar savings of \$1,131,000 in fiscal year 1972 stated that "these dollar savings will also be taken into account in the 1973 estimate." It was Smithsonian's understanding that this meant an equivalent dollar reduction in fiscal year 1973. The fiscal year 1973 budget allowance to the Smithsonian, however, contained a savings of \$531,000.

As a closely related matter, it would appear that the Office of Management and Budget ceiling for employment on June 30, 1973, will permit a higher level of employment against fiscal year 1973 base positions of 2,570 as well as against the 244 new positions requested in the 1973 budget. The Smithsonian has been given a June 30, 1973, ceiling of 2,544 against the total requested number of positions of 2,814. This is an estimated lapse of about 10 percent only slightly higher than normal for the Institution. Consequently, the Institution believes it will be able to more fully encumber the total number of positions granted by the Congress.

TABULATION OF APPROPRIATIONS AND PERSONNEL

Mrs. HANSEN. Please insert in the record a tabulation of your total appropriations and permanent personnel by fiscal year for the last 5 fiscal years.

Secretary RIPLEY. We will do that.

(The tabulation follows:)

Fiscal year	Appropriation	Authorized permanent positions
1969.....	\$23,443,000	2,000
1970.....	29,965,000	2,077
1971.....	36,895,000	2,373
1972.....	44,701,000	2,570
1973 estimate.....	52,964,000	2,814

AUTHORIZING LEGISLATION REQUIREMENTS

Mrs. HANSEN. You have a few items in your budget request for which authorizing legislation has not been enacted. Usually requests of this type are deferred until the authorizing legislation has been enacted, and they are included at a later date in a supplemental. Specify your requests in this connection and indicate the rationale for including them in your regular budget appropriation request.

Secretary RIPLEY. We will do so, Madam Chairman.
(The information follows:)

The only request included in the estimates of appropriations for the fiscal year 1973 which is contingent upon the enactment of authorizing legislation by the Congress is the request in the amount of \$275,000 for planning the development of the proposed Outdoor Bicentennial Museum at Fort Foote, Maryland.

BICENTENNIAL OUTDOOR MUSEUM LEGISLATION

Mr. BRADLEY. The only item, to respond to your question, is a request for \$275,000 for construction planning of the Bicentennial Outdoor Museum, sometimes called the National Armed Forces Museum. The rationale is simply one of timing. We have completed the Regents' consideration. We have worked out the proposal with the administration. We have Office of Management and Budget clearance, that is, proposed legislation clearance. And we have introduced the legislation in both Houses. We are now negotiating to try to get a hearing and it is possible that we will get a hearing and that we will get an enactment before this committee has to act on its appropriations bill.

Secretary RIPLEY. It is hard to get a hearing.

RECEPTION AND REPRESENTATION ALLOWANCE

Mrs. HANSEN. Why do you need \$1,000 for official reception and representation expenses?

Mr. BRADLEY. Madam Chairman, that represents a small amount of the necessary hospitality, the amenities of having people visit us who are very good friends of the Smithsonian Institution, both official and from private life, who come occasionally to events at the Smithsonian. This only represents a portion of what it takes, so to speak, to keep up our part of the hospitality and the interest that these people show in us.

Mrs. HANSEN. I understand.
(Discussion off the record.)

STATEMENT FOR PURPOSE OF LEGISLATIVE HISTORY

Mrs. HANSEN. I would like to make a statement for the purpose of legislative history: The committee has observed in a few instances where if you describe a particular activity in your justifications and the committee does not make specific objection to the action in the course of the hearings or otherwise, it has been interpreted as committee approval of the plan. I would like to make it clear that your justifications are

somewhat voluminous and because of time constraints and other limitations the committee does not always have an opportunity to discuss in minute detail each statement made in your justifications. So that there will be no misunderstanding I would like to say that in instances of this type, unless a subject is specifically discussed during the hearing or covered by special correspondence, the fact that such action may have been described in your justifications is not to be regarded per se as either approval or disapproval by the committee of your recommendation.

Secretary RIPLEY. Thank you, Madam Chairman. I only hope we will have a chance in our hearings to attempt to defend some of the more obvious ones that may be in question.

Mrs. HANSEN. It is always lamentable that an appropriation hearing must be conducted within a specific time frame.

SALARIES AND EXPENSES

Please insert justification pages 1 through 104 in the record at this point.

(The pages follow:)

Smithsonian Institution

"Salaries and Expenses"Summary Statement

Appropriation Act, FY 1972	\$44,701,000
Amount lapsing in FY 1972 due to employment limitations	<u>1,131,000</u> <u>1/</u>
Total of amounts shown on justifications as FY 1972 Appropriation adjusted	\$43,570,000
Funds returned to base for FY 1973	<u>600,000</u> <u>2/</u>
Base for FY 1973	\$44,170,000
Increase being sought for FY 1973	<u>8,794,000</u>
Total, FY 1973 Estimates	\$52,964,000

1/ President's Budget shows amount of \$1,106,000 lapsing. Employment saving is \$1,131,000 minus \$25,000 returned in FY 1972. See pages A-2 through A-3 for distribution of \$1,131,000.

2/ See pages A-2 and A-3 for distribution of \$600,000.

SMITHSONIAN INSTITUTION
"Salaries and Expenses"
Summary of the 1971 and 1972 Appropriations and the 1973 Estimates

Page No.	Unit	1971 Actual		1972 Approp.		Lapse Rest 1972 to Base		1973 Estimate		Analysis of Increases	
		Pos.	Amount	Pos.	Amount	(-)	(+)	Pos.	Amount	Nec Pay	Pos. Amount
A-6	Sciences										
A-7	National Museum of Natural History	271	\$ 4,343	335	\$ 5,725	\$166	\$ 88	373	\$ 6,402	\$175	\$ 580
A-12	Smithsonian Astrophysical Observatory	57	2,107	57	2,702	47	25	58	3,003	18	305
A-14	Smithsonian Tropical Research Institute	45	639	52	783	21	11	58	854	42	39
A-16	Radiation Biology Laboratory	40	954	46	1,157	20	11	48	1,329	26	155
A-18	Office of Environmental Sciences	34	619	39	785	23	12	42	830	16	40
A-20	National Air and Space Museum	41	631	44	761	23	12	64	1,227	12	465
A-22	Center for the Study of Man	7	153	10	207	3	0	13	258	4	48
A-24	Center for Short-Lived Phenomena	1	67	3	83	0	0	3	94	1	10
A-26	National Zoological Park	247	3,163	286	3,871	109	58	286	4,083	78	185
	Total Science	743	\$12,676	872	\$16,074	\$412	\$219	945	\$18,080	\$372	\$1,827
A-29	History and Art										
A-30	Museum of History and Technology	158	\$ 2,242	157	\$ 2,507	\$ 79	\$ 41	163	\$ 2,773	\$ 44	\$ 260
A-33	National Collection of Fine Arts	70	1,036	72	1,245	33	17	78	1,453	24	200
A-35	National Portrait Gallery	38	782	39	908	21	11	46	1,104	16	190
A-38	Joseph H. Hirshhorn Museum and Sculpture Garden	18	385	21	640	10	5	35	2,048	13	1,400
A-41	Freer Gallery of Art	7	57	8	83	3	2	14	180	3	95
A-44	Archives of American Art	0	166	11	181	6	3	12	208	5	25
A-46	National Armed Forces Museum Adv Bd	8	154	6	126	5	3	7	147	3	20
	Total History and Art	299	\$ 4,822	314	\$ 5,690	\$157	\$ 82	355	\$ 7,913	\$108	\$ 2,190
A-47	Public Service										
A-48	Anacostia Neighborhood Museum	11	\$ 151	15	\$ 183	\$ 5	\$ 3	18	\$ 261	\$ 5	\$ 75
A-50	Office of International Activities	8	138	9	146	5	3	10	170	6	20
A-52	International Exchange Service	9	126	9	140	3	2	9	157	8	10
A-53	Division of Performing Arts	7	215	7	208	5	3	10	294	2	86
A-55	Office of Public Affairs	12	247	12	270	7	4	13	300	8	25
	Total Public Service	47	\$ 877	52	\$ 947	\$ 25	\$ 15	60	\$ 1,182	\$ 29	\$ 216

Page No.	Unit	1971 Actual		1972 Approp.		Lapse 1972		Rest to Base		1973 Estimate		Analysis of Increases		
		Pos.	Amount	Pos.	Amount	(-)	(+)	Pos.	Amount	Nec Pay	Pos.	Amount	Pos.	Amount
A-56	Special Programs													
A-57	American Revolution Bicentennial	2	\$ 400	2	\$ 400	\$ 5	5	8	\$ 1,000	\$ 0	0	\$ 600	0	0
A-64	Environmental Sciences Program	3	150	8	275	4	4	4	8	0	0	275	0	0
A-66	Major Exhibitions	0	0	0	525	0	0	0	775	0	0	250	0	0
A-67	National Museum Act	0	0	3	600	0	0	0	3	1,000	0	400	0	0
A-69	Academic & Educational Programs	18	596	22	680	6	3	24	750	8	2	65	0	0
A-72	Research Awards	0	400	0	425	0	0	0	475	0	0	50	0	0
	Total Special Programs	23	\$ 1,546	35	\$ 2,905	\$ 15	\$ 12	37	\$ 4,275	\$ 8	2	\$ 1,365	8	2
A-73	<u>Documentation and Conservation</u>													
A-75	Conservation Analytical Laboratory	11	162	13	192	\$ 5	\$ 3	16	\$ 293	\$ 5	3	\$ 98	5	3
A-77	Smithsonian Archives	6	59	6	73	3	2	8	119	8	2	39	8	2
A-79	Smithsonian Libraries	54	741	59	886	27	14	67	1,120	15	8	232	15	8
A-81	Registrar	30	303	31	341	9	5	32	359	4	1	18	4	1
A-83	Photographic Services	20	255	23	292	10	5	27	465	16	4	162	16	4
	Total Conservation & Documentation	121	\$ 1,520	132	\$ 1,784	\$ 54	\$ 29	150	\$ 2,356	\$ 48	18	\$ 549	48	18
A-85	<u>Administrative & Central Support</u>													
A-86	Office of the Secretary	38	\$ 651	40	\$ 656	\$ 27	\$ 11	47	\$ 797	\$ 12	7	\$ 145	12	7
A-88	General Counsel	9	151	9	166	7	4	10	182	3	1	16	3	1
A-90	Treasurer	31	575	33	662	15	8	35	733	8	2	70	8	2
A-91	Personnel	31	396	32	468	16	8	35	508	8	3	40	8	3
A-92	Smithsonian Press	25	691	25	752	14	7	26	805	15	1	45	15	1
A-93	Information Systems Division	14	235	14	264	9	5	17	326	8	3	58	8	3
A-95	Ofc of Smithsonian and National Museum Programs	9	200	9	314	4	2	9	315	3	0	0	3	0
A-96	Office of Exhibits	165	2,412	159	2,516	77	41	159	2,526	46	0	0	46	0
A-97	Supply Division	21	330	21	369	10	5	21	390	6	0	20	6	0
A-98	Management Analysis Office	9	148	10	177	6	3	10	178	4	0	0	4	0
A-99	Duplicating Section	7	100	7	90	3	2	8	119	14	1	16	14	1
A-100	Other	13	184	13	192	7	3	13	192	1	0	0	1	0
	Total Admin & Central Support	372	\$ 6,073	372	\$ 6,626	\$ 195	\$ 99	390	\$ 7,071	\$ 131	18	\$ 410	131	18
A-101	Buildings Management Department	768	\$ 9,371	793	\$ 10,675	\$ 273	\$ 144	877	\$ 12,087	\$ 386	84	\$ 1,155	386	84
	Lapsing		9											
	Total	2,373	\$ 36,895	2,570	\$ 44,701	\$ 1,131	\$ 600	2,814	\$ 52,964	\$ 1,082	244	\$ 7,712	\$ 1,082	244

SMITHSONIAN INSTITUTION
NECESSARY PAY AND RELATED BENEFITS

An increase of \$1,082,000 is required for personnel compensation and personnel benefits. The operations of the Smithsonian have been carefully reviewed and the following cannot be absorbed by funds already in the base.

a. To finance periodic step increases made in accordance with the Government Employees Salary Reform Act of 1964 and with prevailing practices in the wage scale.....	\$ 870,000
b. To finance wage raises for the manual employees in Panama and the wage grade, wage leader, and wage supervisor employees in the rest of the Smithsonian Institution.....	410,000
c. Reduction for two less work days in FY 1973.....	-198,000
	<u>\$1,082,000</u>

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 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. This salary increase would average approximately \$338 for each employee. In the past the amount was also offset by the effects of promotions of employees in their present positions. This has not been done this year because of the current controls on promotions in order to reduce the average grade.

The Smithsonian Institution employs over 700 Wage Employees. These employees usually receive a wage raise in the fall of each year. The President's Order prevented these employees from receiving a raise until about November 14, 1971. The new raise will be 5.5 percent which is in line with the General Schedule raise effective January 9, 1972. Some of the Wage Employees also benefitted from the application of the Monroney Amendment provision to the Washington, D.C. area. This new 5.5 percent raise is effected on the salaries already increased by the Monroney raise and will average \$552 per wage employee. The manual employees at the Smithsonian Tropical Research Institute in Panama received a raise in July 1971 and are expected to receive another raise in July 1972.

FY 1973 will have two less work days than FY 1972 therefore these increases have been offset by the return of \$198,000 previously granted for this purpose.

SMITHSONIAN INSTITUTION
NECESSARY PAY AND RELATED EXPENSES
 (IN THOUSANDS OF DOLLARS)

	<u>Periodic</u> <u>Step Inc.</u>	<u>Wage</u> <u>Raises</u>	<u>Two less</u> <u>Work Days</u>	<u>Total</u>
Nat. Museum of Natural History	\$197	\$ -	\$ (22)	\$175
Smithsonian Astrophysical Obser.	22	-	(4)	18
Smithsonian Tropical Res. Inst.	23	23	(4)	42
Radiation Biology Laboratory	20	10	(4)	26
Office of Environmental Sciences	17	1	(2)	16
Nat. Air & Space Museum	15	1	(4)	12
Center for the Study of Man	4	-	-	4
Center for Short Lived Phenomena	1	-	-	1
National Zoological Park	50	50	(22)	78
Nat. Museum of History & Tech.	56	-	(12)	44
Nat. Collection of Fine Arts	28	2	(6)	23
Nat. Portrait Gallery	20	-	(4)	16
Joseph H. Hirshhorn Museum	15	-	(2)	13
Freer Gallery of Art	4	1	(2)	3
Archives of American Art	5	-	-	5
Nat. Armed Forces Mus. Ad. Bd.	3	-	-	3
Anacostia Neighborhood Museum	6	1	(2)	5
Office of International Act.	6	-	-	6
International Exchange Service	6	2	-	8
Div. of Performing Arts	4	-	(2)	2
Office of Public Affairs	9	-	(1)	8
American Rev. Bicentennial	-	-	-	-
Environmental Science Prog.	-	-	-	-
Major Exhibitions	-	-	-	-
National Museum Act	-	-	-	-
Academic & Education Prog.	10	-	(2)	8
Research Awards	-	-	-	-
Documentation and Conservation:				
Conservation Lab	6	-	(1)	5
Smithsonian Archives	8	-	-	8
S. I. Libraries	19	2	(6)	15
Registrar	6	-	(2)	4
Photographic Services	18	-	(2)	16
Secretary	14	-	(2)	12
General Counsel	4	-	(1)	3
Treasurer	10	-	(2)	8
Personnel	10	-	(2)	8
Press	17	-	(2)	15
Information Systems Division	9	-	(1)	8
Off. of Smith. Nat. Mus. Prog.	3	-	-	3
Exhibits	47	10	(11)	46
Supply	7	-	(1)	6
Management Analysis Office	4	-	-	4
Duplicating	7	7	-	14
Other Central Support	5	-	(1)	4
Buildings Management Department	<u>155</u>	<u>300</u>	<u>(69)</u>	<u>386</u>
TOTAL	\$870	\$410	\$(198)	\$1,082

SCIENCE

Discovering the history and development of natural phenomena and the characterization of natural events, especially as they relate to the evolution of man in response to his physical and social environment, represents the major scientific goal of the Smithsonian. If there is a single scholarly bond of interest among all the activities of the Institution, it is a common concern with history, the history of art, the history of technology, the history of science, and indeed natural history. Our staff of scientists is concerned with elucidating the interrelationships between organisms (including man), communities, and populations with the physical, chemical, and geological factors which play a role in forming the ecology of the earth now as in past ages. More than seventy specialties are represented by the Smithsonian's community of scientists. Activities range from astrophysical investigations that contribute to our understanding of the origin and mechanics of the universe, through investigations on microscopic organisms in the ocean depths, to the development of man as shown by his artifacts and productivity.

There is a major change occurring now in the nation's general scientific effort. This change regards the type of input information more and more investigators view as necessary to further research on problems which are biological or physical in nature. While the change is a contemporary one, it is related in an important way to the basic and long-term activities of the Smithsonian and similar research institutes across the nation, and indeed the world. The change, simply stated, involves the following.

Ecological investigations concerned with identifying long-term factors affecting environmental balance increasingly are becoming dependent on analysis and information constructed around collections of objects. Systematic collections of biological and geological specimens contain standards for describing and measuring ecological changes. Unfortunately, as of now, not enough historical information has been extracted to create "bench-marks" of change which would give scientists accurate indices for speculating about ecological trends, and about man-made solutions to problems which would be in keeping with the natural evolutionary process.

This, however, is the type of work which the various scientific laboratories and museums of the Institution have been involved in for a century and a quarter. In recent times, systematics has not been considered one of the more fashionable of sciences. Even during the hey-day of federal support for scientific research, systematics did not receive the measure of support needed to maintain a level of involvement adequate to the nation's best environmental interests. But now the demands for taxonomic information are increasing rapidly as our national programs of science and technology are redirected to cope with environmental deterioration.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

NATIONAL MUSEUM OF NATURAL HISTORY

	Base 1973*	Increase Requested	1973 Estimated
No. of Perm Pos	<u>335</u>	<u>38</u>	<u>373</u>
11 Pers Comp	\$4265	\$ 437	\$ 4702
12 Pers Benefits.....	354	37	391
21 Travel.....	103	24	127
22 Trans of Things.....	1	3	4
23 Rent, Comm & Util...	21	2	23
24 Printing			
25 Other Services.....	358	100	458
26 Supplies & Materials..	110	42	152
31 Equipment	435	110	545
41 Grants.....			
TOTAL	<u>\$5647</u>	<u>\$ 755</u>	<u>\$ 6402</u>

Analysis of Increase

Pay Increase.....	175
Program.....	580

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Correct Museum Support Deficiencies (31 positions; \$410,000). A serious imbalance exists between the professional research curatorial staff and the support personnel and resources available for their efforts (museum technicians, assistants, equipment, supplies, etc). The increase requested (the second in a planned 3 year program) will allow continued progress toward the support ratios recommended by the President's Science Advisory Committee and the Panel on Systematics and Taxonomy. Thirty-one technicians, clerks, and illustrators (\$233,000) are requested, along with support funds (\$177,000) for travel, supplies, materials, and equipment.

Bone Biology (2 positions; \$40,000). The Museum is involved in basic research with the National Collections to explain the ecological relationships of organisms and their interaction with their environments, past and present. The requested increase would permit research on bone biology and bone disease processes which would lead to a better understanding of problems which plague mankind today. The request is for an organic chemist and a technician (\$29,000) and \$11,000 for support funds.

Physical Sciences Laboratory (\$50,000). With funds provided in FY 1972 a most encouraging start has been made on the equipping of a physical sciences laboratory. The increase, along with such other funds as can be made available in FY 1973, would permit the establishment and operation of this new facility which will provide Museum-wide programs designed to trace the history and effects of pollution through study of the specimens in the National Collections.

Electronic Data Processing (5 positions; \$80,000). If this Museum is to serve as a base for important environmental research, it must make its collections and accompanying data more accessible to researchers and scholars. Data processing provides the only means by which this can be done. This request would for the first time include data on prehistoric man, insects, and gems. Five technicians (\$37,000) and support funds (\$43,000) are requested.

NATIONAL MUSEUM OF NATURAL HISTORY

1971 Actual	\$4,343,000
1972 Appropriation.....	\$5,559,000 ^{1/}
1973 Estimate.....	\$6,402,000

The National Museum of Natural History (NMNH) 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 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 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 productive ecology and environmental management. It engages in joint educational programs with universities, conducts science seminars, and provides leadership in the improvement of museum techniques and collections management, especially through the application of computer technology.

The NMNH has the legal responsibility (20 U.S.C. 59) to serve as the Federal repository of all collections and objects of natural history, archeology and ethnology. In recent years, collections made under grants of the National Science Foundation have added thousands of new specimens. Additionally, the NMNH increasingly has become the repository for valuable collections obtained from other sources such as the scientific community, academic institutions, and private individuals. Because the Museum is the national repository, it has responsibilities far beyond the research of its own staff. It assists the layman and the scientist with identifications, lends specimens, and safeguards the tangible results of research. Through use of its collections, NMNH is a vigorous interdisciplinary scientific organization devoting an increasing share of its resources to the public understanding of environmental problems.

The Director of the National Science Foundation, Dr. William D. McElroy, stated the case for the importance of systematic collections in an August 1970 letter acknowledging receipt of a major national report on the importance of these materials ^{2/}.

"The collections of natural history objects in our universities and natural history museums are, indeed, an essential resource, and their proper usage and maintenance is vital to continued progress in the great work of organizing our knowledge of the natural world. At the present time in history when ominous disruptions of our ecosystem threaten man's very existence, the need for increased understanding of the working of this ecosystem and the diversity of organisms comprising it has never been more keenly felt nor widely appreciated. The systematic collections provide the fundamental basis for this understanding."

The NMNH has in its collections approximately one-third of all the natural history specimens in the United States. There is no other repository

^{1/} FY 1972 appropriation adjusted by funds lapsing in FY 1972.

^{2/} The Systematic Biology Collections of the United States: An Essential Resource. A report to the National Science Foundation by the Conference of Directors of Systematic Collections.

anywhere in the world with so much documentary material for determining the composition of biota from millions of years ago to the present. For this reason the controlled acquisition, protection, and increased availability of the National Collections continue to occupy a high priority. In addition to caring for the collections, the Museum also conducts a level of systematic, ecologic, and evolutionary research that is not approached elsewhere in this country. Many of the present controversies in the fields of environmental protection, pollution abatement, and control arise from interpretations made and conclusions drawn from far too fragmentary "facts". The Museum is in the unique position of having the largest source of rare data from which solid facts can be established for restoring a measure of environmental quality to the management of natural resources.

For FY 1973, a request is made for an additional \$580,000 to implement the second year of a three year program designed to correct serious imbalances that exist between the number of scientists and their support staff to assure proper curation of the collections (\$410,000); to strengthen the Museum's ability to respond to national problems by intensifying its research efforts in bone biology which are directly associated with collections in ecological and biological areas (\$40,000); to continue with the development of a Physical Science Laboratory (\$50,000); and to continue strengthening the Museum's capability to extract and automate information on the collections (\$80,000). In addition an increase of \$175,000 is needed to cover necessary pay.

Need for Increase

1. Museum Support Deficiencies (31 positions and \$233,000 for personnel costs; \$177,000 support costs)

The increased funding provided to the Museum in FY 1972 is permitting the initiation of a phased program for correction of the support shortages that were identified in the FY 1972 budget presentation. This will make the museum more useful to institutions and agencies that need our expertise in their research. The FY 1972 appropriation will allow the establishment of a support staff/scientist ratio of 1.4 to 1.0. This is an improvement over the relationship which existed in FY 1971 and will increase the effectiveness and productivity of the scientific and high level technical personnel. But FY 1972 will still fall short of the goal of three support personnel (technical and clerical) for each professional employee recommended in May 1969 by the President's Science Advisory Committee and the Panel on Systematics and Taxonomy. The FY 1973 request will provide for 31 of the most urgently needed support positions and will permit the Museum to attain a support ratio of 1.7 technical and clerical personnel for each scientist (see Table I). In subsequent years we will seek to reach a staffing level of 2:1 which will then be evaluated before a request is submitted to permit establishment of a ratio approaching the 3:1 relationship recommended. Of the proposed \$410,000 increase, \$233,000 are associated with the personnel being requested, and \$177,000 are sought to continue to improve current levels of funding for travel, supplies, materials, and equipment purchase, replacement, and maintenance. Included in the \$177,000 is approximately \$51,000 for equipment items, which along with current base funding allowed in FY 1972 would place the museum's ability to acquire and replace needed museum and scientific equipment annually at a funding level of about \$250,000. A large part of these purchases are related to special scientific instrumentation needs. Such equipment is frequently complex and costly, but is essential to acquire if the research scientists are to keep abreast of the developing techniques in their specialties. The goal through FY 1975 is to increase the scientific purchase and replace-

Table I

NATIONAL MUSEUM OF NATURAL HISTORY

* Ratios of Man-Years of Effort Between Technicians/Scientists

Department	FY 1971		FY 1972 ^a /		FY 1973 ^b /				
	Support	Scientist	Support	Scientist	Support	Scientist			
Anthropology	23	16	1.44:1.0	25	17	1.47:1.0	32	18	1.78:1.0
Botany	15	17	0.88:1.0	22	18	1.22:1.0	30	18	1.67:1.0
Entomology	17	11	1.55:1.0	17	12	1.42:1.0	20	12	1.67:1.0
Invertebrate Zoology	20	18	1.11:1.0	25	18	1.39:1.0	28	18	1.56:1.0
Mineral Sciences	10	10	1.00:1.0	13	10	1.30:1.0	16	10	1.60:1.0
Paleobiology	24	18	1.33:1.0	27	19	1.42:1.0	31	19	1.63:1.0
Vertebrate Zoology	21	13	1.62:1.0	24	13	1.85:1.0	27	13	2.08:1.0
TOTALS	130	103	1.26:1.0	153	107	1.43:1.0	184	108	1.70:1.0

* Ratios apply to personnel assigned directly to science support. They exclude EDP Applications and NMNH Director's Office.

^a/ FY 1972 relationships assume planned employment of personnel within allowed OMB employment ceilings.

^b/ FY 1973 reflects relationships which would obtain with full implementation of FY 1972 OMB allowances and full employment of personnel requested in FY 1973 increases.

ment fund to an annual level of approximately \$500,000. Again, operating experience at this level would be evaluated and a report compiled indicating what might be a desirable and optimum fund level.

The balance of the increase, \$126,000, is directed at continuing to improve the drastically low levels of support which were available per scientist for field trips, normal supplies and materials, and other centrally provided services. In 1971, only about \$900 per scientist was available for these purposes. For FY 1972, the figure will approach \$2,700 to \$2,900. The requested increase will further improve the average to about \$3,900 to \$4,000 per scientist. The Museum is currently using as a target average for FY 1975, about \$6,000 per scientist which seems to be reasonable in light of the scope of activities and the increasing costs of travel, transportation, supplies, and materials. A portion of the \$126,000 requested will be earmarked for the temporary employment of outstanding scientists, as they become available to study and curate special portions of the collections.

2. Bone Biology (2 positions and \$29,000 personnel costs; \$11,000 support funds)

Human bone functions intimately in the metabolism of food, minerals, muscles, and blood. In addition it provides support for physical activity. Environmental factors such as food supply, disease organisms, pollutants, and other factors affect the structure and composition of bone on all levels. Because the record of these effects is retained indefinitely in the skeleton, it is possible to extend knowledge about environmental factors in human health and disease from skeletal samples obtained from various ecological settings and time periods. Initially the major emphasis in this research would be on developing data from modern skeletal samples which can be used as a basis for future studies on environmental factors in human archeological samples. This same data will serve in the establishment of an international registry on bone disease processes and would lead to a better understanding of some modern diseases such as anemia, cancer, osteomyelitis, rickets, scurvy, syphilis, and tooth decay. The request would provide an organic chemist and a technician (\$29,000) and support funds (\$11,000) for computer time, supplies, materials, and equipment.

3. Physical Sciences Laboratory (\$50,000 support funds)

The Museum is establishing a general physical sciences installation which will be used by scientists working in many diverse fields. The principal unit required in the first phase for a crystallography examinations, a single crystal diffractometer, is being purchased and installed from funds (about \$45,000) provided in FY 1972. This versatile instrument will provide the data needed to solve problems related to crystal structures. Materials that have crystalline structures which would be studied with this instrument include metals, minerals, chemicals, and many biological materials. This unit when operational will increase the scope and value of current programs, such as the study of lunar rocks. Related equipment needed for X-ray studies would be purchased in FY 1973. This includes specialized single-crystal cameras, microscopes, and photomicrographic equipment. To fully automate the diffractometer, the acquisition of a modern solid-state calculating system attached to the unit is necessary to permit rapid data reduction, prevent delays and errors associated with hand calculations, and avoid the problems and expense associated with conversion to computer operation of this intermediate scale of computations. A portion of the increase would be used to purchase a small system to completely automate the diffractometer and provide in-house computing capabilities vitally needed in a modern physical

sciences laboratory. For example, necessary microprobe calculations could be performed within minutes of obtaining the raw data. Rapid data evaluation is critical where results provide a guide to, and are pre-requisite to, additional research. Currently efforts are being made to increase the collection of synthetic (man-made) crystalline materials for both research and documentation purposes. Synthetics have a greater bearing on the evaluation of natural processes and lead directly to involvement in solid state research. The proposed instrumentation would greatly strengthen the analytical power of existing museum facilities, thereby adding new and much greater dimensions to current and planned investigations at a minimum additional cost. In addition to the base funding received in FY 1972, \$50,000 are being sought for the continued equipping of this facility.

4. Electronic Data Processing Applications (5 positions and \$37,000 for personnel costs; \$43,000 support funds)

The electronic data processing program of the Museum is part of its responsibility for making the National Collections more relevant to science and making its scientists more productive. The program has two goals: to bring the benefits of modern electronic data processing techniques to the traditional functions of the Museum and to stimulate new and deeper analysis of specimens and their environment in order to learn more of their evolution, distribution, and community structure. The increased funds will greatly improve the Museum's EDP Program in terms of breadth of collection coverage without a proportionate increase in planning and supervisory personnel. Individual projects have been selected for inclusion to be covered and services to be derived. In FY 1971 information was computer recorded on about 10,000 fossil marine organisms, 15,000 modern mammals, 5,000 type specimens of plants, and 8,000 specimens of modern shrimp and related animals. This effort should be nearly tripled in FY 1972. Despite this excellent progress, however, it is clear that many years of work remain. There are roughly 55 million specimens already in the Museum's collections, perhaps a third of which are sufficiently critical to current scientific research to warrant computer entry.

Funds requested for FY 1973 would provide 5 processing technicians (\$37,000) and support funds (\$43,000) to intensify work in the departments. Support for automation of this work is being sought in the budget request of the Information Systems Division. In invertebrate zoology, work will be extended to include entry of information on four new collections. In addition, projects will be initiated in the departments of entomology, anthropology, and mineral sciences. The entry of data on gem and mineral specimens planned by the department of mineral sciences also will be valuable in that it will provide improved security and control through a comprehensive inventory of these specimens, many of which have high intrinsic value. About one quarter of the requested increase would be used in support of biostatistical, biographical, and taxonomic research involving computer processing of data.

All of the activities of the EDP Program are based on the proposition that data about specimens are at least as important as the specimens themselves in the modern context of the life sciences. Improvement in our ability to handle these data has already begun to yield important dividends in the area of collection management. Valuable benefits will be achieved as the files of stored data increase to the point where they can be queried directly by scientists in academic and research institutions, commercial organizations, and government agencies, thus achieving very large savings in the time of scientific personnel and commitment of other resources.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>57</u>	<u>1</u>	<u>58</u>
11 Pers Comp	\$1179	\$ 32	\$1211
12 Pers Benefits	96	2	98
21 Travel	94	28	122
22 Trans of Things	10	50	60
23 Rent, Comm & Util ...	200	15	215
24 Printing	24		24
25 Other Services	914	27	941
26 Supplies & Materials ..	75	30	105
31 Equipment	88	139	227
41 Grants			
TOTAL	<u>\$2680</u>	<u>\$323</u>	<u>\$3003</u>

Analysis of Increase

Pay Increase	18
Program	305

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Multiple Mirror Telescope (\$250,000). This is a cooperative project with the University of Arizona to build a multielement telescope with resolving power equal to a 240" conventional telescope. This new concept in design could revolutionize optical astronomical instruments. The requested \$250,000 increase on the base of about \$500,000 provided in the FY 1972 appropriation will continue development and fabrication of this telescope in FY 1973 according to the plan outlined in the FY 1972 budget request.

Other Research Programs (1 position; \$55,000). To understand our universe we must understand the nature and behavior of its parts - atoms and molecules. Advances in technology have opened several new "windows" through which SAO astronomers are observing atoms and molecules in space. To continue its observation through these windows, SAO requires (\$39,000) for supplies and materials and for computer analysis. One new physicist (\$16,000) is required to formulate mathematical models for atomic and molecular behavior in the atmospheres of earth, planets and in stars and interstellar space.

SMITHSONIAN ASTROPHYSICAL OBSERVATORY

1971 Actual	\$2,107,000
1972 Appropriation.....	\$2,655,000 <u>1/</u>
1973 Estimate	\$3,003,000

Since 1890, the Smithsonian Astrophysical Observatory (SAO) has pursued a broad program of research in astrophysics and, more recently, in related space sciences. SAO places particular emphasis on those programs that promise to achieve scientific leadership for the Observatory, or that establish standards or references for use by the scientific community. For example, during FY 1973 the Observatory plans to complete and publish a catalog giving the ultraviolet brightness of several thousand stars observed by the Telescope instruments on Orbiting Astronomical Observatory 2. During the same fiscal year SAO expects to complete Smithsonian Standard Earth III, containing a global set of geodetic parameters, superseding the 1969 Smithsonian Standard Earth II.

An appropriation increase of \$305,000 is requested to continue the development of a large optical telescope that will provide the kind of instrumentation essential to scientific achievement, and to extend certain important research programs. In addition, \$18,000 are required for necessary pay.

Need for Increase1. Multiple Mirror Telescope (\$250,000)

The Multiple Mirror Telescope, begun in FY 1972 with an appropriation of \$533,000, is an example of an enterprise in which the Observatory is pioneering a new concept in telescope design which could revolutionize optical astronomical instruments of the future. This is a cooperative project with the University of Arizona to build a multielement telescope with resolving power equal to a 240" conventional telescope. Many astronomers from other observatories have expressed keen interest in this program.

Following the program plan described in A Large Astronomical Telescope at Low Cost submitted to the Congress, SAO will continue the development and fabrication of this telescope during FY 1973 with the requested \$250,000 increase. By that time, detailed designs will have been completed and major construction contracts will be let.

2. Other Research Programs (1 position; \$55,000)

One additional position, (\$16,000) and general support funds for computer analysis, laboratory supplies, and instrumentation (\$39,000) are sought for the following research programs.

--The Earth as a Planet and the Solar System. At many places in the universe physical conditions are such that matter exists in molecular form. For example, such conditions prevail in the atmospheres of the earth and other planets, the outer layers of some stars, and in interstellar space. Because the behavior of molecules is basic to so many natural phenomena it is important for the astronomer to understand processes involving them. Advanced physical theories provide one approach to an improved understanding of molecular processes.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

An SAO research group now working on the frontiers of theoretical physics and quantum mechanics has developed complex computer programs for constructing mathematical models of basic atomic and molecular processes. This group anticipates an increased demand for producing the solutions to theoretical problems arising from the study of terrestrial, planetary, and stellar atmospheres, and from interstellar matter. During FY 1973, these vital efforts that contribute so broadly to the pursuit of astronomy will require the addition of a physicist and increased computer services.

--Energetic Phenomena in the Universe The history of modern astronomy is substantially the history of opening new windows on the universe. For centuries, the only window open to man was visible light--an extremely narrow band of the electromagnetic spectrum. In the past three decades, however, rapid advances in science and technology have opened many new windows utilizing radiation in the form of radio, infrared, ultraviolet, X-ray, and gamma ray signals. As befits a major observatory, SAO actively acquires data in most of these regions of the electromagnetic spectrum. Its plans for FY 1973 particularly call for emphasis upon two new areas. The first is infrared astronomy. The other is a window in the millimeter-wave region of the spectrum that has become useable only recently by virtue of instrumentation advances. This newest window lies between the longest wavelength of infrared radiation and the shortest wavelength of radio waves, a region in which many molecules in interstellar space are known to radiate.

Intense sources of infrared radiation have been detected at the core of many galaxies, including our own Milky Way. Indeed, some astronomers have found this radiation so powerful that an unknown form of energy release must be postulated to explain it. Some of this infrared radiation can be observed and analyzed by ground-based instruments such as the Multiple Mirror Telescope that SAO is fabricating. However, the longer wavelengths of the infrared spectrum are absorbed by the earth's protective blanket of atmosphere. This infrared radiation can be seen only by instruments in satellites, rockets, or balloons above most of the earth's atmosphere.

Because space satellites are so expensive and rockets so limited in their time of flight, SAO has developed a small but expert team skilled in preparing experiments for balloon flights. Today's modern balloons are capable of carrying large, intricate instrumentation that can be easily monitored and controlled from the ground. Far less costly than satellites, and far more productive than rockets, balloon experiments promise to provide an important means to astronomical discovery in this decade.

In cooperation with the University of Arizona and Harvard College Observatory, SAO has built a 40-inch infrared telescope for balloon-borne observations. The first flight is scheduled for late FY 1972, with more detailed investigations of specific objects of scientific interest scheduled for FY 1973.

To pursue millimeter-wave astronomy, SAO is engaged in a cooperative program with Harvard College Observatory, the University of Texas, and Bell Laboratories. This group is establishing a small millimeter-wave telescope at a site in Texas. Observations will begin during the latter half of FY 1972.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>52</u>	<u>6</u>	<u>58</u>
11 Pers Comp	\$504	\$65	\$569
12 Pers Benefits	60	5	65
21 Travel	29		29
22 Trans of Things	8		8
23 Rent, Comm & Util ...	40	2	42
24 Printing			
25 Other Services	58		58
26 Supplies & Materials ..	44	7	51
31 Equipment	30	2	32
41 Grants			
TOTAL	<u>\$773</u>	<u>\$81</u>	<u>\$854</u>

Analysis of Increase

Pay Increase	42
Program	39

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Research Support (4 positions; \$28,000). Immediate needs include two game wardens to protect valuable land provided by the Canal Zone Government in Gatun Lake(\$9,000). In addition, a minimum operating crew, a captain and a mate(\$12,000), and operating costs (\$2,000) are sought to man surplus Navy vessel converted to scientific use at little cost to the Smithsonian. To help cover shortages in scientific support funds throughout STRI, additional funds (\$5,000) are requested for supplies, materials, and equipment.

Program and Facilities Management (2 positions; \$11,000). Because of increased costs of facilities utilization and maintenance two custodians are requested (\$7,000), along with support funds for general maintenance supplies, materials, and equipment (\$4,000).

SMITHSONIAN TROPICAL RESEARCH INSTITUTE

1971 Actual	\$639,000
1972 Appropriation.....	\$762,000 <u>1/</u>
1973 Estimate.....	\$854,000

Established 25 years ago to foster understanding of the tropical environment as preserved on Barro Colorado Island, the Smithsonian Tropical Research Institute (STRI) has become a major center for research by staff, advanced students, associates, and visiting scientists on organisms and environments. The tropical location of STRI is particularly important for several reasons. The tropics are the habitat of one half of mankind. They provide unusually favorable opportunities for analysis of fundamental biological problems of world-wide significance. In the tropics, plant and animal diversities and biomass are greater. Competitive processes and interactions, are more complex. New lines of adaptation are more pronounced (and probably more often successful). Continuous year-round field and experimental studies are easier by far than in other climatic zones.

The Panama-Canal Zone region offers a unique array of terrestrial and marine study habitats. The Isthmus is a land bridge for the biotic interchange of two continents and, at the same time, a continuing barrier to the biota of two oceans--separated by several millions of years, but only 50 miles apart. This affords an observational and experimental potential which cannot be matched elsewhere. The interdependence of ocean and continent is beginning to be publicly recognized. STRI has one of the few teams of scientists in the world organized jointly to pursue the biology of both realms.

Questions of survival, importance of diversity, the role of animal communications, influence of environmental change, invasions by new populations, partitioning of environmental resources on land and in the oceans--on these and many other fronts STRI progress is recognized by leaders in biology around the world. The quality of STRI research can be readily verified by reviewing publications in the world's leading biological journals. In FY 1971 the ten permanent biologists published 29 articles. Non-permanent staff members contributed 32 publications. Many others were written by visiting scientists based on work at STRI. Twenty-eight seminars were given at STRI in FY 1971.

The growth in visitors to STRI is testimony to its role in research in the tropics. In FY 1971, 795 men and women from 55 universities and 47 other institutions in 24 states and 20 countries mined the intellectual and environmental resources at STRI. STRI operates four installations in the Canal Zone, including the long established and famous reserve of Barro Colorado Island. These are bases of studies of rain forests and lowland habitats, lakes and streams, the oceans, and the seashores. A fifth installation is operated in Cali, Colombia, for studies of montane forests and the rich biota of the upper Amazonian basin. Concurrent and comparative individual research projects elsewhere in the New and Old World tropics are providing data on regional variations. Work is underway on interactions among hundreds of different animals and plants and their habitats.

An increase of \$39,000 is requested to maintain a balanced program of research and facilities management to keep pace with the accelerating demands on the Institute. In addition, \$42,000 are sought to cover necessary pay for staff.

1/ FY 1972 appropriations adjusted by funds lapsing in 1972.

Need for Increase1. Research Support (4 positions; \$28,000)

In 1972 STRI obtained a long-term, no cost lease to three points of land in Gatun Lake directly across from Barro Colorado Island. These areas will permit research in secondary growth, which is not available on Barro Colorado Island, at a location easily accessible from the island facilities. They will also provide an area for collection of animals for study or for use by research institutions in other countries. Such collecting is not permitted on Barro Colorado Island. In view of the additional areas which must be patrolled, and of the increased pressure from poachers due to higher population densities in areas close to Barro Colorado Island, it is absolutely necessary that two additional game wardens be employed. The cost will be \$9,000.

The marine programs at STRI are made economically feasible through the use of surplus vessels converted for scientific purposes. Minimal amounts are necessary to put these valuable resources to work. The cost of a minimum crew, a captain and a mate, is requested (\$12,000). Operating costs which cannot be absorbed are \$2,000.

Increased prices of scientific supplies and equipment have affected STRI's ability to provide adequate support funds for the ongoing projects of its professional staff. For FY 1973, \$5,000 are requested to reestablish purchasing power within the base.

2. Program and Facilities Management (2 positions; \$11,000)

Increased usage of the station has finally dictated that a full time custodian be employed. The heavy visitor use of STRI by staff and visiting researchers requires that considerable maintenance and cleaning of facilities must be carried out. The employment of 2 additional laborers will be mandatory. Deficiencies in maintenance service can be corrected only by this small increase in staff. The cost of these two positions is \$7,000. In addition, utilities continue to rise, and there is a shortage of support funds for administrative supplies and materials; \$4,000 are requested to partially rectify these shortages.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

RADIATION BIOLOGY LABORATORY

	Base <u>1973*</u>	Increase <u>Requested</u>	1973 <u>Estimated</u>
No. of Perm Pos	<u>46</u>	<u>2</u>	<u>48</u>
11 Pers Comp	\$496	\$ 48	\$544
12 Pers Benefits	42	4	46
21 Travel	8	2	10
22 Trans of Things	3	1	4
23 Rent, Comm & Util ...	350	10	360
24 Printing	3	1	4
25 Other Services	86		86
26 Supplies & Materials ..	40	4	44
31 Equipment	120	111	231
41 Grants			
TOTAL	<u>\$1148</u>	<u>\$181</u>	<u>\$1329</u>

Analysis of Increase

Pay Increase	26
Program	155

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Temperature Control (\$111,000 support funds). The Laboratory has a phased plan for completing the outfitting of the building. A complete prototype room and design for the building-wide requirements for sophisticated temperature control are being carried forward during the current fiscal year. The plan calls for purchase and installation of the temperature apparatus throughout the building in FY 1973. Requested funds for outfitting the facility with the balance of the control elements (light, humidity, etc.) will follow in FY 1974 and FY 1975.

Instrumentation and Technical Support (2 positions; \$26,000). The technical support section is responsible for servicing and producing instruments required by the Laboratory's scientific staff. With the resumption of normal research activities, and the increasing need for complex systems, the present staff cannot keep abreast of workload requirements. An instrument specialist and an engineering technician are urgently needed (\$26,000).

Utilities and Other Support (\$18,000). Increased utilization and prices are anticipated. Much of the increase in utility costs will be due to making operational the natural light, glass environmental facility and the prototype controlled growth room. The request will serve to prevent erosion of the program base for FY 1973.

RADIATION BIOLOGY LABORATORY

1971 Actual	\$ 954,000	
1972 Appropriation ...	\$1,137,000	<u>1/</u>
1973 Estimate	\$1,329,000	

Light is a key environmental controlling 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 radiant energy and stored chemical 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 is accomplished by studying the problems 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 is 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 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.

Over the next few years, the primary program and budgetary objectives of the Laboratory are to complete the instrumentation and equipping of the new Rockville facility, with compatible growth in the scientific and technical areas of investigation. In FY 1973, \$155,000 are requested to purchase and install the refined temperature control apparatus needed throughout the building, to provide needed support for the instrumentation section, and to meet increased utility and maintenance costs associated with higher prices and greater utilization. In addition, \$26,000 are being sought for necessary pay for staff.

Need for Increase1. Temperature Control (\$111,000 support funds)

The Laboratory has a planned phased program for completing the relocated facility. The current funding level does not permit purchase and installation of controlled light growth room facilities or sophisticated temperature control apparatus throughout the building's treatment and preparation rooms. The

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

present plan calls for the installation and finishing of one of five prototype controlled growth rooms during FY 1972-73, which will be adjacent to the glass enclosed natural light growth area. The completion of the facilities is proceeding with about \$69,000 available in the base; approximately \$9,000 is being utilized for the design of the building-wide temperature requirements; and \$60,000 for the control elements in the prototype room. Purchase and installation of the building-wide temperature apparatus must occur in FY 1973, and \$111,000 is sought for this purpose.

Each of the five controlled light rooms requires precision control of light quality, intensity and duration, relative humidity, gas content, and temperature. In addition to temperature control, the outfitting of each will require an insulated shell, some humidity and gas exchange equipment, and lighting units capable of simulating subtle changes in spectral quality and photoperiods of natural daylight. Once the temperature control schedule has been met, it is anticipated that funds to finish the instrumentation and outfitting of the four additional control rooms will be sought over a two-year budget period beginning in FY 1974 and will involve about \$200,000 a year for equipment purchase and installation.

2. Instrumentation and Technical Support (2 positions; \$26,000)

The initial move to the Rockville site occurred in FY 1971. During the current fiscal year, the on-going research programs have been resumed and operations returned to normal. To begin to meet anticipated requirements of the research staff and effectively utilize the new quarters, the operational plan calls for a phased strengthening of the instrumentation and technical support staff. To produce instrumentation currently required in the regulatory and environmental programs, the Laboratory is deficient one instruments specialist and one engineering technician, (\$26,000).

Regulatory biology research in this Laboratory has produced significant information toward the understanding of fundamental photobiological processes and mechanisms. It has been shown that neurospora, a fungus, synthesizes carotenoids (yellow to red pigments found in plants) in the presence of light. One of these carotenoids is the precursor of Vitamin A, required for human vision. Radiation Biology Laboratory investigators have isolated neurospora mutants that cannot synthesize carotenoids. Present experiments using these mutants are outlining the pathways by which ultraviolet light controls synthesis. This laboratory group was also the first to isolate successfully and characterize a functional photosynthetic pigment complex in red algae, which as a primary absorber of solar energy, enables organisms to grow at great depths in the ocean.

The solar radiation program has produced the only available long term data on ultraviolet light measurements. This information was used by a Department of Commerce panel evaluating the impact of the SST program on the environment. The Point Barrow, Alaska station provides the solar radiation data for the Tundra Biome program of the U.S. International Biological Program.

3. Utilities and Other Support (\$18,000)

Greater utilization and price increases in utilities are anticipated. The request will serve to prevent erosion of the program base of operations for FY 1973. When the glass enclosed natural light growth area, and the prototype controlled light area are operational, utility costs will increase (about \$10,000). The balance of the request will provide needed supplies, chemicals, and transportation funds.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973
OFFICE OF ENVIRONMENTAL SCIENCES

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>39</u>	<u>3</u>	<u>42</u>
11 Pers Comp	\$538	\$ 51	\$589
12 Pers Benefits	45	4	49
21 Travel	27	1	28
22 Trans of Things			
23 Rent, Comm & Util ...	14		14
24 Printing			
25 Other Services	63		63
26 Supplies & Materials..	43		43
31 Equipment	44		44
41 Grants			
	<u>\$774</u>	<u>\$ 56</u>	<u>\$830</u>
TOTAL			

Analysis of Increase

Pay Increase	16
Program	40

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Chesapeake Bay Center(2 positions; \$27,000). The Center is participating in a broad study of how to scientifically manage, and maintain ecological balance, in a large land-water (estuarine) system. The initial focus of the study is the Rhode River watershed. Funds are needed for a program assistant to coordinate activities (\$19,000). In addition, the scientific utilization of the facilities has increased and requires an additional secretary (\$8,000).

Oceanography and Limnology Program(1 position; \$13,000). Two oceanographic research vessels are operated from PL 480 funds and private sources for biological and geological studies. Scheduling and other vessel operations require an additional program specialist (\$12,000), and support funds (\$1,000).

OFFICE OF ENVIRONMENTAL SCIENCES

1971 Actual.....	\$619,000	
1972 Appropriation....	\$762,000	<u>1/</u>
1973 Estimate.....	\$830,000	

The broad role of the Office of Environmental Sciences is to integrate the land, freshwater, and marine research interests of the Smithsonian into cooperative scientific activities with other U.S. and foreign scientists. Comprehensive individual projects, some involving hundreds of investigators, are formulated by scientific authorities who identify significant problems based on known needs. In almost every case, participating scientists are supported by their own institutions. For example, 350 scientists from some 200 organizations receive marine specimens and coordinate their data production through the Smithsonian Oceanographic Sorting Center. At the request of the Agency for International Development, 50 scientists from nearly as many universities and agencies are developing guidelines that will enable foreign aid administrators, planners, and economists to predict the environmental consequences of major development projects in five underdeveloped countries. Twelve scientists in another activity are producing keys to freshwater organisms of significance to water quality studies.

The Office participates actively in national and international oceanographic and terrestrial expeditions. It reviews programs and renders advice on environmental matters to many agencies and universities, including the National Oceanic and Atmospheric Administration, Army Corps of Engineers, Environmental Protection Agency, Council for Environmental Quality, Department of the Navy, University of Rhode Island, Woods Hole Oceanographic Institution, and a number of philanthropic foundations supporting research in marine and terrestrial ecology.

A program increase of \$40,000 is requested for FY 1973 for environmental research, technical support, and maintenance of the Chesapeake Bay Center for Environmental Studies, and for the direction and supervision of the aquatic and terrestrial scientific programs of the Office. In addition, an increase of \$16,000 is requested for necessary pay.

Need for Increase1. Chesapeake Bay Center (2 positions; \$27,000)

The Chesapeake Bay Center is a 2,000 acre natural and semi-natural area located seven miles south of Annapolis, Maryland. It is the largest facility in the nation available for the study of land-water (estuarine) systems. Through the Center, the Smithsonian is participating in the Chesapeake Research Consortium, Incorporated, a non-profit organization devoted to researching the environmental problems of biological populations, communities and ecosystems, and scientific land management. Other members of the Consortium include the University of Maryland, Johns Hopkins University, and the Virginia Institute for Marine Sciences. A major activity at the Center for the next several years will be to undertake land-water studies related to the model watershed development of the Rhode River. Studies will involve land use planning to demonstrate that environmental quality can be retained while avoiding the undesirable elements of a rapidly urbanizing complex. The movement of fertilizers, herbicides and pesticides, and the effects of soil erosion and estuarine sedimentation, as well as

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

the role of marshes as filter mechanisms will be studied. The influences of these phenomena on the land, living systems, and estuary are studies that may result in suitable control measures applicable to other areas. A recent National Science Foundation grant to six cooperating universities, totaling about \$128,000, will enable approximately seventy-five scientists working on eighteen different projects to utilize the Center facilities for work of this nature. Some of the projects have already started. Interest in the scientific potential of the Center is growing rapidly, and it is anticipated that in a few years the Center will be recognized as the major focus for promoting land-water ecological investigations. The present staff of five persons is hard pressed to handle the volume of inquiries, schedule the scientific use of the Center, and administer its various programs.

For FY 1973, a program assistant and a secretary (\$27,000) are requested to help keep pace with the increasing workload.

2. Oceanography and Limnology (1 position; \$13,000)

The Oceanography and Limnology Program operates and administers the Smithsonian Oceanographic Sorting Center in Washington, D. C. with federal funds, and the Mediterranean Sorting Center in Tunisia with foreign currency funds. Other activity in FY 1971 and FY 1972 includes the refurbishing of two oceanographic vessels and the completion of a research submersible using PL 480 and private funds. Provision of scientific direction through this program will enable nearly 100 scientists to engage in extensive oceanographic work. In FY 1973 the increased activity will require additional personnel for administering the program.

The biological control of non-agricultural pests is studied in the United States, Peru, Iran, Thailand, Laos, Ghana, and other countries. A notable achievement during the past year involved a Smithsonian parasitologist working in the Lower Mekong River. His work was partially supported by this Office. While there, he successfully identified the particular species of aquatic snail which serves as intermediate host to the schistosome infecting the Mekong. Studies are continuing to find a natural predator which may be introduced to control the snail before dams and man-made lakes in the Mekong and its tributaries lead to an irreversible spread of schistosomiasis to epidemic proportions in the Delta region.

A program specialist (\$12,000) is required for the Oceanography and Limnology Program to accommodate the increased activity and scheduling workload projected with vessel operations and research. Other program support, particularly travel, should be increased by \$1,000.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

NATIONAL AIR AND SPACE MUSEUM

	Base <u>1973*</u>	Increase <u>Requested</u>	1973 <u>Estimated</u>
No. of Perm Pos	<u>44</u>	<u>20</u>	<u>64</u>
11 Pers Comp	\$575	\$215	\$790
12 Pers Benefits	49	17	66
21 Travel	14	2	16
22 Trans of Things	5	8	13
23 Rent, Comm & Util ...	3		3
24 Printing	5	1	6
25 Other Services	24	194	218
26 Supplies & Materials ..	17		17
31 Equipment	58	40	98
41 Grants			
TOTAL	<u>\$750</u>	<u>\$477</u>	<u>\$1,227</u>

Analysis of Increase

Pay Increase	12
Program	465

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

The target year 1976 has been selected for the opening of the new Museum as an important contribution to the American Bicentennial celebrations. In FY 1973, this will require major operational increases in the following:

Exhibitions Planning and Artifact Restoration (10 positions; \$105,000). To coordinate new exhibits planning and design with outside consultants, the Institution's production shops and curators, and to begin to restore 32 major air- and spacecraft.

Professional and Curatorial Research (5 positions; \$75,000). To strengthen simultaneously, in a phased fashion, the Museum's ability to provide expert curatorial guidance and documentation required for the major exhibit and associated display areas.

Spacearium (3 positions; \$27,000). To complete work on exhibits project initiated in Air and Space Building in FY 1971, and designed for transport to new Museum when opened. The Spacearium should be opened to public in present quarters in late summer 1972.

Information and Education (2 positions; \$22,000). To establish a core education and information program directed at Washington area school systems.

Non-Personnel Support (\$236,000). To be utilized in above areas for Spacearium equipment, contracts for outside artifact restoration, exhibit consultants, and general program strengthening.

NATIONAL AIR AND SPACE MUSEUM

1971 Actual	\$ 631,000
1972 Appropriation.....	\$ 738,000 <u>1/</u>
1973 Estimate	\$1,227,000

By Act of August 12, 1946, the Congress established the National Air Museum as part of the Smithsonian Institution. Later by Act of July 19, 1966, the memorialization of space flight was added to its responsibility and the name changed to the National Air and Space Museum (NASM). The functions of the Museum are to memorialize the national development of aviation and space flight; collect, preserve, and display aeronautical and space flight equipment of historical significance; and serve as a repository for documentary materials.

In FY 1972, the Congress appropriated \$1.9 million for the redesign of the National Air and Space Museum building. This is to be constructed on the Mall and opened to the public in 1976 as part of the American Bicentennial Celebration. The building will host over 5 million visitors a year, and will serve as the national focal point for the collection, exhibition and historical research of aviation and space flight. The building will also house a planetarium/spacearium, which is planned to be a domed audio-visual facility in which dynamic pictorial simulation of the stars as seen from the earth or space can be blended with still and cinematic portrayals of launch, rendezvous, planetary landing and exploration. Presentations will range from conventional planetarium demonstrations to simulations of major space events. (Further information on the building plans may be found in the construction section of this budget presentation.)

To maintain the current level of operation in the Arts and Industries building and temporary Air and Space building, and at the same time prepare for the opening of the new museum, it will be necessary to increase the NASM operational budget by \$465,000 in FY 1973 (including 20 positions and \$229,000). In addition, \$12,000 are requested for necessary pay increases. The pace of exhibits preparation required to meet the 1976 opening date makes it imperative that the phased research and restoration work be started in FY 1973. The increase will be used to strengthen the NASM operation as follows:

Need for Increase

1. Exhibits Planning, Artifact Preservation, Restoration and Storage (10 positions; \$105,000)

The present staff is hard pressed to keep up with the work at hand. Currently, there are 42 aircraft, 50 large space artifacts and 100 engines in the outdoor storage. All of this material must be sorted, identified, preserved and warehoused. New material arrives weekly.

Three new positions (\$39,000) are of high priority, and are essential in the area of planning and design of exhibits. They include a designer, artist, and typist. These people will provide the initial museum focus for conceptualizing and modeling the exhibits areas of the new building, and coordinating the necessary work that must occur among the NASM curatorial staff, the restoration and preservation elements at Silver Hill, the outside exhibits contractors and specialists, and the exhibit production capabilities of the Institution.

Exhibits in the new building will incorporate the use of 50 major air and space craft. Of this number it will be necessary to restore 32, or an average of eight per year over the next four years. Past records show that each major

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

artifact requires an average of 3 man years to restore. Therefore, in addition to the normal receipt, preservation, and storage workload for the entire collection, it will require about 24 employees for artifact restoration specially oriented to the exhibit collection. This work must be started in FY 1973 for completion in time for the 1976 opening. Seven new positions at a cost of \$66,000 for the restoration process are requested. Of this total, five will be at the GS-7 and below, and two will be at the GS-9 level. The recruitment of lower graded personnel is possible because of the number of skilled mechanics already on the rolls. By recruiting at the lower levels it will be possible to utilize more effectively the present staff in the performance of restoration work and place the new personnel in laboring, warehousing, and support positions.

2. Professional and Curatorial Activities (5 positions; \$75,000)

The curatorial demands for the new museum will require a steady growth in the professional staff between now and the opening of the new museum. Current plans call for approximately 60 major and minor display units ranging in content from Lindbergh's flight to space biochemistry. Experience shows that a major exhibit requires 4-6 months to conceptualize. This includes the research and development of scripts, and the search, both in-house and outside, for appropriate artifacts. In FY 1973, it will be necessary to increase the curatorial staff by four professional staff members and one support staff member. One of the new professional staff positions will be a department chairman. The remaining three curatorial positions will be filled by specialists in fields related to the artifacts to be displayed, and historical research to be performed in the new building, i.e., human factors, propulsion, and electronics.

3. Spacearium (3 positions; \$27,000)

FY 1971 saw the beginning of the development of the Spacearium. Plans were drawn up whereby this project would be housed over the next three years in the present Air and Space building. This project provides a testing ground for equipment and exhibit techniques and will be transferable to the new building. At the same time it will give the millions of visitors to the present Air and Space Building an educational as well as entertaining exhibit and a preview of an important component of the new museum. The project is being further developed with FY 1972 funds. It is requested that \$25,000 be made available in FY 1973, to provide the salaries for three support personnel responsible for the audio-visual and electro-mechanical functions of the spacearium.

4. Information and Education (2 positions; \$22,000)

It is requested that \$22,000 be made available to provide the salaries for an information education specialist and a clerk typist. These positions are necessary to utilize NASM facilities, staff, and artifacts to establish an education and information program directed toward the Washington area school systems with emphasis on those young people living in the inner-city.

5. Other Support Funds (\$236,000)

An amount of \$236,000 is requested for support of programs directed toward the move into the new museum. This will be used for a variety of purposes: contracts for restoration of selected aircraft and space craft (\$120,000); contracts for exhibit consultants and temporary employees to be used on a flexible basis rather than hiring full-time staff (\$60,000); equipment including requirements for the spacearium (\$40,000); and other necessary support for travel, transportation, publication, and other expenses (\$16,000).

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

CENTER FOR THE STUDY OF MAN

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>10</u>	<u>3</u>	<u>13</u>
11 Pers Comp	\$ 85	\$ 41	\$126
12 Pers Benefits.....	7	4	11
21 Travel.....	12		12
22 Trans of Things			
23 Rent, Comm & Util...	2		2
24 Printing			
25 Other Services	98	7	105
26 Supplies & Materials..	1		1
31 Equipment	1		1
41 Grants.....			
TOTAL	<u>\$206</u>	<u>\$ 52</u>	<u>\$258</u>

Analysis of Increase

Pay Increase.....	4
Program.....	48

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

American Indian Program - Encyclopedia of North American Indians (3 positions; \$48,000). The Encyclopedia of North American Indians is out of the planning stage and into production. In 1971 a meeting with the General Advisory Committee took place. Plans were reviewed and volume editors selected. The scope and contents were established, and meetings of volume editors with their respective advisory committees were completed. Writing has started and some manuscripts have already been received. The efforts of over 850 contributors are being coordinated and first drafts of all manuscripts will be received during FY 1973. The workload has been increasing rapidly and three additional personnel are requested, copy editor, a bibliographer, and an illustrator (\$41,000). Other support funds for the expenses of volume editors and contributors are requested (\$7,000).

CENTER FOR THE STUDY OF MAN

1971 Actual	\$153,000
1972 Appropriation.....	\$204,000 <u>1/</u>
1973 Estimate.....	\$258,000

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. As the results of these studies begin to appear in monographs, the Center will undertake to interpret them for the general public through an exhibits program.

A program increase of \$48,000 is requested for FY 1973 for continued development of the Encyclopedia of North American Indians. In addition, \$4,000 are sought for necessary pay for staff.

Need for Increase1. Encyclopedia of North American Indians (3 positions; \$48,000)

The purpose of the Encyclopedia, consisting of 20 volumes, is to summarize what is known of the prehistory, history, traditional, and modern cultures of all the Indian groups north of Mexico. The volumes will bring up to date and replace the previous standard encyclopedic work of this topic which was issued by the Smithsonian in 1907-1910. This will become the standard reference work on all aspects of North American Indian history and anthropology. It will be heavily used by students, teachers, authors, researchers, and administrators in both the United States and foreign countries.

The project is proceeding according to our original time table. The schedule of completed and planned activity is as follow:

May 1971--	writing assignments given to approximately 850 contributors;
May 1972--	completed draft manuscripts received;
May 1973--	revised and reassigned manuscripts completed;
May 1974--	submission of manuscripts for the 20 volumes to the printer;
July 1976--	issuance of the Encyclopedia as part of the American Revolution Bicentennial celebration.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

Some manuscripts have already been received, more will begin to arrive in late FY 1972, and by FY 1973 they will be coming in large numbers. The requested additional funds will be used to hire a copy editor, a bibliographer, and an illustrator-draftsman (\$41,000), and to pay for the expenses of volume editors and contributors (\$7,000).

As the flow of work effort on the Encyclopedia becomes stabilized and routinized, the Center will begin to turn more attention to other important projects. One such project is the study and conservation of American Indian languages.

For nearly a century research on American Indian languages has been a responsibility of the Smithsonian. The Institution is generally regarded to be the center for such research. It is assumed that such research is now being conducted but there has not been a linguist on the Smithsonian staff since 1970. In the past, a significant proportion of the research and publication on Indian languages was conducted by Indians - native speakers of the languages concerned - both on the Smithsonian staff and elsewhere. In recent decades there has been a marked decrease in the number of Indian linguistic scholars. Yet linguists agree that important advances in their science depend upon the knowledge which a native speaker brings to bear in the study of his own language. American Indian languages have a great deal to contribute to our understanding of languages in general. In order to ensure that this contribution will be made, it is essential that a significant number of American Indians be enabled to engage in the study of their own languages. In recent years there has been parallel growth in awareness in Indian communities of the importance and value of Indian languages and in the necessity for their formal study and teaching. The interests of the Institution and of Indian communities coincide. Awareness of this shared interest has begun to be evident. Tribes whose members are known to be interested in research and training in their language include the following. This number will increase.

<u>East</u>	<u>Midwest</u>	<u>West</u>
Fassamaquoddy	Crow	Navajo
Miccosukee	Cree (Rocky Boy)	Eskimo
Mohawk	Sioux	Tlingit
Cherokee	Cheyenne (Northern)	Hupa
Choctaw	Chippawa	Diegueño
Micmac		Luiseno
Penobscot		Cupeño
		Keresan
		Pomo
		Ute
		Makah

To meet this need, the Smithsonian is planning a long-term program to support research on North American Indian languages at the local level and mainly by linguists who are themselves native speakers of the languages. On the basis of initial inquiries and correspondence, the program will consist of: (1) assistance for training of native Indian linguists; (2) the preparation of materials on the native languages, which would be useful for the teaching of literacy and literature, and for the continued use of Indian languages in education beyond the elementary level; (3) the preparation of accessible linguistic resource materials on these languages for future use by both American Indian communities and the scholarly world.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

CENTER FOR SHORT-LIVED PHENOMENA

No. of Perm Pos	Base <u>1973*</u>	Increase <u>Requested</u>	1973 <u>Estimated</u>
	<u>3</u>	<u>0</u>	<u>3</u>
11 Pers Comp	\$25	\$1	\$26
12 Pers Benefits	2		2
21 Travel	1		1
22 Trans of Things	2		2
23 Rent, Comm & Util ...	24	4	28
24 Printing	12	2	14
25 Other Services	8	3	11
26 Supplies & Materials ..	8	1	9
31 Equipment	1		1
41 Grants			
TOTAL	<u>\$83</u>	<u>\$11</u>	<u>\$94</u>

Analysis of Increase

Pay Increase	1
Program	10

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

World-Wide Natural Event Monitoring and Reporting (\$10,000). Over the past four years, the Center has reported over 400 ecological, geophysical, and astrophysical events occurring in 86 countries and all the world's oceans. Its reporting network has grown to 2,800 scientists and scientific field stations in 148 countries and territories. Despite an enthusiastic response from federal agencies and the international scientific community, outside financial support for regular, on-going operations is difficult to obtain. Special reporting projects are so funded and the Center has a subscription program which produces about \$25,000 a year. A program increase of \$10,000 is requested for communications, printing, computer services, and other operational costs. Much of this increase is associated with higher costs resulting from reporting significant environmental pollution events.

CENTER FOR SHORT-LIVED PHENOMENA

1971 Actual	\$ 67,000
1972 Appropriation.....	\$ 83,000 <u>1/</u>
1973 Estimate.....	\$ 94,000

The Center for Short-Lived Phenomena is an early alert system and clearinghouse for the reception and dissemination of information on short-lived natural events. The Center alerts scientists, agencies, and research institutions to major short-lived ecological, geophysical, and astrophysical events occurring anywhere in the world. It quickly communicates data and descriptive information on events such as large oil spills, major atmospheric and water pollution events, high biocide residue discoveries, massive fauna and flora mortalities, volcanic eruptions and major earthquakes, the birth of new islands, the fall of large fireballs and meteorites, sudden changes in biological and ecological systems such as animal migrations and colonizations, and any other natural or man-made phenomena that require rapid response from scientists in order that they may take advantage of research opportunities while environmental changes are occurring.

During the past four years the Center has reported over 400 short-lived events that occurred in 86 countries and all the world's oceans, including 189 earth science events, 142 biological and ecological events, 61 astrophysical events, and 9 urgent anthropological and archaeological events that led to 297 scientific field expeditions. The Center has issued over 1,300 event notification and information reports to thousands of research scientists and institutions, published 67 event reports, handled a communications volume of over half a million cable words, and a mail volume of 800,000 event notification and information cards.

An increase of \$10,000 is requested to meet higher costs of communications and other expenses. An additional \$1,000 are needed for necessary pay.

Need for Increase

Activities have continued to increase rapidly in the past two years because of the response from federal agencies and the international scientific community. At the urging of a number of agencies and international organizations, the Center has become involved increasingly in reporting significant environmental pollution events. Because of the Center's comprehensive global communications system and its reporting network that has now grown to over 2,800 scientists and scientific field stations in 148 countries and territories, the Center was able to report every major environmental pollution event, volcanic eruption, earthquake, oil spill, and meteorite fall that occurred on earth in 1971, usually within hours after the events occurred.

The Center has been successful in obtaining outside financial support for special projects dealing with global environmental monitoring and transient lunar phenomena. It has also instituted an event notification subscription program that now has over 600 subscribers and produces revenue of over \$25,000 per year, but the success of the Center's regular operations will depend heavily on the level of core federal funding.

The Center will begin no new activities in FY 1972 and plans none for FY 1973 that will use federal funds, but requests that FY 1973 federal support

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

be increased to meet higher operational costs resulting largely from the Center's increased commitments in environmental pollution event information communication. An increase of \$10,000 is needed for communications, printing and reproduction, other services (computations and information systems support), and supplies and materials.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

NATIONAL ZOOLOGICAL PARK

No. of Perm Pos	Base	Increase	1973
	<u>1973*</u>	<u>Requested</u>	<u>Estimated</u>
	286	0	286
11 Pers Comp	\$2759	\$ 72	\$2831
12 Pers Benefits	248	6	254
21 Travel	20	2	22
22 Trans of Things	3		3
23 Rent, Comm & Util ...	161	13	174
24 Printing	3	4	7
25 Other Services	64	49	113
26 Supplies & Materials..	392	97	489
31 Equipment	170	19	189
41 Grants		1	1
TOTAL	\$3820	\$263	\$4083

Analysis of Increase

Pay Increase	78
Program	185

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Exhibits and Education Program (\$70,000). Although major improvements to displaying the large and varied collections of animals (now numbering some 3,200 animals of 1,100 species) 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 (\$40,000). An amount of \$30,000 is also requested for utilities and routine services, supplies, and equipment; a small program of assistance to foreign zoos; and for the training of Zoo employees.

Operations and Maintenance (\$27,000). These funds are sought to meet the increasing costs of building materials, gardening and tree maintenance supplies, and vehicle repair parts.

Zoological Programs (\$88,000). An amount of \$70,000 is needed to meet steadily rising prices of animal food and veterinary supplies. Uniforms and equipment for keepers and other personnel require an additional \$13,000. Funds are requested to cover the cost of contractual research projects and meeting page charges and other research publication costs (\$5,000).

NATIONAL ZOOLOGICAL PARK

1971 Actual	\$3,163,000
1972 Appropriation.....	\$3,762,000 <u>1/</u>
1973 Estimate.....	\$4,083,000

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 zoological collection of animals from all parts of the world in natural surroundings; maintains an information and education program for the benefit of the visiting public from all over the United States; and promotes scientific research, including biomedical programs, for increased scientific knowledge and for the benefit of the animals so that visitors can enjoy them in prime health.

The number of visitors increases annually. In calendar year 1971, approximately 5,000,000 visited the Zoo. A significant number of these visitors are in organized school groups from the metropolitan area and more distant points. The Zoo is increasingly used as a teaching site by teachers of biology and other natural sciences.

Continued improvements have been made in the collection of animals, which is one of the world's largest. As the collection evolves, the Zoo will present exhibits of greater visitor interest and, at the same time, give greater emphasis to species and groups which effectively demonstrate significant points of animal adaptations and behavior. Greater emphasis will be given also to increasing zoo births by pairing unmated animals and maintaining breeding groups. Not only is this good conservation practice; it is essential in view of the increasing scarcity of many species and the high prices that must be paid to acquire them.

The Zoo is organized in three departments: Office of the Director; Operations and Maintenance Department; and the Department of Zoological Programs.

For FY 1973, a program increase of \$185,000 is requested to meet the increased cost of operating items; to establish a grant fund to assist foreign zoos; to provide for contracting design and fabrication of exhibits; and to provide funds for scientific publications. An additional \$78,000 are required for necessary pay increases.

Need for Increase1. Office of Director (\$70,000)

The office of the director plans and directs all Zoo programs. It also coordinates the activities and functions of the planning and design office; develops and maintains the Zoo's educational program; and furnishes general administrative services. The animal acquisition program is under the direction of this office. Administrative services include the protective service program, budget, fiscal, supply, and procurement functions.

The Zoo now has approximately 3,200 animals of over 1,100 species, representing one of the largest and most varied collections of exotic animals in existence. This collection has great public educational potential, in subjects such as wildlife conservation. Although major improvements to

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

displaying the animals must await the renovation of the Zoo, more immediate steps can be taken to produce the kinds of educational exhibits needed to identify and explain the living collection of animals to visitors. Cage exhibits thus far have been largely improvised by animal keepers, using branches, rocks, mosses, and other materials to meet the requirements of the animals for perching, climbing, privacy, shade, etc. In modern zoos, materials such as molded fiberglass are extensively used to simulate rocks, tree stumps, and plants. Contract design and fabrication of exhibits similar to those seen in visitor centers and at other points in national parks, as well as in many modern zoos will cost \$40,000.

The Zoo staff is frequently called on for assistance from foreign zoos and wildlife parks. Information is requested on conservation, diet, medical treatment, and many other technical subjects essential to proper animal care. There have been on-site consultations in many cases. Often these zoos, or their parent organizations, can meet the expenses of this assistance. This is not the case with regard to the several hundred zoos in underdeveloped countries. Use of the funds would be limited to supplement the advice and assistance that is now rendered to a few zoos. Examples of zoos helped in the past are in Accra and Kumasi, Ghana; Brasilia, Brazil; Santiago, Chili; and Surabaya, Indonesia. Funds are requested for the purchase of books, travel for consultation, and other expenses (\$1,000).

Funds are needed to finance training expenses of Zoo employees. This includes course fees, books, films, manuals, as well as other training materials for use in-house, and fees for individuals brought to the Zoo as specialists for in-house training courses (\$2,000).

Additional funds are also sought to meet the rising costs of utilities and routine contractual services, supplies, materials, equipment, and travel (\$27,000).

2. Operations and Maintenance (\$27,000)

The operations and maintenance department has responsibility for all plant maintenance and supporting services. These include:

- Maintenance and construction: maintaining and repairing 15 major buildings and a wide range of cages and other facilities. This unit also performs renovation and minor construction, and 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.
- Air conditioning and heating: maintaining all heating plants and air conditioning in the buildings throughout the Park.
- Transportation and automotive maintenance: maintaining all automotive vehicles, and operation of trucks and heavy equipment.
- Labor services: trash collection, sweeping of streets and walks, snow removal, and janitorial services.

An amount of \$27,000 is needed to meet the increasing costs of building materials, gardening and tree maintenance supplies, and vehicle repair parts.

3. Department of Zoological Programs (\$88,000)

The department of zoological programs conducts an animal care program involving feeding, cleaning of cages, and exhibition; an animal health program responsible for clinical treatment of illnesses and injuries; a pathology program that performs histopathologic and gross pathologic diagnosis of disease; and a scientific research program that undertakes studies of animal behavior, reproduction, and nutrition.

The Zoo collection is a major scientific resource. For this reason, facilities and assistance are often provided to scientists from federal agencies, such as the National Institutes of Health, as well as from universities. The Zoo's own scientific studies add to man's understanding of the living world. Investigations undertaken in the Zoo and in the field have yielded numerous scientific publications. In addition, the department is of assistance to other organizations, including foreign governments concerned with wildlife management and conservation. It also provides training and research opportunities for graduate students.

Additional funds are requested to meet steadily rising animal food prices, as well as to purchase veterinary supplies and other necessary items to maintain a healthy collection of animals (\$70,000). The replacement prices for sundry supplies, uniforms, and equipment also have risen sharply. Funds are also sought to cover the increased cost and usage of these items (\$13,000).

Funds are required to cover the cost of contracting various portions of research projects to professionals working with this institution. Rather than acquire permanent staff members, thus locking the scientific research program into a fixed pattern, it is desirable to retain flexibility by contracting with technical personnel for services performed as the need arises. Prior experience with research has indicated the desirability of such a flexible system. Some programs cannot be executed without the availability of funds for contracting services by professionals to perform certain preliminary stages of research which can then be taken over by permanent staff members (\$3,000).

Publications are costly. Most professional journals now charge page costs for publication and the demand from all professional journals to cover publication costs has increased. Since the scientific productivity of the National Zoological Park is increasing and, further, since it is desired to begin publishing technical manuals concerned with animal husbandry, funds are requested to cover costs of publication both within the Smithsonian Press and with respect to those articles sent to outside journals (\$2,000).

HISTORY AND ART

The Smithsonian possesses an unequaled array of resources, both material and human, for the understanding and illumination of our country's history through its material culture, its technology, and its art. No other Institution has a greater and more exciting opportunity to demonstrate and celebrate what Americans--all Americans--have accomplished.

As the custodian of National Collections comprising literally millions of historic objects and works of art, it is our responsibility to make sure that these collections are used as effectively as possible for the benefit of all. We must care for these collections, we must make them available to scholars both from our own staff and from the broader academic community, and we must use them intelligently and imaginatively to help tell the story of American civilization to our millions of visitors and, through publications and traveling exhibitions, to an even wider audience. It is also our responsibility to seek the continued growth of these collections. As we are the beneficiaries of the foresight of past generations, so must we be the benefactors of future generations, passing on to them the fruits of our stewardship.

With one exception, the Joseph H. Hirshhorn Museum and Sculpture Garden, the budget requests in the area of history and art are modest, reflecting our determination to fulfill our obligations and to realize our opportunities as economically as possible. The funds requested for the Hirshhorn Museum are required to equip and furnish the building when it is turned over to us by the contractor. Postponement of these non-recurring expenditures would inevitably delay the public opening of this great new museum.

Although many history and art bureaus of the Smithsonian have received no substantial increases in operating funds during the past two or three years, and although inflation has caused many of them to suffer in effect a decrease in funds, we have sought insofar as possible, to meet our needs out of existing resources. To this end, we have undertaken to terminate some activities and to reduce or redirect others drastically--for example, the International Art Program, the Smithsonian Journal of History, and temporary exhibition programs in all our museums. We shall continue to scrutinize all our activities with a view to maintaining a strong sense of priorities. At the same time, with the enthusiastic cooperation of our museum and bureau directors, we have encouraged cooperative efforts among our history and art bureaus in the name of efficiency and economy; shared library, photographic, and conservation facilities, for example, serve the National Collection of Fine Arts and the National Portrait Gallery better and more cheaply than would separate ones.

Despite these efforts, which will continue, certain real needs hamper the effective operation of many of our history and art bureaus and prevent us from deriving the full benefits from the investment that has been made in them.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>157</u>	<u>6</u>	<u>163</u>
11 Pers Comp	\$1,944	\$84	\$2,028
12 Pers Benefits	160	7	167
21 Travel	49		49
22 Trans of Things			
23 Rent, Comm & Util ...	12		12
24 Printing	5		5
25 Other Services	112	123	235
26 Supplies & Materials..	20	40	60
31 Equipment	167	50	217
41 Grants			
TOTAL	<u>\$2,469</u>	<u>\$304</u>	<u>\$2,773</u>

Analysis of Increase

Pay Increase	44
Program	260

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Computerized Inventory of the National Historical Collections (\$23,000). The approximately 16 million objects in the Museum's collection, ranging from postage stamps to a giant locomotive, make it essential to have a standardized inventory system permitting quick access for research projects, exhibition items, and to answer public inquiries. It is now nearly impossible to locate individual objects or to determine if certain classes of specimens are in the collections at all. Studies of various cataloging systems have been made and pilot project inventory of the collection of 4,000 handguns has been completed. An amount of \$23,000 is requested for program preparation and computer time to continue to develop a computerized, descriptive catalog of the Museum's holdings.

Prevention of Deterioration of Objects (3 positions; \$165,000). Several collection areas and many objects on display are badly in need of remedial action to prevent their deterioration and loss. Three museum technicians and funding of \$35,000 are requested to give particular attention to the numismatic collections, costumes and furnishings, and musical instruments. An amount of \$130,000 is sought to restore objects on display since 1964 (especially those which are subject to wear and tear in operating exhibits) and seen by some 42 million visitors.

Acquisition of New Objects (\$50,000). New objects of great historical importance will be acquired with the requested \$50,000. Of special importance to the Museum is the acquisition of patent models from the Gilbert Collection which document the range of American inventiveness during the 19th century. Otherwise, the models will be dispersed to private collectors and lost to the American people.

Curatorial Support (3 positions; \$22,000). Three additional clerk-typists (\$22,000) will be added to the Museum's staff to assist with curatorial duties and public inquiries.

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

1971 Actual	\$2,242,000
1972 Appropriation.....	\$2,428,000 ^{1/}
1973 Estimate.....	\$2,773,000

The National Museum of History and Technology 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.

As the most visited museum in the world, it was host to almost 6,000,000 visitors during FY 1971. It is anticipated that this figure will 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 1973, an additional \$260,000 in program funds is requested for a computerized inventory of the national historical collections, the prevention of deterioration of objects in storage and on public view, the acquisition of new objects of historical importance, and for additional clerical support to the professional staff. An amount of \$44,000 also is sought for necessary pay for current staff.

Need for Increase

During the eight years since the NMHT opened to the public in 1964, it has endeavored to fulfill its responsibilities to the American people in a variety of ways.

It has provided a variety and richness of public exhibits seen by over 42,000,000 visitors, equal to 20 per cent of America's total population.

It has provided a steadily increasing range of exhibitions and public information services such as public lectures, concerts, tours, and responses to personal and written public inquiries.

Its collections have provided the historical documentation for countless scholarly monographs and general works of history, many of which have been produced by the Museum's own staff.

With the approach of the Bicentennial celebrations, even more attention will be focused upon the NMHT's unique collections of the nation's historical treasures. Citizens, visitors from abroad, scholars, researchers, and collectors will be drawn more than ever to the Museum.

While the responsibilities and contributions of the NMHT have grown substantially during its eight years of existence, its resources have not. Insufficient staff and funds have prevented the completion of the cataloging, preservation, and interpretation of the millions of invaluable objects in its collections. By providing more adequate care of donated and purchased materials, the Museum will continue to attract the important historical treasures which it must have to meet its responsibilities. A total of \$260,000 is requested to correct partially present Museum deficiencies.

^{1/} FY 1972 appropriation adjusted by funds lapsing in 1972.

1. Computerized Inventory of the National Historical Collections (\$23,000)

A computerized, descriptive catalog of the Museum's collections is urgently needed and long overdue. Millions of objects were acquired before systematized methods of cataloging were developed. It is now nearly impossible to locate individual objects or to discern if certain classes of specimens are included in the collections at all. The number and diversity of the objects, ranging from postage stamps to a 140,000-pound electrical generator, makes it essential to have a standardized inventory of the Museum's resources. A fully computerized inventory system, a long range project, will permit the NMHT for the first time to reduce its present backlog of cataloging and to keep pace with current acquisitions. With adequate funding, the project can be completed within ten years.

Preliminary studies of various cataloging systems have already been made and a pilot project for a computerized, descriptive catalog of the collection of almost 4,000 handguns has been completed in FY 1971 and 1972 with funds in the base. With the \$23,000 requested for program preparation and computer time, the NMHT could expand its descriptive inventory to begin to encompass its entire collections.

2. Prevention of Deterioration of Objects in Storage and on Exhibit (3 positions; \$165,000)

In several collection areas, specifically numismatics, costumes and furnishings, and musical instruments, there is insufficient staff to provide adequate care to these priceless objects. Three museum technicians (\$25,000) are requested to prevent further deterioration in these collections, plus \$10,000 for supplies, including special storage cases compatible with existing equipment.

Another serious concern of the NMHT is the condition of many of the national treasures which have been on public view since the Museum first opened in 1964. Many objects have suffered considerably from public exposure, especially those which are part of operating exhibits.

At present the NMHT does not have resources to refurbish and recondition adequately these objects to a proper museum standard. In order to accomplish this task properly, the NMHT requests \$100,000 to contract for the restoration of important specimens on public display (to be done under close supervision of the curatorial staff) and \$30,000 for supplies and materials to allow for the restoration by highly trained museum technicians of specimens too valuable to be allowed to leave the Museum temporarily. If this project is not undertaken soon the restoration cost will be prohibitive.

3. Acquisition of New Objects (\$50,000)

An additional \$50,000 is requested to acquire new specimens of extraordinary historical importance to fill serious gaps in the collections. For example, there are in the Robert Gilbert collection of patent models a number of specimens which are a unique historical record, documenting in a vivid and dramatic way the range of American inventiveness during the nineteenth century. If individual models from the collections cannot be purchased in FY 1973, the models will be dispersed by sales to private collectors and this invaluable collection of objects will be lost to the American people. In recent years, funds for specimens (approximately \$300,000) have been diverted from regular operating funds. This is no longer possible in the face of generally increased costs of operations.

4. Curatorial Support (3 positions; \$22,000)

Three additional clerk typists (\$22,000) are requested to relieve professional staff from performing necessary clerical functions (such as typing responses to the thousands of public inquiries received each year).

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

NATIONAL COLLECTION OF FINE ARTS

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>72</u>	<u>6</u>	<u>78</u>
11 Pers Comp	\$ 817	\$ 77	\$ 894
12 Pers Benefits.....	69	6	75
21 Travel.....	31	5	36
22 Trans of Things.....	25	5	30
23 Rent, Comm & Util...	14	1	15
24 Printing	3	1	4
25 Other Services.....	146	58	204
26 Supplies & Materials..	26	31	57
31 Equipment	98	40	138
41 Grants.....			
TOTAL	<u>\$ 1229</u>	<u>\$ 224</u>	<u>\$ 1453</u>

Analysis of Increase

Pay Increase.....	24
Program.....	200

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Collection Management and Use (2 positions; \$55,000). The ability to acquire works of art in today's competitive market must be increased. While private donations are intensely cultivated, to an increasing extent valuable works are no longer available from donors; \$25,000 are requested to strengthen the purchase flexibility for collections. In addition, funds are requested for two positions (\$21,000), one to restore and conserve prints and drawings, and one to supervise the growing archival collections of photographs and negatives. Support funds for these efforts involve equipment and supplies (\$9,000).

Exhibitions (2 positions; \$99,000). The exhibit capability of the National Collection needs to be expanded over the next few years because of growing programs at the recently opened Renwick Gallery and the increasing demands for traveling exhibits. An exhibition specialist (\$8,000) and basic exhibits production support (\$70,000) are required to support the new program at the Renwick Gallery. In addition, with a projected 40% increase in workload for the traveling exhibitions program there is a great need for a specialist to mount exhibitions (\$11,000), and support funds (\$10,000) to help absorb increasing preparation and shipping costs.

Public Education (2 positions; \$46,000). Curriculum interest in art, printmaking, etching, etc., is growing rapidly in the local school system, and in addition to the structured tours, are bringing great pressure to bear on the current small staff (3) and available resources. Direct school contacts, exhibitions, course development, and training are of great importance to NCFA's operations. To handle scheduling, training, materials, and demonstration development, two education specialists are required (\$19,000) along with support funds (\$27,000).

NATIONAL COLLECTION OF FINE ARTS

1971 Actual	\$1,036,000
1972 Appropriation	\$1,212,000 <u>1/</u>
1973 Estimate	\$1,453,000

The National Collection of Fine Arts (NCFA), the oldest national collection of art, is devoted to the conservation, study, and presentation of American painting, sculpture, prints and drawings, and American design and crafts. It circulates exhibitions both throughout this country and abroad (in association with the United States Information Agency), 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 laboratory for conservation and conservation research in American painting materials.

The requested program increase of \$200,000 is chiefly for the expansion of the traveling exhibition program to permit it to reach areas and institutions not now possible, for the exhibition of American crafts and design in the Renwick Gallery, opened in January 1972, and for the expansion of the very successfully launched program of public education in art. A part will allow for a small extension of the funds now available for the purchase of works of art. An additional \$24,000 are requested for necessary pay for existing staff.

Need for Increase1. Collection Management and Use (2 positions; \$55,000)

Although private donation continues to be a necessary and gratefully received source for the collection (gifts of art amounted in value to over \$350,000 in FY 1971), today key works for a proper presentation of United States art are often not available from donors. While there is no intention to duplicate holdings in other Washington collections, it is important that those areas of art best represented in the NCFA be as complete as possible. An increase of \$25,000 for purchase of works of art in FY 1973 is requested, making available a total sum of \$100,000 for purchases.

The conservation laboratory, which serves both the National Collection of Fine Arts and the National Portrait Gallery, needs a facility for the restoration and conservation of works on paper to care for the growing collection of prints and drawings. An assistant conservator specializing in paper is requested (\$9,000) and \$4,000 for outfitting the laboratory for this work.

Basic to NCFA's function as a center for the recording and study of American art is the archive of photographs and photographic negatives. The Juley Archive of some 150,000 negatives will shortly join the collection, in addition to the material from the Bicentennial Inventory of American Painting and from the continuing research project on government sponsored art of the 1930's. An archives technician is needed to put this material in order and to supervise the archive (\$12,000); \$5,000 are requested for initial equipment.

2. Program of Exhibitions (2 positions; \$99,000)

For the exhibition program of the newly opened Renwick Gallery, presenting historical and educational exhibitions on American design and craft, funds of

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

\$70,000 are required for FY 1973. These exhibitions, planned and installed by the staff of NCFA in close association with craft and design organizations throughout the country, serve both as introduction to United States accomplishments in this area and as education in the "visual language" of craft and environmental design. An exhibits specialist is needed for the Renwick to work in association with NCFA's department of exhibition and design (\$8,000).

The Smithsonian Traveling Exhibition Service (SITES), which for the most part is self-supporting, at present circulates some 115 exhibitions a year on arts, history, and science throughout the country, reaching areas that would otherwise have no possibility of actual exhibitions. In FY 1971, 750 areas were served. It is planned to expand the service to circulate 160 exhibitions in FY 1973 to be shown in 1,100 installations. Rising costs of preparation and shipping, however, make it necessary to support the program if it is to reach areas and institutions that cannot afford higher fees. For greater economy and efficiency, shops for the expert mounting and packing of exhibitions have been set up in the NCFA. To maintain and expand the service \$10,000 are needed for the full operation of the shops. An exhibition specialist (\$11,000) is required to aid in the actual mounting of exhibitions.

3. Public Education in Art (2 positions; \$46,000)

The education program of the NCFA, begun during FY 1971, has been of much interest both to schools and museums in the United States and to visitors from abroad. A core of 49 volunteer docents, intensively trained by the NCFA staff, conduct imaginative sessions in the galleries both for children and adults (some 1,000 tours in FY 1971). To reach older children, a print workshop in which students and teachers can work with visiting artists has been established in close association with the department of prints and drawings, made possible by the donation of four excellent etching and lithograph presses. (See the following photograph). A small press is used for demonstrations in the schools. In addition, materials drawn from the collection are being prepared for use by schools in programs of American history, literature, and art. An education department gallery has been active in showing the works of school children and young artists. This ambitious and successful program has been carried on by a very small staff (three positions) and a minimal operating budget drawn in part from outside grants. To make the most of its excellent beginning, especially in the area of educational exhibitions and direct school contacts, the program needs an additional \$17,000 for materials, lecture, and demonstration development. Furthermore, to handle scheduling and other routine operations, releasing the professional staff for more work with the public, a clerk-typist is badly needed (\$8,000). In order to extend the program to the newly opened Renwick Gallery, an additional general education specialist is requested (\$11,000).

The program of scholarship in American art, begun in FY 1971, has proved a value both to the cause of recovery and reevaluation of American art and to the vital operation of other museum programs. It has now been supplemented with a museum intern program to train students in various aspects of museum work, from education to conservation. To provide facilities for these expanded programs for the educational use of the Collection and other Washington Institutions, and to support additional study, \$10,000 are needed for FY 1973.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

NATIONAL PORTRAIT GALLERY

	Base 1973*	Increase Requested	1973 Estimated
No. of Perm Pos	<u>39</u>	<u>7</u>	<u>46</u>
11 Pers Comp	\$ 541	\$ 61	\$ 602
12 Pers Benefits	44	4	48
21 Travel	11		11
22 Trans of Things	28		28
23 Rent, Comm & Util ...	8		8
24 Printing	8		8
25 Other Services	76	41	117
26 Supplies & Materials ..	58		58
31 Equipment	124	100	224
41 Grants			
TOTAL	<u>\$ 898</u>	<u>\$ 206</u>	<u>\$ 1,104</u>

Analysis of Increase

Pay Increase	16
Program	190

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Acquisition of Portraits (\$100,000). Two-thirds of the Gallery's collection of nearly 550 portraits have come by gift. Already in FY 1972 gifts with an appraised value of over \$200,000 have been received. These include portraits of three signers of the Declaration of Independence. It has been necessary; however, to purchase portraits to enlarge the exhibit and study potential. About \$100,000 is now budgeted for this purpose. Increasingly strong market competition for portraits, especially of major figures of the American Revolution and other periods, makes it necessary to enlarge the purchase fund over the next several years. A increase of \$100,000 is requested for this purpose.

Catalog of American Portraits (2 positions; \$34,000). As the only union catalog of portrait information in the United States, the Catalog of American Portraits is an invaluable reference tool to locate, identify, and study portraits and their artists. Additional field research and processing and cataloging of data are required to make the CAP definitive. Two new positions, a cataloger and a key punch operator (\$14,000), and funds primarily for the regional collection of data by local authorities are requested (\$20,000).

History Department (1 position; \$27,000). Gallery attendance and special tours are increasing as a result of greater public awareness and interest. In turn, this creates additional demands for the development of new exhibitions and publications. An amount of \$21,000 is requested to fund short-term research projects by scholars. An additional clerk-typist (\$6,000) is required for manuscript preparation.

Administration and Technical Services (4 positions; \$29,000). This request would provide an administrative assistant and clerk typist in the office of the director (\$16,000) and photographic laboratory and library technicians in the support units shared with the National Collection of Fine Arts to meet a growing number of public requests for photographic reproductions and library materials (\$13,000).

NATIONAL PORTRAIT GALLERY

1971 Actual	\$ 782,000
1972 Appropriation.....	\$ 887,000 ^{1/}
1973 Estimate.....	\$1,104,000

The National Portrait Gallery is the only national museum of American history which is devoted to the portraits of the men and women who made that history. The portrait, because it is a visual record of a person and era, bears strong witness to each sitter's role in the American experience and is a crucial part of historical evidence. The National Portrait Gallery attempts to bring to that history a sense of the human elements involved.

The Gallery's current activities can be grouped into four major categories: (1) the expansion and care of the collections; (2) public education through programs with schools and adult groups, and through exhibition of the permanent collection and specially researched and organized loan exhibitions illustrating particular subject areas of American history and portraiture; (3) the research, publication, and national distribution of catalogs of these exhibitions, as well as other studies, both scholarly and popular in nature, related to American history and portraiture; and (4) the compilation of a definitive Catalog of American Portraits to be a comprehensive data bank and national information service on American history and biography comprised of entries on all portraits of historically significant Americans.

A program increase of \$190,000 is sought to augment the acquisitions fund; to collect additional data for the Catalog of American Portraits; to increase the History Department's capacity to do research for special exhibitions and publications on American history and portraiture for public education; and to add support staff in the library and the photography lab shared with the National Collection of Fine Arts and in the administrative offices use. An additional \$16,000 are requested for necessary pay for current staff.

Need for Increase1. Acquisition of Portraits (\$100,000)

When established in 1962 (PL 87-443), the Gallery's collection consisted only of a handful of portraits elsewhere in the Smithsonian and several held at the National Gallery of Art, purchased by Andrew Mellon for eventual transfer to a National Portrait Gallery, when and if one were established. Since that time, the collection has grown to nearly 550 portraits. Although two-thirds of these have come by gift, it has been necessary to acquire the remainder by purchase.

For FY 1972 the Gallery has budgeted \$100,000 for purchases (among the works thus far acquired are portraits of Gen. Robert E. Lee, President Zachary Taylor, and Gen. William Clark of the Lewis and Clark Expedition--at a total cost of \$50,000 for the three), and has already received gifts of portraits whose appraised value is in excess of \$200,000 (including portraits of three signers of the Declaration of Independence--Thomas Nelson, Md.; George Clymer, Pa.; and George Read, Dela.).

Over the next few years, the Gallery, as well as many other American institutions and private collectors, will be increasingly interested in portraits of the period of the American Revolution. Because of their rarity,

^{1/} FY 1972 appropriation adjusted by funds lapsing in 1972.

their prices, already high, will be much higher. The National Portrait Gallery is actively seeking to locate such portraits, as well as those of major figures of other periods who should be represented in the national study and exhibit collections.

A major increase in acquisition funds is requested (\$100,000) to provide the Gallery with an annual purchase fund of \$200,000 beginning in FY 1973. This increment will help the NPG build toward a fund of \$500,000 by 1975.

2. Catalog of American Portraits (2 positions; \$34,000)

The CAP is the only union catalog of portrait information in the United States. As such, it is of incalculable use to the Gallery in locating portraits for the permanent collection, in assisting other institutions and private persons in identifying both the subjects and artists of portraits, and to scholars studying the history of our nation from the point of view of the men and women who made that history. Although already of considerable use to the Gallery, scholars, and the general public, the CAP must be as definitive as possible before it can be a truly valuable resource.

To help achieve this goal, the CAP requires an additional \$34,000 for field research and the processing and cataloging of new data as it is collected. This funding will provide for contracts with local experts to gather portrait data in their regions and for related travel, photography, and clerical assistance. Two new positions, a cataloger and a keypunch operator will code and record the increased flow of information as well as help meet a growing number of public inquiries regarding the Catalog.

3. History Department (1 position; \$27,000)

Gallery attendance for the first six months of FY 1972 (125,000) is up 44 percent over the comparable period in FY 1971. Over the same period, the number of visitors taking educational tours on various aspects of American history has increased from 750 to 4,300. Special exhibitions and publications distributed throughout the country are greatly stimulating interest in the Gallery. The continued quality of these efforts depends to a large extent on the history department which needs to supplement its present staff with scholars working under contract on short term projects related to the exhibition and publication program. An amount of \$21,000 is requested to provide the equivalent of one man year of services and necessary support in FY 1973. For typing manuscripts and performing various other clerical duties, a clerk-typist is required (\$6,000) to supplement the work of the one secretary presently serving the history department.

4. Administration and Technical Services (3 positions; \$29,000)

The support staff for the office of the director presently consists of two secretaries. This staff level is now insufficient to support the administrative operation of the Gallery's expanding programs. Two positions are requested, for an administrative assistant and a clerk typist (\$16,000).

Demands on the photographic laboratory (shared with the National Collection of Fine Arts) have increased along with the expansion of the collection and of the exhibition schedule. The photography of works of art requires particular skills to deal with the three-dimensional qualities of sculpture and the color of paintings. Increasingly, the NPG and NCEA are receiving requests from publishers, authors, and film producers, as well as from the general public for quality reproductions of items in the collections. Many of these items are painstakingly photographed by specially trained

photographers, but the film must be sent out for processing and printing because the museums lack the staff to handle the work. Much of this outside work is of poor quality. To support the two photographers presently on the staff, a position for a photo lab technician is requested. He will assist with processing and printing and at the same time be trained in the complicated methods of art photography, which will be of great future value to both galleries (\$6,000).

The library, also shared with the NCFA and the Archives of American Art, has been building its collections to serve the needs of the Smithsonian and the members of the public who utilize its materials for research purposes. Both groups are making increasing demands on the Library staff. A library technician is requested to relieve the middle level professional library staff in the routine work of processing, cataloging, and ordering needed accessions so they can devote more time assisting users of the library (\$7,000).

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

JOSEPH H. HIRSHHORN MUSEUM AND SCULPTURE GARDEN

	Base <u>1973*</u>	Increase <u>Requested</u>	1973 <u>Estimated</u>
No. of Perm Pos	<u>21</u>	<u>14</u>	<u>35</u>
11 Pers Comp	\$260	\$126	\$386
12 Pers Benefits	22	12	34
21 Travel	9	6	15
22 Trans of Things	3	7	10
23 Rent, Comm & Util ...	45	-7	38
24 Printing	4	61	65
25 Other Services	256	-213	43
26 Supplies & Materials..	22	-1	21
31 Equipment	14	1,422	1,436
41 Grants			
TOTAL	<u>\$635</u>	<u>\$1,413</u>	<u>\$2,048</u>

Analysis of Increase

Pay Increase	13
Program	1,400

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Preparations for Opening and Operating the Museum (14 positions). A continued phased buildup of staff is required to conduct research, exhibition, education, and technical support programs in the new Museum scheduled to open in 1973. The requested 14 additional personnel are primarily technical and support staff and include museum specialists, technicians, and aides; clerical personnel; and staff for conservation, photography, and framing shops. Also included are professional level personnel to supervise exhibit and education programs. Many of these persons will be hired to coincide with the completion of the building in December 1972. No new funds are requested for these positions in FY 1973 because the initial conservation and restoration work and costs will decline in that year, thus freeing funds in the base appropriation.

Furnishing of the Building Interior (\$1,400,000). Approximately \$1,426,000 of furnishings and equipment not included in the original construction contract must be obtained and installed to permit effective functioning of the Museum. An increase of \$1,400,000 is requested to meet such non-recurring costs as storage display screens (\$400,000); furnishings and equipment for exhibit galleries, other public areas, and administrative and laboratory spaces (\$894,000); security systems (\$50,000); exterior lighting and landscaping (\$50,000); and other items (\$32,000). These are one-time, nonrecurring expenditures.

JOSEPH H. HIRSHHORN MUSEUM AND SCULPTURE GARDEN

1971 Actual	\$ 385,000	
1972 Appropriation	\$ 630,000	1/
1973 Estimate	\$2, 048,000	

The Joseph H. Hirshhorn Museum and Sculpture Garden, now under construction on the Mall, will house a magnificent gift to the nation of more than 7,000 paintings and sculptures. The world-renowned sculptures in the collection range historically from antiquity to the present. The depth of representation of major sculptors 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 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 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 the estimated completion is December 1972. All phases of the work are presently geared to prepare for the opening of the Museum by the fall of 1973. See Table I for the schedule of major activities.

The requested program increase of \$1,400,000 is required for the furnishing and equipping of the building. These are one-time, nonrecurring expenditures. An additional \$13,000 are sought for necessary pay for current positions. Table II summarizes current and projected operating and nonrecurring costs through FY 1974.

Need for Increase1. Preparing for the Opening and Operating of the Museum (14 positions)

In order that the Hirshhorn Museum may conduct a full and balanced program of public exhibitions, educational activities, research, and technical support, a continued phased buildup of staff is required. In the expectation that the building will be ready for occupancy in the middle of FY 1973, 14 new positions are requested. As a result of the predicted drastic reduction of expenditures to prepare works of art for the opening exhibition, the entire FY 1973 costs of these positions can be met from the existing operating base appropriation. No new funds are requested for these positions in FY 1973.

The requested 14 additional personnel in the 1973 budget are primarily technical and support staff and include museum specialists, technicians, and aides; clerical personnel; and personnel to staff conservation, photography, and framing shops. Also included are professional level personnel to supervise the exhibits and educational programs. Many of these persons will be hired to coincide with the completion of the building.

Funds are in the budget request for other contractual service costs related to the collections, the rental of working space and services, and photography to document the collections for exhibits and research purposes. Funds have also been included in this request for transportation and movement of household goods of Smithsonian Institution personnel transferring with the collection to Washington, D. C. as well as for essential travel of senior administrative and curatorial personnel.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

2. Furnishing of the Building Interior (\$1,400,000)

Approximately \$1,426,000 of furnishings and equipment not included in the original construction contract must be obtained and installed to permit functioning of the Museum. Construction costs of \$16,000,000 (\$15,000,000 appropriated by Congress, and a \$1,000,000 gift by Mr. Hirshhorn) will provide the Institution with a basic museum building, including necessary utility equipment. This amount does not permit the Museum to be completed to the point necessary for public exhibition and educational programs. It does not provide storage facilities for the collection nor furnishings and equipment for exhibit galleries, public areas, or administrative and laboratory spaces. To insure a prompt opening to the public after completion of construction, it is essential that procurement and installation of furniture, furnishings, moveable equipment, and other items be provided in FY 1973. An increase of \$1,400,000 is requested for this purpose.

The interior furnishings such as drapes, carpeting, lighting, etc., are mandatory for the opening and continued functioning of the Museum. Furniture for museum personnel is a necessity for efficient operation of the curatorial, technical, and administrative staffs. Garden benches and gallery furniture must be in place to accommodate the anticipated crowds attending the opening show and the continuing exhibitions. Such items as work sinks and tables for the various shops must be installed if the Museum is to perform the necessary preparation, maintenance, and protection of the collections. An itemization of the \$1,426,000 by functions is shown on Table II.

It is estimated that the FY 1974 request for operating funds for the Hirshhorn Museum and Sculpture Garden will be at least \$1,000,000 below the present request.

TABLE I
JOSEPH H. HIRSHHORN MUSEUM & SCULPTURE GARDEN

Schedule of Major Activities - FY 1972 - 1974

FY 1972			FY 1973			FY 1974		
Jul			Jul	Oct	Dec	Jul	Sep	Oct
Buildings Construction					█			
Mock-up Installation and Hanging of Exhibition - Opening Show								
Equipment - Furnishings for Interior								█
Catalog of Opening Exhibition								█
			Transfer of Collection					█
Inventory of Collection				█				

▲
Scheduled
Occupancy

TABLE II
 JOSEPH H. HIRSHHORN MUSEUM & SCULPTURE GARDEN

<u>Operating Costs</u>	<u>FY 1971</u>	<u>FY 1972</u>	<u>FY 1973</u>	<u>FY 1974</u>
Positions	18	21	35	60
Staff Costs (including benefits)	\$ 185,000	\$ 277,000	\$ 420,000	\$ 692,000
Conservation & Restoration	140,000	200,000	40,000	0
Supplies, Materials and Equipment	15,000	36,000	31,000	47,000
Other (Exhibits, Planning, travel, education program)	<u>45,000</u>	<u>117,000</u>	<u>131,000</u>	<u>166,000</u>
Subtotal, regular operation	\$ 385,000	\$ 630,000	\$ 622,000	\$ 905,000
<u>Nonrecurring costs</u>				
Storage display screens			\$ 400,000	
Coatroom furnishings & area lights			8,000	
Gallery furnishings			210,000	
Lamps and partitions			32,000	
Fourth floor furnishings			205,000	
Photography Lab			27,000	
Library shelving			50,000	
Registrars office and staff lunchroom			19,000	
Stone pedestals			95,000	
Security systems			50,000	
Exterior lighting and landscaping			50,000	
Examination Lab			38,000	
Conservation Lab			65,000	
Auditorium furnishings			67,000	
Tour guides			60,000	
Sales room			<u>50,000</u>	
Subtotal, nonrecurring costs			\$ 1,426,000	
TOTAL	\$ 385,000	\$ 630,000 ^{1/}	\$ 2,048,000	\$ 905,000

^{1/} FY 1972 appropriation adjusted by funds lapsing in 1972.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

FREER GALLERY OF ART

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>8</u>	<u>6</u>	<u>14</u>
11 Pers Comp	\$61	\$64	\$125
12 Pers Benefits	6	6	12
21 Travel			
22 Trans of Things			
23 Rent, Comm & Util ...		2	2
24 Printing			
25 Other Services	3	1	4
26 Supplies & Materials ..	3	5	8
31 Equipment	9	20	29
41 Grants			
TOTAL	<u>\$82</u>	<u>\$98</u>	<u>\$180</u>

Analysis of Increase

Pay Increase	3
Program	95

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

The Freer's private funds are no longer able to sustain the Gallery's programs even at their present level. The growth in private expenses has not been the result of new staff or programs but from inflation in salaries, acquisitions costs, and other normal operations.

Public and scholarly use of the Freer is increasing. It is now urgent to begin a phased program of additional federal fund support and thus more adequately meet the terms of the 1906 Deed of Gift.

Conservation and Research (3 positions; \$37,000). A chemist and computer time (\$15,000) are required in the Technical Laboratory for research in connection with the analysis and identification of objects in the collection. This work is done to gain a better understanding of the physical and chemical nature of these objects for their preservation and for clues as to how they were made in ancient times. Two restorers (\$22,000) in the Oriental Picture Mounting Studio are needed to repair and restore 10th to 20th century paintings and drawings for exhibition and study.

Reference Collections (3 positions; \$33,000). One librarian and two photographers and funds for equipment (\$33,000) will be used for cataloging and documenting the Gallery's resources and to provide materials for the use of researchers and the general public.

Exhibits, Maintenance, and Operations (\$25,000). The requested amount will provide supplies and material for the construction of exhibit cases (\$5,000), a saw and jointer to replace wornout equipment (\$3,000), the installation of ultraviolet filters to protect paintings from light (\$15,000), and carpeting in the library (\$2,000).

FREER GALLERY OF ART

1971 Actual	\$ 57,000
1972 Appropriation.....	\$ 80,000 <u>1/</u>
1973 Estimate.....	\$180,000

The Freer Gallery of Art houses one of the world's most distinguished collections of Oriental Art. Including 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 founder involves the continuing search for works of the highest quality that may be added to the collections and the continuing study of these works of art as keys to understanding the civilizations that produced them.

An appropriations increase of \$95,000 is requested to provide basic support to programs of conservation and research, reference collections management, building operations, and exhibition. Additional funds in the amount of \$3,000 are requested for necessary pay for current positions.

Need for Increase

In 1973 the Freer will celebrate its 50th anniversary as the major research institution in Far Eastern art studies in the Western World. The Freer Deed of Gift states that the "building, when constructed, and the objects, when delivered, shall be cared for and maintained perpetually by the second part, or its successors, at its own expense." Over the years the Smithsonian has provided but a small portion of this expense. The Buildings Management Department has provided some basic services; however, the overall cost of gallery operations was borne largely by the Freer Endowment.

In the past, this sharing of support was tolerable since Freer private funding (now averaging about \$700,000 a year from dividend and other income) was sufficient to permit the Gallery to maintain its services to the public and to the scholarly world. This situation has drastically changed over the past few years and the Freer's private funds are no longer able to sustain the Gallery's programs even at their current level. The following information summarizes the problem:

--In FY 1965, private income was \$634,000 and expenses were \$590,000 thus enabling the Gallery to add about \$44,000 to its reserve which then totaled approximately \$550,000. In FY 1971, private income was \$743,000 but expenses had increased to \$967,000 and the reserve had declined to \$211,000. It is anticipated that the reserve will be eliminated by the close of FY 1972.

--The growth in private expenses has not been the result of staff growth or the initiation of new programs. The Gallery, due to a lack of funds, cannot keep pace with the demands for public and scholarly services placed on it. Employment has increased only from 28 to 30 since 1965, yet salaries and benefits costs soared from \$260,000 to \$403,000 largely as a result of pay comparability with federal salary scales. Art acquisitions have increased from \$205,000 to \$272,000, yet fewer

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

works can now be purchased since prices for objects have increased several-fold over this six year period. Inflation has greatly affected other areas of the Gallery's operations including conservation supplies and equipment, exhibition materials, and publications acquisition and printing.

Careful reviews show no areas for significant private budget cost reductions without serious curtailment of current programs. It is urgent to begin a phased program of additional federal fund support and thus meet the Institution's obligation that it assumed in 1906. Such action, if taken, will permit the Freer to maintain its status as a highly specialized public gallery and research arm of the Smithsonian Institution.

Over the next three fiscal years, the Smithsonian requires an additional \$300,000 for recurring care and maintenance of the building and of objects in the collection. Of this amount, \$95,000 are requested in the FY 1973 budget for the following operating purposes. The six positions requested are all conversions of current private roll employees.

1. Conservation and Research (3 positions; \$37,000)

The technical laboratory is responsible for research in connection with the analysis, preservation, and identification of objects in the collection and other related material. Necessary techniques include wet and instrumental chemical analysis, microscopy, electron microscopy, X-ray, and X-ray diffraction. The work done by the laboratory is for the basic purpose of gaining a better understanding of physical and chemical nature of the objects with a view of preserving them and contributing to the knowledge of how they were made in ancient times. To support this essential work, a chemist is required (\$14,000). Ongoing research projects in the technical laboratory now require the use of computers (\$1,000).

The oriental picture mounting studio's function is to repair and restore Far Eastern paintings and drawings in the collection (dating from the 10th to the 20th century) and prepare them for exhibition. Near Eastern paintings are rebacked and strengthened. Research projects are conducted in the area of Far Eastern conservation. Personnel serve as consultants and advisors to institutions, museums and individuals on the proper and necessary steps required for the preservation of oriental paintings. Students are taught the basic principles of Far Eastern conservation and the connoisseurship of papers, silks, adhesives, and pigments. The staff of the studio are highly trained artisans from the Far East. Funds for two restorers are requested (\$22,000).

2. Reference Collections (3 positions; \$33,000)

The Freer Gallery of Art library specializes in materials related to the art and culture of the Far and Near East. Books, periodicals, photographs, slides, maps, and archival material on all phases of the Freer Collection come within its jurisdiction. It is open to the public and is widely used by scholars doing research on all aspects of oriental art. In addition the Library personnel take part in the cataloging and documentation of objects in the collection and provide information about the collection on an international basis. One librarian position is requested (\$8,000) and funds for machine rental (\$2,000).

The basic function of the photographic laboratory is to record the objects in the collection, working always toward a complete photographic documentation of the Gallery's holdings. In addition, it provides photographic materials for the use of research scholars and for the conservation

laboratory. Photographs, color transparencies, and slides are produced on order for the use of scholars, educational institutions, and the general public. Two photographers are requested (\$23,000).

3. Exhibits, Maintenance, and Operations (\$25,000)

Building operations include mounting, mending, and restoring art objects, especially stone and wood sculpture; construction of storage facilities; designing and constructing exhibition cases, pedestals, bases, and other mounts and supports; construction of wood cores and panels which are essential to the restoration and preservation of Chinese and Japanese paintings and screens, and of the frames necessary to exhibit them. To maintain exhibition programs gears, glass and special fixtures for exhibition cases are requested (\$5,000). A saw and jointer are requested to replace outworn equipment (\$3,000). Installation of ultraviolet filter plastic sheeting above lay lights is needed immediately to protect priceless paintings from fading and deteriorating (\$15,000). To continue the rehabilitation program and reduce noise levels, carpeting is needed for the Library (\$2,000).

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ARCHIVES OF AMERICAN ART

	Base 1973*	Increase Requested	1973 Estimated
No. of Perm Pos	<u>11</u>	<u>1</u>	<u>12</u>
11 Pers Comp	\$132	\$12	\$144
12 Pers Benefits	10	1	11
21 Travel	5	2	7
22 Trans of Things	2	1	3
23 Rent, Comm & Util ...	5	1	6
24 Printing	15	10	25
25 Other Services	4	1	5
26 Supplies & Materials ..	3	1	4
31 Equipment	2	1	3
41 Grants			
TOTAL	<u>\$178</u>	<u>\$30</u>	<u>\$208</u>

Analysis of Increase

Pay Increase	5
Program	25

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Establishment of San Francisco Office (1 position; \$25,000). Regional offices are the chief means of locating, attracting, and acquiring valuable collections of artists' and dealers' personal papers. A position for an office director (\$8,000 on a half year's basis) is requested to establish such an office in rent-free quarters in the DeYoung Museum in San Francisco. This branch would make available to West Coast researchers the full resources of the Archives several million items documenting American Art. The balance of the increase, \$17,000, is for micro-filming and other costs in all offices. Permission has been received recently to microfilm three major collections in the New England area.

ARCHIVES OF AMERICAN ART

1971 Actual	\$ 166,000
1972 Appropriation. \$ 175,000	<u>1/</u>
1973 Estimate.	\$ 208,000

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 paper are cataloged, microfilmed, and made available to scholars.

The processing and chief reference center of the Archives is now located in space provided by the National Collection of Fine Arts and the National Portrait Gallery library. Added to the library, and to the archival material already possessed by these two museums, the Archives makes this building the major center for the study of American Art. In order to make its holdings accessible to scholars throughout the country and to develop a systematic collecting program, regional centers are currently maintained in Boston, New York, and Detroit.

The organization anticipates income from private funds of about \$115,000 in FY 1972. This income is used to support Archives' activities, such as quarterly publication and distribution of the Archives' Journal, 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 \$25,000 would be used to establish a regional office in San Francisco, California, and to fund microfilming and other costs in all offices. Funding of \$5,000 is requested for necessary pay.

Need for IncreaseEstablishment of San Francisco Office (1 position; \$25,000)

FY 1971 was the Archives of American Art's first year as a bureau of the Smithsonian Institution. It was a period of establishing residence, organizing a Washington office staff, and working out new procedures in the handling of both administrative and archival details. By July 1971 it had 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, 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. Significant additional collections of papers have been received.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

Regional offices are the chief means of locating, attracting, and acquiring collections of artists' and dealers' personal papers. The additional position requested is for a west coast area director to man the Archives branch office to be set up in rent-free quarters in the DeYoung Museum in San Francisco. Private funds will subsidize additional staff in this office. This branch of the Archives will make available to west coast researchers in American art and American history the full resources of the Archives' collections, three million items on microfilm (continually being added to), five million original items, taped interviews, and photographs. It will provide a wealth of primary sources information to the many universities and research centers on the west coast. Funding of \$8,000 are required for the half-year costs of this position. The balance of the requested increase, \$17,000 are for microfilming and other costs in all offices. For instance, permission has been received recently to microfilm three major collections in the New England area.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

NATIONAL ARMED FORCES MUSEUM ADVISORY BOARD

No. of Perm. Pos.	Base	Increase	1973
	1973*	Requested	Estimated
	<u>6</u>	<u>1</u>	<u>7</u>
11 Pers. Comp.	\$108	\$13	\$121
12 Pers. Benefits	9	1	10
21 Travel	2		2
22 Trans. of Things	1		1
23 Rent, Comm. & Util.			
24 Printing	3		3
25 Other Services		8	8
26 Supplies & Materials	1	1	2
31 Equipment			
41 Grants			
TOTAL	<u>\$124</u>	<u>\$23</u>	<u>\$147</u>

Analysis of Increase

Pay Increase	3
Program	20

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Bicentennial Outdoor Museum (\$9,000). During FY 1971 legislative action to establish the Bicentennial Outdoor Museum and to authorize negotiations with the Department of the Interior for acquisition of park sites was initiated. A brochure describing concept and programs was prepared. During FY 1972 staff will proceed with preliminary site development planning in anticipation of construction to commence in FY 1974 and with special research required for pursuing Bicentennial components of the outdoor museum (the nature of the Continental Army and other aspects of the Revolution). Construction planning funds are requested elsewhere in this budget. In FY 1973, \$9,000 are being requested to supplement planning for the park's construction and program operations, and to continue research to insure authenticity of the outdoor museum's Bicentennial activities.

Dwight D. Eisenhower Institute (1 position; \$11,000). During FY 1971, the effort was on classifying and cataloging a large collection of published materials for the nucleus of the Eisenhower Institute Library. Detailed planning will take place in FY 1972 to include consultation with other bureaus and agencies and continued development of collections of published materials for the Institute Library with emphasis on the American Revolution. In FY 1973 one position (secretary; \$11,000) is sought to provide essential staffing for the growing workload. By realigning existing functions, the task of administering the Institute will be performed on an interim basis by existing personnel.

NATIONAL ARMED FORCES MUSEUM ADVISORY BOARD

1971 Actual	\$154,000
1972 Appropriation.....	\$121,000 <u>1/</u>
1973 Estimate.....	\$147,000

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 Park and a study center to be designated the Dwight D. Eisenhower Institute for Historical Research.

For FY 1973, a program increase of \$20,000 is requested for Bicentennial Outdoor Museum program planning and for Eisenhower Institute activation. An additional \$3,000 are required for necessary pay for current staff.

Need for Increase1. Bicentennial Outdoor Museum Program Planning and Related Preservation of Collections (\$9,000)

Pending legislation in the form of S. 2153 and H.R. 10311 seeks authority to establish at two sites on the Potomac River, Fort Foote in Prince George's County, Maryland, and Jones Point Park, on the southern edge of Alexandria, Virginia, both now in federal ownership under the jurisdiction of the Department of Interior. Endorsed by the American Revolution Bicentennial Commission in its Report to the President of July 4, 1970, this Bicentennial Outdoor Museum is designed as a living outdoor museum re-creating in authentic detail the daily camp life of the patriot soldier of the American Revolution. Construction planning funds are requested elsewhere in this budget. The following photograph portrays one highlight of the Museum's planned activity. An amount of \$9,000 is requested for program planning and supervisory expenses related to construction planning and for the preservation of collected objects many of which will be used at the Bicentennial Outdoor Museum.

2. Dwight D. Eisenhower Institute Development (1 position; \$11,000)

The Advisory Board also has conducted preliminary planning for the Dwight D. Eisenhower Institute for Historical Research, authorized by the Act of August 30, 1961, and soon to be activated. The Institute, through its programs of research and publication, will promote understanding of the historic role of the armed forces in context with the whole history of American civilization. During the Bicentennial period, the programs of both the Institute and of the Museum will be oriented especially to providing deeper insight into and understanding of the background of our Continental forebears and their struggle to establish the world's first modern republic. A secretary is requested to provide essential staffing (\$11,000).

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

PUBLIC SERVICE

The Institution has not allowed itself to rest with static presentations and exhibits of collections directed at only those persons with sufficient motivation, time, or money to visit its centrally located galleries and museums. In order to be successful in conveying the richness of the nation's heritage to a wider public, and to offer additional opportunities for appreciation of its growth and development, the Institution has sought to expand its public reach. It has achieved this in a variety of ways over the last several years.

The development of an experimental neighborhood museum in Anacostia has shown that museum operations may be carried out in a crucible of the inner city, that children may learn with delight and advantage, and that the residents of the area will treat with respect what they regard as their own center for learning and recreation. The story of the Anacostia Neighborhood Museum and its usefulness stands as one of the outstanding achievements of the Institution in recent years.

The activities of the other public service units have been no less important. There is the Folklife Festival on the Mall, sponsored annually by the Division of Performing Arts, and increasing significantly in popularity with all age groups of the nation. The success of this program is tied to the way it brings together and presents our diverse ethnic customs and reinforces the concept, to the public, that we are indeed one nation.

The world-wide character of the programs of the Office of International Activities serve to bring this nation closer to the ideal of a world community through research and dissemination of knowledge. This Office helps to deepen the intellectual and cultural ties among nations by cultivating man's curiosity about commonalities in development as evidenced in anthropology, archeology, and biology.

In this age of so-called "information explosion" the amount of material published here and abroad has a direct impact on the International Exchange Service's ability to perform its important task of improving the world's libraries. Part of its work can be viewed as helping developing nations that are striving to build their educational systems and knowledge resources. The value of the Exchange is self-evident, if we are to serve the national interest and assist countries in these vital areas.

The Office of Public Affairs serves the common causes of the Institution in a variety of ways. But its chief contribution is to serve the public by informing them of the opportunities available to further their interests, knowledge, and participation in research, exhibition, and other education activities of the Smithsonian.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ANACOSTIA NEIGHBORHOOD MUSEUM

	Base 1973*	Increase Requested	1973 Estimated
No. of Perm Pos	<u>15</u>	<u>3</u>	<u>18</u>
11 Pers Comp	\$104	\$32	\$136
12 Pers Benefits	10	3	13
21 Travel	3	2	5
22 Trans of Things			
23 Rent, Comm & Util ...	29		29
24 Printing	2		2
25 Other Services	4	8	12
26 Supplies & Materials ..	26	26	52
31 Equipment	3	9	12
41 Grants			
TOTAL	<u>\$181</u>	<u>\$80</u>	<u>\$261</u>

Analysis of Increase

Pay Increase	5
Program	75

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Urban Studies Program (3 positions; \$50,000). The success of the Anacostia Museum has led museums in many sections of the country to consider developing similar neighborhood museums. Anacostia's success stems from its involvement in urban problems. It is concentrating on a community awareness approach to demonstrating, by exhibits and related education programs, methods of community self-help and improvement. The Carnegie Corporation, through a two-year grant, is funding a community history of Anacostia. This history will integrate the impact of political and social events on the citizens of the neighborhood and provide a better understanding of the causes of contemporary urban problems. Carnegie funds will expire in fiscal year 1972. Funds are requested to transfer three private positions (a program analyst, a research assistant, and a clerk-typist) to Federal employment (\$30,000) and provide necessary supplies, equipment, and travel (\$20,000) in order to continue this and related projects.

Exhibits Training Center (\$25,000). The Museum is negotiating with a large foundation for the establishment of a training center in Anacostia. The center would provide productive training in a needed area of museum operations to disadvantaged persons and would help fill the demands for exhibits that would extend the concept of the Anacostia Museum to other communities. A request for \$200,000 of matching funds is requested in the Bicentennial program section of this budget. An amount of \$25,000 is requested here to help obtain consulting services for developing the program curriculum and to provide other start-up support.

ANACOSTIA NEIGHBORHOOD MUSEUM

1971 Actual	\$151,000	
1972 Appropriation	\$178,000	<u>1/</u>
1973 Estimate	\$261,000	

The Anacostia Neighborhood Museum was established to reach out to new audiences who are 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. Starting in 1966, the Smithsonian sought out community reaction to the concept of a permanent neighborhood museum in the inner city. Reaction was most favorable and the desire for community involvement appeared strongest in Anacostia. The Museum was founded entirely by private donations and was opened in September 1967. Exhibits concentrate on visitor involvement. Classes in sculpture, leathercraft, clay modeling, drawing, and painting have been held. A photograph of such a class appears on a following page. In subsequent months, the Museum, in close collaboration with its Neighborhood Advisory Council, began to present exhibits which the community requested, primarily in the field of Negro history. In each case, the exhibit served as a backdrop for school programs, lectures, and concerts. Four years later, the Museum has entertained and instructed about 200,000 visitors and offers a widening array of classes and youth programs. Anacostia has linked its activities directly to the needs of the community and has assured a fresh, nontraditional approach to the role of the museum.

In FY 1973 the Museum is seeking an additional \$75,000 to strengthen activities devoted to demonstrating the solutions to various urban problems, and by creating an exhibits training center which would productively serve the growing number of neighborhood museums around the country. In addition, \$5,000 are sought for necessary pay for staff.

Need for Increase1. Urban Studies (3 positions; \$50,000)

Because the Museum has been successful, museums in many sections of the country are considering how they might also develop neighborhood museums. With regard to this effort, the American Association of Museums received a grant of \$50,000 from the Department of Housing and Urban development to do a study of neighborhood museums and other urban projects. Since the Anacostia Museum has been the successful forerunner in this area, the director of the Anacostia Museum was selected as co-chairman of a nationwide committee to undertake this project. The basic reason for the Museum's success has been its recent involvement in urban problems. Its first exhibition on rat infestation which covered the history and solution to this very pertinent problem, coupled with related films, community discussions, and dramatic presentations, catapulted this Museum into the area of urban problems. Through its exhibits and related education programs, the Anacostia Museum is concentrating on an awareness approach to demonstrating in Washington and other cities methods of community self-help and improvement. Part of the effort is directed at bringing about a better historical understanding of the importance of the Anacostia community to the past development of the city. The Carnegie Corporation, through a two year grant, is funding the initial work in this area to research a set of problems and produce a community history of Anacostia. With regard to this, many interviews of Anacostia residents have been taken by Museum staff working

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

with graduate students in urban studies from Howard University and the University of Maryland. The interviews capture the viewpoints of the older residents and their perspectives on the historical community changes that have taken place over more than three-quarters of a century. This information will be utilized, along with other documentation from old newspaper files, articles, and books, to produce a community history which will integrate the impact of political and social events on the citizens of the neighborhood, and provide a better understanding of the causes and sources of contemporary urban problems. Carnegie funds will expire in FY 1972, but it is imperative that the Museum continue this and related projects. Funds are requested to transfer three private positions (a program analyst, a research assistant, and a clerk typist) to federal employment (\$30,000) along with \$20,000 for necessary supplies, equipment, and travel. The group is actively working with members of the Museum staff for the creation of better exhibitions, discussions, and demonstrations regarding community crime, drugs, housing, employment, and education problems.

2. Exhibits Training Center (\$25,000)

Currently the Museum and Institutional administration are negotiating with a large foundation for the establishment of a training center in Anacostia to serve the practical exhibit and educational needs of museums across the country. The Foundation has indicated it would be willing to support such a venture if the Federal Government will supply matching funds. A request for \$200,000 which will equip and develop the training center is presented in the Bicentennial of the American Revolution section of this budget because of this facility's potential for the preparation of Bicentennial exhibits. To help obtain consulting services for developing a program curriculum and to provide start-up support for supplies and materials, \$25,000 are being requested. The Center's objective is not only to provide productive training in a needed area of museum operations, but to help fill the demands for exhibits that would extend the concept of the Anacostia Neighborhood Museum to various other communities across the nation.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

OFFICE OF INTERNATIONAL ACTIVITIES

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>9</u>	<u>1</u>	<u>10</u>
11 Pers Comp.....	\$ 125	\$ 20	\$ 145
12 Pers Benefits.....	10	2	12
21 Travel.....	5	2	7
22 Trans of Things.....			
23 Rent, Comm & Util...	1		1
24 Printing.....			
25 Other Services.....	2	1	3
26 Supplies & Materials..	1	1	2
31 Equipment.....			
41 Grants.....			
TOTAL	<u>\$ 144</u>	<u>\$ 26</u>	<u>\$ 170</u>

Analysis of Increase

Pay Increase.....	6
Program.....	20

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Administration of the Special Foreign Currency Program (1 position; \$20,000). A position for an overseas coordinator (\$16,000) is requested to help insure successful and productive cooperative work between United States and Indian research institutions in a program in environmental assessment initiated at a bi-national symposium in New Delhi, India, in February 1971. The balance of the requested increase, \$4,000, is for travel and related administrative costs of the Foreign Currency Program, including the expenses of the Advisory Councils who review and select projects for funding.

OFFICE OF INTERNATIONAL ACTIVITIES

1971 Actual	\$138,000	
1972 Appropriation ...	\$141,000	<u>1/</u>
1973 Estimate	\$170,000	

The Office of International Activities was established in 1965 to coordinate the Smithsonian's many scientific and cultural activities abroad. In this capacity, the Office assists members of the Smithsonian staff working or contemplating work abroad. It is the Institution's point of liaison with the Department of State, American embassies and research institutes abroad, and foreign diplomatic missions in Washington.

Of special importance, are the liaison activities of the Office in support of the Smithsonian's world-wide environmental and conservation interests. The Office has recently also begun coordination of the Institution's exhibits contribution, especially on art, to the United States Information Agency for circulation abroad and of foreign exhibits displayed in the Institution and on occasion circulated in the United States by the Smithsonian Traveling Exhibition Services. The Office also coordinates the Smithsonian's international preparations for the world-wide celebration in 1973 of the 500th Anniversary of the birth of the Polish astronomer, Copernicus.

Moreover, the Office schedules international visitors to the Smithsonian, many of them for the State Department's Cultural Exchange Program, and plans and administers training programs for foreign museum techniques involving visits to the Smithsonian and other museums around the country.

Finally, the Office administers the major Special Foreign Currency Program which has received appropriations since FY 1966 totalling \$16.6 million equivalent in foreign currencies to award grants to United States institutions of higher learning, including the Smithsonian, in fields of Smithsonian interest. Grants support American basic research and museum education programs in those countries where the United States holds local currencies in "excess" of its needs.

The program increase of \$20,000 requested for FY 1973 is in support of the Foreign Currency Program. Additionally, \$6,000 are requested for necessary pay.

Need for IncreaseAdministration of the Special Foreign Currency Program (1 position; \$20,000)

Management of the Foreign Currency Program in South Asia has taken on special importance since development of an Indian-American program in environmental assessment was begun under Smithsonian auspices in February 1971 at a bi-national symposium in New Delhi. This U.S. National program will require a coordinator (\$16,000) to ensure successful cooperative arrangements between the Smithsonian and the Indian authorities and between United States and Indian research institutions which will cooperate in carrying it out. The coordinator would spend at least a part of each year in India for this purpose and would foster other Smithsonian Foreign Currency Program activities there and in

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

Pakistan, Ceylon, and Burma as well. Characteristically, Smithsonian sponsored scientific and cultural programs seem likely to evolve with a minimum of delay despite national political differences in the area.

The remaining \$4,000 increase is essential for travel and related expenses to enable the Foreign Currency Program to convene Advisory Councils to review the expanding activity in the major fields of Program interest and for OIA staff travel in the United States and abroad where foreign currencies are not available for this purpose.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

INTERNATIONAL EXCHANGE SERVICE

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>9</u>	<u>0</u>	<u>9</u>
11 Pers Comp	\$83	\$8	\$91
12 Pers Benefits	7		7
21 Travel			
22 Trans of Things	45	10	55
23 Rent, Comm & Util ...			
24 Printing			
25 Other Services			
26 Supplies & Materials..	4		4
31 Equipment			
41 Grants			
TOTAL	<u>\$139</u>	<u>\$18</u>	<u>\$157</u>

Analysis of Increase

Pay Increase	8
Program	10

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Exchange of publications (\$10,000). The rates paid to shippers and the United States Postal Service have increased. Therefore additional funds are needed to finance these higher costs.

INTERNATIONAL EXCHANGE SERVICE

1971 Actual	\$ 126,000
1972 Appropriation....	\$ 137,000 <u>1/</u>
1973 Estimate	\$ 157,000

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 the foreign 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 five years 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.

14 Stat. 573, as amended, provides that the exchange of the official United States Government publications shall be made through the Smithsonian Institution.

A program increase of \$10,000 is requested. Funding of \$8,000 for necessary pay is also sought.

Need for IncreaseExchange of publications (\$10,000)

The rates paid to shippers and the United States Postal Service have increased. Therefore additional funds are needed to finance these higher costs.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973
DIVISION OF PERFORMING ARTS

No. of Perm Pos	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
	<u>7</u>	<u>3</u>	<u>10</u>
11 Pers Comp	\$123	\$26	\$149
12 Pers Benefits.....	11	2	13
21 Travel.....	8	4	12
22 Trans of Things.....	4		4
23 Rent, Comm & Util...	6	1	7
24 Printing	2		2
25 Other Services.....	38	40	78
26 Supplies & Materials..	11	5	16
31 Equipment	3	10	13
41 Grants.....			
TOTAL	<u>\$206</u>	<u>\$88</u>	<u>\$294</u>

Analysis of Increase

Pay Increase.....	2
Program.....	86

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Folklife and American College Theater Festivals (\$60,000). Despite the tremendous popularity of the annual Festival of American Folklife on the Mall with some 600,000 visitors, and, the American College Theater Festival, funds for production costs are increasingly difficult to raise from private sources. An increase of \$60,000 is requested for these two projects to insure their continued success.

American Indian Program and General Division Support (3 positions; \$26,000). The success of the Indian program at recent Folklife Festivals encourages the Smithsonian to build toward a comprehensive presentation of American Indian art, music, crafts, and tribal lore, both historical and contemporary, by the time of the Bicentennial. The request is to hire a highly qualified American Indian (who has worked with the Institution on the program and been paid with other funds) to coordinate and direct all future Folklife Festival Indian participations and to aid in the establishment of small museums at tribal reservations, in consonance with the purposes of the National Museum Act, and to devise other programs of Indian awareness for the Institution at large. The request would also provide two clerical positions to assist with overall Division programs (\$26,000).

DIVISION OF PERFORMING ARTS

1971 Actual	\$ 215,000	
1972 Appropriation.....	\$ 203,000	<u>1/</u>
1973 Estimate.....	\$ 294,000	

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 the Division undertakes to extend and enliven the Institution's educational services to the public.

An increase of \$86,000 is requested for the Division of Performing Arts for FY 1973. A large part of this increase would be applied to the rising production costs of the annual Festival of American Folklife on the Mall, the American College Theatre Festival, and the American Indian Program. An amount of \$2,000 is needed for necessary pay.

Need for Increase

No increase, other than funds to cover necessary pay raises, was sought for the Division of Performing Arts in FY 1972. Yet during the course of the year the Division has continued to (a) strengthen the Festival of American Folklife, to the point where it attracts over 600,000 annual visitors and is thus the Institution's single most popular public event; (b) contribute towards and co-sponsor the American College Theater Festival, along with the John F. Kennedy Center for the Performing Arts and the American Educational Theatre Association; (c) run a resident puppet theater providing an educational experience to over 150,000 children and adults a year; (d) present year-round programs in folk and contemporary music, jazz, military bands, dance, and drama at various Smithsonian museums; (e) operate a Touring Performance Service which makes available to colleges, universities, and cultural organizations across the country a variety of programs which have proved themselves before Washington audiences; and (f) served a number of state governments, federal agencies, labor unions, and other institutions by providing advice on productions tailored to their performing arts interests.

Rising costs and the increasing difficulty of obtaining private support for a program that is no longer an experiment, but rather a well established and highly popular Smithsonian extension activity, require the Institution to ask for an increase in staff personnel and direct program support.

1. Folklife and American College Theater Festivals (\$60,000)

In the years since the inception of the Folklife Festival, the Institution has had some success in obtaining the major portion of Festival funding from outside sources. Last year, for example, substantial grants were received from the State of Ohio and certain AFL-CIO member unions for special exhibits. Although the Smithsonian will continue to search vigorously for such private support, it is very difficult to obtain it for anything except special exhibits or pavilions, which, in fact, add on to the more prosaic planning, production, housekeeping, and administrative costs which the Division has to absorb. Ideally, the Division should be in a position to attract outside support for authentic, high quality performances by being able to offer matching funding to State and private contributors. The \$35,000 increase requested for program support is a beginning in this direction.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

Similarly, although the Kennedy Center has had some success in attracting commercial sponsors for the College Theater Festival, experience has shown that it is difficult to obtain enough contributions to cover the Washington production costs (rehearsals, stage sets, lighting, stage hands, house management, etc.). Consequently, the Smithsonian, responsible as a co-sponsor for this part of the Festival, has had to absorb production expenses at the expense of other activities. Since the Institution shares the Kennedy Center's view that the College Theater Festival must be supported for the near future, until it can become a self-liquidating operation, \$25,000 is requested as a minimum production support figure, based on the experience of the last three years.

2. American Indian Program and General Division Support (3 positions; \$26,000)

The Institution wishes to continue the well accepted Indian programs that have been an outstanding feature of the last two Folklife Festivals, with the objective of building up towards a comprehensive presentation of American Indian art, music, crafts, and tribal lore, both historical and contemporary, by the time of Bicentennial Year. Heretofore, the Division has literally had to patch together the Indian presentation from a wide variety of funding sources:--the Bureau of Indian Affairs (BIA), state historical societies, and tribal councils, to mention but a few. The time is overdue, therefore, for the Smithsonian itself to accept more responsibility for this part of the program by hiring a highly qualified American Indian to coordinate and direct all future Folklife Festival Indian participations. Funds are requested to add such a person to the staff who has worked closely with the Division in this capacity with funds provided by outside sources. In addition to Festival preparation, the coordinator would also be engaged in a year-round effort to aid in the establishment of small museums at tribal reservations, in consonance with the purposes of the National Museum Act, and to devise other programs of Indian awareness for the Institution at large.

An additional secretary and a clerk-typist are urgently needed for the Division to handle increasing correspondence, not only for the Division's own programs, but more especially for the great volume of inquiries from state and private cultural organizations requesting advice on folklife presentations and appropriate Bicentennial celebrations (\$25,000). These additional positions would give the Division a support staff of only three out of a total of ten positions. Funds for the requested three new positions total \$26,000.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

OFFICE OF PUBLIC AFFAIRS

	Base 1973*	Increase Requested	1973 Estimated
No. of Perm Pos	<u>12</u>	<u>1</u>	<u>13</u>
11 Pers Comp	\$166	\$15	\$181
12 Pers Benefits	14	1	15
21 Travel	1	0	1
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing	46	10	56
25 Other Services	37	0	37
26 Supplies & Materials ..	3	3	6
31 Equipment		4	4
41 Grants			
TOTAL	<u>\$267</u>	<u>\$33</u>	<u>\$300</u>

Analysis of Increase

Pay Increase	8
Program	25

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Visitor Orientation and Other Services (1 position; \$25,000). Inquiries from the general public and the scientific community concerning the Institution's research, exhibits, and educational programs are increasing. A clerk-typist (\$8,000) is requested to help expedite the responses to these inquiries. Support funds for producing building guides and other visitor orientation materials are deficient and need to be increased (\$13,000). In addition, funds to modify some recording equipment used in producing the highly successful series "Radio Smithsonian" are needed (\$4,000).

OFFICE OF PUBLIC AFFAIRS

1971 Actual	\$ 247,000	
1972 Appropriation....	\$ 263,000	<u>1/</u>
1973 Estimate	\$ 300,000	

The Office of Public Affairs is responsible primarily for serving visitors to the Smithsonian and the public at large by communicating information about the Smithsonian through various media--radio, television, newspapers, popular and scientific periodicals, press releases, documentary films, the Smithsonian Calendar of Events, Dial-A-Phenomenon, and general information pamphlets and publications. Included in its presentations are the Torch newspaper, and the "Radio Smithsonian" now being heard on over 88 stations across the nation.

A program increase of \$25,000 is requested to produce visitor orientation films and other materials, provide support for answering public inquiries, and allow some equipment modification. In addition, \$8,000 are sought for necessary pay.

Need for Increase

The need to broaden the dissemination of information concerning Smithsonian programs arises from a sharply increased demand for information about the Smithsonian's museum and research programs as well as an expansion of interest in the Institution's public exhibits and educational activities. Production of additional visitor orientation films for use within the Institution's buildings and for preliminary introductory materials for the hundreds of thousands of persons planning visits to the area, would enable the Office to more fully and effectively discharge its responsibilities in an era when visitations to the Smithsonian are increasing annually.

A portion of the requested increase would be used to employ a clerk-typist (\$8,000) to help expedite the response to public inquiries. In addition, to increase the production of films, building guides and other visitor orientation materials, support funds for printing, supplies and materials are requested (\$13,000). Another portion of the request (\$4,000) would be used to improve the programming for Radio Smithsonian through modification of the Ampex recorder.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

SMITHSONIAN INSTITUTION SPECIAL PROGRAMS

This group of activities is considered to be of particular importance in implementing desired growth in the Institution's activities over the next several years. Some of these activities supplement the programs of the museums and galleries. For instance, opportunities are provided 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. Education services are provided by means of popular museum tours for school children and other education services. Other special programs provide the basis on which the Institution effects dramatic changes in its exhibits and research efforts. The exhibits program request is geared to complete one major exhibit on the "World of Living Things" in the Natural History Museum, and start another, "Of the People, By the People, For the People," in the National Museum of History and Technology, and plan the "Earthbound Benefits of Flight" exhibit for the National Air and Space Museum. The American Revolution Bicentennial program will continue the Institution's efforts to celebrate and portray the first two-hundred years of American history and what these developments may mean for the future. The environmental science program is in its second year as a coordinated Institutional effort to shed light on ecological problems in the nation, and the research awards request will enhance the Institution's ability to fund especially meritorious work of its professionals. The National Museum Act request is directed at strengthening the nation's museums by means of training and improved conservation, cataloging, and exhibits techniques.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>2</u>	<u>0</u>	<u>2</u>
11 Pers Comp	\$ 98	\$100	\$198
12 Pers Benefits	7	7	14
21 Travel.....	10	5	15
22 Trans of Things.....	3		3
23 Rent, Comm & Util...			
24 Printing			
25 Other Services.....	160	238	398
26 Supplies & Materials..	2	50	52
31 Equipment	120	200	320
41 Grants.....			
TOTAL	<u>\$400</u>	<u>\$600</u>	<u>\$1,000</u>

Analysis of Increase

Pay Increase.....	0
Program.....	600

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

A total of \$1,000,000 is being requested in FY 1973, and does not represent permanent commitments to the various bureaus' and museums' appropriations bases since the program will be phased out after 1976. The amounts indicated for various efforts are considered to be logical extensions of activity started in FY 1971 and FY 1972, or needed additions to bring about the desired national result by FY 1976.

Bicentennial Exhibition Construction and Facilities (\$490,000). This funding is to continue planning and design of "A Nation of Nations" (\$350,000), "Ecology-USA/200" (\$60,000), and to supplement regular bicentennial exhibits in the National Museum of History and Technology, National Portrait Gallery, and National Collection of Fine Arts (\$80,000).

Bicentennial Survey of American Art (\$250,000). This funding will extend various efforts: the inventory of american art (\$55,000); the catalog of american portraits (\$120,000); the three volume reference bibliography on american art (\$50,000), and the survey of folk traditions (\$25,000).

Outreach (\$210,000). For production and circulation of 45 bicentennial exhibitions by the traveling exhibition service, support funds are requested (\$10,000). To continue with project and facility development for the Anacostia Neighborhood Museum's exhibits workshop and vocational training program, \$200,000 are requested to match potential private funds.

Exposition for the Nation's Capital (\$50,000). These funds will allow the Smithsonian to begin cooperative planning with other organizations.

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

1971 Actual	\$ 400,000
1972 Appropriation	\$ 395,000 <u>1/</u>
1973 Estimate	\$1,000,000

The Smithsonian Institution is preparing to play a central and major role in the celebration of the Bicentennial of the American Revolution. The Bicentennial presents an opportunity for a wide-ranging and creative use of the Smithsonian's great capabilities and resources, which are of a nature ideally suited to the occasion and the times. We welcome the challenge and believe that our program, which has as a theme The American Experience, will meet all expectations. We will offer imaginative and exciting events and, at the same time, we will make contributions that will continue to reward the general public and the scholarly community for many years to come.

The Bicentennial undertaking at the Smithsonian will involve almost every department, and range from an entire new museum building (the National Air and Space Museum) to such minor, but often crucial, matters as the cost of the services of a single consultant. Many of these costs are not encompassed here, in this request. They will be paid for, as far as possible, out of regular appropriations, and in some instances, the National Museum of History and Technology, for example, virtually all of the regular budget received between now and 1976-77 will go increasingly into Bicentennial related activities. The amounts requested in this special appropriation over the next few years will be used to make the extraordinary effort, above and beyond the Institution's normal level of operations that is called for by this special occasion. These appropriations will be used exclusively for activities that could not otherwise take place. Permanent commitment of personnel and other additions to the various Bureaus' and Museums' appropriations base are avoided. The program will phase out after 1976, but it is designed to produce accomplishments which will remain for an extended period of time, or in perpetuity, for the citizens. For this reason, the description of FY 1973 commitments totaling \$1,000,000 (or an increase of \$600,000 over FY 1972 federal appropriations) are summarized as though they may not extend beyond FY 1973. The amounts indicated for FY 1973 activities have been subject to intense internal management review, and are considered to be logical extensions of activity started in FY 1971 and FY 1972, or needed additions to bring about the desired national result by FY 1976. A summary breakdown of the requested FY 1973 funding is presented in Table I.

With the support of the FY 1971 and 1972 appropriations for this purpose, and with every possible commitment of the Institution's regular budget, we have

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

made a strong beginning on the program itself. The work must be spread out over the intervening years, allowing lead time for the research, design, collecting, and construction which go into the production of major exhibitions, and for the nationwide information-gathering that will go into the Bicentennial Survey of American Art. Phased scheduling will assure completion of the various program components by the Bicentennial year.

This special Bicentennial funding serves dual purposes: it will normally pay for projects that are complete in themselves; and, in some cases, it will expand a special Bureau exhibit, or enrich it, for example, by the acquisition of unusual objects, or by enabling it to reach a wider national audience.

In FY 1973, a total of \$1,000,000 (or a \$600,000 increase over FY 1972) is sought to permit the accelerated pace which must take place as the year 1976 draws near.

Need for Increase

1. Bicentennial Exhibition Construction and Facilities (\$490,000)

Under this appropriation are the two pivotal, major, Bicentennial exhibitions on the Mall.

A Nation of Nations will be located at the National Museum of History and Technology (NMHT). The purpose of this exhibit is to show how groups of immigrants created a new nation with a new identity. To minimize visitor inconvenience due to closed-off exhibit space, this exhibition is to be constructed in three phases. The first will deal with the wave of immigration in the 17th and 18th centuries; the second, with the basic life experiences that were common to each group (giving special attention to the experiences of native and minority groups); and the third, with the contributions of American political ideals, attitudes, technologies, and popular culture which formed a stable, but flexible, world community.

The concept, shape, and content of this exhibition have been determined, spatial requirements have been specified, some objects have been purchased, and experimental modular units are now being developed.

During FY 1973, \$350,000 will be needed for detailed planning and for some initial redevelopment of space. A "Nation of Nations" will be more than four years in the making--a period of time not unusual for an exhibition of this scale and originality. This exhibit will remain for years after the celebration ceases as a major focus for NMHT visitor attention. It is being designed so that modifications can take place periodically to update and modernize the content.

A second facet of the exhibition effort on Bicentennial themes in Smithsonian museums by 1976 will constitute the National Museum of Natural History exhibit Ecology-USA/200. This will be, in effect, one large multifaceted exhibition of unusual depth and richness. It will present the background of our present environmental dilemma. Designers, working closely with the Museum's scientific staff, have completed preliminary studies which promise a highly interpretive exhibition presenting a historical perspective of the various changes that have occurred such as: agriculture developing in response to the needs of our growing population; the effects of technological development upon our natural surroundings as America emerged as the principal industrial nation; and the impact on the country of urbanization. The special Bicentennial funding will pay for preparatory planning and design services, the acquisition of objects (which, of course, will become permanent additions to the national collections), and the production of traveling versions and filmed versions for national circulation (which will also record for posterity our 200th anniversary). In FY 1973 this exhibition will require \$60,000 to carry forward architectural planning and detailing and to construct and test exhibit units.

In addition to funds for these two major exhibits, \$80,000 are requested to supplement the regular costs of Bicentennial exhibitions at the National Museum of History and Technology, the National Collection of Fine Arts, and the National Portrait Gallery.

2. Bicentennial Survey of American Art (\$250,000)

We are at the end of two centuries of growth. We have an established record of achievement in technology and the sciences. But there are some large gaps and unrecognized achievements in our nation's knowledge of American cultural attainments and resources. This is not surprising in a nation as young as ours, that has been scientifically and technologically "on the move." Only our foremost thinkers acknowledge that our technology and our arts have a common breeding ground--the crafts and skills that have been woven into our diverse national character since 1776. The Bicentennial Survey of American Art will take stock of achievements on a national scale, enlisting the aid of organizations and individuals in every state. The Survey will be conducted by four Smithsonian bureaus--the National Collection of Fine Arts, the National Portrait Gallery, the Archives of American Art, and the Division of Performing Arts. Using the abilities of these offices to make a concerted effort, the Survey will point to the full scope of 200 years of cultural accomplishment, and reveal as never before the fusion of great talent that was necessary to create this country.

The National Collection of Fine Arts' Bicentennial Inventory of American Paintings Executed Before 1914 is a program to search for and record the whole range of American painting from the earliest years of our history to the present century. It will significantly extend the available resources for continued study of American art and history, and enlarge and deepen our understanding of both. The focus in the earlier years must be on obtaining paintings; recording raw data on paintings; locating other works; enlisting collector and organizational commitments to initiate search and record programs; and providing assistance to these projects. Concentration will then shift to processing the data accumulated into final record form.

The Inventory got off to a good start in FY 1971, when it issued the first of a series of mailings to 3,800 small museums, historical societies, and state and local arts councils inviting active participation. About 700 initial responses were received furnishing information about collections and promising all possible cooperation. Of these, some 300 are potential survey agents. In FY 1973 it is estimated the Inventory will need \$55,000 for operating expenses and temporary appointments of personnel.

The National Portrait Gallery is assembling The Catalog of American Portraits (CAP). This is a research resource which eventually will contain photographs and documentation on thousands of American portraits in public and private collections across America. It is developing in close cooperation with the National Collection of Fine Arts Inventory. During the Bicentennial years, the Catalog will complete documentation on portraits of Americans living between 1770 and 1790. An experimental program in Richmond, Virginia in FY 1971 discovered a great many hitherto unknown portraits and developed methods of investigation that are presently being used in other states. In FY 1973 CAP will have field researchers at work in the Carolinas, Georgia, Kentucky, and Tennessee, and \$120,000 will be utilized to supplement their activity.

The Archives of American Art has as its sole Bicentennial project a Bibliography of American Art, a comprehensive reference work in three volumes. The Archives also is working closely with the National Collection of Fine Arts and the National Portrait Gallery in developing this effort. It will make available an in-depth and scholarly listing not only of major works on American art, but also of important non-book materials. A temporary staff has been set up and contributors are assigned sections of the bibliography. Each bibliographer is a specialist in the field of American art and will deal with an area directly related to his particular interest. In FY 1973 this special staff will require support of \$50,000.

The Roots of American Folk Culture program of the Division of Performing Arts is a systematic survey of folk traditions in music, dance, storytelling and crafts throughout the United States. This survey will cover urban as well as rural areas, and the contributions of indigenous as well as immigrant groups. The first results were seen in the 1971 Festival of American Folklife on the Washington Mall when Bicentennial funds allowed thousands of visitors to enjoy Northwest Coast Indian music, dance, arts and crafts. These performances were recorded on film. As part of the Roots effort, \$25,000 will continue services and research through FY 1973.

3. National Outreach (\$210,000)

The Smithsonian Institution Traveling Exhibition Service (SITES), administered by the National Collection of Fine Arts, will produce and circulate a total of 45 Bicentennial exhibitions during the period up to and including the Bicentennial year. These will be expressly for the Bicentennial celebration, in addition to SITES' normal annual activities. The objective of this plan is to make these exhibitions available at the lowest possible cost, in an effort to reach populations not normally served by touring exhibitions. The National Collection is therefore requesting funds to subsidize the production and the transportation costs involved. Each exhibition, when fully booked, will visit 12 locations during a two-year tour. Forty-five exhibitions have a potential of 540 installations; at this point the Bicentennial audience cannot be estimated, but will encompass a substantial portion of the Nation's population.

The subject matter will provide an overview of American history, science, technology, and art. Present planning calls for exhibitions organized into interrelated curricular units conceived around such central themes as "200 Years of American Transportation" or "A Nation of Builders -- A Visual History of American Engineering." In FY 1973 three experimental exhibitions, probably in an edition of more than one, will be produced and started on tour at a cost of \$10,000.

One of the more unfortunate defects of museum "outreach" programs has been a failure to offer nationally useful and meaningful services to disadvantaged and minority populations. Now, of all times, the Smithsonian almost providentially has been endowed with a capability whereby this deficiency can be corrected. The Smithsonian's Anacostia Neighborhood Museum has pioneered the production and national circulation of exhibitions to these groups by dramatically involving them in the portrayal of minority contributions to American culture. "The Frederick Douglass Years" and "The Rat -- Man's Invited Affliction" are notable examples. Both can be termed community projects, and this museum now proposes to create an

entirely new and appropriate kind of facility as a way for minority group members across the country to participate directly in expressing themselves through exhibits and related materials concerning problems which must form an important part of the Bicentennial program and the contemporary American scene.

The Anacostia Neighborhood Museum's Exhibits Production Center will be both an exhibits workshop and a vocational training facility. A preliminary design study, commissioned and completed in FY 1971, developed the concept to the point where an architect may now go to work on final specifications. This process will be unusually simple because the Center will be housed in a pre-engineered "systems building" similar to those now being constructed for schools and light industry, providing the desired space at a substantially lower cost than conventional buildings. An extremely popular concept, the Center will produce exhibitions for nationwide circulation on such subjects as urban problems and the historical contributions of America's minorities. Some exhibitions will be designed for museums; others will be capable of reproduction in sets, for use in community centers, store-fronts, and other non-museum settings. One large private foundation is very much interested in this project, but because of the national economic importance and interest being placed on new ways to channel human productivity, it desires federal recognition and support. Matching funds will be employed for equipment, vocational training, and general operations. Preliminary discussions with the National Capital Parks Commission have resulted in a tentative agreement on a site four blocks away from the Neighborhood Museum's main building.

The Smithsonian will use this facility for the production of some of its Bicentennial exhibition units. To continue with project and facility development \$200,000 are requested to match potential private funds and put the Center in operation.

4. An Exposition for the Nation's Capital (\$50,000)

There will be a great increase in the number of visitors who will come to Washington during the year of the Bicentennial. They will encounter a bewildering variety of exhibitions, performances, and other activities. The Smithsonian will be the focal point, and proposes to work closely with the National Park Service, the government of the District of Columbia, and all other interested agencies and institutions, on ways to unify and render coherent these multiple experiences; \$50,000 are requested to begin cooperative planning.

TABLE I

SMITHSONIAN INSTITUTION

SUMMARY OF PROPOSED CENTRALIZED
BICENTENNIAL OF AMERICAN REVOLUTION ACTIVITIES
FY 1973Bicentennial Construction and Facilities and Major Exhibitions

"A Nation of Nations" (National Museum of History and Technology)	\$ 350,000
"Ecology-USA/200" (National Museum of Natural History)	60,000
Supplementary Funding for National Museum of History and Technology, National Portrait Gallery, National Collection of Fine Arts planned Bicentennial Exhibits	80,000

Bicentennial Survey of American Art

Inventory of American Art Executed Before 1914(National Collection of Fine Arts)	55,000
Catalogue of American Portraits (National Portrait Gallery)	120,000
Bibliography(Archives of American Art)	50,000
Roots of American Folk Culture(Division of Performing Arts)	25,000

Outreach

Traveling exhibitions, SITES (National Collection of Fine Arts)	10,000
Exhibits Production and Training Center (Anacostia Neighborhood Museum)	200,000

<u>Exposition for the Nation's Capital; Inter-Agency Planning, Administration</u>	<u>50,000</u>
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TOTAL	\$1,000,000
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SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ENVIRONMENTAL SCIENCES PROGRAM

	Base <u>1973*</u>	Increase <u>Requested</u>	1973 <u>Estimated</u>
No. of Perm Pos	8	0	8
11 Pers Comp	\$116		\$116
12 Pers Benefits.....	10		10
21 Travel.....	38		38
22 Trans of Things.....	2		2
23 Rent, Comm & Util...			
24 Printing			
25 Other Services.....	63		63
26 Supplies & Materials..	24		24
31 Equipment	22		22
41 Grants.....			
TOTAL	<u>\$275</u>	<u>\$0</u>	<u>\$275</u>

Analysis of Increase

Pay Increase.....	0
Program.....	0

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Maintenance of Institutional Program. Congress first appropriated \$150,000 for coordinated environmental research at the Smithsonian in FY 1971. A mode of operations, sites, and problems to be studied were identified. In FY 1972 \$275,000 was appropriated for this program. Work is now underway on a variety of projects in carefully selected geographical areas using the staff resources of several of the Smithsonian science bureaus. No program increase is being sought for FY 1973 to allow time for program evaluation of areas of investigation where maximum scientific returns can be expected. Priority areas of investigation will be identified and the FY 1974 request will be geared to spur selected efforts.

ENVIRONMENTAL SCIENCES PROGRAM

1971 Actual	\$150,000
1972 Appropriation	\$271,000 <u>1/</u>
1973 Estimate	\$275,000

Amounts were appropriated in FY 1971 and 1972 for coordinated environmental research at the Smithsonian. This support enabled the separate bureaus of the Institution for the first time to develop jointly a plan to assemble and analyze biological and physical data on specific important ecosystems, with the goal of contributing to the prediction of the consequences of environmental change. Harmful ecological changes have often been attributed to man's influence, whereas research has sometimes shown that variation in natural cycles could be the cause. Thus, attempted remedies have been counter productive. The experience of the scientific staff and the accumulated collections of natural history specimens make the Smithsonian specially competent for team research. The FY 1971 amount was directed toward three activities: (1) the organization of an interdisciplinary program and establishment of a continuing mechanism for its operation; (2) the selection of sites of highest priority for study; and (3) the implementation of interrelated studies of these sites.

No program increase is being sought for FY 1973 to allow time for program evaluation of areas of investigation where maximum scientific returns can be expected. Priority areas of investigation will be identified and the FY 1974 request will be geared to spur selected efforts.

During FY 1972 research is being directed to the following problems. This effort will continue in FY 1973.

--The National Museum of Natural History is pursuing basic biological studies of the marine fauna of Caribbean Panama. Also, Glovers Reef, in British Honduras, was selected as a primary site for intensive reef study and this work has been begun in the current year. Both of these projects are aimed at treating specific tropical marine biotopes as systems and thereby ultimately allowing predictive and management models of these complex and threatened environments to be built. As the environments involved are relatively poorly known, analyses of species composition, abundance, and interaction are prerequisite to more advanced investigations. Ultimately, electronic data processing will be employed and modeling techniques under development for simpler biological systems will be adapted to the investigations.

--The National Zoological Park, in coordination with the Smithsonian Tropical Research Institute, is conducting a radio tracking study in Panama to compare, among populations of two sympatric species of sloth, the relationship between energy utilization and social organization. This project will utilize radio tracking to include the iguana as well. Sloths, howler monkeys, and iguanas represent the dominant vertebrate biomes in the neotropical rain forest. Since all three genera are primary herbivores, an understanding of their numbers, spacing, recruitment, and turnover is essential for an interpretation of the neotropical rain forest ecosystem.

--A cooperative long-term study of natural fluctuations on Barro Colorado Island, Panama, involving measurement, experimentation, and

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

modeling of the environment has been initiated. This study is a segment of a larger program which will generate meaningful comparisons between various environments being monitored under this and other programs. There is also a Tropical Marine Environmental Monitoring Project in Panama. This project monitors the physical fluctuations of the Pacific and Atlantic offshore environments in Panama Bay and the Caribbean at specific points, continuously, and in identical manner over a number of years. Also involved are the Atlantic and Pacific intertidal zones, to compare physical stability and predictability with that of the offshore environment. Biological monitoring of intertidal organisms will determine if these can be correlated to the physical perturbations of their immediate and or more generalized surroundings.

--The Radiation Biology Laboratory site at Point Barrow, Alaska, has been in operation since April 1971, measuring the total short wave solar radiation incident there. The purpose of this site is to determine the influence of latitude, season, and the atmospheric influence on the color quality of the light received at the earth's surface. This information is to be used to help understand plant and animal responses to daylight change by comparing the incidence of arctic light with that recorded from other stations. In this way, we can begin to determine how light affects the reproductive and other physiological processes in plants and animals. This data will be of direct concern to the Tundra Biome Project, a part of the International Biological Program, and to the National Oceanographic and Atmospheric Agency which will correlate the SI spectral quality measurements with the atmospheric particle measurements. This will enable them to determine how the particulate matter in the atmosphere influences natural daylight.

--A project is underway to compare phosphorus metabolism of algae under heterotrophic and autotrophic conditions in order to be able to develop models which would be useful in understanding the problems created by the pollution of lakes, rivers, and estuaries with high levels of organic materials and phosphate. This is a laboratory study which is supplemented and coordinated with field studies at the Chesapeake Bay Center for Environmental Studies.

--The Smithsonian Astrophysical Observatory will examine and model the relationships between insolation and atmospheric variables that may be responsible for insolation change. They will also explore requirements and determine instrumentation for measuring atmospheric parameters in the interdisciplinary investigations at the various prime sites involved in the overall program of Smithsonian environmental studies. The Astrophysical Observatory at Mt. Hopkins, Arizona, has sufficient equipment so that relatively little needs to be added to the site to allow a broad investigation of the causes of the insolation variations. The Radiation Biology Laboratory will assist by installing a solar monitoring detection unit at Mt. Hopkins.

This interdisciplinary and team plan of work is given high priority by the Smithsonian and is consistent with the recommendations of the International Biological Program and with Public Law 91-438.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

MAJOR EXHIBITIONS PROGRAM

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>0</u>	<u>0</u>	<u>0</u>
11 Pers Comp			
12 Pers Benefits			
21 Travel	\$5	2	7
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing	25	10	35
25 Other Services	310	100	410
26 Supplies & Materials ..	65	50	115
31 Equipment	120	88	208
41 Grants			
	<u>\$525</u>	<u>\$250</u>	<u>\$775</u>

Analysis of Increase

Pay Increase	0
Program	250

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Preparation of Three Major Exhibitions (\$775,000). Funds are requested to complete the "World of Living Things," an environmental exhibit begun in FY 1972 (\$250,000); to design and produce "Of the People, By the People, For the People," an exhibit in the National Museum of History and Technology to show relationships between people and their government (\$500,000); and to plan "The Earthbound Benefits of Flight," an exhibit for the National Air and Space Museum to show the applications on earth of new knowledge and technology resulting from air and space flight and exploration (\$25,000).

MAJOR EXHIBITIONS PROGRAM

1971 Actual	\$ 0
1972 Appropriation...	\$ 525,000
1973 Estimate.....	\$ 775,000

The Smithsonian's base appropriation for exhibits, primarily in the Office of Exhibits, is largely absorbed by the maintenance and upgrading of existing exhibits, the design of new exhibits, and a modest program of changing special exhibits. This appropriation has remained relatively static for the last several years growing only by pay supplements to meet part of the costs of pay raises. Absorption of a part of higher pay costs by the office, combined with the greatly increased costs of supplies, materials, printing, and contractual services required to produce exhibits, has virtually halted the Smithsonian's ability to continue the development of its permanent exhibits program. New permanent exhibits, space for which exists in present Smithsonian buildings, will require new nonrecurring funds for construction and installation.

Funds are being requested to complete the exhibit which received initial funding in FY 1972, "The World of Living Things." In addition, the brochure submitted as a supplement to the budget request identifies and describes two new proposed permanent exhibits of unusual timeliness, significance, and public interest. These are titled "Of the People, By the People, For the People" (an exhibit which will be developed in the National Museum of History and Technology) and "Earthbound Benefits from Flight" (to be prepared for the National Air and Space Museum).

"The World of Living Things," begun in FY 1972 with \$525,000 will require \$250,000 to complete in FY 1973. The exhibition should be ready for public opening the latter half of FY 1973. This is a major effort to interpret the "laws of nature," and will include both an introduction to ecology and the exposition of worldwide environmental balances and imbalances.

"Of the People, By the People, For the People" will be a major exhibition designed to interpret how the Government affects the lives of the people and how the people shape their government. It will deal with such matters as the ballot, expansion of suffrage, right of petition, communication, the growth of public schools, the government's role in support of research, regulations dealing with the welfare of the people, transportation, food, shelter, and security. It is estimated that a total of \$500,000 will be needed in FY 1973 to produce this exhibit, of which \$275,000 will be available as a result of the completion of the "World of Living Things."

"The Earthbound Benefits from Flight" is proposed as a major exhibition directed at two important goals: to exemplify the many applications on earth of the extensive knowledge generated in the course of developing air and space flight; and to communicate to the visiting public the possibilities for future applications. Estimated total production costs are \$423,000, of which \$25,000 are being sought in FY 1973 for planning. Funds for the design and production of the exhibit would be requested in FY 1974.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

NATIONAL MUSEUM ACT

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>3</u>	<u>0</u>	<u>3</u>
11 Pers Comp	\$25		\$25
12 Pers Benefits	2		2
21 Travel	20		20
22 Trans of Things	17		17
23 Rent, Comm & Util ...	18		18
24 Printing	45		45
25 Other Services			9
26 Supplies & Materials ..	9		9
31 Equipment	14		14
41 Grants	<u>450</u>	<u>400</u>	<u>850</u>
TOTAL	<u>\$600</u>	<u>\$400</u>	<u>\$1,000</u>

Analysis of Increase

Pay Increase	0
Program	400

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Support for the Nation's Museums (\$400,000). Public Law 91-629 approved December 31, 1970, reauthorized appropriations for the National Museum Act through fiscal year 1974 and funding of \$1,000,000 to the Smithsonian Institution each year. Of this amount \$600,000 was granted by the Congress for fiscal year 1972, of which \$100,00 were transferred to the National Endowment for the Arts and to the National Endowment for the Humanities as required by the authorizing legislation. The first meeting of the Advisory Council was held in November 1971 to determine priorities and review requests for funding. Eight projects have been funded and the balance of the appropriation will be awarded in February 1972.

The requested \$1,000,000 funding in fiscal year 1973, an increase of \$400,000, will permit the Smithsonian to support basic needs of the Nation's museums including cataloging and data access systems, museum laboratory centers for conservation and exhibits preparation, training of museum personnel, research in museum techniques, the preparation of instruction manuals, and other aspects of the National Museum Act.

NATIONAL MUSEUM ACT

1971 Actual	\$	0
1972 Appropriation	\$	600,000
1973 Estimate	\$	1,000,000

Public Law 91-629 approved December 31, 1970, reauthorized appropriations for the National Museum Act through fiscal year 1974 and funding of \$1,000,000 to the Smithsonian Institution each year. Of this amount \$600,000 was granted by the Congress for fiscal year 1972.

Funds appropriated to the Smithsonian Institution for the implementation of the National Museum Act will be made available, primarily by grants and contracts, to museums, professional associations, and individuals. Such funding will be 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 will advise and assist the Secretary in determining priorities and assessing the quality of individuals and programs seeking support under the Act.

The Advisory Council met for the first time on November 10, 1971, to develop the procedures for granting funds. The members of the Council agreed that funds should be awarded to projects which advance the Museum profession at large through research, publication, training or professional assistance. The programs established at this meeting are:

- I. Technical Programs -- The increased demand on museum services and facilities has introduced many technical changes and requirements within the profession. The Advisory Council has identified three major areas where greater technical knowledge and skills are essential: a) exhibit techniques; b) conservation techniques; c) archival, library, and research resources.
- II. Curatorial/Interpretive Programs -- Museums are invaluable sources of information and research. The quality of a museum depends upon its ability to communicate information and knowledge to the community at large. The Advisory Council acknowledges the continual need for museums to study and develop their educational and interpretive resources. The following areas of study were developed: a) studies in specific subject areas provided the project has implications for the profession; b) exhibit evaluation and experimentation; c) interpretive and educational programs; and, d) studies of museum practices and functions.
- III. General Management Programs -- Recognizing that good management is essential to the overall success of any museum, the Advisory Council cited the need for continued training, research, and publication concerned with practices within the areas of general management, registration, and management of collections, and the design and planning of physical facilities.

IV. Professional Assistance Programs -- The Council reaffirmed the importance of technical aid and assistance for museums. Certain programs are essential to the continued growth of museums, such as: a) services that enable existing museums to respond more effectively to their community; b) seminars and conferences that encourage greater communications among personnel in museums and between museums and related organizations.

Eight proposals in these areas have been funded to date. Four of the eight projects were in the area of training museum personnel: 1) A series of five different training workshops for historical museum personnel; 2) Twenty work projects in conservation for graduate students; 3) A program for the development of a curriculum in museology; and 4) A six-week intensive seminar in museum administration. The remaining four proposals funded provide broad support for the profession: 5) A publication of the development of a national program on resources and resource-management in systematic biology; 6) A one-year pilot project to establish a consultant service for small historical museums whose budgets are less than \$50,000 per year; 7) Support for the U. S. Committee of the International Council of Museums; and 8) A publication on historical preservation, agencies, and museum practices.

Forty proposals have already been submitted to the Advisory Council; another twenty-four known applications are in preparation. The total sum of these applications exceed two million dollars. In addition, over 300 inquiries have been received by the Office of Smithsonian and National Museum Programs. In February, 1972, the Advisory Council will meet to review and award the balance of this year's appropriations.

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 full \$1,000,000 level will permit the Smithsonian to support fully all aspects of the National Museum Act as conceived and requested.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ACADEMIC AND EDUCATIONAL PROGRAMS

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>22</u>	<u>2</u>	<u>24</u>
11 Pers Comp	\$144	\$29	\$173
12 Pers Benefits	17	2	19
21 Travel	7		7
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing	3	2	5
25 Other Services	487	24	511
26 Supplies & Materials ..	7	5	12
31 Equipment	12	11	23
41 Grants			
TOTAL	<u>\$677</u>	<u>\$73</u>	<u>\$750</u>

Analysis of Increase

Pay Increase	8
Program	65

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Elementary and Secondary Education (2 positions; \$65,000). Two junior grade staff associates (\$23,000) are requested to extend the Institution's capability to produce school tours in the National Museum of History and Technology and the National Museum of Natural History. In addition, \$42,000 support funds are urgently sought to help produce educational materials, filmstrips, and cassettes to be used by children in the classroom or home.

ACADEMIC AND EDUCATIONAL PROGRAMS

1971 Actual	\$596,000
1972 Appropriation	\$674,000 <u>1/</u>
1973 Estimate	\$750,000

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.

Since 1965 the Smithsonian has offered support under its programs in higher education to 93 Ph. D. candidates and 83 postdoctoral investigators to enhance their ability as scholars and teachers through collaboration and study with the Institution's research staff. Over 50 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.

Seminar activities fall into three major program components: the International Symposia series; major colloquia, often in cooperation with other institutions of learning; and annual interdisciplinary lecture series. In 1973 the Smithsonian's Fifth International Symposium will be held as part of the worldwide tribute to Copernicus on his 500th birthday. This will be in co-sponsorship with the National Academy of Sciences and the cooperation of UNESCO.

Elementary and secondary education activity includes the popular escorted tours for schools, the preparation of teaching guides, lectures, and audio-visual materials, and other services. Public use of the educational facilities of the Institution is growing rapidly at all levels of training.

A program increase of \$65,000 is requested for the elementary and secondary education activities. Also requested are \$8,000 for necessary pay increases.

Need for Increase

Two positions and \$23,000 are requested to increase the school tours provided by the Smithsonian to area primary and secondary schools. In addition, \$42,000 are sought to develop kit materials, take-home publications, film strips, and pilot teaching cassettes, both for use as adjuncts to the school tours program and for loan to schools.

The two new positions are for junior grade staff associates to develop new tours, train the volunteer docents who conduct the tours, and help relieve the scientific staff in answering special requests. One staff associate would be assigned to the National Museum of History and Technology to develop new tours in American history in preparation for Bicentennial Year. Emphasis will be placed on creating tours with simple supplementary materials which, after testing at the Smithsonian, might be circulated to schools across the nation.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

The other staff associate would be assigned to the National Museum of Natural History to develop inter-disciplinary tours aimed at teaching ecological principles and environmental problems, rather than the more traditional isolated subject area tours. Examples under consideration include the demonstration of delicate web-of-life or "food chain" relationships in a closed ecological system, camouflage and mimesis as survival adaptations in the plant and animal kingdoms, and the role of climate or day versus night in the establishment of ecological niches.

The expansion will result in greater opportunities for students to learn through museum experiences. The Institution enjoys an almost endless supply of volunteer docents, but lacks the staff to supervise them and train them to conduct new tours and to develop other educational activities. The requested increase will therefore have a significant multiplier effect, increasing the number of trained docents, which in turn increases the number of tours offered, school visits scheduled and students served. (See the accompanying figures 1, 2, and 3). Increased numbers of volunteers and staff associates will see that much more effort is expended to update and vary the tours, and to involve greater experimentation with new techniques. Without increases in personnel and funding resources the Smithsonian will fall short in its obligations to respond to increasing demands for external educational services. The demands are present for more direct contact with teachers as well as students in the school communities, and these can be responded to with an increasing number of teacher workshops.

Beyond these staff associates, which represent the heart of the Smithsonian people-to-people educational efforts, there is an urgent need to strengthen the support funds available for production of classroom and curriculum oriented materials. Of particular interest in FY 1973 will be experimentation with the visual cassette, a new technological medium of potentially great educational use in the future in both school and home study.

Figure 1 -Growth of subject matter tour and trained volunteers

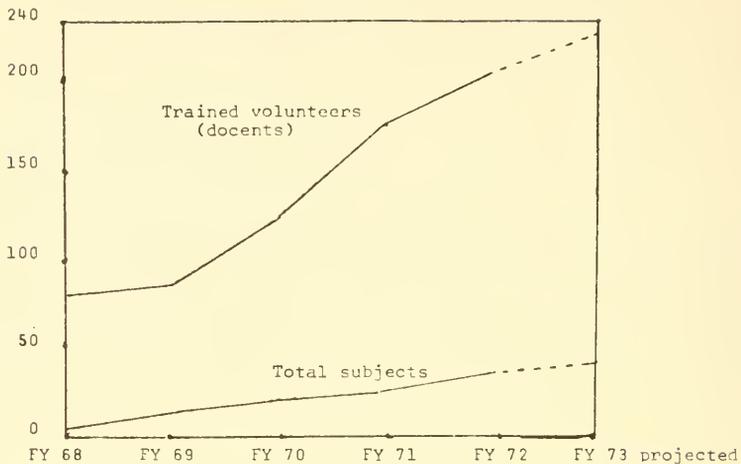


Figure 2 -Number of students serviced by elementary and secondary school tours

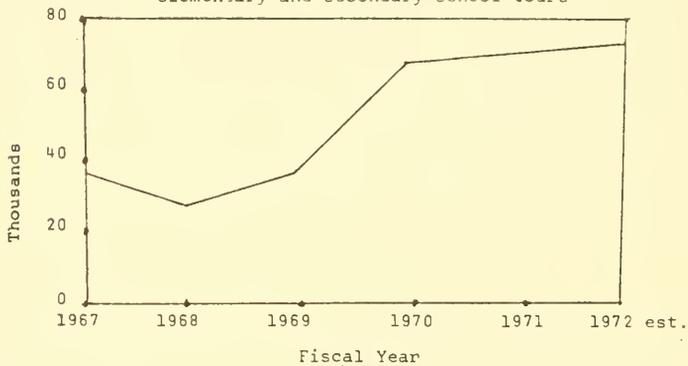
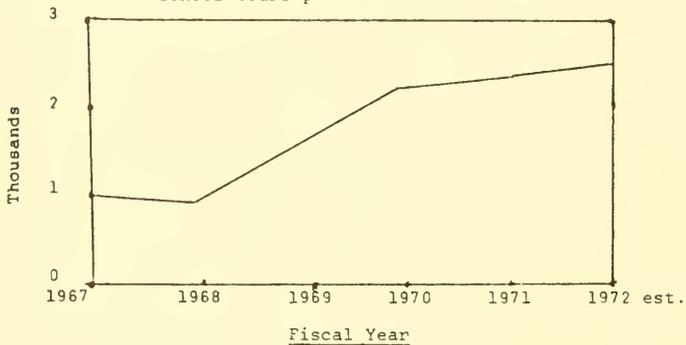


Figure 3 -Number of elementary and secondary School tours provided



SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

RESEARCH AWARDS PROGRAM

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>0</u>	<u>0</u>	<u>0</u>
11 Pers Comp		-	
12 Pers Benefits			
21 Travel			
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing			
25 Other Services			
26 Supplies & Materials ..			
31 Equipment			
41 Grants	\$425	\$50	\$475
TOTAL	<u>\$425</u>	<u>\$50</u>	<u>\$475</u>

Analysis of Increase

Pay Increase	0
Program	50

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Multi-Year Funding and Inflation (\$50,000). The Research Awards Program funds worthy research projects not funded either by the regular plans of operation of the Smithsonian's science bureaus or by outside agencies. Since its inception in FY 1966, 276 proposals have been funded and there have been more than 200 publications in the fields of biology and anthropology directly attributable to this support. The program also has enabled Smithsonian scientists to engage in productive field research with colleagues from other institutions. An additional \$50,000 is requested to help fund multiyear awards for better stability, continuity, and planning of research. This additional sum will also help to combat the higher costs of basic research brought about by past inflation in the costs of laboratory supplies, equipment, and services.

RESEARCH AWARDS PROGRAM

1971 Actual.....	\$400,000
1972 Appropriation.	\$425,000
1973 Estimate.....	\$475,000

Prior to FY 1966, the Smithsonian Institution received funds from the National Science Foundation (NSF) for research projects of individual staff members. In the FY 1966 appropriation, 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 the NSF. Funding for the program increased to \$400,000 in FY 1967 and in FY 1972 it was increased to \$425,000.

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.

Need for Increase

For FY 1973, an increase of \$50,000 is requested to help fund multi-year awards and offset inflation in the cost of supplies, materials, and other items.

In FY 1972, members of the Smithsonian staff submitted proposals for funding up to three years in order to provide for better stability, continuity, and planning of research. There were 75 proposals received for FY 1972 amounting to \$1,674,382, of which 42 were funded in the amount of \$425,000. Advance commitments have been made for \$296,671 to second-year funding and \$106,972 to third-year funding. Thirty-three proposals were rejected. Many were deemed worthy, but funds were not sufficient to fund them.

The Research Awards Program is intended to cope with a serious problem confronting many scientists who wish to undertake non-routine fundamental research of the kind normally undertaken by university research scientists but which cannot be supported from the federal "Salaries and Expenses" appropriation. The large number of worthwhile proposals that were not funded in FY 1972, and in previous years, is of grave concern to the Institution. This concern is based on the fact that the work supported by the Research Awards Program is often the best of the Institution's productivity and the reason for acquiring scientists of the highest competence and imagination. If the Smithsonian cannot provide this kind of support, it might not attract high caliber scientists, nor retain them. Further, the program serves as an important means whereby scientists of the Smithsonian Institution may 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.

DOCUMENTATION AND CONSERVATION

Museum collections, including artifacts, specimens, and works of art, are primary resources in the functions of exhibits display and research. As the curator of the National Collections, the Smithsonian houses the greatest and richest array of these resources in the nation. These must be conserved. But there are other document and information files related to these resources which are important to the public and scholarly understanding of what the collections reveal about man's technology, culture, and environment. These materials and files must be systemized, conserved, cataloged, and made more accessible. The data and information must be banked in such a way that it may be retrieved for study in conjunction with the specimens and artifacts. These "basic needs" consist of related photographic documentation, acquisition and archival information, and historical facts, as well as conservation data on physical and chemical characteristics.

The departments within the Smithsonian whose principal functions are to organize, preserve and conserve these papers and materials are:

--The Conservation Analytical Laboratory which determines, through scientific analysis, the physical and chemical nature of objects, adds this dimension to the knowledge of the objects, and guides the various museums in their artifact conservation and preservation methods.

--The Smithsonian Archives which serves as the official memory of the Institution, charged with locating, identifying, and arranging for the handling, care, and use of the official records, and other material relating to the Smithsonian and its programs.

--The Smithsonian Institution Libraries which provide cataloged and indexed collections of published materials that help to identify artifacts, objects, and specimens, and to describe the ideas they exemplify.

--The Registrar's Office which maintains the basic records on the details of acquisition of the collections and their provenance.

--The Photographic Services Division through whose services a visual record of appearance and conditions of objects can be studied, preserved, and presented in books, documents, and exhibits throughout the world.

The Institution today finds itself sadly deficient in its capability to cope with the enormous amount of document restoration, preservation, and artifact conservation work that needs to be done. This work is associated with the past and present growth of collections and collections related records. Many of our basic systems and resources in this area are obsolete, are manually operated, and are costly to maintain. Tens of thousands of valuable records are so deteriorated they need immediate attention, either through restoration processes or microfilming. The Institution's central artifact conservation facilities are operating with severe space and resource constraints. Substantial improvement needs to be made in the Institution's general capabilities for processing objects and records.

The Smithsonian's goal in stressing this activity over the new few years is to reach a level of funding that allows for major improvements to be made in the performance of conservation and documentation duties. The request is geared to strengthen initially the record preservation and restoration processes. The second major phase, which will be presented in the FY 1974 budget submission, will be the establishment and implementation of improvements in the area of conservation of the collections. As regards conservation, present investigations indicate that space devoted to conservation work should increase by about 60,000 square feet, and annual operational funding by about \$750,000 in order to constitute an adequate program for improved care of the National Collections. This present request incorporates only minor funding increases for conservation personnel and equipment for the central laboratory and represents a holding action until the Institution's space and equipment needs can be more thoroughly examined, and until some progress has been made in correcting the deficiencies related to the first step in the collections management process, i. e., the acquisition and documentation responsibilities.

The following sections speak to the individual requirements of the organizational units mentioned above.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

DOCUMENTATION AND CONSERVATION
CONSERVATION ANALYTICAL LABORATORY

No. of Perm Pos	Base 1973*	Increase Requested	1973 Estimated
	<u>13</u>	<u>3</u>	<u>16</u>
11 Pers Comp	\$132	\$32	\$164
12 Pers Benefits	11	3	14
21 Travel	8	0	8
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing	1		1
25 Other Services	20		20
26 Supplies & Materials..	10	2	12
31 Equipment	8	66	74
41 Grants			
TOTAL	<u>\$190</u>	<u>\$103</u>	<u>\$293</u>

Analysis of Increase

Pay Increase	5
Program	98

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Conservation of Collections (3 positions; \$98,000). A program review of conservation needs for the Institution is currently under way. Space, personnel, and other support requirements necessary to cope with the enormous backlog of work and flow of new objects, are being evaluated. When these requirements are delineated they will be presented for budget consideration. The amount sought in this budget is geared only to help keep the general situation from deteriorating. In December 1971 as part of the Institutional review, the Smithsonian Council stated at its semi-annual meeting, "The functions of accessioning, curation, conservation, and collection based research are interdependent. We believe that expansion of facilities for conservation and research related to conservation is urgent. More adequate space and new instrumentation for the CAL is of high priority." The Smithsonian Council is an independent advisory body composed of twenty of the Nation's leaders in art, history, museology, and sciences. A long-run solution is being developed which will allow the conservation activities to perform work on newly acquired materials, make inroads into the Institution's backlog of needs, and strengthen the analytical work between curators and conservators. Space and logistics are an important part of the proposed development, and new capability must be established which reflects the interdependencies of collections research and conservation efforts.

The FY 1973 request is for a fumigation technician and two conservators (\$30,000), major equipment for outfitting some additional space (\$64,000), and other materials (\$4,000).

DOCUMENTATION AND CONSERVATION
CONSERVATION ANALYTICAL LABORATORY

1971 Actual	\$162,000
1972 Appropriation...	\$187,000 <u>1/</u>
1973 Estimate	\$293,000

The Conservation Analytical Laboratory (CAL) 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 the 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 archeologists and historians with basic research data concerned with dates, attribution, and ancient production methods. Commercial products proposed for prolonged contact with artifacts (such as storage fumigants) are examined for suitability.

Shortages in the conservation program of the Smithsonian are acute, in terms of space, personnel, and operating support. A concentrated effort in rectifying these deficiencies must be made in the very near future. An Institutional plan for the general strengthening of these activities is being developed, and will be presented for Executive and Congressional approval and funding when completed. An increase of \$98,000 (including three positions and \$30,000) is requested for FY 1973 to allow the Institution to maintain basic services and to provide for some critical needs. In addition, \$5,000 are being sought for necessary pay.

Need for Increase

Accessions of artifacts number about 130,000 per year. Some single accessions represent hundreds of objects. Many of these are invaluable and a large portion require immediate and extensive treatment to forestall calamitous decay. If only thirty minutes were applied to each newly acquired object, this would represent 32 man years of necessary conservation work each year, exclusive of the backlog of attention which should be given to objects acquired in the past. Central staffing and space needed to cope adequately with the preservation and conservation of the Smithsonian's collections is estimated at thirty conservators, supported by fifteen scientists, and occupying 60,000 square feet of well-outfitted laboratory space.

The central laboratory (CAL) now has three conservators and five scientists for every kind of task; other units in the National Portrait Gallery, National Collection of Fine Arts, and the Freer Gallery total about six conservators and five scientists whose efforts are focused on specialized needs in art. The CAL occupies a desperately overcrowded 2,600 square feet. In FY 1971, with limited staff and space, it treated 358 objects (varying in nature from archeological to space-age) derived from bureaus. The amount of manpower and facilities devoted to general Institution conservation tasks are woefully inadequate.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

The requested increase of \$98,000 can be utilized effectively with the space available. The space problem for treatment must be solved. The \$98,000 will be used to alleviate the following problems:

1. Fumigation Facility (1 position; \$8,000)

Over the last year, thirty sightings of various insect groups were made. To cope partially with the problem of artifact infestation, the Institution's facilities have recently been expanded and made operational. These facilities are important because many objects arrive verminous and can contaminate the buildings. For FY 1973, an operating technician (\$8,000) will be required.

2. Accumulating Conservation Shortages (2 positions; \$26,000)

Program growth in museums and galleries has brought great pressures to bear on the current CAL staff. Two conservators (\$22,000) are needed to help with the workload, along with funds for chemicals, supplies and other support (\$4,000).

3. Conservation Equipment (\$64,000)

As a stopgap measure, some minor space is being loaned by the National Museum of History and Technology on an emergency basis. In FY 1973, funds are requested for the following:

--purchase and installation of a modern spectograph which will reduce by one-half the sample-size necessary for analytical work and double the output of the staff (\$17,000).

--purchase and installation of modern energy-dispersion detection apparatus capable of much greater output (\$47,000). Present methods and equipment for frequency dispersion analysis (using X-ray florescence) are obsolescent, time consuming, and costly.

The request presented here is considered modest in light of the level of work that soon must begin in the Institution. But it will sustain the conservation function until solutions to the space problem can be found.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

DOCUMENTATION AND CONSERVATION
SMITHSONIAN ARCHIVES

	Base <u>1973*</u>	Increase <u>Requested</u>	1973 <u>Estimated</u>
No. of Perm Pos	<u>6</u>	<u>2</u>	<u>8</u>
11 Pers Comp	\$60	\$25	\$85
12 Pers Benefits	5	2	7
21 Travel	1	1	2
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing			
25 Other Services	3	15	18
26 Supplies & Materials ..	2	4	6
31 Equipment	1		1
41 Grants			
	<u>\$72</u>	<u>\$47</u>	<u>\$119</u>

Analysis of Increase

Pay Increase	8
Program	39

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Consolidate, Catalog, and Process Documents (2 positions; \$39,000). In strengthening the overall Institutional capability at organizing, assembling, and making accessible the valuable records and materials in its possession, the Archives provides the central focus for a strong effort in preserving and systematizing documents for microfilming. Very few resources are presently available to undertake this task. In FY 1972, indexing and search procedures are being developed. The FY 1973 increase for two positions (\$19,000), an archivist and a technician, and support funds (\$20,000), will serve to implement search, selection, and retrieval systems for documents which need treatment, preserving, or microfilming. Units to be initially involved are the Office of the Registrar, the Libraries, and the central Archives.

DOCUMENTATION AND CONSERVATION
SMITHSONIAN ARCHIVES

1971 Actual	\$ 59,000
1972 Appropriation ...	\$ 70,000 <u>1/</u>
1973 Estimate	\$ 119,000

The Smithsonian Archives is the official memory of the Smithsonian Institution and a valuable research resource for scholars in the history of American science in the 19th century. Exclusive of materials located in the research and curatorial areas of the Smithsonian (which over the next few years should be identified and protected), the Archives' current holdings amount to over one million documents from the 1830's to the present. Within currently limited resources, the Archives' staff identifies permanently valuable records throughout the Institution, preserves them for administrative, legal, and fiscal value, and provides service on these records to Smithsonian staff. This constitutes the Archives' management or service function. The Archives also makes available and interprets its holdings to the scholarly community, an activity which makes the greatest demands upon the professional capacity of the staff.

The request for FY 1973 is meant to improve substantially the Archives' ability to organize, preserve, and make accessible the considerable volume of important historical records associated with the development of science, history, and art over one hundred years. In FY 1972, work is being completed on developing a coordinated approach and system for materials in various units, the Registrar's Office, records in the central Archives, and then extending the work to the Libraries. The FY 1973 request will begin to implement the developed procedures. A portion of this effort is to be directed at searching out and identifying the various documents which need attention. A portion is to be devoted to the preservation efforts (lamination, preparation for microfilming, etc.). A total of two positions and \$39,000 are requested for this program. An additional \$8,000 are sought for necessary pay increases.

Need for Increase

1. Consolidate and Catalog Documentary Collections (1 position; \$15,000)

Over the last two or three years the Archives' staff made some progress in making accessible holdings in the central Archives by processing some 2,000 cubic feet of archival records. This represents about 10% of the work effort that needs to be accomplished across the Institution's holdings. The culmination of the completed work was publication of a guide to the Smithsonian Archives. This project established the basic approach. But the level of effort is not sufficient to keep abreast of incoming materials and to make inroads into the backlog of documents accumulated over the last one hundred years.

One additional archivist (\$11,000) and support funds (\$4,000) are requested to begin to organize and gain control over the balance of the records and documents in the Smithsonian. The work will involve searching out, identifying, and preserving valuable records in areas which to date have remained relatively untouched because of a lack of manpower to work with the material.

2. Preserve Documents (1 position; \$24,000)

Valuable manuscripts and documents throughout the Institution are subject to irreparable damage and deterioration through aging and use. It is imperative

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

that the Smithsonian begin a major effort to microfilm these materials. The Smithsonian Archives will select and designate documents in various units to be microfilmed and will provide central direction to ensure efficiency and maintenance of professional archival standards. This is an effort which must be strengthened if these records are not to be lost forever. They involve many thousands of notes, letters, and records of various notable men of science, art, and history.

In FY 1973, \$8,000 are requested for the salary of a technician working under supervision of an archivist to prepare an indexing and retrieval system for the microfilming effort. Other funds of \$16,000 are for microfilming costs related to the Archives' materials, and estimated at the National Archives and Records Service rate of 6¢ per exposure. As the capability of the Smithsonian's Photographic Services Division is established, this work will be done inhouse at no greater cost, but with much greater security and production control by the Photographic Services Division.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

DOCUMENTATION AND CONSERVATION
SMITHSONIAN INSTITUTION LIBRARIES

	Base <u>1973*</u>	Increase <u>Requested</u>	1973 <u>Estimated</u>
No. of Perm Pos	<u>59</u>	<u>8</u>	<u>67</u>
11 Pers Comp	\$658	\$68	\$726
12 Pers Benefits	56	5	61
21 Travel	8	0	8
22 Trans of Things			
23 Rent, Comm & Util ...	2	8	10
24 Printing	17	30	47
25 Other Services	39	19	58
26 Supplies & Materials..	57	9	66
31 Equipment	36	108	144
41 Grants			
TOTAL	<u>\$873</u>	<u>\$247</u>	<u>\$1,120</u>

Analysis of Increase

Pay Increase.....	15
Program.....	232

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Extension of Basic Services (7 positions; \$190,000). In FY 1973, basic library services will have to be strengthened for the National Air and Space Museum. Services will have to be extended to the new Hirshhorn Museum. Three library clerks and \$22,000 are required for these purposes. Staff are also requested for the Smithsonian Astrophysical Observatory branch, and the central facility in the National Museum of Natural History. An additional position (clerk and \$8,000) will be utilized for the Astrophysical Observatory, and the balance of requested staff (three clerks and \$22,000), operating out of central facilities in the National Museum of Natural History, will provide partial services to the currently unmanned branch at the Radiation Biology Laboratory, and the departments of anthropology and entomology. The request will provide needed journal and book purchase funds (\$87,000) for these areas. Support costs in the form of necessary supplies, computer time, and cataloging equipment are also included (\$51,000).

Conservation and Preservation of Books and Records (1 position; \$42,000). The Libraries have identified 10,000 pieces of valuable library material (books, journals, and other records) which require immediate preservation and restoration treatment. In addition, the backlog of binding current serials approaches 40,000. The Libraries available resources devoted to these activities amounts to virtually nothing, since rising costs in book purchases over the years has eroded much of its capability. This problem needs to be corrected over the next few years, and the initial request for one position (\$6,000) and funds to cover improved restoration and preservation processes, contractual services, inhouse repairs, and the purchase of some basic equipment and supplies, is intended to do this in a phased fashion (\$36,000).

DOCUMENTATION AND CONSERVATION
SMITHSONIAN INSTITUTION LIBRARIES

1971 Actual	\$ 741,000
1972 Appropriation ...	\$ 859,000 <u>1/</u>
1973 Estimate	\$1,120,000

The Smithsonian Institution Libraries provide the documentary information base and the delivery services that are required by, and contribute directly to, the exhibit and research programs of the various bureaus of the Institution.

In FY 1973, a requested increase of \$232,000 (including 7 positions and \$58,000) is being sought to extend basic services, and strengthen the Institution capability in record preservation and conservation. An additional \$15,000 are requested for necessary pay.

Need for Increase

1. Extend Basic Services (7 positions; \$190,000)

Library staffing must be strengthened for the National Air and Space Museum, and will be required for the first time in FY 1973 for the new Hirshhorn Museum and Sculpture Garden. Three library clerks are sought for these operations. Three similar positions are also requested in the central library to serve on a shared basis in currently unmanned branches of the Radiation Biology Laboratory, and the anthropology and entomology departments of the National Museum of Natural History. Additional support (one clerk) is required for the present one-man library staff of the Smithsonian Astrophysical Observatory (this branch provides services to about 50 scientists). A total of seven positions (\$52,000) is requested for these activities.

Basic reference collections in space technology must be expanded for the National Air and Space Museum. Reference materials in specialized areas of art history must be assembled for the Hirshhorn Museum. In addition, there is an increased need to acquire materials on interdisciplinary research in ecology, environmental problems, and pre-revolutionary history. The Smithsonian Libraries over recent years have been faced with a vast world output of literature (about 350,000 titles per year) and rising prices (between four and 10 percent for journal publications). As a result, they are operating with only about one-third of the acquisition funds required by the curators. This shortage is widely felt throughout the Institution, and should be covered. An increase of \$87,000 for the purchase of books, journals, and documents is contained within this request, which will raise the amount available in the base to approximately \$160,000. As a target, the Libraries are building toward an annual book and journal purchase fund of about \$275,000.

The balance of this portion of the request (\$51,000) is for badly needed support funds to provide indexing and cataloging equipment, routine supplies, materials, computer time, and other costs.

2. Books and Record Preservation (1 position; \$42,000)

This request reflects the general Institutional interest in strengthening the restoration and preservation of valuable records and documents. The condition of many rare volumes in the Libraries is perilous. Books can withstand only so much Institutional use. Paper is an impermanent material, and the

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

Libraries' preservation program has been almost completely eliminated by inflation in other program costs. About five years ago, approximately six man-years of effort and \$65,000 were being devoted to restoration. The current figures approximate two man-years and \$18,000. The capability must be restored. The Libraries have identified more than 10,000 works that require immediate special care, including many very rare books. In addition, the Libraries have backlogged the binding of 40,000 current serials due to the shortage of funds, and are adding to this backlog at the rate of about 10,000 volumes per year. An increase to begin to take care of the preservation deficiencies is needed. The request would provide one additional support position (\$6,000) and resources for costs related to restoration and preservation processes, contractual services, in-house repairs, needed equipment and supplies (\$36,000).

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973
DOCUMENTATION AND CONSERVATION
OFFICE OF THE REGISTRAR

	Base 1973*	Increase Requested	1973 Estimated
No. of Perm Pos	31	1	32
11 Pers Comp	\$236	\$ 9	\$245
12 Pers Benefits	20	1	21
21 Travel
22 Trans of Things	60		60
23 Rent, Comm & Util ...			
24 Printing			
25 Other Services	19	12	31
26 Supplies & Materials ..	1		1
31 Equipment	1		1
41 Grants			
TOTAL	\$337	\$22	\$359

Analysis of Increase

Pay Increase	4
Program	18

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973
Specification of Increase (Program):

Preserve Accession, Archival and Other Records (\$12,000). To strengthen the Institutional document preservation effort, \$12,000 for equipment and support funds are being sought to establish a deacidification capability to treat badly deteriorating records in various units. In the Registrar's Office alone, an estimated 18,000 important accessions papers (80,000 pages) require immediate attention. About 1,800,000 records are in the Registrar's files. Most of these need microfilming to protect against fire or other disaster. Their loss would seriously affect the research value of the collections. In FY 1972, some effort is being expended to microfilm a portion of the records. The Archives and Photographic Services Division are requesting increases to strengthen the Institutional effort.

Mail Services (1 position; \$6,000). A central mail service is maintained as part of the services provided to the museums and galleries. This facility is inadequately manned (10 clerks) to handle and distribute the two million pieces annually flowing to the Institution. One additional clerk (\$6,000) is sought to help remedy the current situation and to meet the added workload anticipated for the new Hirshhorn Museum and the recently opened Renwick Gallery.

DOCUMENTATION AND CONSERVATION
OFFICE OF THE REGISTRAR

1971 Actual	\$303,000
1972 Appropriation ...	\$332,000 <u>1/</u>
1973 Estimate	\$359,000

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 provides 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, servicing public inquiries for the Museums, providing the central messenger service, and obtaining official foreign travel documents such as passports, visas, and work permits.

For FY 1973, an additional \$18,000 are requested, most of which is to meet the Registrar's contribution to strengthening the overall Institutional efforts in the area of record preservation and conservation. In addition, \$4,000 are sought for necessary pay.

Need for Increase

1. Preserve Accession Records (\$12,000)

A major Institutional deficiency exists in the unaccomplished restoration of deteriorated documents and records for effective permanent preservation. These are irreplaceable and valuable original records that provide a basic source of information for much of the National Collections, dating from the establishment of the Institution. Early papers are fragile and torn, the handwriting fading, and the creases breaking. An increase of \$12,000 for equipment and support funds is requested to permit the establishment of a de-acidification capability, and other minor treatment and restoration to be accomplished in conjunction with the expansion of Institutional preservation efforts.

In the Registrar's Office alone, an estimated 18,000 important accessions (80,000 pages) require immediate attention. In total, there are about 1,800,000 pieces, most of which need microfilming to protect against fire or other disaster. Their loss would seriously affect the research value of the collections. All of these represent working records for the Smithsonian staff and visiting scholars.

In FY 1972, some effort is being expended in conjunction with the Smithsonian Archives, to arrive at suitable procedures for selecting archival, registral, and other documents for preservation, restoration, microfilming, and retrieval. A system has been identified and funds for its initial implementation are requested in the Smithsonian Archives budget. In addition, a start was made in microfilming, through contractual services, a portion of the registral records by using funds appropriated in FY 1972. But a much greater Institutional level of effort is necessary.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

2. Mail Service (1 position; \$6,000)

Mail is distributed via approximately 192 different stations in the various Smithsonian offices, on and off the Mall. Present staffing (10 clerks and 3 messengers) of the central facility is inadequate for the sorting and delivery of 2 million pieces of mail annually. An increase of \$6,000 is requested for one additional mail clerk to improve the current situation and to meet the added workload activities anticipated for the new Hirshhorn Museum and the recently opened Renwick Gallery.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

DOCUMENTATION AND CONSERVATION
PHOTOGRAPHIC SERVICES DIVISION

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>23</u>	<u>4</u>	<u>27</u>
11 Pers. Comp	\$229	\$52	\$281
12 Pers. Benefits	20	3	23
21 Travel			
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing		5	5
25 Other Services	13	33	46
26 Supplies & Materials ..	25	22	47
31 Equipment		63	63
41 Grants			
TOTAL	<u>\$287</u>	<u>\$178</u>	<u>\$465</u>

Analysis of Increase

Pay Increase	16
Program	162

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Document Preservation and Microfilming (1 position; \$49,000). As part of the high priority effort to rectify deficiencies in preservation and conservation of various records, the Photographic Services Division is urgently seeking to expand in FY 1973 its mechanical capability in microfilming. Prototype systems have been examined by the Office of the Registrar and the Smithsonian Archives for work to be done in selecting, preparing, and eventually retrieving information associated with registral, archival, and library materials. This request is for a technician (\$9,000), and equipment, supplies, and materials (\$40,000). Funds to implement the screening and indexing systems are contained in the Archives request for FY 1973.

Laboratory Equipment (\$57,000). There is a severe need to begin to replace outdated obsolescent equipment and procedures with modern color instruments and processing. No equipment purchases have been made for ten years, and much of the current process is tied to manual operating techniques. A request for purchase and installation of equipment (\$57,000) is included.

Print, Negative Collection, and Preservation (3 positions; \$56,000). The Laboratory's current operating capacity is about one third of that needed to file, treat, and systematize prints and negatives accumulating at a rate of about 30,000 annually in the central facilities. Valuable backlogged materials (numbering close to a million) are receiving no attention, and a large percentage must begin to receive treatment or they will soon deteriorate to the point where they cannot be recovered. Three technicians (\$30,000) and support funds (\$26,000) are required.

DOCUMENTATION AND CONSERVATION
PHOTOGRAPHIC SERVICES DIVISION

1971 Actual	\$255,000
1972 Appropriation . . .	\$282,000 <u>1/</u>
1973 Estimate	\$465,000

The Smithsonian photographic services are unique in that the Institution's activities require more quality and custom care as compared to the photographic needs of most government agencies. The photographic work is constantly under public and scholarly scrutiny. In view of the importance of photographic services to the entire Institution, the Photographic Services Division was formed to exercise a more stable and positive control over the application of procedures and techniques. It maintains laboratories in three museum buildings.

In FY 1973, a \$162,000 increase is being requested to establish a badly needed color capability by replacing hand operated and obsolescent equipment, to extend the effort at centralizing and making accessible the hundreds of thousands of negatives and prints accumulated by the Institution, and to strengthen considerably the overall Institutional program of preserving the records and documents presently in the Archives, Libraries, and Registrar's offices. In addition, \$16,000 are requested for necessary pay.

Need for Increase

1. Documentation, Preservation, and Microfilming (1 position; \$49,000)

As part of its contribution to the Institutional recording and preservation efforts of various units (such as the Registrar's Office, the Smithsonian Archives, and the Libraries), the Photographic Services Division is urgently seeking additional capability to carry through with the actual microfilming of various documents. Prototype systems have been examined by the Office of the Registrar and the Smithsonian Archives for work to be done in selecting, preparing, and eventually retrieving information associated with registrarial and archival records. These documents will begin to flow into the Division in great magnitude in FY 1973. About 10,000 microfilm exposures currently are made per year. If this figure were to immediately increase to 1,000,000 (which reflects the potential volume of existing records), it is estimated that the workload is such that about 4-6 years of effort would be required to eliminate the backlog of materials. To meet its portion of responsibility, the Photographic Services Division is seeking one technician (\$9,000) to serve in a microfilming capacity, and support funds (\$40,000) to provide basic equipment, supplies, and other materials.

2. Laboratory Equipment (\$57,000)

Much of the present equipment is out-dated and obsolescent. Manually operated techniques dominate the production process. No equipment purchases have been made for over ten years. Much of the work, especially color processing, must be given to commercial sources. This results in high production costs, loss of quality control, and mounting risks of losing valuable and original material. To make a start in rectifying the Laboratory's equipment needs, a request for \$57,000 to begin to establish color capability and to purchase and install modern photographic duplication and processing machines is included in the FY 1973 budget.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

3. Print, Negative Collection, and Preservation (3 positions; \$56,000)

At the present, the Institution lacks even a simple filing and retrieval system for valuable negatives and prints. These number close to a million, some dating back to Mathew Brady's time. Twenty percent of these are in a very bad state of deterioration and must be centrally treated and restored within the next two years if they are not to be lost to posterity; another ten percent must be restored within four years. In the meantime, the Laboratory estimates that 30,000 negatives are accumulated each year, and its current capacity to centrally file, treat, and care for these is approximately 10,000 per year. To begin to extend the necessary efforts to correct this deficiency in the print and negative area, three technicians are requested (\$30,000) along with support funds (\$26,000) for indexing equipment, supplies and materials, and contractual services.

ADMINISTRATIVE AND CENTRAL SUPPORT

The activities presented in this section cover the central administrative and technical services which operate in support of the program units. Included are the Office of the Secretary, Office of the General Counsel, Office of the Treasurer, Office of Personnel Administration, Office of Exhibits, Office of Museum Programs, Smithsonian Press, Supply Division, Management Analysis Office, Travel Services Office, Duplicating Section, and the Information Systems Division.

In our society, a measure of how successful any organization or institution is in controlling its program direction is the degree to which it acquires new resources to develop its activities, delegates authority and decision-making in a manner which channels these resources into useful and productive areas, and holds central administrative growth and control at a minimum. This is not only true in those sectors of our society which provide economically measureable and consumable products but also those segments (such as museums and higher institutions of learning) which help to construct the moral and intellectual fabric of future generations, and provide the less measureable products which nourish the quality of the country's human spirit.

The historical funding patterns of FY's 1965-1971 reveal that the Institution in its program operations has substantially strengthened its history, art, and science functions. It has embarked on several new ventures in public service and education. It has acquired, exhibited, and protected new building space and thousands of new collection items. While pursuing these objectives, it has not allowed administrative costs to increase disproportionately to program growth. In the general public's interest, it is the Institutional management's desire to keep administrative costs at a minimum and to continue to provide as many resources to program operations as possible in insure the quality of the Institution's diverse products in exhibitions, education, research tours, and other public services. The activities contained in this section of the budget are specifically geared to carry this out. These are necessary costs which must be covered if the Institution is to continue to modernize its management apparatus consonant with the objective of keeping its overall administrative procedures, paper work, filing, and other labor-intensive tasks to a minimum.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973
ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF THE SECRETARY

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>40</u>	<u>7</u>	<u>47</u>
11 Pers Comp	\$551	\$106	\$657
12 Pers Benefits	47	9	56
21 Travel	24	3	27
22 Trans of Things			
23 Rent, Comm & Util ...	1	1	2
24 Printing		2	2
25 Other Services	7	25	32
26 Supplies & Materials ..	7	3	10
31 Equipment	3	8	11
41 Grants			
TOTAL	<u>\$640</u>	<u>\$157</u>	<u>\$797</u>

Analysis of Increase

Pay Increase	12
Program	145

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Assistant Secretary (1 position; \$42,000). An assistant secretary is requested to furnish senior level management expertise.

Expand the Audit Function (4 positions; \$45,000). The Office of Audits needs to add three additional auditors and one secretary to its present staff of four auditors and one secretary. This additional staff will assist in the audit function for the more than 40 operating units and several staff offices.

Curator for the Smithsonian Building (2 positions; \$20,000). To curate the collection of furniture currently in use in the Smithsonian Institution Building, to process and administer loan of paintings and other art, and to be responsible for the acquisition of additional authentic pieces.

Support for the American Association for the Advancement of Science (\$20,000). Funds are requested to support some of the expenses of this meeting.

General Programs Support (\$18,000). Funds are requested for general program support for the several components of the Office of the Secretary. These support needs include travel, office supplies and equipment, and use of consultants and contractual services to assist in program planning and analysis.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF THE SECRETARY

1971 Actual	\$651,000
1972 Appropriation.....	\$629,000 <u>1/</u>
1973 Estimate.....	\$797,000

The Office of the Secretary is composed of the immediate Office of the Secretary, and the Offices of Under Secretary, Assistant Secretary (Science), Assistant Secretary (History and Art), Assistant Secretary (Public Service) and Audits.

In FY 1973 a program increase of \$145,000 is requested for an assistant secretary, for enlargement of the audit staff, for curator of the Smithsonian Institution Building, for support to the meeting in Washington of the American Association for the Advancement of Science, and for general program support. An amount of \$12,000 for necessary pay is also required.

Need for Increase

1. Assistant Secretary (1 position; \$42,000)

An assistant secretary is requested to furnish senior level management expertise. The Institution currently employs an Under Secretary with non-appropriated funds. Upon his retirement, it is desirable to fill this position on the federal rolls as the Assistant Secretary.

2. Expand the Audit Function (4 positions; \$45,000)

The Smithsonian Institution has grown in recent years especially in physical facilities. Old programs have been expanded and several new programs have been added. In FY 1970 there were federal appropriations in the amount of \$33,606,000 while in FY 1973 the Institution is anticipating over \$107,000,000 in funding. Additional appropriations have been made to Museum Programs and Related Research which is a Special Foreign Currency appropriation. This has expanded the Smithsonian's responsibilities overseas.

The audit function was begun in FY 1967. This was the first time the Smithsonian had its own internal audit staff. Currently the staff consists of four auditors and one secretary. With more than 40 operating units and several staff offices and a large backlog of important audit assignments, additional audits staff are essential. The Office of Audits needs to add three additional auditors and one secretary (\$41,000) and \$4,000 for travel and equipment.

3. Curator for Smithsonian Institution Building (2 positions; \$20,000)

The Smithsonian Institution Building underwent major renovation with funds made available from the Congress. Many of the offices and galleries in this building have been restored as nearly as possible with furnishings and architectural details of the 19th century. The historical value of this building is reflected in the fact that the finance ministers from the big ten countries met in this building in December 1971. To curate the collection of furniture currently in use, to process and administer loans of paintings and other art, and to be responsible for the acquisition of additional authentic pieces, a curator and a clerk are needed for the Smithsonian Building (\$20,000).

4. Support for the American Association for the Advancement of Science meeting (\$20,000)

The American Association for the Advancement of Science (AAAS) is holding its 142nd meeting in Washington, D. C. in December 1972. The Secretary of the Smithsonian Institution will serve as the chairman of this meeting and the Smithsonian buildings and exhibits will be a focus of attention of the more than 8,000 meeting participants. The AAAS and the Institution have a long history of working together. Joseph Henry, the first Secretary of the Institution, was the second President of the AAAS.

One feature of this meeting will be a discussion of the contributions of museums of scientific inquiry and related uses of museums and extension education devices. Funds are requested to support some of the expenses of this meeting. These funds are in addition to funds being raised from local merchants, the AAAS, and the private sector of the Smithsonian.

5. General Program Support (\$18,000)

An amount of \$18,000 is requested to provide overall support to the several components of the office. These support needs include travel to Smithsonian bureaus and activities not in the immediate Washington area for program management and review, office supplies and equipment, and use of consultants and contractual services to assist with the program planning, analysis, and administration of a growing body of special programs involving several museums, galleries, or research laboratories such as the Bicentennial, Environmental Sciences, and Special Foreign Currency programs.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973
ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES

OFFICE OF THE GENERAL COUNSEL

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>9</u>	<u>1</u>	<u>10</u>
11 Pers Comp	\$143	\$12	\$155
12 Pers Benefits	11	1	12
21 Travel	4	1	5
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing			
25 Other Services	1	3	4
26 Supplies & Materials..	2		2
31 Equipment	2	2	4
41 Grants			
TOTAL	<u>\$163</u>	<u>\$19</u>	<u>\$182</u>

Analysis of Increase

Pay Increase	3
Program	16

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Legal Counsel Requirements of the Institution (1 position; \$16,000). The Office of the General Counsel handles the legal matters of the 40 different line programs and 10 staff offices of the Institution, and at the same time advises the Secretary and Board of Regents on the administration of the Institution as a whole. A secretary and funds for travel, other services, and equipment are requested.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIESOFFICE OF THE GENERAL COUNSEL

1971 Actual	\$151,000	
1972 Appropriation.....	\$159,000	<u>1/</u>
1973 Estimate	\$182,000	

The Office of the General Counsel handles the legal matters of the 40 different line programs and 10 staff offices of the Institution, and at the same time, advises the Secretary and Board of Regents on the administration of the Institution as a whole. In addition, the staff must monitor Congressional activities, judicial opinions and decisions, and Executive Branch directives and regulations to determine their applicability to and impact on the Institution's activities, and so advise the appropriate SI officials.

An increase of \$16,000 is requested for staff and other support. Funding of \$3,000 is requested for necessary pay.

Need for Increase

As a non-Governmental establishment which nevertheless operates in substantial part with appropriated funds, 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. Many other-wise routine matters are complicated by the pervasive necessity to maintain a rational, effective, and legal relationship between these two capacities in which the Institution functions. In addition, the OGC is responsible for the continuous analysis of Congressional activities and legislation and their impact on the Institution, and has a major role in the furtherance of the Smithsonian's own legislative program.

The Office of the General Counsel proposes to add one secretary to the staff in FY 1973 to assist in handling the increased workload of this office which has resulted from the expanded programs and interests of the Institution. At present the professional staff consists of four full-time attorneys and a Special Assistant to the Secretary, with a support staff of one administrative assistant and three secretaries. The addition of one secretary will correct the present imbalance between the professional and support staff. An amount of \$10,000 is requested to fund this additional position.

An increase of \$6,000 is sought for support costs as follows:

1. Equipment and library material

The staff has deferred the purchase of office equipment and the acquisition of legal reference material, which deferral has not allowed the best utilization of professional and support staff man-hours. With the increased workload of the staff, it is essential at this time that these purchases be made.

2. Travel

Frequent travel to the many Smithsonian operations outside the District of Columbia is necessary by the staff in the handling of legal matters ranging from compliance with local ordinances to negotiations for cooperative agreements with foreign institutions.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

3. Information

The attendance at legal seminars and conferences is required for the continuing legal education of the attorneys to insure that their opinions are based on current directions, interpretations, and applications of the law. Additionally, there has been a periodic need to secure independent professional advice on specialized and technical matters.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF THE TREASURER

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	33	2	35
11 Pers Comp	\$368	\$21	\$389
12 Pers Benefits	30	2	32
21 Travel	2		2
22 Trans of Things			
23 Rent, Comm & Util ...	200	20	220
24 Printing			
25 Other Services	43	35	78
26 Supplies & Materials ..	7		7
31 Equipment	5		5
41 Grants			
TOTAL	<u>\$655</u>	<u>\$78</u>	<u>\$733</u>

Analysis of Increase

Pay Increase	8
Program	70

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Postage Indicia, Workmen's Compensation, and Accounting Requirements (2 positions; \$70,000). Postage indicia requirements are provided centrally within the Treasurer's Office budget. An amount of about \$200,000 will be spent in FY 1972. Increased use and higher rates will create the need for an additional \$20,000 in FY 1973.

About \$35,000 is now available to meet Workmen's Compensation costs. A recent bill from the Department of Labor (for FY 1971 costs but to be paid in FY 1973) is for \$73,000. An increase of \$35,000 is sought for this purpose.

Finally, two additional positions (\$15,000) are requested for the Accounting Division: a reception and information clerk (with typing duties) to serve the Accounting and Supply Division in new jointly-occupied space (for improved productivity) and an additional accounts maintenance clerk to handle a voucher workload growing from \$59 million in FY 1972 (in about eight accounts) to about \$67 million next year.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF THE TREASURER

1971 Actual	\$575,000	
1972 Appropriation ...	\$647,000	1/
1973 Estimate	\$733,000	

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, contracts administration, and reporting are the responsibilities of these several units.

An increase of \$70,000 is requested to finance higher postal costs, the cost of workmen's compensation, and to provide for two additional staff in the Accounting Division. An amount of \$8,000 is needed for necessary pay.

Need for Increase

1. Postage Indicia (\$20,000)

Funding of the Institution's postage indicia requirements are provided centrally from the Office of the Treasurer. An additional \$20,000 are required to meet the additional cost of postage. In FY 1971 postage was \$155,000. Increased use and higher rates have resulted in this cost being \$200,000 in FY 1972. In FY 1973 the cost is expected to be \$220,000.

2. Workmen's Compensation (\$35,000)

The Department of Labor has billed the Smithsonian Institution \$72,801 for compensation that was paid to employees in FY 1971. This bill has to be paid to the Department of Labor in FY 1973 and is \$35,000 more than is currently being paid.

3. Accounting (2 positions; \$15,000)

The Accounting Division, the Information Systems, and the Supply Division are being relocated to rented quarters. It is hoped this move will give them adequate office space and by having the three offices located together will improve operations in each. The move will require the addition of one staff member to act as receptionist and clerk typist (\$6,000).

The Accounting Division also needs to add one accounts maintenance clerk. This unit processes the vouchers for all the Smithsonian's federal accounts: "Salaries and Expenses," "Science Information Exchange," "Woodrow Wilson International Center for Scholars," "Museum Programs and Related Research (Special Foreign Currency)", "Construction" and "Trust Funds." In FY 1972 four accounts maintenance clerks are processing expenditures totalling over \$59,000,000 and in FY 1973 expenditures are expected to be over \$67,000,000. One additional employee is required to assist in this additional workload, (\$9,000).

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF PERSONNEL ADMINISTRATION

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>32</u>	<u>3</u>	<u>35</u>
11 Pers Comp	\$391	\$41	\$432
12 Pers Benefits	33	3	36
21 Travel	1		1
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing	2		2
25 Other Services	27	1	28
26 Supplies & Materials ..	5	1	6
31 Equipment	1	2	3
41 Grants			
TOTAL	<u>\$460</u>	<u>\$48</u>	<u>\$508</u>

Analysis of Increase

Pay Increase	8
Program	40

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Services to Employees and Labor-Management Operations (3 positions; \$40,000). Three additional positions (a personnel consultant, a trainee, and a clerk typist) at a cost of \$36,000 and \$4,000 additional for equipment, computer time, training, and supplies are requested to improve operations in two key areas. First, there is a growing workload requirement resulting from the negotiation, implementation, and administration of union contracts. In FY 1972 four such contracts were negotiated and additional ones are anticipated in the budget year. Second, it is important to develop and enhance the operations of a training laboratory to provide basic skills training to lower graded employees to assist them in job advancement. Some 150 employees have expressed interest in such training.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF PERSONNEL ADMINISTRATION

1971 Actual	\$396, 000
1972 Appropriation ...	\$452, 000 <u>1/</u>
1973 Estimate.....	\$508, 000

The Office of Personnel Administration has responsibility for personnel administration and the operation of health services. It helps to formulate policy over a wide range of activities from manpower planning and managerial development, through employee training, performance evaluation, and labor relations. These programs generally fall into six broad categories: manpower and organization, career development, management and personnel consulting, technical and administrative support, health services, recruitment and placement and administration and direction.

The request program increase of \$40,000 will be used to improve services to employees and potential employees, and to strengthen its operations in the area of labor-management operations. An amount of \$8,000 for necessary pay is also required.

Need for Increase

The responsibility of the Office of Personnel Administration includes 20 significant programs and 16 of these programs have suffered directly or indirectly because of acute staffing shortages. The ratio of staffing for carrying out personnel office functions is one personnel employee per 125 employees serviced. While no fixed standard has been developed, this is considerably higher than comparable government agencies which average approximately one personnel employee per 80 employees serviced.

Annual reports indicate that over the last few years, the number of actions handled on a yearly basis by the staff has grown to 80,000. This is a sizable workload. In FY 1972, four union contracts were negotiated. One election was held to determine exclusive recognition and a new unit resulted. Additionally, there will be a minimum of two new contracts negotiated in FY 1973. This will require extensive staff efforts and assistance in the administration of these contracts. A portion of this increase would be used to support and enhance the operations of a training laboratory which provides basic skills training to lower graded employees to assist them in developing talents toward upward mobility. There is an identified need for providing this training; of approximately 300 employees, 153 have already applied.

In FY 1973, for the first time, the Office should make key strides forward in such programs as Personnel Management Effectiveness Evaluation, Position Management, Labor-Relations Planning, Upward Mobility, Communications Program Planning, and Development. The increased staffing will provide for more training, better program planning, a formal feedback program, more responsive assistance in hiring, and smooth implementation of the Federal Personnel Management Information System as required by the U.S. Civil Service Commission.

The requested three positions include a personnel consultant, a trainee, and a clerk typist (\$36,000). An amount of \$4,000 will provide for equipment, computer time, training, and supplies.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
SMITHSONIAN INSTITUTION PRESS

No. of Perm Pos	Base 1973*	Increase Requested	1973 Estimated
	25	1	26
11 Pers Comp	\$ 340	\$31	\$ 371
12 Pers Benefits	29	2	31
21 Travel	3		3
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing	364	27	391
25 Other Services	5		5
26 Supplies & Materials..	2		2
31 Equipment	2		2
41 Grants			
TOTAL	<u>\$745</u>	<u>\$60</u>	<u>\$805</u>

Analysis of Increase

Pay Increase	15
Program	45

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase Program):

Design and Printing of Publications (1 position; \$45,000). Careful design of publications is essential to assure that the information they contain is clearly and accurately transmitted to the reader. Good design also helps secure the most economic production within the specifications set by the Joint Committee on Printing. Funds are requested to employ a specialist in the design of printed materials (\$18,000). Approximately \$350,000 are now available for printing research manuscripts, catalogs, and other publications. An additional \$27,000 are sought to print backlogged and new materials.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIESSMITHSONIAN INSTITUTION PRESS

1971 Actual	\$691,000
1972 Appropriation	\$738,000 ^{1/}
1973 Estimate.....	\$805,000

For a century and a quarter, the Institution has achieved the diffusion of research knowledge principally through the Smithsonian Press. Most of the Press publication activity is considered as a fundamental extension of the basic research programs of the Smithsonian's museums and research laboratories. The Smithsonian Press also produces and distributes exhibit catalogs and information leaflets. This is an extension of another basic Smithsonian program, public education. Finally, the Press also furnishes the Institution with a variety of internal manuals, reports, specimen labels, and directories.

For FY 1973 an increase of \$45,000 is requested for the design of catalogs, guides, and leaflets and for the printing of additional research and exhibition publications. An additional \$15,000 is sought for necessary pay for staff.

Need for IncreaseDesign and Printing of Publications (1 position; \$45,000)

Increased exhibition and education activities of the National Portrait Gallery and the National Collection of Fine Arts, and the addition of the Renwick and Cooper-Hewitt Museums, 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 economic production within the specifications set by the Joint Committee on Printing. Funds are requested to correct this problem by the addition of a specialist in the design of printed materials (\$18,000).

The Press spends about two-thirds of its efforts on publishing the results of studies performed in various Institutional laboratories and museums, and one-third on printing leaflets, pamphlets, and catalogs for use by the public. A backlog of research manuscripts or monographic publications went unpublished for lack of funds for printing. In addition, there are growing needs for the printing of catalogs describing and documenting new exhibits in the museums and art galleries. These catalogs perform a dual role. They add to the education and pleasure of visitors who have the opportunity to see the exhibits and they are available for permanent reference and research by students and scholars who cannot see the exhibition in person. Approximately \$350,000 are now available for printing research manuscripts, catalogs, and other publications. An additional \$27,000 is sought to print backlogged and new materials.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
INFORMATION SYSTEMS DIVISION

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>14</u>	<u>3</u>	<u>17</u>
11 Pers Comp	\$214	\$49	\$263
12 Pers Benefits	18	4	22
21 Travel	3	0	3
22 Trans of Things			
23 Rent, Comm & Util ...	9	3	12
24 Printing			
25 Other Services	11	6	17
26 Supplies & Materials ..	3	4	7
31 Equipment	2	0	2
41 Grants			
TOTAL	<u>\$260</u>	<u>\$66</u>	<u>\$326</u>

Analysis of Increase

Pay Increase	8
Program	58

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Storage and Retrieval of Collection and Research Data (3 positions; \$58,000). In FY 1973, the Division will begin to help the National Museum of History and Technology develop a system for the indexing and retrieval of information concerning eighteenth century instruments for scientific measurement as a step in developing a museum-wide catalog of objects. Additional work will be necessary for the Hirshhorn Museum's system for data retrieval on the sculpture collection. Much greater assistance will have to be provided to the National Collection of Fine Arts in its efforts to construct the Bicentennial Inventory of American Paintings.

Extended efforts in computerizing information on the natural history collections will require greater Division resources. The Museum will be extending its processing efforts in the anthropology, entomology, invertebrate zoology, and mineral science collections, and the Information System Division will require additional support to keep abreast of the workload.

Computerized support will have to be given to the Archives, the Registrar, and the Photographic Services Division as they begin a major push to improve the Institution's records preservation and documentation processes.

To provide services to these areas, a mathematician, computer specialist, and operations control clerk are required (\$45,000), along with support funds for equipment, supplies, and materials (\$13,000).

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
INFORMATION SYSTEMS DIVISION

1971 Actual	\$235,000
1972 Appropriation.....	\$255,000 <u>1/</u>
1973 Estimate.....	\$326,000

The Information Systems Division was established in 1966 so that the Institution could take advantage of computer technology in its management areas and cope with the masses of research data and information associated with its collections. Computer specialists, mathematicians, and support personnel are now working with curators, historians, scientists, and management personnel in developing and maintaining computer systems essential to Institutional objectives. The Division is comprised of an information retrieval and indexing section, a mathematical computation section, a software systems and maintenance section, a management information systems section, and an operations/key punch section.

A program increase of \$58,000 is requested to strengthen mathematical analysis and computer processing functions. In addition, \$8,000 are required for necessary pay for current staff.

Need for Increase

Staffing and related support costs since 1966 have been very moderate considering the Division's responsibility for developing, maintaining, and coordinating the use of automatic data processing services and equipment for the Institution. In recent years, a better understanding of the computer's potential in relation to the programs of the museums and galleries has evolved and progress has been achieved in many research areas. Presently computer systems pertaining to the National Collections and scientific computations are being developed in such a way that they can be utilized in several areas with only minor modifications. Much of the requested increase will be devoted to extending this effort.

Initially the Division's work concentrated largely on management support functions; i. e., the development of improved payroll, personnel, supply, and accounting systems. In FY 1971 and FY 1972, however, approximately 70 percent of the Division's resources have been in support of research and collection management. A portion of effort will necessarily remain in the administrative area, but the main emphasis must now be on systems support and information retrieval in the science, history, and art activities.

The FY 1972 level of funding provides for a staff of 14, including key punch personnel, some of whom must work out the systems design and programming for as many as ten projects in the various bureaus. The Division, at this level of staffing, cannot offer much more to potential new customers with valid problems than a demonstration of computer capabilities. Detailed systems analysis and programming for many potential computer applications must wait for increases in professional and technician staff. A recent study in the Smithsonian identified nearly fifty massive data-handling projects, only a few of which can be automated at this time. Additional staff is needed to automate those projects and to extend the major systems and programs developed for work with the National Collections.

1/ FY 1972 appropriations adjusted by funds lapsing in 1972.

In the art and history areas, in FY 1973 the Division will begin to develop a system for the indexing and retrieval of information concerning 18th Century scientific instruments to help the National Museum of History and Technology build a museum-wide catalog of objects. In addition, a documentation system for the Hirshhorn Museum collections will be developed further. A system for indexing and retrieval of data concerning the world-renowned sculptures which span antiquity to the present, as well as the extensive collection of modern art, will provide a research tool for museum officials, scholars, students, and publishers. In FY 1973, there is the need for additional systems development of the National Collection of Fine Arts Bicentennial Inventory of American Paintings. This will create an automated file which will contain descriptive subject material relating to each painting reported into the inventory. The file will assist the curator in charge of this project with record management tasks of indexing and cataloging and will also provide other finding aids to be used for planning exhibitions and assisting art/history scholars with research tasks.

In science, the National Museum of Natural History automated retrieval and indexing system will be developed for the areas of anthropology, entomology, invertebrate zoology, and mineral sciences. Increased accuracy and efficiency in the production of catalogs, labels, and other documents is anticipated. Cross reference listings that better index the collections will result in increased availability of information.

To supplement the Smithsonian's efforts at strengthening its records preservation, restoration, and retrieval processes in the registral, archival, and photographic areas, the Division will begin to work closely with the managers of this program to develop a dynamic query - response computer system that will provide selective access to information regarding the hundreds of thousands of items in the Institution's photographic collections. The pilot system will include the subjects of highest public interest such as stamps, coins, aircraft, and locomotives. In addition, the Division will begin to experiment with computer retrieval systems for microfilm information as an alternative to the standard manual methods. These experiments will include the evaluation and testing of equipment and display formats together with methods for viewing, reproducing, and retrieving microfilm data. Potential improvements and savings through the use of automated microfilm retrieval systems can be applied to many areas of the Institution.

To support these areas of effort, the requirements are a mathematician, a computer specialist, and an operations control clerk (\$45,000) with support funds (\$13,000).

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973
 ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF SMITHSONIAN AND NATIONAL MUSEUM PROGRAMS

	<u>Base 1973*</u>	<u>Increase Requested</u>	<u>1973 Estimated</u>
No. of Perm Pos	<u>9</u>	<u>0</u>	<u>9</u>
11 Pers Comp	\$ 99	\$ 3	\$102
12 Pers Benefits	8		8
21 Travel	8		8
22 Trans of Things			
23 Rent, Comm & Util ...	1		1
24 Printing			
25 Other Services	180		180
26 Supplies & Materials ..	1		1
31 Equipment	15		15
41 Grants	<u> </u>	<u> </u>	<u> </u>
TOTAL	<u>\$ 312</u>	<u>\$ 3</u>	<u>\$315</u>

Analysis of Increase

Pay Increase	3
Program	

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

No program fund increase is requested for FY 1972.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OF OFFICE OF SMITHSONIAN AND NATIONAL MUSEUM PROGRAMS

1971 Actual \$200,000
1972 Appropriation ... \$310,000 1/
1973 Estimate \$315,000

The Office of Smithsonian and National Museum Programs provides program planning and review of the Smithsonian Institution's museum and exhibition activities with special emphasis on developing experimental and educational exhibits, surveying visitor reaction to the Institution's services, and providing advice and technical assistance to other museums. It works cooperative 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, and the Office of Exhibits are under the general administration of this Office.

No program fund increase is sought for FY 1973 for the operations of this Office. An amount of \$3,000 is requested for necessary pay purposes.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF EXHIBITS

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>159</u>	<u>0</u>	<u>159</u>
11 Pers Comp	\$ 1905	\$ 43	\$ 1948
12 Pers Benefits	161	3	164
21 Travel	10		10
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing	64		64
25 Other Services	130		130
26 Supplies & Materials ..	160		160
31 Equipment	50		50
41 Grants			
 TOTAL	 <u>\$ 2480</u>	 <u>\$ 46</u>	 <u>\$ 2526</u>

Analysis of Increase

Pay Increase	46
Program	

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Maintenance of Current Exhibits Program. No program increase is sought for FY 1973 for the Office of Exhibits as such. Its base resources are largely absorbed by the maintenance and upgrading of existing exhibits, the design of new permanent exhibits, and a program of changing special exhibits. A request for new nonrecurring funds for the construction and installation of major permanent exhibitions is in the special programs section of the budget request.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OFFICE OF EXHIBITS

1971 Actual	\$2,412,000
1972 Appropriation.....	\$2,439,000 <u>1/</u>
1973 Estimate.....	\$2,526,000

The Office of Exhibits is a key unit in the process of communicating concepts, ideas and information that reside in the vast National Collections. It works in close collaboration with the scientists, curators and historians in developing, designing and producing exhibits for the millions of people a year who visit the Smithsonian museums. Last year well over 200 projects were completed. Since its inception in 1955, the Office has produced over 3,700 permanent exhibit units primarily in the National Museum of History and Technology and the National Museum of Natural History, and has produced hundreds of special exhibits in art, history, and science. The Office is visited by hundreds of museum professionals who come to study methods and procedures and to be trained in the many sophisticated exhibits techniques, some of which were initiated and developed by the Exhibits Office. Among these unique techniques are freeze-dry taxidermy, plastic reproductions and modelmaking executed to a high degree of excellence.

The Office of Exhibits has an audio-visual and film unit producing material to augment and supplement the exhibits adding new depth and understanding and realism to what the visitor experiences. New approaches and techniques are being constantly studied, developed and incorporated into the exhibits to increase their value and receptiveness to the museum visitor. Selected exhibits are being surveyed and studied in collaboration with our visitors to determine their effectiveness and to learn more about the process of communicating ideas.

No program fund increase is being sought for FY 1973 for the Office of Exhibits. The base appropriation is largely absorbed by maintenance and upgrading of existing exhibits, design of new exhibits, and a modest program of changing special exhibits. New permanent exhibits, space for which exists in present Smithsonian museums, are being requested in the special programs section of this budget request. An increase of \$46,000 is requested for necessary pay for the Office of Exhibits staff.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
SUPPLY DIVISION

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>21</u>	<u>0</u>	<u>21</u>
11 Pers Comp	\$ 242	\$ 5	\$ 247
12 Pers Benefits	20	1	21
21 Travel			
22 Trans of Things			
23 Rent, Comm & Util ...	8	1	9
24 Printing			
25 Other Services	6	2	8
26 Supplies & Materials..	86	16	102
31 Equipment	2	1	3
41 Grants			
TOTAL	<u>\$ 364</u>	<u>\$ 26</u>	<u>\$ 390</u>

Analysis of Increase

Pay Increase	6
Program	20

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Stockroom Operations (\$20,000). The growth in research, exhibit, and educational programs has increased demands for stockroom supplies. These commonly used items are centrally bought, stocked, and issued for economy and efficiency. Reserves of many needed items have been depleted, however, and prices continue to rise. An additional \$20,000 are required for stockroom supplies, equipment, and office machine repair services.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIESSUPPLY DIVISION

1971 Actual	\$330,000	
1972 Appropriation	\$359,000	<u>1/</u>
1973 Estimate	\$390,000	

The Supply Division procures supplies, materials, contractual services, and equipment for research, curatorial, exhibition 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 takes periodic inventories to insure adequate control and utilization of equipment items.

An increase of \$20,000 is required to maintain operations at adequate levels to provide services Institution-wide. In addition, \$6,000 are requested for necessary pay.

Need for Increase

The growth in research, exhibit, and educational programs has increased demands for stockroom supplies. In FY 1973 services will have to be extended to meet the additional requirements of the recently opened Renwick Gallery, and the new Hirshhorn Museum. For economy and efficiency of purchasing, general supply items are bought centrally and stocked by the Division for issue. The Division has had to reduce its expenditures for supplies in order to absorb part of higher pay costs. About \$102,000 are available in FY 1972 for other than personnel costs, and are used to purchase general office supplies and services. Because of limited support funds, the Division has been unable to conduct an orderly planned procurement and stocking program. It has been forced to buy often in small lots, resulting in less economical procurement. To save funds, the inventory has been purged of slow-moving items and items used by only one or a few units. The reserves of many items have been reduced to dangerous levels. Stock prices have been rising. An addition of \$20,000 is requested for stockroom supplies, equipment, and office machine repair services.

The Division's workload of purchase orders, contracts, imprest fund uses and other transactions associated with operating funds, foreign currency matters, and construction projects continues to increase. This increase is the result of general expansion including the assignment of procurements for the National Zoological Park (which heretofore have been processed by NZP personnel). Through continuing improvement in methods and techniques, productivity will continue to increase and as a result it is anticipated that the procurement workload will not outpace available manpower in Fiscal Year 1973. There is also the problem of adequate control of receiving and prompt delivery services to additional building facilities (for instance, the Renwick Gallery and the Hirshhorn Museum). To provide for the aforementioned expansion and increased responsibility, it is planned to make temporary reassignments within the Division as required to meet the most urgent needs.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
MANAGEMENT ANALYSIS OFFICE

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>10</u>	<u>0</u>	<u>10</u>
11 Pers Comp	\$153	\$4	\$157
12 Pers Benefits	13		13
21 Travel.....			-
22 Trans of Things			
23 Rent, Comm & Util ...			
24 Printing	8		8
25 Other Services			
26 Supplies & Materials ..			
31 Equipment			
41 Grants.....			
TOTAL	<u>\$174</u>	<u>\$4</u>	<u>\$178</u>

Analysis of Increase

Pay Increase.....	4
Program.....	

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

No program increase is being sought for FY 1973.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
MANAGEMENT ANALYSIS OFFICE

1971 Actual	\$148,000
1972 Appropriation.....	\$171,000 <u>1/</u>
1973 Estimate.....	\$178,000

The Management Analysis Office, under the direction of the Director of Support Activities, provides management analysis and is responsible for developing, coordinating, and maintaining a program to assist in the continuing development of sound business administration and management improvement programs within the Smithsonian Institution.

This unit, formerly called the Administrative Systems Division, assists members of the Executive Committee and other managers in the development and evaluation of more efficient and economical ways to carry out their missions. The unit provides management advisory services, makes studies and special surveys, develops organizational, functional, staffing and flow charts, procedural manuals, and maintains administrative issuances and forms management programs.

No increases are being requested for this activity except necessary pay (\$4,000).

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
DUPLICATING SECTION

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>7</u>	<u>1</u>	<u>8</u>
11 Pers Comp	\$ 67	\$ 19	\$ 86
12 Pers Benefits	6	2	8
21 Travel			
22 Trans of Things			
23 Rent, Comm & Util ...	8		8
24 Printing			
25 Other Services	4		4
26 Supplies & Materials ..	4	9	13
31 Equipment			
41 Grants			
TOTAL	<u>\$ 89</u>	<u>\$ 30</u>	<u>\$119</u>

Analysis of Increase

Pay Increase	14
Program	16

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

Institutional Duplicating Services (1 position; \$16,000). The current workload requires a great deal of overtime work, and there is a deficiency of funds for supplies and materials. One additional multilith operator (\$7,000) and support funds are requested (\$9,000).

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
DUPLICATING SECTION

1971 Actual	\$100,000
1972 Appropriation.....	\$ 87,000 <u>1/</u>
1973 Estimate.....	\$119,000

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.

A program increase of \$16,000 is requested. One additional multilith operator (\$7,000) is requested, along with \$9,000 for supplies and materials. In addition, \$14,000 are requested for necessary pay.

Need for Increase

The current workload requires a great deal of overtime work. It is hoped that with an additional operator much of this will be eliminated. There is a current deficiency of funds for supplies and materials and it is essential that support capability be increased.

The service furnished by this unit 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.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OTHER CENTRAL SUPPORT

No. of Perm Pos	Base	Increase	1973
	<u>1973*</u>	<u>Requested</u>	<u>Estimated</u>
	13	0	13
11 Pers Comp	\$162	\$4	\$166
12 Pers Benefits	14		14
21 Travel			
22 Trans of Things			
23 Rent, Comm & Util ...	4		4
24 Printing	3		3
25 Other Services	3		3
26 Supplies & Materials ..	1		1
31 Equipment	1		1
41 Grants			
TOTAL	<u>\$188</u>	<u>\$4</u>	<u>\$192</u>

Analysis of Increase

Pay Increase	4
Program	

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase (Program):

No program increase is being sought for FY 1973.

ADMINISTRATIVE AND CENTRAL SUPPORT ACTIVITIES
OTHER CENTRAL SUPPORT

1971 Actual	\$184,000
1972 Appropriation	\$185,000 <u>1/</u>
1973 Estimate	\$192,000

Included are the activities of the Equal Employment Opportunity Office, the special project writing and research efforts associated with producing the Joseph Henry Papers, the Travel Services Office, and the record keeping duties of the Secretary's Files. No increases are being sought for these activities other than necessary pay (\$4,000).

SMITHSONIAN INSTITUTION--"Salaries and Expenses," Fiscal Year 1973
BUILDINGS MANAGEMENT DEPARTMENT

	<u>Base</u> <u>1973*</u>	<u>Increase</u> <u>Requested</u>	<u>1973</u> <u>Estimated</u>
No. of Perm Pos	<u>793</u>	<u>84</u>	<u>877</u>
11 Pers Comp	\$ 6,773	\$ 735	\$ 7,508
12 Pers Benefits	575	63	638
21 Travel	3		3
22 Trans of Things			
23 Rent, Comm & Util ...	1,730	567	2,297
24 Printing	6		6
25 Other Services	1,044	78	1,122
26 Supplies & Materials ..	335	48	383
31 Equipment	80	50	130
41 Grants			
TOTAL	<u>\$10,546</u>	<u>\$1,541</u>	<u>\$12,087</u>

Analysis of Increase

Pay Increase	386
Program	1,155

*FY 1972 approp. adjusted by funds withheld in 1972 & restored to base for FY 1973

Specification of Increase(Program):

Hirshhorn Museum and Sculpture Garden (44 positions; \$410,000). Start-up Buildings Management services will be required in the latter part of FY 1973. An amount of \$118,000 is needed for a nucleus staff of 44 positions (14 man-years)--22 guards, 10 mechanics, and 12 custodians. Support requirements include utilities and communications (\$127,000), installation of fire detection and other systems and miscellaneous contract services (\$75,000), custodial supplies(\$40,000), and equipment (\$50,000).

Cooper-Hewitt Museum (9 positions; \$85,000). Services will be extended to this new national museum of design. Initial staffing is two guards, two custodians, and five mechanics (\$83,000) and funds for supplies and materials (\$2,000).

Utilities and Communications (\$250,000). Steadily rising rates and consumption of electricity, steam, telephone service, and other utilities cause a requirement for an additional \$250,000. About \$1,600,000 will be spent in FY 1972 and \$1,850,000 in the budget year.

Protection and Surveillance (21 positions; \$162,000). The present protection staff of 328 guards and supervisors cannot adequately protect over 3.6 million square feet of building space and additional grounds areas. The rising number of serious incidents and crimes (from 74 in FY 1970 and 129 in FY 1971 to 83 in the first half of FY 1972) plus additional new and planned exhibits require an additional 21 guards (\$155,000) and funds for their supplies and equipment (\$7,000).

Custodial and Building Services (10 positions; \$58,000). The application of cleaning standards has verified a severe shortage of custodial employees in the face of some 14 million visitors in 1971 and other growing workloads. There are now 266 buildings services employees including janitors, vehicle operators, and others. An additional 10 custodians are requested (\$56,000) with funds for uniforms, supplies, and materials (\$2,000).

Space Rental(\$190,000). New space is unavailable on the Mall to house authorized programs and their necessary support services. An estimated 28,000 square feet is needed. Such space is currently available in a convenient location. The amount of \$190,000 includes rent, relocation expenses, and minor tenant changes.

BUILDINGS MANAGEMENT DEPARTMENT

1971 Actual	\$ 9,371,000	
1972 Appropriation	\$10,402,000	<u>1/</u>
1973 Estimate	\$12,087,000	

The Buildings Management Department provides essential services to the program units and helps them accomplish the Institution's goals. These responsibilities include the protection, operation, and maintenance of eight major buildings. These include the original Smithsonian Institution Building, the History and Technology Building, the Natural History Building, the Arts and Industries Building, the Fine Arts and Portrait Galleries Building (housing the National Portrait Gallery and the National Collection of Fine Arts), and the Renwick Gallery. The Department performs various combinations of these functions for nine other research, collection, special purpose, and support facilities, including the Chesapeake Bay Center for Environmental Studies, the Oceanographic Sorting Center, the Belmont Conference Center, 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 will be extended to include two additional museums in FY 1973; i.e., the Joseph H. Hirshhorn Museum and Sculpture Garden and the Cooper Hewitt, a national museum of design. The total floor space of all the Smithsonian buildings is 3,656,000 square feet, and includes 18 different sites in the Washington Metropolitan Area, and one in New York City.

The Department provides utilities, and the servicing, repairing, and operating of refrigeration, heating, temperature and humidity control systems. It furnishes transportation and communications services and performs improvements and alterations to the buildings. Among the Department's responsibilities are safety, physical security, and disaster programs, as well as engineering, architectural services, construction management, space management, feasibility studies, and other professional services.

The FY 1973 requested increase is \$1,155,000 for increased provision of the above services, to meet price increases in various areas, and to begin services in new building space. In addition, \$386,000 are being sought for necessary pay increases of current employees.

Need for Increase

1. Joseph H. Hirshhorn Museum and Sculpture Garden (44 positions; \$410,000).

The Joseph H. Hirshhorn Museum and Sculpture Garden is scheduled for initial occupancy by the Smithsonian Institution in the latter part of FY 1973. The Buildings Management Department must service the building while the final construction work is being completed. Included in the final phase is the installation of special equipment and the operation and maintenance of heating, air-conditioning, and humidity control systems which must be activated prior to the opening of the Museum to the public.

1/ FY 1972 appropriation adjusted by funds lapsing in 1972.

During the FY 1973, an initial staff of 44 positions (14 man-years) will be required to give minimal protection and custodial services and provide mechanical operation and maintenance to the plant, on a 24-hour basis, seven days a week. Funds in the amount of \$118,000 are required to provide an initial staffing level of 22 guards (sufficient to man four or five posts around the clock), 10 mechanics, and 12 custodians. Funds are also requested for related expenses such as utilities and communications (\$127,000); the installation of fire detection and other systems, and miscellaneous contract services (\$75,000); custodial supplies and materials (\$40,000); and cleaning and buildings maintenance equipment items (\$50,000). This is a requested increase of \$410,000 for the initial protection, operation, and maintenance of this new Museum facility.

2. Cooper-Hewitt Museum (9 positions; \$85,000)

The Cooper-Hewitt, a national museum of design, is located in New York City. This building contains approximately 80,000 square feet of floor space. The Buildings Management Department will be required to extend its services to the Museum in FY 1973. This Department will give initial basic services to safeguard the building and its contents, to provide guard protection, custodial, and laboring services, and mechanical maintenance to the heating and ventilating system.

The nine additional positions required to provide a basic initial staffing level during FY 1973 are two guards, two custodial employees, and five mechanics (\$83,000); and a minimal amount of \$2,000 for supplies and materials. A total increase of \$85,000 is requested for the initial cost of providing services to this new museum activity.

3. Utilities and Communications (\$250,000).

In FY 1971, the Buildings Management Department spent \$1,600,000 for utilities and communications. Present information on higher unit costs and additional use indicates that this mandatory expense will increase somewhat in FY 1972 and rise to \$1,850,000 in FY 1973. The requested additional \$250,000 includes \$130,000 to fund the increase in the price of steam, which has increased approximately 40 percent since 1970. In fiscal 1970, the Department was paying \$1.55 per thousand pounds. The price for fiscal 1972 is \$2.09 per thousand pounds through November 1971. Beginning in December 1971 the price has increased to \$2.30 per thousand pounds.

Also included in this amount is \$115,000 to provide for the increased usage of electricity and steam, resulting in part from the addition of several second floor decks in the high ceiling areas of the Arts and Industries Building, which will provide additional offices, exhibit areas, and serve other public purposes. An additional \$5,000 is required to cover the Federal Telecommunications System intercity telephone services based on a projection by the General Services Administration.

4. Protection and Surveillance Shortages (21 positions; \$162,000).

The present protection staff consisting of 328 guards and supervisors provides physical security for the Smithsonian Institution buildings and grounds and for the National Collections, and other property. This staff is also responsible for the overall control and security of all persons using these facilities, including

general public, special visitors, staff, and visiting students and researchers. Approximately 14 million persons visited the Smithsonian last year.

Twenty-one additional guards (\$155,000) are requested to provide improved security for the exhibits in the new halls and galleries which have recently been opened or are planned to be opened to the public. Among them are the Hall of Musical Instruments, and the Numismatics, Graphic Arts, Photography, and Philately Halls in the new Communications area in the History and Technology Building, and the World of Living Things and Physical Geology exhibitions in the Natural History Building. The increase also is needed because other areas are inadequately covered and existing posts are too large for proper surveillance. Support funds of \$7,000 are also requested for supplies and materials and equipment for the additional guards. The following table shows the growth of the protection problem.

<u>Offenses</u>	<u>FY 1970</u>	<u>FY 1971</u>	<u>FY 1972(thru Dec 31)</u>
Arson	0	1	0
Assault	4	7	6
Burglary	3	11	0
Fraud	0	1	0
Larceny	47	69	49
Narcotics incidents	0	1	1
Rape	0	1	0
Rape attempt	0	1	1
Robbery(including muggings)	4	8	1
Vandalism	8	24	19
Weapons carrying	0	1	1
Bomb or arson threats	8	4	5
	<u>74</u>	<u>129</u>	<u>83</u>

5. Shortages in Custodial and Building Services (10 positions; \$58,000).

The present buildings services staff of 266, including janitors, telephone operators, vehicle operators, and supervisors provide building services for approximately 3,656,000 square feet of floor area, and perform regular custodial services in support of staff operations and visitor use of public spaces. These employees provide many special requested services in connection with public services and educational programs during regular hours and on weekends and holidays. They are also responsible for moving services, transporting museum objects, operating 55 elevators, providing pest-control services, grounds-keeping, and window cleaning.

Based on cleaning standards developed from the General Services Administration, private industry, and actual operating experience, the Smithsonian has established standards for servicing its museums and art galleries. Primary consideration has been placed on cleaning exhibit and public areas which comprise about 60 percent of the total net floor area. Work frequency rates are considerably higher in these areas because of the millions of people crowding through the buildings each year, and special care must be exercised in performing work because of the presence of valuable museum objects and extensive special finishes in gallery spaces.

The application of the cleaning standards in the Smithsonian buildings has verified a severe shortage of custodial employees. As the first step forward correcting this deficiency, ten additional janitors are requested to help provide adequate cleaning (\$56,000). Support funds of \$2,000 are also requested for uniforms, supplies, and materials for the additional janitors.

6. Space Rental (\$190,000).

New space is unavailable on the Mall for housing authorized programs and for their necessary support services.

In the past ten years employees working on the south side of the Mall have doubled while available office space has increased by no more than one third. In many cases exhibition space has of necessity been curtailed in order to preclude intolerable compaction of support staffs. In the Accounting area, for only one example, average worker space is greatly inadequate and precludes, in some cases, authorized staff expansion. Other essential support service functions are severely compressed. Business functions are fragmented in space ill-designed for the purpose. Space for expanded audit services must be gained. Remedial space needs exist in practically every support area.

In addition, the National Air and Space Museum must gain space to house any newly authorized staff increases required for the development of the new museum and its public programs. Space in the Arts and Industries Building for additional staff can only result from acquiring off-Mall space for functions which can be effectively relocated. Furthermore, restoration work must be initiated soon to ready the Arts and Industries Building for its increase in volume of visitors in 1976. This work would require that interim housing be acquired for a number of the building's present tenants.

By grouping in acquired rental space several closely associated administrative support groups which have until now been separated from one another (i. e., procurement, accounting, data processing systems), not only will new efficiencies of operation be made possible but other critical needs on the Mall can be accomplished with the space that would be recovered. The Museum of Natural History must gain added use of space for its required buildup of support programs. In the History and Technology Building the Conservation Analytical Lab would gain some space without which any substantial improvement in its services is impossible.

The only solution, since no Government controlled space is available in the required area, is the acquisition of suitable rental space. An estimated 28,000 square feet of additional office space is needed. Such space is presently available in a most convenient location including a computer housing available at no cost which would enable an inexpensive relocation of the computer center. Vehicular shuttle services will be provided to tie-in efficiently the new site with main offices and buildings on the Mall. Relocation costs are included as are minimal expenses for tenant changes. For these purposes \$190,000 is needed.

NATIONAL MUSEUM OF NATURAL HISTORY

Mrs. HANSEN. You are requesting an increase of \$755,000 for the National Museum of Natural History. What is the justification for this request?

Secretary RIPLEY. I have Dr. Cowan here, the Director of the Museum of Natural History, and perhaps you would care to hear him speak to that.

Mrs. HANSEN. That will be fine.

Dr. COWAN. Very quickly in summary, the \$755,000 breaks out into five sections. I call your attention first of all to the \$175,000 necessary pay increases which leaves a balance of \$580,000. The \$580,000 provides for support of four general programs.

Mrs. HANSEN. Do you expect the most recent pay increase costs will be met by applying those funds which were saved as a result of the 5 percent personnel limitation?

Mr. BRADLEY. Madam Chairman, we expect that funds for the recent legislated pay increases will be handled by release of funds from reserve or a pay supplemental request for this year and a budget amendment for next year. But in order to present this budget to you in terms of the money that we think we are going to need, we had to show for every unit for the coming year how much in that year the General Schedule within-grade raises and the comparable Wage Board pay raises will cost. Each cost has been offset by savings that arise from turnover and the savings resulting from 2 less workdays for the Institution as a whole.

Dr. COWAN. If I may proceed with this general summary then, we have four programs while I will want to come back to and discuss in slightly more detail. We are asking for 31 positions and \$410,000 for museum support deficiencies, \$233,000 of this is for salaries and benefits, the balance is for all other costs.

BONE BIOLOGY PROGRAM

The second major area is in bone biology which involves two positions and \$40,000.

Mrs. HANSEN. Is this a new program?

Dr. COWAN. Bone biology is a new program; yes.

Mrs. HANSEN. What other agencies of Government are doing work in this regard at the present time?

Dr. COWAN. We are collaborating in some respects in bone biology with the National Institutes of Health. We have collaborative relationships with them and with some of the local universities and with the Baltimore Medical Examiner's Office who is working with us in providing some materials.

Secretary RIPLEY. This comes under our physical anthropology division, in general, which is a major part of our anthropology program. You may have seen a picture of Dr. T. Dale Stewart in the paper yesterday. It is the greatest help to the FBI and it is something which the Smithsonian has been carrying on for 40 years or more, essentially since the days of Dr. Hrdlicka. This program is an extension of this activity into new techniques.

Dr. COWAN. I might say by way of summary and adding to Dr. Ripley's statement, in this particular instance we are concerned very much about the history of prehistoric man's cultural changes and adaptations that are revealed in bone. The rest of him is gone but the bones remain and tell us a great deal about the effects of diseases, the incidence of diseases, and the effects of aging. Ultimately we expect to develop a new method of more absolute dating of skeletal material in archeological digs. It is, of course, very helpful for us to understand ourselves today by looking back accurately at the past.

PHYSICAL SCIENCES LABORATORY

The Physical Sciences Laboratory request for \$50,000 is all for equipment. We are not asking for people there. This is the second stage in the development of that laboratory which will answer research needs of many parts of the museum. These funds will be used in subsequent fiscal years to staff and operate the Laboratory.

ELECTRONIC DATA PROCESSING

Finally, in the fourth program, electronic data processing, we will continue with our existing projects. We are asking this time for \$80,000 for five positions and the related costs of people, and increasing computer costs of about \$43,000. We are getting into some totally new areas that really provide a great deal of leadership for the museum community. In fact, about one-third of the time of my special assistant who works with data processing applications is given over to national leadership in the natural history museums of the country. All of these programs are referred to in the photographic books which I sent you a copy of earlier and I brought some additional copies along this morning.

MUSEUM SUPPORT PERSONNEL

If you will permit, Madam Chairman, I will return to say something about museum support deficiencies because we made a considerable point of this last year. Mr. Ripley has referred to it earlier this morning. We were able during this current year because of the consideration of the Congress to move from a point of one technician to each scientist to a level of about 1.4 technicians to each researcher. Obviously, this is an average. With the requested 31 additional technical positions in fiscal 1973, we will achieve two things that are very important. First of all, we will move to about 1.7 technicians for each scientist. A second benefit that we are only coming to recognize now is that by employing these technicians we are actually producing opportunities for professionalism among our support people. By this I mean that as we bring in new lower grade employees, those people who were doing all of the support work in the past are now able to move up and to develop a kind of professionalism in the support of research, like collection managers, for example. We have these people who are not engaged in research but who are engaged in a very professional kind of curating of collections, so this is a second benefit of this current program.

During this year as a result of the support of the committee and the Congress, we moved from a position of almost starvation support of the individual scientist, about \$900 in fiscal 1971, to about \$2,000 per scientist this year and, if this present request is granted, we will move to pretty close to \$4,000 a year per scientist. In both of these areas, technician support and money support of the individual scientist, we will stop at that point, to evaluate whether or not we need to go further toward what have been indicated as the proper goals for support of scientists in the future.

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

AFTERNOON SESSION

Mrs. HANSEN. The committee will come to order.

Please proceed, Dr. Cowan.

Dr. COWAN. One last word about museum support deficiencies. In addition to the Makah materials that you saw earlier that were cleaned during the year with new technical assistance provided by the Congress, here is another example of materials conserved by special cleaning, a Samurai sword. In this instance we imported a Japanese sword polisher to put some of the national collections in special condition.

Mrs. HANSEN. How old is the blade?

Dr. COWAN. This blade goes back about 600 years. We have older and more valuable ones; this isn't one of the most valuable ones. There are some marks on it indicating the maker. In this condition they will last for a long period of time and can be studied and exhibited very nicely in the future. It is another example of the usefulness of this additional supportive assistance.

RESEARCH VALUE OF THE NATURAL HISTORY COLLECTIONS

I mentioned bone biology and the fact that so much of man's history was written in the bones. To emphasize the kind of thing we are talking about, here is a new use for old collections. This skull was collected about 1845 or something of that sort. It was given to us not because it had the characteristic lesions in the bone from a cancerous growth but because it was the skull of an old Peruvian Indian. So it is that in the national collections frequently, in almost every generation, we find new uses for the materials we conserve.

The incidence of this kind of disease then is indicated here by the marrow of the skull bones, and provides us some measure of comparison with modern man and the diseases that affect his bony parts.

(Discussion off the record.)

Dr. COWAN. You might like to look at these synthetic crystals, one of the kind of thing, among many, we will be studying in our physical sciences laboratory. This was one of the four programs I mentioned earlier. This year we are simply adding the next highest priority equipment to that lab rather than trying to build it all at one time out of one budget.

Secretary RIPLEY. It is a tremendous new breakthrough.

Dr. COWAN. This emerald is purer than most emeralds that occur in nature. It took about 2 weeks to grow that particular one.

(Discussion off the record.)

NEW DATA PROCESSING PROGRAMS

Dr. COWAN. Finally let me mention a couple of our new data processing programs. They are different. They are departures from what you have heard about in recent presentations.

One is in the area of publication you mentioned awhile ago. The computer now offers us an opportunity to publish things somewhat more economically and certainly more flexibly. This example concerns the catalog of Hymenoptera, wasps and bees. What we know about them—pollination, all the information on them—is collected in a 1950 catalog. Now after more than 20 years accumulation of knowledge about the bees and wasps, we need a new edition but it is prohibitively expensive to do it by conventional techniques. It is simply out of the question. With the computer we will be able to build a magnetic tape data base which will then be useful to generate the publication since many of GPO's publications are now run with magnetic tapes. We will have the tape which we update and to which we can input new information in the future. So the next edition is not quite but very close to being automatic. This has a lot to do with the business of publication in the future I am sure.

We are at that point in the development of our EDP programs that in future years we will have to have additional supervision, but this year we will be able to manage the additional \$80,000 that we are asking for with the two or three supervisory people we have.

VISITORS TO THE NATURAL HISTORY MUSEUM

Mrs. HANSEN. What proportion of your visitors visit the National Museum of Natural History?

Dr. COWAN. Our total was just under 3.5 million for the past year.

OFFICE OF ENVIRONMENTAL SCIENCES

Mrs. HANSEN. What is the need for two additional positions at the Chesapeake Bay Center?

Dr. CHALLINOR. Madam Chairman, this year for the first time at the Center we have gotten a large National Science Foundation grant for \$128,000 in a cooperative venture. This grant was made to a consortium consisting of Johns Hopkins University, University of Maryland, the Smithsonian, and the Virginia Institute for Marine Sciences.

The land purchase program of the Center is now virtually completed. This land was purchased entirely with private funds. To be able to operate our research program now at the Center involves going out and looking for private fund sources or other Government sources such as the National Science Foundation or NASA and we are requesting two people, a scientific administrator and a secretary to keep this program going. This is badly needed administrative help for the Center.

Mrs. HANSEN. You say in your justification:

The movement of fertilizers, herbicides and pesticides, and the effects of soil erosion and estuarine sedimentation, as well as the role of marshes as filter mechanisms will be studied.

Will this be a part of the National Estuarine Study?

Dr. CHALLINOR. This is part of the nationwide program being now investigated by an organization called the Institute of Ecology which, in turn, is being funded by the National Science Foundation under their RANN program; that is, Research Applied to National Needs.

Mrs. HANSEN. I think the Estuary Act calls for a review of many of the estuarine areas in the United States, particularly the marsh lands. This is true in the Oakland area, the Chesapeake Bay area, and the Columbia River marshland area.

Dr. CHALLINOR. Exactly. We own about 14 miles of waterfront at the Chesapeake Bay Center along with about 2,000 acres of land in back of this waterfront. This land covers about half the watershed of a small stream called Muddy Creek. We have now almost arrived at the point where we can say this given estuary can now recycle the nutrients, the phosphates, and nitrates being dumped on the watershed which is relatively uninhabited, and the natural organisms in the estuary can cope with introduced chemicals. If much more than this gets dumped we then anticipate this estuary and its natural systems will start breaking down and we will end up with a situation similar to that now in Lake Erie.

Mrs. HANSEN. Is the Department of the Interior participating in this program?

Dr. CHALLINOR. Yes, Madam Chairman. We have two people now stationed at the Chesapeake Bay Center by the U.S. Geological Survey who are working at the lab and are financed by the USGS.

NATIONAL AIR AND SPACE MUSEUM

Mrs. HANSEN. You are requesting 20 additional positions for a total of 64 and an additional \$477,000 for the National Air and Space Museum. When is completion of construction of this museum anticipated?

Mr. BRADLEY. Construction of the National Air and Space Museum would be completed in the middle of the calendar year 1975 which will permit us 1 year in which to get ready for the crowd that will come in the Bicentennial year of 1976.

Mrs. HANSEN. Has your design been approved?

Mr. BRADLEY. Madam Chairman, the design has been approved by the Commission of Fine Arts as a concept.

Mrs. HANSEN. The committee didn't have the impression the Commission of Fine Arts had approved the complete design.

Mr. BRADLEY. I don't think we should give that impression either, Madam Chairman, because they said—when we explained that we have to know if we are to continue to work—the answer is yes, you do continue to work but we want to see more architectural detail. The elevation that you are looking at there on the model represents Independence Avenue elevation. The other elevation that Mr. Collins is showing you represents the Mall elevation. They have ideas and they have approved the concept, but they want to see particularly the treatment along Independence Avenue where, because of the southern exposure, we have gone into masonry rather than glass.

SITE FOR THE AIR AND SPACE MUSEUM

Mrs. HANSEN. I think you should be aware there is some dissatisfaction with the particular location of the National Air and Space Museum. One Congressman said it should not be located on the Mall. I suggested that he should discuss this matter with you. Did he discuss this matter with you?

Secretary RIPLEY. Yes; Mr. Collins spoke to him. He is very worried about traffic going to and from his office.

Mr. COLLINS. He told me he doesn't care what goes up in that spot, he would be against anything going up there. He thinks the Mall area is congested enough.

Secretary RIPLEY. It makes it harder for him to get to his office. This is true, of course, it makes it harder for all of us to go to our offices. But the matter is that we have this fantastic visitor attendance in Washington, and I should be very much surprised if the Congress is going to declare the Mall off limits to the American people.

(Discussion off the record.)

SCHEDULE OF NECESSARY CONSTRUCTION FUNDING

Mrs. HANSEN. What is the schedule of necessary funding for the Air and Space Museum? Sometimes it is difficult for Members of Congress to envision that the \$40 million you are requesting in new authority will not be expended in one particular year.

Secretary RIPLEY. Yes. If we had \$7 million in the bank in fiscal 1973, we would have the green light and could go ahead.

Mrs. HANSEN. How much will be expended in the second year?

Mr. BRADLEY. It will be approximately \$15 million the second year and expenditures would be spread over a period of 4 or 5 years. I will supply the estimates for the record.

(The information follows:)

National Air and Space Museum

Air & Space Expenditures

Fiscal Year 1973	\$ 7,000,000
Fiscal Year 1974	15,000,000
Fiscal Year 1975	15,000,000
Fiscal Year 1976	<u>3,000,000</u>
Total	\$ 40,000,000

HISTORY OF SITE SELECTION AND RELATED MATTERS

May I volunteer to put in the record for your consideration a very brief history of the involvement of the Congress. The Congress on six occasions has considered the site and the museum and has given its approval on each occasion.

Mrs. HANSEN. Please do.

Mr. BRADLEY. I will be delighted.

(The information follows:)

HISTORY OF CONGRESSIONAL SUPPORT OF THE NATIONAL AIR AND SPACE MUSEUM

The appropriation of funds for construction of the National Air and Space Museum will be the successful culmination of more than a quarter of a century of congressional encouragement and legislative action in the interest of air and space science and history.

In 1946, the Congress authorized the National Air Museum :

To memorialize the Nation's development of aviation ;

To collect and display aeronautical equipment of historical and technological significance ; and

To provide education in this field.

In 1958, the Congress authorized and directed the Regents of the Smithsonian to prepare drawings and specifications for the National Air Museum ; and specified its location on the Mall site between 4th and 7th Streets, Independence Avenue and Jefferson Drive.

For the fiscal year 1964, the Congress appropriated \$511,000 for planning the National Air Museum.

For the fiscal year 1965, the Congress appropriated \$1,364,000 for planning the National Air Museum.

In 1966, the Congress reauthorized the Museum to include Space as well as Aviation and authorized and directed the Smithsonian to prepare drawings and specifications and to construct the National Air and Space Museum on the designated Mall site.

For the fiscal year 1972, the Congress appropriated \$1,900,000 for redesign of the National Air and Space Museum. This redesign will hold the cost of the building to \$40 million, rather than the escalated cost of \$69 million for the original design.

Thus, appropriation of funds for construction in the fiscal year 1973 will culminate a history of 26 years of congressional support for the National Air and Space Museum.

JUSTIFICATION OF CONSTRUCTION OF THE NATIONAL AIR AND SPACE MUSEUM

1. The primary justification for construction of the National Air and Space Museum is the need and the readiness to proceed. The strong interest of the American public in air and space developments has been demonstrated repeatedly by crowds of visitors numbering 3½ million annually who visit the present inadequate quarters of the museum in the small, World War I hangar and in portions of the Arts and Industries Building of 1879.

The site on the Mall dedicated by the Congress for this Museum involves no dislocation of homes or businesses.

Planning is well underway with the planning appropriation of \$1,900,000 approved by the Congress for this fiscal year.

2. The Congress since 1946 has authorized the existence of the National Air and Space Museum and since 1958 has authorized a Mall site for it and directed the planning for its construction.

3. The Congress has appropriated planning funds in fiscal years 1964, 1965, and most recently in 1972 for construction of this Museum.

4. The Museum will be an exposition center for education and study as well as a center for the exhibition of historically and technologically significant air and spacecraft and equipment.

5. The Museum will greatly enhance the interest of the Mall for millions of tourists from every State, as well as for the residents of the Washington area. Construction can be completed by 1975, if started in 1973.

6. The investment of \$40 million will be expended over a period of 4 or more years, not in the single year 1973. Expenditures are estimated as follows: \$7 million in fiscal year 1973; \$15 million in 1974; \$15 million in 1975; and \$3 million in 1976.

JUSTIFICATION OF THE MALL SITE FOR THE NATIONAL AIR AND SPACE MUSEUM

1. The site between 4th and 7th, Independence Avenue and Jefferson Drive, is the only site on which the Regents of the Smithsonian have been authorized and directed by the Congress to prepare plans and to construct a National Air and Space Museum.
2. This is the only site which is on the Mall and is immediately adjacent to the Smithsonian complex of museums and art galleries where visitors totaling over 13 million come annually.
3. This is the only site for which funds in the amount of \$1,900,000 have just been appropriated by the Congress for the planning of the National Air and Space Museum.
4. In the words of the Senate Report on the Act of September 6, 1958: "the Senate Committee on Public Works believes this site is proper so that the millions of visitors, and particularly the young visitors, who come each year to Washington to see the great collections that belong to the American people can also see the Nation's historic planes and aeronautical equipment. Thus, a building located near the other Smithsonian buildings would be especially convenient for visitors. Storage facilities could be maintained near Washington for planes not to be exhibited on the Mall but which are of great interest to aeronautical engineers and patent attorneys. This distinction between public exhibition planes and study collection planes is believed typical of modern museum planning."
5. A support facility at an off-Mall site is planned to supplement our present storage and restoration facility located at Silver Hill, Maryland.

In reviewing the advantages of the Mall site, we have recognized the following facts:

1. The museum is to be a great center not only for exhibition but for education;
2. It is to exhibit aerospace objects and also to interpret the historical and technological progress of aviation and aerospace science to millions of visitors who will come to the museum annually;
3. To demonstrate and exhibit technological progress, the museum will choose from hundreds of engines, power plants, and ancillary equipment ranging from simple

rotary engines built at the turn of the century to the huge Saturn F-1 engine which produces millions of pounds of thrust;

4. The Museum is a permanent facility with opportunities for scholarly research, lectures, publications, reference libraries and the discriminating display of historical and technologically important specimens from the collections, situated against a proper background of descriptive information and in proper relation to other developments in the field.
5. The Museum is therefore to be distinguished from an airfield, where the operation is concerned with the landing, launching and maintaining of commercial or military aircraft. It would not be a proper surrounding for a leisurely, meditative visit to observe and to study the underlying science and technology that makes flight possible in addition to the observation of the air and spacecraft and their associated equipment.
6. An air and space museum is also to be distinguished from an air and space show, such as the international event staged at Le Bourget Airfield this past year. There planes were exhibited for a limited period both in the air and on the ground but then returned to their respective sponsors.
7. In consideration of all of these factors, the wisdom of the Congress in selecting this site in 1958 is reaffirmed. The accessibility of the site to millions of visitors to the Mall will be its greatest natural asset.
8. In any event, should steps be taken to relocate the site--and this could only be done by the enactment of authorizing legislation and the reappropriation of existing planning funds--the Museum could not possibly be made available to the American public visiting the Nation's Capital for the Bicentennial commemoration.

DESIGN AND EXHIBIT PURPOSES OF THE BUILDING

Secretary RIPLEY. I might point out for your information that were we to attempt in any sense to construct a classical building, a mirror image as it were of the National Gallery of Art which lies opposite, we would be unable to build it. In the first place, we don't have the craftsmen or technicians. Modern building technology has totally gone past this phase of being able to handicraft wonderful architectural details.

In the second place, it would cost as much as the FBI Building if not more. So it would be quite out of the realm of possibility.

So what we come down to now is modern technology, and that is why we are dealing with a very simple, austere, contemporary style building because it is, in effect, the only style the architects can design which can be built today.

Mr. COLLINS. To give some of the purposes this building is designed for, we have put together a list of about 50 major schematic exhibit units which I might insert in the record with a supporting statement.

Mrs. HANSEN. Please do.

(The information follows:)

EXHIBIT THEMATIC UNITS PLANNED FOR
NATIONAL AIR AND SPACE MUSEUM

Multi-Media Shows; Astronomy; Astrophysics
Hall of Advanced Concepts
Understanding Air & Space Technology
Flight Instrumentation
Ground Testing & Flight Testing
Navigation Thru Air & Space
Guidance and Control
Avionics
Air Traffic Control and Airports
Manufacturing Techniques for Air & Space
Hall of Flight Propulsion
The X Airplanes
Do-It-Yourself Airplanes
Early Birds
Barnstorming, Record Setting & Stunt Flying
Rotary Wing Aircraft
Modern Military Jets
World War II
Military Aviation Between the Wars
World War I
V/TOL's and V/STOL's
Cargo by Air
Personal Aircraft
Modern Air Transportation
Early Air Transportation
Successes or Failures
Flying in Literature, Legend, Song and the Theater
Lighter than Air
Women in Aviation
Photography & Mapping
Lobby, Wright Memorial, Hall of Fame, & Summary Exhibit
Earthbound Benefits of Flight
Aeronautical & Space Art
Early Rocketry & Rocket Propulsion
Early Space History
Applications Satellites
Unmanned Satellites
Interplanetary Flight and Exploration
Flight to the Moon
Skylab and Space Stations
Space Shuttle
Air and Space Medicine

Flight in Nature
Weather and the Atmosphere
The Space Environment
Planetary Environments
Cosmology & Cosmography
The Solar System
Materials of Air & Space

STATEMENT OF MICHAEL COLLINS
DIRECTOR, NATIONAL AIR AND SPACE MUSEUM
SMITHSONIAN INSTITUTION
ON APPROPRIATIONS REQUESTED FOR CONSTRUCTION OF
THE NATIONAL AIR AND SPACE MUSEUM

Madame Chairman and Members of the Committee:

I appreciate the opportunity to testify in behalf of the appropriation of \$40 million for the construction of a National Air and Space Museum.

Many friends of the museum have indicated their support for this project. The President has included the museum in his plans for the Bicentennial celebration in 1976. Many distinguished Members of both the House and Senate, representing both major political parties, have told me of their interest, and I have received numerous letters from organizations and associations throughout the country asking how they might help in bringing our plans to fruition. I know that many of these friends have also made their support of the museum known to the Members of this Committee.

Exhibit Concepts

At present a small number of air and space artifacts are being exhibited in the steel shed called the Air and Space Building, and in part of the Arts and Industries Building, which was built in 1879-81 for the United States National Museum. Because of limits on space, it is only possible to display a few of the most important items in the collection. Building design limitations have also resulted in static exhibits of artifacts with little or no audience participation.

On the other hand, exhibits in the new building will include specimens from all categories of the National Collection. Exhibition areas will be configured to contain artifacts (such as entire air and space vehicles) which will be woven into exhibit Thematic Units by combining these with appropriate audio-visual systems, models, environmental simulations, and audience participative exhibit devices.

Artifact size may range from an air vehicle the size of the gigantic NC-4 to a small but historically significant item. The exhibition function of the proposed building will be a communication process in which the visitor will be given the opportunity to interact with the artifacts and their supporting exhibition systems in such a way that either casual or dedicated visitors may emerge with increased knowledge.

The selection of artifacts for exhibits will be based on inspirational, memorial, or technological value and pertinence to the exhibits. The exhibit themes will encompass titles as diverse as: Air and Space Medicine; Flying in Literature and Legend; World War I Fighters; Air and Space Metallurgy; Manned Lunar Exploration; Biology in Space; Air Traffic Control; Women in Aviation; Understanding Air and Space Science; to name a few.

Included in our plans is an advanced planetarium chamber, or "Spacearium," which will allow the visitor to leave the surface of the earth and journey into space. More importantly, it will be an ideal location to demonstrate the quantum jump of current scientific advances. For instance, the recent discovery of a variety of organic molecules in extragalactic space has startling implications for mankind, as does the discovery of pulsars and quasars. No facility is better equipped for making these understandable to the layman than the modern planetarium chamber. In short, we have the potential to explain the whole relationship of man to his universe.

Closely allied with and supporting this type of exhibit is the planned Historical Research Center, encompassing a library and other facilities necessary for scholarly research. This research will not only look into the past, expanding our knowledge of air and space history, but will probe into the future, examining possibilities for using our new technology for the benefit of all mankind.

Visitors

From the viewpoint of the National Air and Space Museum, dramatic changes have occurred this past decade. The Apollo program has produced new artifacts of historic importance, such as the moon rocks and the Apollo Eleven Command Module. The American public has demonstrated an avid interest in viewing these, partially because of their uniqueness and partially because as taxpayers they financed their acquisition. The Museum, for its part, has an obligation to preserve and display them in such a fashion and location that the maximum number of visitors to Washington can see them.

Not only are Americans interested in our nation's space progress, but the lunar landings have aroused intense interest throughout the world. During the Bicentennial, many foreign visitors will be especially interested in learning more about this American success story, and should be able to see it properly displayed, in a fashion which makes it clear that we too recognize the importance of our air and space heritage.

It has been estimated that by 1976, twenty million people will visit Washington, D. C. The majority of these people will seek out the Smithsonian Institution to see the Hope Diamond, the "moon rock," the Star Spangled Banner, and all of the other interesting and magnificent artifacts displayed by the Institution. To these visitors the Smithsonian Institution is one place, on the Mall. To locate the National Air and Space Museum anywhere else but the Mall would be a disservice to our millions of visitors. By the same token, the new museum should create no added problems with regard to people or automobile congestion. The visitor comes to the Mall to the Smithsonian, and will continue to do so with or without the new National Air and Space Museum. What will change is simply the quality of what he sees, a steel shed or a first-class museum.

The new building will also provide an additional parking facility for over 500 automobiles. This coupled with plans for the Visitor's Center parking, the use of Park Service Tourmobiles, the Metro System, fringe parking, and other planned visitor parking will contribute much to reducing automobile congestion.

Bicentennial Celebration

The President, in his Washington Bicentennial Message, stated:

"The central challenge of our Bicentennial preparations is to plan for an observance 'on the move.' ... The common goal to which all subscribe has nowhere been stated better than in the 1970 report of the celebration's official planning and coordinating body, the American Revolution Bicentennial Commission: 'to forge a new national commitment -- a commitment which will unite the nation in purpose and dedication to the advancement of human welfare as we move into Century II of American National Life.'

"We can best forge such a spirit, the Commission went on to recommend, by approaching the Bicentennial as an occasion both for understanding our heritage better and for quickening the progress toward our horizons..."

With that charge the President selected the new National Air and Space Museum as one of the structures needed by July 4, 1976.

And what better place is there to provide millions of visitors with "...understanding our heritage" or to "...quicken the progress toward our horizons..."

What better place to accomplish this than a museum dedicated to our air and space heritage. Air and space science and technology are areas in which our nation has always excelled, and a part of our history which we should emphasize.

This new building can serve to educate, to entertain, to inspire. It can be the most exciting museum in the world. With adequate support in FY 1973, it can be a reality in 1976.

THE MUSEUM AS AN EDUCATIONAL AND RESEARCH FACILITY

Mr. COLLINS. I think the building has been scientifically designed and the amount of glass area is what we feel we should have. We have approximately two-thirds solid galleries and one-third devoted to these three large bays; which we feel will give the building a certain light and airy quality which is in keeping with the machines that we will put inside.

I would like to emphasize this building is a lot more than a building for machines, although we do have the finest collection in the world. Beyond the machines I think we have to do some of the things we were talking about this morning to make the American people understand the impact of this air and space technology on their lives and to try to use it as an educational and research facility.

Toward this end we have included plans for a planetarium chamber to occupy one of these segments and an advanced auditorium chamber the other. So between the two we will be able to do a much better job of involving the local school system which certainly needs help, and, in general, act as an asset to the community in terms of educational and research needs. We also are including a library up above, a cafeteria, and the necessary office spaces.

Mrs. HANSEN. The District of Columbia needs improvements in many areas, but their construction program has progressed rapidly. Currently unemployment in the District of Columbia is only about 4 percent. Also, District of Columbia residents have one of the highest median incomes in the United States.

There are several construction projects currently in progress. It has been discussed in other hearings that construction workers were in short supply and had to be imported from great distances to meet the needs.

(Discussion off the record.)

Mrs. HANSEN. There are many cities in the United States where this much construction would practically put them back on their feet economically.

Secretary RIPLEY. Yes.

Mrs. HANSEN. Some areas have a rate of unemployment of 10 percent.

DISTRICT OF COLUMBIA BICENTENNIAL CONSTRUCTION PROGRAM

Mr. WYATT. Would you yield, Madam Chairman?

Mrs. HANSEN. Yes.

Mr. WYATT. I would like to say that I for one have some serious reservations about the entire bicentennial construction program in the District of Columbia, which I understand totals approximately \$142 million. The reason is that we already have so much construction here, we already have many facilities that are available to the inner-city young people in the city, and it primarily benefits them. It is true we have a large tourist turnover but the percentage of the people from other States is very, very small. If we are going to justify further construction on the basis of what it does for the ghetto children in Washington, we had better be weighing this construction against some real needs of the ghetto children. If we are to justify it because of the

visitation, we had better take a careful look at the percentage of people from other States that visit Washington.

I for one think that one of the best things we could do for the bicentennial year would be to complete construction already underway in the District of Columbia, the projects the chairman has referred to. If we ever get construction finished in any one year in Washington, it will be a minor miracle.

Again, I am not prejudging myself on this project, I may well support it. But I have some serious reservations for the reasons I have given.

Mrs. HANSEN. The bicentennial program must not be construed as merely a building program to recreate the Versailles of France as one agency mentioned the other day. I said you should look at what happened to the people that built Versailles, it might be very illuminating. The bicentennial should be a celebration of man's spirit as well as the physical progress of the Nation.

Secretary RIPLEY. How right you are.

Mrs. HANSEN. The rapid transit system is an illustration of technology and progress. It also is going to assist, hopefully, lower income people getting to and from their jobs.

It also is going to allow a certain flexibility I would hope in the housing area. It certainly will allow us a greater flexibility in the entire structure of government.

One agency that appears before this committee stated that all the projects they were requesting for the bicentennial celebration were approved by the Bicentennial Commission. I am a member of the Bicentennial Commission and I think it is ill considered to say the budgets, of each particular agency involved in this program, are approved or disapproved by the Commission. I think the White House is in an impossible position. They have many requests for bicentennial projects. I don't think frankly the White House is in a position of saying we disapprove of beautifying Washington or we disapprove of other projects.

I think the White House has sufficient commonsense to establish over-all priorities. This is a matter of judgment.

The National Park Service is requesting a rather large amount for bicentennial programs. I think the major consideration should be to bring the country together and not go overboard in spending in those areas which are not of direct benefit to the American people.

Secretary RIPLEY. I couldn't agree more with you, Madam Chairman.

VISITORS TO THE NATIONAL AIR AND SPACE MUSEUM

Mrs. HANSEN. How many visitors per year visit the National Air and Space Museum?

Mr. COLLINS. Counting the World War I shed that we use now and part of the Arts and Industries Building next to it, we have about 3.5 million per year.

Mrs. HANSEN. What percent of these visitors are from areas other than the District of Columbia?

Mr. COLLINS. The majority, Madam Chairman. I don't have the statistics, but I would hope somewhere in the Smithsonian we might have done some surveys.

Secretary RIPLEY. In the one place we have done a firm survey we found that 50 percent were from further away than the outside radius of Washington that could be described as real tourists. The other 50 percent broke down about 20 percent local and 30 percent are from the large suburban area. So it is about 50 percent. I would assume it would be probably more than that that come on the Mall because of the fantastic school visitations we get during the summer and during the breaks in the winter.

Mrs. HANSEN. The committee is not at all critical of area people visiting your facilities. In fact this committee initiated the summer in the parks program to attract the inner-city young people and hopefully get them off the streets and out of nonproductive activities. We are happy to have that participation.

What effect do you feel the construction of the new National Air and Space Museum will have on visitations.

Secretary RIPLEY. We estimate this new museum will double the visitation to over 6 million. Our shed is only about 100 feet long. That is where we have part of the air and space exhibits.

Mrs. HANSEN. The committee would be less than frank if we didn't discuss the various problems. That is why we held lengthy hearings on the Hirshhorn Museum and Sculpture Garden.

Secretary RIPLEY. Madam Chairman, we think that the Air and Space Museum project is on more universal grounds as far as the American public is concerned. Contemporary art is a little bit controversial still in the United States, but we don't think space technology is.

(Discussion off the record.)

Mrs. HANSEN. Mr. McDade.

NATIONAL NEED FOR THE AIR AND SPACE MUSEUM

Mr. McDADE. Doctor, would you for purposes of my questioning insert in the record a rather detailed justification of the necessity from the standpoint of the Nation and its history? You have already touched on technology, but a justification for the existence and construction of the museum.

Would you tell me, too, who it is that is responsible for picking the site for the museum.

Secretary RIPLEY. We have the history of that.

Mr. McDADE. Tell me that now.

Secretary RIPLEY. Mr. Bradley has the full record of that.

Mr. BRADLEY. The 1946 act established the Air Museum and directed the Smithsonian Board of Regents to memorialize aviation and to exhibit historically and technologically important artifacts, mainly aircraft, and provide educational materials. That was a quarter of a century ago. In 1958, Congress designated the site on the Mall. This was supported by Senator Randolph, both as a Senator and as a Member of the House.

Mr. McDADE. Who recommended the site?

Mr. BRADLEY. Senator Anderson and the Board of Regents.

Mr. McDADE. It was the Board of Regents of the Museum?

Mr. BRADLEY. Yes, the Smithsonian Board of Regents recommended this site. Substantially at the time of authorization in 1958, the Senate committee specified the reason behind the site; namely, that it would

be convenient to the millions of visitors who would come to the Smithsonian each year and there see the entire Smithsonian complex of museums and galleries. The National Air and Space Museum was to be a part of the complex.

In 1964 and 1965, Congress approved appropriations of planning funds in the amount of \$1,875,000. That led to the creation of the 1966 design whose cost has escalated from about \$40 million in 1966 up to about \$69 million today. That led to our most recent redesign you see here, trimmed down in size in the ratio of 69 to 40 in order to cut the dollars of construction costs.

In the meantime in 1966, Mr. Bow and Mr. Kirwan and Mr. Mahon particularly championed the authorization of construction. It was a split authorization. The first authorization was for the site and planning; the second was for construction. That is what we are working with, those six points of involvement and approval on the part of the Congress.

Mr. McDADE. So the site was an original recommendation of the Board of Regents concurred in by the Congress some time ago?

Mr. BRADLEY. Yes, in 1958 specifically.

RESPONSIBILITY FOR DEVELOPMENT OF THE MALL

Mr. McDADE. Can you tell me who has responsibility of the overall development of the Mall?

Mr. BRADLEY. It is a split responsibility between the National Park Service of the Interior Department and the Smithsonian. It so happens that by acts of Congress, we have title to the sites of our building. So we occupy much of the Mall, and we are glad to say we cooperate with the Park Service who police and maintain it.

Mr. McDADE. Have any of those with responsibilities for the development of the Mall dissented from your decision to have this location?

Mr. BRADLEY. No, sir.

Secretary RIPLEY. In 1958 there was some debate about the National Cultural Center, now called the J.F.K. Center, being located on that site. Congress voted against that and for the Air Museum.

Mr. McDADE. Were there any other major construction items in or around the Mall planned by the Smithsonian?

Secretary RIPLEY. Not at this time. No, not planned. There are two projects underway. The National Gallery of Art is adding to the gallery with land authorized for that purpose in 1937, and the Hirshhorn Museum and Sculpture Garden is under construction. These are the only two.

Mr. McDADE. And there isn't anything in this budget requesting additional planning money for purposes of other buildings along the Mall?

Secretary RIPLEY. No.

(Discussion off the record.)

Secretary RIPLEY. I was a member of the Pennsylvania Avenue Commission, and we had a master plan for the Mall. We hope eventually if this Commission comes back into action they will say something about the Mall plans. There are one or two possible more sites along the Mall which might be used in future years.

Mr. McDADE. But there is no planning money or construction money other than this?

Secretary RIPLEY. None at all.

VALUE OF THE AIR AND SPACE COLLECTIONS

Mr. McDADE. Is there any way you can place a value on the inventory that you have already acquired? The justification that requests additional positions emphasized the growing inventory of artifacts. Is there any way you can place a value on what you have got in stock now?

Secretary RIPLEY. It is very difficult, Mr. McDade. There is an implicit value which is like the National Archives that is just priceless, like owning Wilbur Wright's plane.

Mr. McDADE. Do you have an insurance policy on the plane?

Secretary RIPLEY. No, we have no insurance on any of the objects. Last year when we had a fire in the Museum of History and Technology we had to come to Congress and ask for a supplemental appropriation for reconstruction because we do not carry insurance. Let me point out, as recently as last week, because of the great research and exhibit value of our collections, a man came to me who is responsible in large part for the development of commercial aviation in this country and said he would like to arrange to give us all his documents, models, medals, and other items which belonged to him and are still in possession of his company, if we would appeal to his board now.

This shows the kind of attraction of collections that happens to us that wouldn't happen if we didn't have this museum in prospect.

I think we could probably give you a kind of a general background qualitative monetary inventory that we would identify the Wright plane, the Lindbergh plane, the Apollo 11 capsule, the lunar landing module, and other objects which represent in essence hundreds and hundreds of millions of dollars. We also have the largest documentary resources in the world relating to air and space history and technology. No university or museum has a comparable collection.

Mr. McDADE. How much of the several hundred million, if one can place a value on it, has come to the museum through donation?

Secretary RIPLEY. I think most of it.

Mr. McDADE. Can you give it to me on a percentage basis?

Secretary RIPLEY. I think we can say approximately 100 percent. Just like the offer of last week that I mentioned. Somebody comes in and says "because you exist I will give you all of this material." That has been, in general, the way it is. In fact we haven't really solicited very much for our collections. They generally have come to us because we exist. We also receive bequests. Guggenheim gave us \$250,000 over 10 years for fellowships and study, Admiral Ramsey left us \$600,000 for education and air and space study. We think the Air and Space Museum should indeed be not only the exhibit center, but also the documentation center for research in air and space for the Nation simply because it exists. It is kind of a Library of Congress for this particular aspect.

Mr. COLLINS. I think the Mall is clearly the place for it. When one comes to the Mall and makes the circuit, I think they should see all of

American history, and this is clearly a part of it which our country has always done well.

I think as Madam Chairman pointed out this morning, there is a terrible lack of understanding of the machines and we would like to get away from the machines themselves in this new museum to the ideas behind them and what their implications have been in all of our lives. I think we can do that with our historical research center, our library, our planetarium chamber, and other facilities a building of this size would afford us.

(Discussion off the record.)

Mr. McDADE. Let me ask this question and you amplify it for the record. Dr. Ripley, in a time of great debate about reordering of priorities and the strain on the Federal Treasury, would you justify the expenditure of \$40 million for the Air and Space Museum?

Secretary RIPLEY. I will.

(The information follows:)

STATEMENT BY THE SECRETARY ON THE NATIONAL NEED FOR THE
NATIONAL AIR AND SPACE MUSEUM

Certainly there is a strain on the Federal Treasury, but I think we must assess the \$40 million in proper perspective. Could we compare it, for example, with the \$110 billion earmarked for human resource programs in the fiscal year 1973 budget request? This sum would build nearly 3,000 air and space museums, and grows annually, whereas ours is a one-time request. Yet, I don't feel such comparisons are entirely proper because we are adding to human enrichment, not competing with it. Further, it may well be that our efforts, resulting in a public facility in the high density Mall area, are more cost effective than many "competing" programs of less permanence.

To be more specific, I think we need to examine \$40 million in the context of the moneys already spent in space exploration. As we all know, the space program over the years has been financed by the taxpayers, to a level so far of \$40 billion. We are now asking for \$40 million (1/1,000 of that amount) to properly catalog and exhibit the results of that expenditure. In other words, for every \$1,000 paid so far we are asking the taxpayer for one additional dollar as a one-time expense for this museum. This request is called a budget item for fiscal year 1973, but is more properly one for generations to come, and its cost should be amortized over several lifetimes.

A further comparison could be made between \$40 million and the value of our national air and space collection. While it is not possible to define absolutely the limits of value for the original Wright Brothers airplane, for instance, it is certainly fair to say that if not priceless, it is worth a great deal of money.

Some of the space artifacts have more tangible value, and can be judged by what they cost the taxpayers. In many cases these artifacts cost many millions of dollars each. In fact, our lunar module alone cost \$50 million, more than we need to construct a building for it. Since a cost analysis of the entire collection cannot be made on replacement value (most of the items are one of a kind), other criteria must be used. Resale value? Lindbergh's "Spirit of St. Louis" would probably bring several million on the world market. The world's most expensive art collection is reputedly the Louvre's and its value is in the vicinity of \$100 million. By any estimating method, our air and space collection is worth more than that, and may in fact be worth several times that. In any event, it is apparent that compared to the value of its contents, a \$40 million building is proportionately a smaller investment than for other museums.

It is also interesting to note that with the exception of one aircraft purchased by Act of Congress for \$25,000, all other aircraft and spacecraft have been donated to the National Air and Space Museum. In many cases, the donors have been motivated by the hope of having their prized possession displayed in a proper setting.

Of course, the space collection is only one part of what we intend to display; beyond these machines lies the story of space technology and its impact upon civilization. Whether we realize it or not, technology is still man's best hope for the future; indeed it may be his only hope for survival on what space photog-

raphy has shown to be a tiny, fragile, and polluted planet. The museum would not only be a showplace for this technology, but would act as a catalyst for its transfer from the very few who have produced it to the many who have potential uses for it. For example, the people in the air and space industry who have devised new ways and new devices have been unable to communicate well with those in less esoteric fields who could profitably apply the techniques. The fields of potentially profitable application encompass health care, housing, education, clothing, mass transportation, law enforcement, waste management, machinery, recreation. The museum can serve as a novel, exciting, and productive channel for much of this necessary communication. We propose to build a bridge between those with the know-how and those with the need.

We will commemorate past achievements; exemplify current successes; demonstrate potentially usable materials, processes, and devices; and suggest possibilities. Hopefully, the public will be informed and potential users will be stimulated. This stimulation will in time cause new products to enter the marketplace, new American products in the world market. Last year the United States had an annual trade deficit of over \$2 billion. But this deficit would have been three times that amount had it not been for a favorable balance of almost \$4 billion achieved in the aerospace field.

The museum will also serve as an inspiration to the youngsters of America and hopefully guide them toward productive careers. They are our Nation's most valuable resource, and the museum will be a valuable resource for them, at all educational levels. The very young are always fascinated by seeing real airplanes and spacecraft. This fascination serves to open the door to cooperative school programs with resulting curriculum enrichment, and progresses to an understanding of the underlying principles of physics, chemistry and allied principles.

On a more mature level, scholars, writers, historians and various professionals will work with the museum's extensive reference library to create an unrivaled center of learning in the history and development of air and space exploration.

There have been many inputs into our air and space progress: The wealth of this Nation, the vision of its political leaders, the intelligence of its scientists, the dedication of its engineers, the careful craftsmanship of its workers, and the enthusiastic support of its people. For maximum impact, this record should be preserved and displayed in the heart of our Nation's capital, close by where the historic decisions were made, across the street from the Aeronautics and Space Agency, in the shadow of Capitol Hill. Appropriately enough, this is exactly the spot selected by the Congress in 1958. With proper support now, it can become a reality in 1976, when the eyes of all the world will focus upon the United States and our bicentennial celebrations. Here we have an opportunity to make the bicentennial a celebration of man's spirit, to project ourselves as we would like to see ourselves, and would like the world to see us.

If I may, I would like to close by inserting in the record at this time a short piece I wrote for the March 1972 issue of the Smithsonian Magazine, which addresses itself to several points we have been discussing.

*America's finest Air and Space Museum
is planned for 1976 to display and give meaning
to a unique Smithsonian collection*

This month the Congress of the United States will have the first chance in nearly six years to think seriously about a noble cause—the building of the nation's first appropriate National Air and Space Museum. Voted in 1966 to spread its wings on Washington, D.C.'s Mall, the museum died aborning in the spate of agonizing over the Vietnam War. Only last year, in the fiscal 1972 budget, did Congress respond to the bidding of the White House and revive the project.

It has been a long-held concept that somehow the United States, where so much of the pioneering in air and space has taken place, should create a public monument, a showcase in the nation's capital, to demonstrate this unique inventiveness of its people. All Americans can be proud of our skills in this realm.

No home is a better one from which to show off these skills than the Smithsonian, for many of our present technological triumphs were started in this Institution. Ours has been the hearth and home to much of the stimulus of what we all take for granted today—the sponsorship of invention and research in aerodynamics and astronautics. This Institution has played a central role in stimulation, in funding (in the early days of flight) and in the maintenance of tradition.

From Kitty Hawk to the craters of the moon, from Langley's "aerodromes" to Goddard's first rocket, from the National Advisory Committee for Aeronautics to NASA, we have faithfully kept a compact with Americans to support and promote interest, research and,

above all, *understanding* of what was vital in sky and space travel.

Now we come to Congress with a mandate from the President to open a new National Air and Space Museum in 1976, the bicentennial year. Our new director of the Air and Space Museum, former Apollo 11 astronaut Michael Collins, says that the new structure will give the public a chance to assess past, present and future air and space programs, all under one roof. Here will rest the nation's permanent collection of significant objects relating to this tantalizing realm. Here will be a place for serious study by scholars.

The new building, designed by Gyo Obata, will stand opposite the National Gallery and have about the same dimensions as that beautiful creation. It will be of contemporary design, but will be in conformity with its surroundings. It will offer ample space for exhibits that will educate and inspire the estimated annual six to eight million visitors. It will use the most modern audio-visual techniques. A "Spacearium," for example, will give people the illusion of journeying into space. They will be introduced to such wonders as pulsars and quasars and the recently discovered organic molecules in interstellar space. And they will begin to comprehend the significance of what they see—and judge for themselves the relationship of Man to his universe.

Here will stand a window on the world to display our country's excellence in this new field. It is a proud tale of accomplishment. We must not fail in our quintessential mission to tell it to ourselves, our children and the world in this new building—a graceful complement to art and to the expression of imagination.

S. Dillon Ripley

NATIONAL MUSEUM OF HISTORY AND TECHNOLOGY

Mrs. HANSEN. Justify your requested increase of \$260,000 for the National Museum of History and Technology. Also how many visitations do you have per year at this facility?

Secretary RIPLEY. I will ask Dr. Boorstin to answer that.

Mr. BOORSTIN. Thank you for this opportunity to be here. I wonder if I could, in a quick parenthesis, mention why I think this is so important for all of us, pursuing the suggestion you and Congressman McDade and others have made.

At this time in our history it seems to me we need to find new ways to emphasize the positive, that is, what we have succeeded in doing altogether as a nation.

If I may be permitted another parenthesis, I would for this reason think the Air and Space Museum would be absolutely crucial. Just as the Museum of History and Technology shows the displays of the greatest of American achievement in the time we have existed as a nation and how we have grown on the achievements of other nations, the Air and Space Museum could do more to dramatize the promise of our future.

We have approximately 6 million visitors a year coming to our Museum of History and Technology, which makes it by a factor of 2 the most visited museum in the world. We don't know exactly what proportion of these people come from afar but it is our impression that a very high proportion of them come not only from outside the Washington area but a considerable number of them from abroad.

In this year the indication is that visitation will be increasing significantly, perhaps as much as 20 or 30 percent. During the month of January there was an increase to about 277,000 visitations which was about 25 percent more than it was for the same month of the previous year.

The problem of explaining to these people, the making use of our 13 million objects, to introduce all of these people to the American achievement is the problem of our Museum.

We are asking what seems to us to be a modest increase of \$260,000 this year in four different segments; first, an amount of \$23,000 to allow us to continue to explore a computerized inventory of the national historical collections. We have already experimented with the technique with our collection of 4,000 hand guns. One of the reasons why we should proceed is that until we have an adequate catalog of all of our collections we are not really making the maximum use of our collections which have been brought together and housed at such great expense.

PREVENTION OF DETERIORATION OF OBJECTS

On the second item, the prevention of deterioration of objects, we are asking for an increase of three positions, and \$165,000. This will provide for three museum technicians and will also allow us to proceed with the treatment of certain objects that badly need conservation.

For example, we have, as you know, the First Ladies' gowns in our collection. To date we have restored about 14 of those gowns at an ap-

proximate cost of about \$1,000 per gown. We would like to proceed to conserve and prepare the other gowns so they will not deteriorate.

Also there are problems in the Division of Musical Instruments, many of which are now stored in the best area we could find for them which is improvised from what was to have been an iron and steel hall in the basement, an especially air-conditioned and prepared area. We would like to be able to conserve those in a better fashion.

Also the area of numismatics, coins and paper money, some examples of which you saw today, requires further technical assistance.

ACQUISITION OF OBJECTS

I would like also to ask for a small sum of \$50,000 for the acquisition of new objects of special historical importance which become available. An example is the opportunity to acquire some of the patent models from the Gilbert collection which we did not acquire when a part of the collection first came available to us some years ago. We would only make a selection of these.

Another kind of object which we would like to acquire if we had the resources would be, for example, this briefcase which belonged to Abraham Lincoln which is now available on the market and which is obviously the only one of its kind that we know of. It ought to be in a national collection but it will probably have to be purchased.

RESPONSES TO PUBLIC INQUIRIES

The fourth item for which we request three clerical positions and \$22,000 is for curatorial support and that means to a very large extent providing an inexpensive way to answer public inquiries. During this fiscal year so far we have answered over 60,000 public inquiries which came in by letter, by telephone, in person, and in every conceivable way. These inquiries have to be answered by curators, by high priced personnel, except to the extent that we can provide secretarial assistance, people who can answer letters and send out mimeographed replies, and so on. In addition, this kind of assistance is required to help us reach the thousands who come to our performances. We had over 240 separate demonstrations and performances of different kinds so far in this fiscal year, reaching over 16,000 people. All these require activity on somebody's part, planning, letterwriting, telephone answering, and so on.

Madam Chairman, that is the extent of our request. I would be glad to answer, of course, any questions you might have about our other plans and how we are proceeding.

Mrs. HANSEN. I think you have given a complete answer. You have a very interesting museum.

Mr. BOORSTIN. Thank you. I hope you will come again and see us and have a chance to see some of the projects that are developing.

NATIONAL COLLECTION OF FINE ARTS

Mrs. HANSEN. You currently have 72 permanent positions for the National Collection of Fine Arts. Why do you need six additional employees?

Secretary RIPLEY. Mr. Blitzer.

Mr. BLITZER. By way of introduction, the National Collection of Fine Arts is our museum of the history of American art, the national museum for that purpose. The request of \$200,000 in additional funds and six additional positions comes under three categories. The first category is two positions and \$55,000 for collection management and use.

Mrs. HANSEN. What does this \$55,000 entail?

Mr. BLITZER. Of this amount, \$25,000 is for acquisition funds. The museum so far in this fiscal year has received about \$200,000 worth of works of art as gifts and we are very proud of that. The problem with depending solely on gifts is that the museum and its staff then has really little control over what it gets. It can go out and look for gifts, but if a particular thing is needed to fill a particular gap in the museum purchase funds are necessary. This is especially important in a museum organized on historical principles.

Mrs. HANSEN. Do you currently have an exchange program?

Mr. BLITZER. I don't believe so, Madam Chairman. We have talked about this.

Mrs. HANSEN. I know we have discussed this matter. That is why I asked the question.

Mr. BLITZER. I think since our last conversation there have been no exchanges, no sales, no dispositions whatsoever. Of that same \$55,000, under collection management and use, two positions and \$21,000 are requested, one for a conservator of prints and drawings, and the other for an archivist to deal with photographic negatives and prints of which the museum has a very, very important collection. I may say the print and drawings conservator will serve both the National Collection of Fine Arts and the National Portrait Gallery for which we have shared conservation facilities and laboratories.

EXHIBITION ACTIVITIES

The second request for the National Collection of Fine Arts under the heading of exhibitions is for two positions and \$99,000. This is tied very largely to two of the activities of that museum. One is the newly opened Renwick Gallery and the other is the Smithsonian Institution Traveling Exhibition Service which is now administered under the National Collection of Fine Arts.

I may say that when we get to the bicentennial item I would like to talk a little more about traveling exhibitions. But the request here is for \$10,000 for shop operation for the Traveling Exhibition Service and one position at \$11,000 for an exhibition specialist to aid in the mounting of exhibitions. The rest of this item comes under the heading of support for the Renwick Gallery.

Mrs. HANSEN. How many people have visited the Renwick Gallery to date?

Mr. BLITZER. It has had over 50,000 visitors already in the 6 weeks it has been opened.

PUBLIC EDUCATION

Finally, Madam Chairman, the National Collection of Fine Arts is asking for two positions and \$46,000 under the heading public edu-

cation. I would say at the risk of contradiction by one of our other museum directors that the National Collection of Fine Arts has had as successful an education program as any of our museums, and perhaps the most successful. It is really an enormously successful program and one of the things that they are hoping to do in the years ahead is, in a sense, to nationalize that school education program. Obviously, we can't have the same relations with schools farther away that we do with our local schools, but we would like to have an exhibition showing other districts how this is done, with educational materials prepared to be sent around.

Secretary RIPLEY. A great deal of this being private funds that get introduced into this system.

VISITOR ORIENTATION

Mrs. HANSEN. Mr. Blitzer, thousands of schoolchildren visit Washington, D.C. each year. I have a suspicion their visits to the Smithsonian Institution are similar to visiting a Legislature. In most instances the children visit the Congressional galleries for 5 minutes and then move on. Have you attempted to make the visit experience to Washington more meaningful so they would know, for example, what the Smithsonian encompasses overall? There doesn't seem to be very much orientation prior to visiting Washington, D.C.

I followed a group of schoolchildren one day at Mt. Vernon and the general tenor of the visit was this is where George Washington lived. Very little else about Mt. Vernon was mentioned. They were not informed about interesting facets of society that existed during that period of American history.

I suspect many of the children feel that visiting Congress is a wasted effort because usually their total visit experience is 5 minutes in the galleries.

Is there an effort to make schoolchildren aware of what they are going to see in the various areas of our Government?

Mr. BLITZER. I would say for the National Collection of Fine Arts and also for the National Portrait Gallery that this is precisely the effort they are now engaged in.

Mrs. HANSEN. Are the Museums of Natural History and History and Technology as well as the Air and Space Museum making a similar effort?

Mr. BLITZER. I don't know how to distribute these stacks of publications but you will see, for example, in this one are the catalogs for this fiscal year of the Portrait Gallery. A couple of thinner ones toward the bottom are precisely educational catalogs from educational exhibitions.

Secretary RIPLEY. A great deal of the success of the effort depends on curriculum coordination, Madam Chairman. Prior to the visit.

Mrs. HANSEN. Schools should be able to have in their libraries information that will make the visit to Washington, D.C. more meaningful to a youngster.

Mr. BOORSTIN. May I make one comment about our museum? We do need to do much more, as you suggest. I think it is extremely important, especially since such a large number of high school children come here in buses from remote places. We do have an arrangement whereby if they will write in advance of their coming then they will

be provided a guide in the form of a docent or perhaps one of our curators. They also will be sent some material. But I think we would all agree that we need to develop our publications in that direction more. I think that the Museum of Natural History has a kit, do you not, that you send?

Secretary RIPLEY. Our elementary and secondary education program is developing such materials. We schedule classes. If we can schedule a class, then the docent, the teaching system person, will be there and will take the class through. What is so difficult to do, however, is to get the schools to take the responsibility that when their curriculum is, let's say, keyed to the life of George Washington, as you describe, that that is just before the visit to Mt. Vernon. This is something that individual cities—I have been doing some research on this—have been working on in different parts of this country since before the turn of the century.

The need is to get the teachers to give their lectures in coordination with the known schedule of the visit to an historic site, museum, or whatever it is. It is a continuing thing and a need which includes getting an orientation film or a series of film strips or slides, to these kinds of catalogs into the hands of the teacher to lecture. No single school system has ever been able to guarantee that they can keep the same pattern every year because of their internal city budgets or school budgets which vary from year to year. Also, is the bus going to be available? Let us say the day when the whole thing has been scheduled the bus breaks down and it is the only bus, so then the children don't get to the museum.

When I was in Connecticut and involved with the university there and the school system we had 98 schools and we tried continuously each year to schedule an orientation session, then the visit, and so on. The tiniest things happened. The lunch boxes weren't delivered that day. The milk went sour. So they decided to wait until next week, or there was a strike and the bus driver wasn't driving. It is absolutely extraordinary.

The best system that I have seen has been an orientation film that doesn't depend so heavily on orientation in the schools. The school gives a general program and then schedules a tour at a certain time. If you then can be responsible at the museum, sit them down in an auditorium, and give them the orientation, that is almost the only guarantee you can have of orientation keyed to your exhibits.

Mrs. HANSEN. I would like to see young people return from the Capital with a much more meaningful experience than they are receiving today.

Mr. BLITZER. May I add just one observation off the record?
(Discussion off the record.)

NATIONAL PORTRAIT GALLERY

Mrs. HANSEN. What is the additional workload that justifies seven additional employees for the National Portrait Gallery in addition to the 39 already authorized?

Mr. BLITZER. Madam Chairman, two positions are requested for the Catalog of American Portraits, a cataloger and key punch operator. As you know, the Catalog of American Portraits is by now a rather longstanding enterprise that presumably will continue for a reason-

able length of time. It is an attempt to make a central national union catalog of all known authenticated portraits of people important in the history of this country.

This serves the Portrait Gallery very directly in its own exhibition and publication programs. It also, I may say, serves it in its acquisition program by making it aware of portraits that were otherwise not known. But it is, beyond that, a real national resource for historians and art historians.

One of the additional positions requested by the Portrait Gallery is for a clerk-typist in the history department. I believe we told you last year that the Portrait Gallery recruited a first rate historian from the University of Wisconsin. She has now been on the staff for half the fiscal year. She has been extremely active in research and writing, and she is producing enough in the way of manuscripts and research and publications that we simply feel she needs the support now of a clerk-typist.

Finally, four positions are requested under the heading of "Administration and Technical Services" to provide an administrative assistant and clerk-typist in the office of the Director, and one additional technician in the photo lab and in the Library. These are also facilities that are shared with the National Collection of Fine Arts. Our hope is that by adding one person to the photo lab we will be able to take care of all the needs of both museums in the taking of photographs and the processing of black and white photographs. They still would not be capable of processing color photographs. We will have to look to somebody in the Smithsonian Photographic Services Division who will do that.

HIRSHHORN MUSEUM AND SCULPTURE GARDEN

Mrs. HANSEN. What is the current status of the construction of the Joseph H. Hirshhorn Museum and Sculpture Garden?

Secretary RIPLEY. Mr. Bradley will speak to that.

Mr. BRADLEY. Madam Chairman, we have been advised by the Public Building Service, the construction agency for the Smithsonian, that the building is to be substantially completed by the end of this calendar year. "Substantially completed" means that there would be areas, for example the ground floor, that would be available to the Smithsonian to move in and start doing what we have to do although there would still be what they call finish items on the part of the contractor.

Mrs. HANSEN. Such as?

Mr. BRADLEY. It could be painting certainly, or plastering, or hardware, or locks on doors, putting up the lighting fixtures and other things of this kind. But we would have power in the building so we might be busy on the ground floor and on the fourth floor where the administrative offices are and the storage of paintings putting in the storage screens that we hope to get out of this budget. In the meantime the contractor might be completing his work in the Sculpture Garden and on the Plaza, and the second and third floors which are the main exhibition floors. We expect in that way to move at a time when we can open the building to the public in the fall of the calendar year 1973.

(Discussion off the record.)

NUMBER OF POSITIONS IN THE HIRSHHORN MUSEUM

Mrs. HANSEN. How many permanent positions are currently authorized for this activity?

Mr. BRADLEY. Twenty-one positions.

Mrs. HANSEN. Where do they work and what do they do?

Mr. BRADLEY. I think these titles suggest the employees' duties. In the administrative area, we have a director, an administrative officer, two clerical persons, and a contract specialist. We are requesting an additional clerk here. For research and curation of paintings and sculpture, we have two curatorial persons and three curatorial and research assistants, a librarian, two museum aids, and a typist. We are asking for one additional curator and a typist. In the exhibits program, we now have a curator, three exhibits and museum specialists, and an aid. We would like one more aid and a secretary. We have no current positions in the education program, but need to develop this by adding a chief, two education specialists, and a typist. For museum registration we now have a registrar and an aid and are seeking one more aid and a clerk typist. And for technical support, we are requesting three persons to head our paint, frame, and carpentry shops. This constitutes the existing staff of 21 and 14 additional. As to the place where they work, they are all in New York City.

Mrs. HANSEN. Do these individuals work at the Hirshhorn estate?

Mr. BRADLEY. No, Madam Chairman. They are all in New York City.

Secretary RIPLEY. Mostly in the warehouse where the art works are.

SPACE RENTAL

Mrs. HANSEN. Who is paying the rental at this time on the warehouse?

Mr. BRADLEY. It is split. It is paid for by the donor, Mr. Hirshhorn, to the extent that it represents the storage and security of the collection. It is paid for in part by the Smithsonian, to the extent that we are preparing the collection to be placed on exhibition.

CONSERVATION AND RESTORATION

Mrs. HANSEN. How much cleaning and touch-up work was necessary?

Secretary RIPLEY. A great deal, really, because the collection is an old one. It goes back to the 1920's and much of this material has to be cleaned, which would have been done normally under schedule if it had been in an art gallery. The use and wear and tear of exhibitions—he is loaning constantly—has been especially felt in recent years, in the past 15 years, as the collection became known as being so important. Some deterioration is inevitable, so that a great deal of work to prepare objects for a proper art gallery exhibition had to be done. This appears to be par for the course.

Mr. BLITZER. May I add one thing there, Madam Chairman? We have advised you for the last couple of years that that expense would dwindle away, that there was a finite number of works to be prepared for the opening exhibition. I am proud of the fact that the budget now before you does, in fact, reflect that it has dwindled away almost to nothing. The result is that we can employ these 14 new people for

the required part of the next fiscal year at no added expense, simply by using the money that we no longer need for work on the collection.

Mr. BRADLEY. To answer your question further, Madam Chairman, \$401,000 through fiscal 1973 is the estimated cumulative total cost for conservation and framing for a total of 1,620 objects of art.

STAFFING FOR THE MUSEUM

Mrs. HANSEN. Justify your request of 14 additional positions for the Hirshhorn Museum.

Mr. BRADLEY. I tried to cover those as I was listing the current positions.

Mrs. HANSEN. Please insert a list of those positions in the record. (The list follows:)

HIRSHHORN MUSEUM STAFFING

Functions and positions	Fiscal year 1972	Requested new fiscal year 1973	Functions and positions	Fiscal year 1972	Requested new fiscal year 1973
Direction and administration of the museum:			Exhibits program and loans:		
Director	1	-----	Curator	1	-----
Administrative officer	1	-----	Exhibits specialist	1	-----
Secretary/clerical	2	-----	Museum specialist	2	-----
Contract specialist	1	-----	Museum aid	1	-----
Research and curation of paintings and sculpture:			Secretary		1
Curator		1	Education program:		
Associate curator	1	-----	Chief		1
Assistant curator	1	-----	Education specialist		2
Curatorial assistant	1	-----	Typist		1
Research assistant	2	-----	Museum registration:		
Librarian	1	-----	Registrar	1	-----
Museum aid	2	-----	Museum aid	1	-----
Secretary		1	Typist		1
Typist	1	-----	Technical support:		
			Chief, paint shop		1
			Chief, frame shop		1
			Chief, carpentry shop		1
			Total	21	14

FURNISHINGS AND EQUIPMENT FOR THE MUSEUM

Mrs. HANSEN. \$1.4 million is requested for furnishing of the building interior. First of all, I want you to put a detailed listing in the record of the individual items making up this estimate.

Mr. BRADLEY. Yes, Madam Chairman. (The list follows:)

Hirshhorn Museum Furnishings and Equipment

Requested in the Fiscal Year 1973 Budget

Lighting:	
Interior/public	\$5,000
Exterior/garden	10,000
Lighting fixtures and lamps	17,000
Library shelving	50,000
Exhibit security system/painting exhibit security detector	50,000
Landscaping	40,000
Electronic Tour Guides	60,000
Sales room equipment	50,000
Coat room equipment	3,000
Gallery equipment:	
Track mounted lights	40,000
Draperies	60,000
Benches	15,000
Partitions	15,000
Carpet:	
Galleries	110,000
Fourth floor	20,000
Auditorium	20,000
Furniture and Equipment	
Offices and meeting rooms	55,000
Library	40,000
Lounge	25,000
Seminar room	25,000
Reception	25,000
Registrar, mailroom, etc.	19,000
Stone pedestals (footings) and benches	95,000
Conservation laboratory (ultra violet lighting, worktables, etc.)	65,000
Examination laboratory (x-ray units, work tables, etc.)	38,000
Photographic laboratory (screens, cameras, processing and printing equipment, etc.)	27,000
Auditorium (seats, projectors, sound system, screen, stage curtains, etc.)	47,000
Storage screens (143 screens 14 feet by 22 feet with two sides; fire extinguishing systems)	400,000
	<u>\$1,426,000</u>

APPROPRIATION FOR THE MUSEUM CONSTRUCTION

Mrs. HANSEN. How much was authorized and appropriated for the construction of the Hirshhorn Museum?

Mr. BRADLEY. \$15 million was authorized by the Congress and \$15 million has been appropriated.

Mrs. HANSEN. What was the amount of the contribution by Mr. Hirshhorn?

Mr. BRADLEY. \$1 million for construction.

Mrs. HANSEN. Why was this contribution made?

Mr. BRADLEY. This was due to an overrun totally unexpected on the construction bids in May 1969. We were looking for a bid of about \$14 million. We got a low bid of \$17.6 million.

Mrs. HANSEN. What were those construction funds to cover as far as building appurtenances are concerned?

Mr. BRADLEY. The construction funds were expected in 1967, to provide \$12,500,000 for the building including a contingency item of \$500,000 plus \$500,000 for furnishings and equipment, a reservation item of \$600,000, a total of \$1.6 million, in the belief in 1967, that the money would be available for some of the furnishings, depending upon possible contingencies, claims, and change orders. The overrun on the bids, however, put us into a deficit of over \$3 million and we simply had to say that we reject all bids. The architect went to work and redesigned and finally in December of 1969, we obtained a construction bid of approximately \$13,800,000 which we bought. Under that circumstance we estimated reservations and contingencies of about \$600,000 and adding in the \$1 million from Mr. Hirshhorn we have a building.

Mrs. HANSEN. What type of expenditures do you make from your reservations and contingencies fund?

Mr. BRADLEY. Reservations are things that you can do more economically yourself, like installing lamp bulbs and planting and landscaping; contingencies are simply the inevitable but the unknown. They might be any kind of a change order to accommodate the exigencies of construction. They are not precisely known but you know in every job you have them. So we had a total of some \$600,000 plus about \$200,000, or actually \$749,000 for reservations and contingencies; this is not a large amount on a project of this size.

(Discussion off the record.)

Mr. BRADLEY. We want to give you the arithmetic difference, what we know is obligated and what we estimate is on hand, but we know that there is going to be a tremendous demand for any funds that we have on hand. If we have any that can possibly be used for equipment, for example, for the shops, furnishings, rugs, or seats for the auditorium, or for the huge 14 by 22-foot sliding screens to store paintings on we would do so. We just have to keep in touch with you on that.

Mrs. HANSEN. When construction of the building is completed, will all of the construction funds have been expended?

Mr. BRADLEY. Yes, Madam Chairman.

Mrs. HANSEN. Within the limits that you just described?

Mr. BRADLEY. Within the limits of appropriated funds, \$15 million, and \$1 million from Mr. Hirshhorn.

CHARGING EQUIPMENT TO THE CONSTRUCTION ACCOUNT

Mrs. HANSEN. To what extent are items included in your \$1.4 million request subject to interpretation that they logically should be charged to the construction account?

Mr. BRADLEY. Madam Chairman, depending on who is doing the interpreting—we have had similar matters interpreted both ways.

For example, in the Museum of History and Technology we had such items as furnishings and equipment in the construction appropriation and a joint committee of Congress directed that we excise about \$1 million and return it to the Treasury. We put it before this committee and asked for the same \$1 million which we had turned back to the Treasury. That was on the contention that you should not add in to a capital account what could be interpreted as not being part of the building, and this really depends on interpretation. For instance, if a bench is grouted down, for example, because it is a stone bench then someone would say, "Well, it is attached to the building," but if you move a wooden bench next to it and screw it down maybe that is considered not attached to the building. But we have obtained equipment and furnishing funds both ways and we have found a way of living with this situation by simply explaining to the Congress in our justifications and hearings fully what we plan to do with the money. If we get the money on that basis, we spend it on the same basis. Witness our 1970 experience with the General Accounting Office, where the question was raised as to spending construction funds for furnishings and equipment for the Natural History Museum. There was no further question raised after we explained that we had fully disclosed, as honestly and fairly as we could what we were asking and then using the money for.

Mrs. HANSEN. Is there any intent whatsoever to avoid the limitation on the use of funds for construction?

Mr. BRADLEY. No intent.

Mrs. HANSEN. To what extent have you procured legal advice on this request?

Mr. BRADLEY. I would be glad to respond to that by saying we could put a statement in the record. I have a general understanding with the General Counsel. He knows what we are doing.

Mrs. HANSEN. Please insert a specific statement in the record in this regard.

Mr. BRADLEY. Right.

(The information follows:)

INTERPRETATION OF CONSTRUCTION AUTHORIZATION WITH REGARD TO COSTS OF FURNISHINGS AND EQUIPMENT

Although there are relatively few decisions on this subject, the general rule appears to be that appropriations for "construction" are not construed to include authority for the purchase and installation of furnishings and equipment unless the legislative intent to do so is reasonably clear either from the legislative history or from additional language in the authorizing or appropriating acts. For example, 30 Comptroller General 447 (1951) was a case in which it was held that the use of the word "construction" in an authorizing statute would not be understood to include authority for furnishings and equipment.

In the present instance, Public Law 89-779, 20 U.S.C. section 76ee, "authorized to be appropriated not to exceed \$15,000,000 for the planning and construction

of the Joseph H. Hirshhorn Museum and Sculpture Garden * * *", and the subsequent appropriations bills provided funds "for necessary expenses of the preparation of plans and specifications and for the construction of the Joseph H. Hirshhorn Museum and Sculpture Garden * * *". There was no additional language covering furnishings and equipment, and the contract made by the General Services Administration under this authority was for basic construction only. That contract does not include any of the items for furnishings and equipment provided for in the current appropriations request.

The above interpretation of the construction authorization has been consistently followed in the annual appropriations proceedings. In fiscal year 1972, for example, the appropriations request included both the final increment of \$3,697,000 for basic construction under the contract and \$440,000 for furnishings and equipment. In my opinion this interpretation of the original authorizing legislation is correct, and such authorization of "construction" funds may not properly be interpreted to include any restriction on requests for subsequent appropriations for the furnishings and equipment necessary to outfit the basic building for specific museum purposes.

PETER G. POWERS, *General Counsel*.

MARCH 23, 1972.

Mrs. HANSEN. Are employees funded from this appropriation engaged solely in official work for the Smithsonian Institution?

Mr. BRADLEY. Yes, ma'am.

BICENTENNIAL OUTDOOR MUSEUM

Mrs. HANSEN. Aren't you somewhat optimistic requesting planning funds for the bicentennial outdoor museum before the legislative authorization is approved?

Mr. BRADLEY. Yes, Madam Chairman.

Secretary RIPLEY. That is a question of timing.

Mrs. HANSEN. Is this to establish the Bicentennial Park at Fort Foote, Md.?

Mr. BRADLEY. Primarily Fort Foote, Md.

Mrs. HANSEN. I am quoting from a letter I have received:

I believe your Appropriations Subcommittee is about to consider a money item within the Smithsonian budget request that would establish a bicentennial park at Fort Foote, Md.

I trust the Smithsonian has provided you with several copies of the brochure available from the National Armed Services Museum Advisory Board.

Even a casual reading of that brochure excites the prospective tourist with terms such as "the clatter of tackle and banging of carriage in recoil" . . . "alarms of war" . . . "band of music"—indeed, competition among fife and drum corps . . . noisy challenges by make-believe sentries at the gate of the ersatz wooden colonial fort to be erected on the site of what was, of course, actually a Civil War fort.

Certainly someone with your distinguished background and expertise in the problems attendant upon inadequate road and highway planning will be aghast at what such a tourist attraction will do to the narrow, winding, country roads that serve this peaceful but growing Maryland area adjacent to the Potomac.

And I believe one with your knowledge of real estate values will quickly realize the detrimental effect of the above-detailed noise pollution on valuable homes (including my own) situated barely 100 yards from the prospective site of this exhibition.

We the citizens of the Fort Foote area petition you and your colleagues to consider whether there might not be a more appropriate form and location for this project. Is it, in fact, a justifiable expenditure in view of other national priorities and the increasing national debt?

What is your comment in this record?

Mr. BLITZER. I don't know which parts to pick. The winding country roads and the access I think have all been cleared with all the appropriate planning authorities in Maryland and the District and it is our understanding this is all right.

As to the clash of the fife and drum corps, the purpose of this outdoor museum is to recreate in an appropriate outdoor setting, not the killing of people in 1776, but the life of the Revolutionary Army and in as realistic a setting as possible, the citizens' army before the Revolution.

Mrs. HANSEN. I might add we wouldn't have freedom of the press if somebody had not fought the battles of the Revolution.

Mr. BLITZER. Madam Chairman, this plan represents careful thought and planning by a congressionally established advisory board that has gradually narrowed its planning down to this particular kind of celebration tied to the bicentennial, stressing the peaceful contributions of the Armed Forces in the development of our civilization and the creation of our country. It is a very distinguished group that has been working on it much longer than I have been around and involved with this plan.

Mrs. HANSEN. Mr. Wyatt.

Mr. WYATT. My question is kind of a broad one. I am becoming increasingly concerned about overlapping jurisdictions and duplicating efforts. Where, Dr. Ripley, in your judgment is the line between the National Park Service and its obligations and the Smithsonian Institution and its obligations in this area?

Secretary RIPLEY. In the area of commemorating the Revolution?

Mr. WYATT. No, sir; in the area of public parks.

Secretary RIPLEY. Well, the National Armed Forces Museum legislation stemmed from the Congress in 1961 and charged the Smithsonian with developing an outdoor museum. In that sense if you wish to define a museum as a museum you then avoid the kinds of things which the Park Service normally does. The Park Service takes its own site, let us say Gettysburg, and creates there an interpretive historical reconstruction of what theoretically, depending on which historian they consult, happened in Gettysburg.

An outdoor museum, on the other hand, uses the outdoors as a setting and creates a museum which, as the CBS gentleman points out, may not in fact actually represent the things that have happened at that site, but in a setting which is outdoors, creates a museum environment in which people come and can learn something that has been developed by historians about a particular event, sequence of events, and historical episodes.

The question then comes down to who operates in the out of doors. The Park Service essentially operates in the out of doors although sometimes they come indoors, but the Smithsonian has essentially operated in the indoors although sometimes we go out of doors. The distinction perhaps is that history at historical sites has usually been the prerogative of the Park Service whereas museum-like activities which are not pinned to historical sites have usually been the preroga-

tive of the Smithsonian. I think philosophically speaking that is about as basic a kind of distinction that I can make.

Mr. WYATT. Let me refer to your statement on page 15 in the second paragraph about the middle of the page. You say :

Legislation now before the Congress would authorize the establishment of Bicentennial Park at two federally-owned sites on the Potomac River—Fort Foote, in Prince Georges County, Md., and Jones Point. * * *

Then you go on to say :

This outdoor museum would include.

I am interested in this in particular :

A small visitor center, parking and other necessary visitor facilities, a parade ground, a naval ordnance park, an outdoor theater, and a boat landing.

Each one of those portions of the museum could just as well be a portion of a new national park or a recreation area, something that is under the jurisdiction of the Park Service. This legislation has not passed Congress at the present time ; is that correct ?

Secretary RIPLEY. The National Armed Forces Museum legislation did pass Congress in 1961 and is the legislation under which the National Armed Forces Museum Advisory Board has been operating. This legislation envisaged specifically this kind of operation in 1961.

Mr. WYATT. Then you are not awaiting the passage of this legislation referred to on page 15 of your statement ?

Secretary RIPLEY. We are awaiting the passage of this legislation with reference to the specific site because the 1961 act authorized us to carry out these activities on sites to be determined and then authorized by the Congress. So the sites with the cooperation of the Park Service, have been determined and the Park Service is going to make these sites available in order to carry out the activities envisaged in the original act.

Mr. WYATT. I understand your distinction but what it seems to narrow down to I think is that the Park Service is working more and more towards activity that heretofore perhaps has been thought to be museum-type activity while the Smithsonian perhaps is working a little toward the center also.

Mrs. HANSEN. I think where this occurs is that the National Park Service has an opportunity through their historic preservation program of saving a great many national landmarks and State landmarks, in various areas of the country.

For example, Federal Hall has been restored. This is not an outdoor facility, but it is part of the National Park Service system. Federal Hall was used to a great extent as a discussion hall. Presidents made speeches at this facility. Today people are still making speeches at this facility. You find compacted almost 200 years of history right in front of Federal Hall. Yet the Smithsonian Institution under current authority couldn't have restored the Federal Hall area.

Secretary RIPLEY. We, for example, do not administer Ford Theater in this area nor the house in which Lincoln died and those are places where something actually happened, whereas we might in one of our museum settings reconstruct something like this if it had to do with teaching of American history.

Mr. WYATT. We have Fort Clatsop in my home county, a national memorial administered by the National Park Service, and that is re-

construction of something that actually did happen, too, in the very early days of our history. I can think of numerous examples like that.

Secretary RIPLEY. I think the question cuts both ways, Mr. Wyatt.

Mr. WYATT. I think it does, too, and that is what concerns me. It concerns me that you have a parallel activity to an extent.

SITES FOR THE BICENTENNIAL OUTDOOR MUSEUM

Mrs. HANSEN. I thought you had another location planned for an outdoor museum. I thought you were going to have a place with ships, and so on. What happened to that?

Secretary RIPLEY. Originally we asked for Fort Washington from the Park Service, which is across from Mount Vernon. They first offered to give it to us. Then they withdrew and parallel to that Congresswoman Bolton and a group of friends of Mount Vernon decided that to have a ship basin there at Fort Washington would interfere with the historic setting—and off the record.

(Discussion off the record.)

Secretary RIPLEY. At any rate, the Park Service then volunteered to give us Fort Foote, which is a close site and, as you point out, is a Civil War site. We are duty bound under the 1961 legislation to attempt to develop this outdoor museum concept as originally intended.

Mr. WYATT. I am not suggesting criticism of you or the Smithsonian, Dr. Ripley. If there is to be criticism it probably should be directed to Congress itself for developing these parallel roads. I just want the record to reflect my concern about having to an extent two organizations that are in the same field.

COOPERATION WITH THE NATIONAL PARK SERVICE

Secretary RIPLEY. In the city of Washington, may I point out, we cooperate very closely with the National Park Service which has its National Capital Parks division. For example, the Kennedy Center under the legislation is a bureau of the Smithsonian although we are not involved in its budgeting or appropriations. And recently I believe the Park Service has been entering into a suggestion, although I am perhaps anticipating, that they might take on some of the guard maintenance problems in the buildings.

Mr. WYATT. That is one thing they don't want.

Mrs. HANSEN. Please insert in the record a detailed reply to the letter I have quoted.

Secretary RIPLEY. Yes, we will.

(The reply follows:)

H.R. 10311, a bill to establish a National Historical Museum Park and to designate the study center authorized under section 2(a) of the act of August 30, 1961, as the Dwight D. Eisenhower Institute for Historical Research, was introduced in the Congress on August 3, 1971 by Mr. Bow. This bill is responsive to section 3(a) of Public Law 87-186, which directs the regents of the Smithsonian Institution to investigate and survey lands and buildings in and near the District of Columbia for these purposes.

After thorough consideration of all potential sites in the Washington, D.C., area by a Presidentially appointed advisory board specifically established for this purpose, the Director of the National Park Service, Department of the Interior, offered Fort Foote Park, consisting of approximately 87 acres in Prince Georges County, Md., and Jones Point Park, 50 acres, on the southern

edge of Alexandria, Va., as sites for the proposed outdoor museum. In the judgment of the advisory board and the regents, these sites represent the best lands available for outdoor museum purposes. Fort Foote in particular offers the varied terrain, natural setting, and the proximity to the Potomac River inherent in the concept. Since the land already is federally owned, no land purchase will be required, nor will any land be removed from the tax base of the communities involved.

In regard to the study center, it has been determined that it can be contained within existing Smithsonian facilities on the Mall without the need for additional construction.

On December 14, 1966, Fort Foote was approved by the Prince Georges County Planning Board and by the Maryland-National Capital Park and Planning Commission as a site for the outdoor museum, subject to several conditions. On January 12, 1967, approval was received from the National Capital Planning Commission. At the time consideration was being given by the local planning groups to this matter, Smithsonian representatives met with various Fort Foote community organizations and the proposal was strongly endorsed by the Oxon Hill Vista Citizens Association and by the Indian Head Highway Area Action Council (see enclosures 1 and 2). One of the conditions upon which the Maryland-National Capital Park and Planning Commission gave its approval was based on an understanding that access to the park would come from the then-proposed George Washington Memorial Parkway that was to connect Interstate 495 with Fort Washington. In the meantime, events have intervened and plans for the parkway have been dropped by the National Park Service.

On March 14, 1972, Mr. John H. Magruder III met with William W. Gullett, Prince Georges county executive, to discuss current plans for the outdoor museum. Mr. Gullett welcomed the museum as an asset to the county and offered to cooperate in every way to resolve any problems that access to the park might raise. Further discussions in this regard with appropriate county officials are planned.

As the national museum, the Smithsonian Institution is deeply concerned with the preservation of historic sites as well as committed to safeguarding the ecological balance of our remaining open spaces. We have no plans to destroy the old Civil War fort. Our initial plans to reconstruct a revolutionary war encampment and small palisaded fort will avoid the old earthworks entirely and will be located further to the south in an open area. All exhibits will be set back at least 200 feet from residential property lines while trees and other plantings, as well as fencing, will serve to insulate the museum park from residential areas. We are sure that museum activities will not create an annoyance to the surrounding community.

The very nature of the museum park can be expected to attract visitors, generally in family type groups, wishing to spend part of the day in an inspirational outdoor environment. There should be no concentration of heavy traffic at any one time as might be encountered at, say, the Filene Center (Wolftrap), or the Carter Barron Amphitheater.

Discussions with county officials as well as with area citizens' groups indicate the outdoor museum is looked on as an asset to the Fort Foote community, one that will enhance rather than depreciate property values. We feel there is ample room to accommodate the exhibits and other museum facilities without encroaching on nearby residential areas.

The subcommittee's attention is invited to the attached copy of an editorial appearing in the Washington Post on November 15, 1971 (enclosure 3), welcoming the proposal for Bicentennial Outdoor Museum. Such strong community support, added to the endorsement of the President contained in his special message to the Congress of February 4, 1972 (see p. 8 enclosure 4), have greatly encouraged us in developing Bicentennial Outdoor Museum as a new dimension in the presentation of history. I can assure you that the Smithsonian Institution will seek to work in harmony with the Fort Foote community and will give every consideration to the best interests of Prince Georges County.

December 9, 1966

Mr. W. C. Dutton, Jr., Chairman
Maryland-National Capital Park and
Planning Commission
4811 Riverdale Road
Riverdale, Maryland

Dear Mr. Dutton:

On November 16, 1966, the Planning Commission met and discussed the proposed National Armed Forces Museum Park, but deferred for thirty days' any recommendation for approval or disapproval. This letter is to apprise you of the views of the community in which the proposed Museum Park will be located. I am sending copies to each of the other Prince Georges County members of the Planning Commission, so that they too will be aware of our views.

The Oxon Hill Vista Citizens Association covers the area in which it is proposed that the Museum Park be located. No resident in the area has approached me with any objection to the Museum. The Museum has been discussed at two meetings of our Citizens Association, although not perhaps in depth because of lack of detail with respect to it. There may be citizens who have reservations about it, or who may later object for personal reasons. To date, however, the general community feeling is unanimously favorable.

A study of the land situation shows that the Smoot Land and Gravel Company owns about 314 acres, the Potomac Land and Gravel Company owns 80 acres, and Mrs. Carolyn Cagle owns about 130 acres, a total of about 524 acres, all in the general area of the proposed Museum Park. This total acreage is appraised for tax purposes at \$193,490, and taxes are assessed in the amount of \$6,850.26. The Museum Park contemplates use of 85 acres now owned by the National Park Service, and acquisition of 175 acres of water, 35 acres of filled land, and 315 acres of existing land. This latter acquisition must come mainly from the 524 acres mentioned, with perhaps other small parcels from adjacent acreage. The withdrawal from taxable status of this land will have a very small impact on the present tax structure-it appears that this would not exceed a withdrawal of approximately \$5,000 from total tax receipts. It should also be remembered that a portion of this acreage is within the taking lines of the proposed George Washington Memorial Parkway, and construction of the GWMP will in any event remove some of the acreage involved from taxable status. Thus the tax impact of the Museum Park by itself will actually be less than the withdrawal I have mentioned. Further, in view of the several proposals for this land, and our resolve to protect the Potomac shores from undesirable development, it is unlikely that this land will ever be

assessed at a high valuation, with consequent high tax return. The present Henson Creek Watershed Master Plan, and even the proposed South Potomac Sector Plan, still in a formative stage, confirms a protected park-type usage for these lands.

In contrast to the small tax impact, there should be considered the high impact of wages paid and materials bought if the Museum Park project is undertaken. The economic benefits will be enormous - in the multi-millions. Nor will these economic benefits cease upon completion of the project. People and material will be needed for continuing maintenance and operation. Thousands of visitors will also have a tremendously beneficial economic effect on the whole metropolitan area.

A letter to the Editor published in the Sunday Star of October 2, 1966, written by a resident of the area south of Broad Creek, not a resident of our area, drew a very lurid picture of the proposed "Temple to the Gods of War". Her liberal use of descriptive adjectives and the wild portraits she drew with her words made interesting reading. However, her suppositions were far from fact or reality, and her motives are suspect. Citizens who live much closer to the proposed site, who welcome the acquisition of parkland for the public benefit, who are thoughtful of the entire community, and who look forward to the future and to the alternatives which face them, have substantially different views.

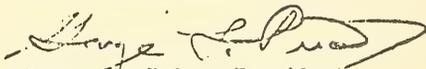
War is never a pleasant thing. But it has been with us since the dawn of civilization. It is part of our past. It will doubtless be part of our future. Hiding history will not change it. A pictorial history of the Armed Forces, in the dignified presentation proposed for the Armed Forces Museum, will be an asset to the community in which it will be located.

Wars are not totally bad. From wars have come tremendous advances in medicine, in transportation, in social adjustment, in industrial progress, in communications, to list only a few. The sides of war which are not all bad will be portrayed as well as the historical aspects.

The Armed Forces continue to exist between wars. Their peacetime accomplishments will also be portrayed. The construction of the Panama Canal, the opening of the West, the understanding and control of malaria, the improvement of rivers and harbors, and many other accomplishments have been achieved in peacetime. The Museum proposes to portray these peacetime accomplishments so that the role of the Armed Forces in the nation as a continuing whole will be shown in proper perspective.

The community in general supports the National Armed Forces Museum Park proposal. We hope that, when you again discuss and vote on it, you will support it and recommend its approval.

Sincerely yours,



George W. Price, President
Oxon Hill Vista Citizens Association
4 Panorama Drive
Oxon Hill, Maryland 20021

Mr. W. C. Dutton, Jr., Chairman
Maryland - National Capital Park and Planning Commission
4811 Riverdale Road
Riverdale, Maryland

Dear Mr. Dutton:

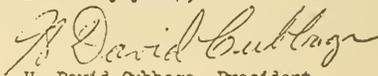
In reference to the proposed location of the National Armed Forces Museum Park in our area, as President of the Indian Head Highway Area Action Council I would strongly urge that you look upon this project favorably.

One of the objectives of the citizen's organization which I represent is protection of the limited access and high speed features of Indian Head Highway. However, among a number of other objectives is the promotion of beautification and of park, recreational, and cultural projects for the lands adjacent thereto.

We think that this particular location overlooking the Potomac River is most fitting. It is a locale rich in American history, with such landmarks as Oxon Hill Manor, Notley Hall, and Harmony Hall, and with Fort Poote and Fort Washington reminding us of the basic freedoms gained and protected for us by the military forces of the nation.

Not the least of our considerations is the fact that such a cultural addition will add rather than detract from the preservation of a Potomac River that belongs to all of the people of America ---- an objective we hope and pray will always be an integral part of your planning.

Sincerely yours,



H. David Cabbage, President
Indian Head Highway Area Action
Council
6827 Murray Hill Drive
Oxon Hill, Maryland 20022

The Washington Post

AN INDEPENDENT NEWSPAPER

MONDAY, NOVEMBER 15, 1971

PAGE A18

Bicentennial Encampments

We welcome the proposal of the Smithsonian Institution for the celebration of the American Bicentennial encampments. It calls for two "bicentennial outdoor museums" along the Potomac. One, on the Maryland side, would be located at Fort Foote, just south of the Woodrow Wilson Bridge. The other, on the Virginia side, would be located at Jones Point, just north of the bridge at the edge of Alexandria. Both are to focus on the Revolutionary War citizen soldier shown in "an operating military encampment where Americans of all ages can explore their country's fascinating past in an inspirational environment designed to bring history alive." The goal is to "see, hear, touch, smell and feel" the life known by our 18th-century ancestors. Plans for the 165-acre Fort Foote park include a major visitor center with parking areas, a parade ground, a palisaded fort, a continental encampment, a naval ordnance park and a boat landing. The Jones Point area may include a ship berth serving as a permanent berth for historic Navy and Coast Guard vessels, including the USS Teledyne of Civil War fame that is to be restored after more than a century on the bottom of Mobile Bay. The Smithsonian's planners hope that water taxis will ferry tourists between Jones Point and Fort Foote and perhaps Mount Vernon.

At this point, however, the Smithsonian is still awaiting permission from the White House Office of Management and Budget to submit legislation which would allow it to negotiate with the Interior Department about the use of these sites. Once this is obtained, the Smithsonian can also officially begin to coordinate its plans with the Alexandria and Prince Georges County authorities in order to draw up more definitive plans for handling the crowd of visitors. And once that is done the Smithsonian has to go back to Congress for authorization and appropriation of funds. In short, actual development of these outdoor museums is still a long way

off. And yet, distant and tentative as they are, these Smithsonian plans are so far the most tangible bicentennial proposals anyone has come up with.

THE WHITE HOUSE
WASHINGTON

February 4, 1972

MEMORANDUM FOR SECRETARY RIPLEY

Subject: President's Message on the District of Columbia Bicentennial
Program

Enclosed is an advance copy of the President's message on the District of Columbia Bicentennial program. I appreciate the cooperation of your staff in the formulation of these proposals. I am sending it to you on an "eyes only" basis prior to its scheduled release at 11 a.m., Friday, February 4.

Egil Krogh, Jr.
Assistant Director
Domestic Counsel

Enclosure

FOR RELEASE AT 12 NOON (EST)

February 4, 1972

Office of the White House Press Secretary

THE WHITE HOUSE

TO THE CONGRESS OF THE UNITED STATES:

"Scaffaring is necessary," says the Latin inscription on an old building in one of the great European port cities; "mere living is not." This same spirit of movement, venture, and quest animates the whole sweep of America's story -- from its discovery by men who lived for sailing, to its founding as a nation by men who lived for liberty, to its modern maturity as the world's preeminent power -- and it will do so still, 4 years hence, when we observe the Bicentennial of American independence. The Nation could not if it wanted to, and should not if it could, drop anchor somewhere in 1976 and savor the occasion at leisure. By its very nature it can only speed through the year as through any other, under full sail, on into a new century.

The central challenge of our Bicentennial preparations, therefore, is to plan for an observance "on the move." Many groups -- public and private, national and local -- have already devoted several years of creative thought and effort to meeting this challenge. The common goal to which all subscribe has nowhere been stated better than in the 1970 report of the celebration's official planning and coordinating body, the American Revolution Bicentennial Commission (ARBC): "to forge a new national commitment -- a new Spirit for '76 -- a commitment which will unite the nation in purpose and dedication to the advancement of human welfare as we move into Century III of American National Life."

We can best forge such a spirit, the Commission went on to recommend, by approaching the Bicentennial as an occasion both for understanding our heritage better and for quickening the progress toward our horizons -- not just in one chosen location or a few, but in every State, city, and community. The Commission's goal and the principles deriving from it have my strongest support, and I have followed with interest the ARBC's further work as well as that of the individual Bicentennial Commissions already set up or now being formed by each State and territory, Puerto Rico, and the District of Columbia.

THE BICENTENNIAL IN WASHINGTON

Since the Federal Government has special responsibility for District of Columbia affairs, my closest contact has been with the planning effort now underway here in the District -- and I have found its progress thus far most impressive. And so it should be. For while no one city will dominate this truly national anniversary, Washington -- which was built to be the Capital of the Republic born in 1776 and seat of the Government constituted in 1787, and which has been in many ways a center of the hopes of all Americans in all generations since -- has a unique role to play. As its plans are made known, they may well serve as a stimulus and an example for the equally important plans being made in thousands of other communities. Both to

ensure that Washington itself is ready for 1976 and to spur Bicentennial activity all across the country, I shall outline to the Congress today an action plan for Federal partnership in the District of Columbia's Bicentennial observance.

My proposals follow two basic themes. One is the quest for quality of life -- today's name for the age-old aspiration which Jefferson at the Nation's birth called "the pursuit of happiness." Here is the very essence of a Bicentennial celebrated "on the move." The past success of this quest, its present vigor, and its future prospects will provide a telling measure for our self-assessment as the great milestone nears. Such a theme's immediacy will call up exertion as well as congratulation -- not only a birthday party but an actual rebirth.

The second theme which I would stress is dual excellence for Washington. In choosing which Bicentennial projects to pursue among myriad worthy possibilities, an old question arises again and again: Washington for Washingtonians, or Washington for all Americans? A kind of civic schizophrenia has troubled this city from the earliest days of its double existence as both a national capital and a community in its own right. Solutions going to both extremes have had their advocates -- yet there is a better answer than either making thousands of people reside neglected in a strictly Federal city that is "a nice place to visit," or making millions of other people receive their governance from a narrowly provincial and self-centered capital where officials and visitors are classed as outsiders.

The Bicentennial Era, I am convinced, is the right time for Washington to gain a new and more expansive sense of itself, and to find in its dual identity an opportunity for dual excellence unparalleled among American cities. The seat of government can excel as an exemplary living city, at the same time the home of 750,000 local residents excels as a gracious host to fellow-citizens and foreign visitors who may number 40 million during 1976 alone.

The projects proposed in this message, then, treat quality of life in the Nation's Capital as indivisible. They aim for dual excellence, in the conviction that a more liveable city is a more visitable one, and vice versa. For the most part, they emphasize physical construction -- not by any means because public works are the sum total of our Bicentennial intentions for the District, but only because building time is already becoming critically short. Activities of many other types, such as commemorative events, pageantry, and social and cultural programs, which will of course be essential to the human dimension of the Bicentennial but which require somewhat shorter lead-times, are also being planned. Reports on these activities and, in many cases, requests for approval and funding will be submitted to the Congress as we move toward 1976.

One further note on Bicentennial concerns not mentioned here but certainly not forgotten: It is my feeling that nothing we could do for the District of Columbia during the next 4 years would be more meaningful or more appropriate to the Spirit of '76 than granting this city and its people first-class status: voting representation in the Congress. I am encouraged by the apparently warmer climate for this reform on Capitol Hill in 1972, and it will continue to have my support.

FORT LINCOLN NEW TOWN

Speaking at the National Archives last summer in a ceremony inaugurating the Bicentennial Era, I described an unusual painting which hangs in the Roosevelt Room across from the Oval Office in the White House. The scene portrayed is the signing of the Declaration of Independence -- but for some reason the canvas was never finished, and many of the figures in the crowded hall are just sketched in, or left blank. The symbolism of this, I said, is that "the American Revolution is unfinished business, with important roles still open for each of us to play." A broad cross-section of District of Columbia citizens have now begun playing their roles in the continuing drama by serving on Mayor Washington's recently formed Bicentennial Assembly and Bicentennial Commission. We in the administration found the work of the old local Commission quite valuable in formulating our own plans for 1976, and we look forward to working closely with the reorganized two-level planning group in the future.

One of the strongest strains of community opinion identified by local representatives like these is a commitment to revitalizing the urban heart of this Washington area. This, not flight to the suburbs or complacent satisfaction with the status quo, seems to arouse hope and determination at the neighborhood level. At the same time it seems a most appropriate cornerstone for a Bicentennial program designed to lift the quality of Washington life.

Accordingly, I shall initiate immediate Federal action to move ahead on plans for building a new town at Fort Lincoln in Northeast Washington. Fort Lincoln, over 300 acres of open land which received its name as a military post a century ago and which was long the site of the National Training School for Boys, offers an ideal chance to create not just another urban project where homes are razed and the human factor is designed out, but a totally new community planned around people. More than 4,000 dwellings for families of varied incomes are envisioned -- three-quarters of them owner-occupied, to provide an anchor of stability in the development.

Innovative public transportation and communications systems and experimental educational programs would help knit the community together. Both the installation of these features and the construction work itself would be used as demonstration settings for some of the social-benefit technology applications which I proposed in my State of the Union message. Also integral to the new town would be a Federal employment center for 5,000 to 10,000 employees, and a possible satellite campus for the Federal City College. The development would be financed through public-private partnership, with the initial Federal investment (supplemented by District contributions which will need approval by the Congress) likely to be matched several times over in related private investment.

"The city lives!" -- a rallying cry which meets with considerable skepticism in some quarters today -- would be the assurance forcefully offered to Washingtonians and the world by a Fort Lincoln town occupied and operating in 1976. We are determined to make it happen.

NEIGHBORHOOD SOCIAL DEVELOPMENT

The Fort Lincoln idea is not new, but the impetus behind it is -- a neighborhood, community-based impetus, with which I am delighted to associate this administration. In order to demonstrate our support

for this kind of bootstrap Bicentennial initiative, we shall ask the Congress to make available several million dollars in Federal funds to supplement the local funds set aside to carry out the social development project proposals which will be gathered by the local Bicentennial Commission and Assembly in neighborhoods all over Washington beginning this spring. None of these latter projects will approach the scale of Fort Lincoln, but most will be no less soundly rooted in ordinary people's knowledge of their own needs. The process of listening and response, as well as the project implementation itself, will make for a healthier and more progressive city.

We are also increasing our efforts to assist in redevelopment of the inner-city areas devastated by the riots of April 1968. Two recent ground-breakings give evidence that the work is moving ahead, but also remind us of how much is left to do. The job, of course, is not the Federal Government's alone, but we must and shall contribute our full share and see the obligation through at an accelerated pace.

MORE COMMUNITY PARKS

One frequently voiced need is for more parkland -- not just in the ceremonial center of the city, but out in the residential sections as well. Planning is now underway for a joint Federal-District park development program focusing on underused, publicly owned land near the Anacostia River, close to some of the District's most crowded neighborhoods. New recreational facilities will be constructed, to permit intensive use of the sorely needed new parks by Anacostia residents. Also within the Anacostia Basin, improvements will be carried out at the National Arboretum. Another major green-space project planned for completion by 1976 is the Fort Circle Parks, 17 outposts of the Army's old defensive system around the periphery of the District of Columbia, some dating back as far as the War of 1812. Strips of parkland are to link all the forts into a continuous belt containing bike trails, hiking paths, community recreation facilities, and campsites. Further, the District and the Interior Department will cooperate in rehabilitating and upgrading smaller parks in many areas of the city. I ask the Congress to approve the funds requested in my 1973 budget to move all of these projects forward on schedule.

A NEW DOWNTOWN CENTER

I also support, as vital to the kind of development momentum Washington must have to hold its head up among American cities in the Bicentennial Era, the District government's intention to construct a major convention center-sports arena complex near Mount Vernon Square.

This project would help to counter the centrifugal forces which are pushing both the leisure activities of local people and the major gatherings of out-of-town visitors away from the centers of many major cities. It would mean new business and investment and jobs for blocks around. And it would inject new life into nearby neighborhoods -- provided, of course, that the legitimate concerns of merchants, working people, and residents in those neighborhoods receive fair consideration in the planning and location process. The scope of Federal assistance, however, should be appropriately limited, since I believe that a development largely local in function and benefits should have substantial local financing as well.

FOLLOWING THROUGH: EDUCATION AND TRANSPORTATION

New communities, new parks, new focal points for downtown business -- all will help Washington carry through the ARBC's "Horizons '76" theme of honoring our founding principles by forging a better future with them. So too will two other ongoing District efforts, for which Congressional assistance requested during the last session is still much needed: our public colleges and our METRO subway system.

Washington Technical Institute is proceeding with plans for buildings at its new permanent location on the north side of the former Bureau of Standards site in Northwest Washington. Federal City College remains in scattered lease space throughout the city despite explosive enrollment growth in the past 4 years; it hopes to occupy a campus of its own in and around the old District Library building north of Mount Vernon Square, as well as satellite locations elsewhere. The Congress can help to expedite these campus development efforts by enacting the D. C. Capital Financing Act, which makes special provision for funding college construction through direct Federal grants rather than through Treasury loans as at present.

In my D. C. message urging this action last April, I noted that WTI and the new International Center which is to share the Bureau of Standards site will in the future symbolize "side by side the Capital City's dedication to human development and to international understanding." Action by the Congress late in 1971 cleared the way for actual sale to foreign governments of lots at the International Center to begin last week. By 1976 the cluster of new chanceries there will be a pride to Americans and foreign guests alike. Let us now make sure that the District's public colleges will also be a show-place in the Bicentennial year. Ample and balanced opportunities in higher education are essential, if we are to convince millions of 1976 student visitors that the District takes care of its own.

METRO, and all of the other elements which with it will comprise a balanced modern transportation system for greater Washington, are central to Bicentennial plans for the District. We need the pride of achievement in areawide cooperation which the system will give all communities taking part. We need its people-moving capacity to cope with visitor traffic which may average up to 100,000 people daily throughout the anniversary year. I am today renewing the commitment of all the agencies and resources of the Federal Government toward maximum progress on the entire transportation system -- subway, freeways, bridges, parking, and support facilities -- before 1976. The action of the Congress in December to support continued METRO funding was enormously heartening to the people of the Capital region; it gave, in fact, a glimmer of hope to beleaguered commuters everywhere. The grim Thanksgiving prospect of a great many excavated streets to fill back in has now become the far brighter prospect of at least 24 miles of operating subway -- the most modern anywhere -- by 1976. Urgently needed now is prompt approval by the Congress of Federal guarantees for METRO revenue bonds -- the next essential step to getting the trains running.

TO WELCOME 40 MILLION GUESTS

Both the sheer visitor volume anticipated at the height of the bicentennial observance, and the important goal of eliminating a "them and us" polarity between city residents and their guests from around the world, dictate that past patterns which have made the Mall and its immediate environs a sort of "tourist ghetto" must now go. All of Washington must be made not only hospitable and attractive to the visitor -- which the proposals just outlined should go far toward achieving -- but easily accessible as well. I have directed the Secretary of Transportation to coordinate interagency action plans for supplementing those subway lines in service by 1976 with a coordinated network of other public transportation on which visitors can move from fringe parking areas (to be developed under these plans) to points of interest nearer the city center.

At the hub of this network should be a new National Visitors Center in and around Union Station. Such a facility, desirable for all years, becomes indispensable as we look to the Bicentennial. I have therefore charged the Secretary of the Interior, in consultation with the Secretary of Transportation, to take immediate action to move the National Visitors Center out of the talk stage, and to prepare new proposals for bringing it to completion by 1976. When Union Station was built early in this century at the height of the railroad era, one of its express purposes was to permit removal of an unsightly terminal and tracks from the east end of the Mall. Its rehabilitation in the seventies as the Capital's principal reception and orientation point for travelers on all modes of ground transportation would be most appropriate, and would once again relieve the Mall and downtown areas of much traffic congestion. An "air rights" parking garage for buses and visitors' cars, convenient public transit connections, and a central information facility tied in with a citywide tourist guidance and information system would be the major features of the project.

Here is an opportunity for public and private resources to combine to fill a Bicentennial need. Notwithstanding the collapse of previous railroad financing plans for the Center at the time of the Penn Central bankruptcy, I have asked Secretaries Morton and Volpe to seek substantial railroad participation as they formulate the new proposals. I shall submit these to the Congress as soon as possible, with hopes of rapid approval.

Another step which should promote smoother tourist flow to major attractions is construction of a METRO station at Arlington National Cemetery. This station, for which planning funds are requested in my new budget, would speed movement from Washington over to the Arlington shrine, which by 1976 will be enhanced with numerous improvements including a new Memorial Chapel and columbarium. At the same time it would offer the arriving visitor one more convenient transfer point from private to public transportation on the way into the Capital itself.

BICENTENNIAL GARDENS

Moving in toward the center of the city, what will the 1976 visitor find along the Mall? Most strikingly new and charming, perhaps, would be a:

park and recreation center called Bicentennial Gardens, which I propose be developed in the open land along Constitution Avenue between the Washington Monument and Lincoln Memorial. Since the last of the old World War I "tempes" were removed from the West Mall in 1970, we have explored many alternative plans for developing in their place facilities for people of all ages, incomes, and interests, residents and tourists alike, to enjoy.

The Bicentennial Gardens plan, which will soon be ready to present in detail but which of course remains open to the ideas and desires of those for whom it is intended, might be called an American cousin of Copenhagen's beloved Tivoli. It follows the present contours of the land on a low profile in keeping with other Mall developments. A restaurant, smaller eating areas, an open-air theater, a bandshell, an area for ice skating, a children's play area, fountains, gardens, a boating lake, and walking paths are examples of the kind of features that might be included. There could be underground parking to accommodate tour buses, a terminal for the tourist trams, and a visitors center in the middle of the Gardens. With such a development, the Mall's attractions would be better balanced and dispersed, evening activities now concentrated in the Smithsonian Quadrangle would have a second focal point, and mingling of Washingtonians and visitors in a pleasant year-round setting would be encouraged. Quality of life for everyone in the Capital would be enhanced.

THE MALL IN 1976

The three major monuments and memorials in easy reach of Bicentennial Gardens are to be renovated and improved in a 4-year Park Service program beginning with this year's budget now before the Congress. Another facelifting project along the whole length of the Mall, and on the Ellipse as well, will reconstruct roadways, add walks, bikeways, plantings, and fountains, and provide for a new Ceremonial Drive. This work too is budgeted for fiscal year 1973 and beyond, to be completed by 1976.

The Mall east of the Washington Monument should also have a new look for the Bicentennial. Besides the Hirshhorn Museum and National Gallery of Art addition which are now being constructed, there will be a handsome new building for one of the Mall's oldest tenants, the Smithsonian Institution. This structure, which will house the National Air and Space Museum with exhibits ranging from Kitty Hawk to Hadley Rille and with a former astronaut in charge, can be ready in 1976 if the Congress will move now to approve FY 1973 construction funds for it; the plans are nearly complete. The Smithsonian also plans restoration of the historic Arts and Industries Building to its original 1880s appearance, as a fit setting for the Nation's Centennial exhibits which it displayed following the Philadelphia Exposition nearly a century ago and will display again for the Bicentennial, and construction of a major new "Nation of Nations" exhibit in the Museum of History and Technology to illustrate America's multi-cultural tradition. Both projects are the subject of FY 1973 budget requests.

A fourth important undertaking by the Smithsonian -- not on the Mall but rather a part of the effort to give the Bicentennial activities metropolitan scope -- is the Bicentennial Outdoor Museum planned for old Fort Foote, Maryland, on the Potomac in Prince Georges County. The restored fort is to serve as the scene for re-creation of Revolutionary events such as encampments, war-time life, and parades for 1976. I ask prompt congressional action on legislation to approve the Bicentennial Outdoor Museum and to authorize appropriations for planning it.

REALIZING A VISION: PENNSYLVANIA AVENUE

As L'Enfant's majestic expanse of Mall provides an axis along which Washington visitors can honor and relive the American past, so Pennsylvania Avenue, leaving the Mall by the new reflecting pool in front of the Capitol and angling away from it a long mile up to the White House, forms the main axis of government activity shaping the American present and future. This avenue, then, also demands attention as we move to dress up the heart of the city for our two hundredth birthday. By 1976, let us complete the great Federal Triangle office complex in the spirit of the McMillan Commission's original vision 70 years ago. Let us build at its center a Grand Plaza worthy of the name, by transforming what is now a parking lot into a people-oriented park for government workers and visitors to enjoy. (Visitors will also benefit from the new information and orientation center to be opened in the Great Hall of the Commerce Building by 1976, intended to introduce citizens to the activities of all the executive departments and agencies.) I have requested funds in my budget for fiscal year 1973 to move forward on the Federal Triangle and Grand Plaza projects; with the cooperation of the Congress the work will begin in the near future.

The north side of Pennsylvania Avenue, and with it many blocks of the downtown area, can also be revitalized or well on the way by the time we celebrate the Bicentennial. The FBI building now rising north of the Avenue symbolizes half of the answer -- Federal construction -- and can stand completed and in use by 1976 with continued congressional support. A further appropriation for this project is included in my new budget requests.

The other half of the answer for Pennsylvania Avenue is coordinated development planning which will mobilize the private sector and help bring commercial and residential activity back to this part of the city. The heart of Washington must not become so dominated by Federal buildings that it sits abandoned and lifeless on evenings and weekends. The two Presidents before me initiated steps to prevent this, and to make the Avenue instead a corridor of lively and varied activity, public and private -- and my administration has continued to press this effort. In September 1970 I announced my strong support for a legislative proposal to establish a development corporation to accomplish the needed revitalization. Since then the proposal has been substantially modified in a good faith effort to accommodate all interests and segments of opinion. Once again, I urge the Congress to act quickly and favorably on the Pennsylvania Avenue Bicentennial Development Corporation bill.

When I first expressed support for the corporation plan nearly 17 months ago, I called it "an opportunity to fulfill, in this city, at this time, a magnificent vision of the men who founded our Nation, and at the same time to create a standard for the rest of the Nation by which to measure their own urban

achievement, and on which to build visions of their own." It is not an opportunity that waits forever, though; of the time available between that 1970 statement and the beginning of the Bicentennial year, more than a fourth is already gone. Every month that passes without this legislation further dims our chances of giving all Americans one birthday present they ought to have -- a Capital "main street" to be proud of.

THE NEXT FOUR YEARS

Both local and Federal plans for the Bicentennial celebration here in the Nation's Capital are far from complete at present. It is right that they should continue to evolve and expand as we move toward 1976. This message, however, attempts to set the tone and theme for Federal participation over the course of the next 4 years, and also to convey some of the aspirations of Washingtonians themselves without presuming to dictate what those aspirations should be.

The various levels and jurisdictions of government in the Washington area are well organized to follow through on the proposals I make today and to supervise further planning. The American Revolution Bicentennial Commission, with its distinguished bipartisan membership headed by David J. Mahoney, continues to provide excellent national leadership. The District government is well served by the responsive local Assembly and Commission structure to which I referred above; Mayor Washington is also establishing liaison with suburban planning bodies and with State officials of both Virginia and Maryland. The massive and diverse physical construction effort outlined in this message has been coordinated through a full-time District of Columbia bicentennial task force within the General Services Administration, until recently headed with great skill by Administrator Robert Kunzig. Now that Mr. Kunzig has become a Federal judge, I shall ensure that this coordination work is carried forward at the same high standard.

Under such direction and with the support of the Congress, we can achieve our Bicentennial goal of dual excellence in the District of Columbia, and we can realize by 1976 a dramatic improvement in the quality of Washington life for all whose physical or spiritual home this great Capital is. And by so doing we can help to inspire and encourage the preparations of other communities all across the country for a truly magnificent Bicentennial.

RICHARD NIXON

THE WHITE HOUSE,

February 4, 1972.

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BICENTENNIAL PARK COSTS

Mrs. HANSEN. What do you estimate the Fort Foote Bicentennial Park will eventually cost?

Secretary RIPLEY. Do we have Fort Foote figures?

Mr. BRADLEY. We have a projection in the justification before you, Madam Chairman, of \$1,500,000 for fiscal year 1974, assuming legislative success in 1973 of course, and then \$1.5 million in the following year. That would give us \$3 million for development or construction, if you please, and the \$275,000 we have requested for planning. Beyond that we think that what we are going to have to do, even as we did at the Zoo, is proceed on yearly increments of self-contained development. As we complete one stage then we will go to the next one. We do not have any long-range total estimated cost. We just don't think we are ready for that.

Mr. WYATT. Would you yield further, Madam Chairman?

Mrs. HANSEN. Yes.

DISTINCTIONS BETWEEN SMITHSONIAN AND THE NATIONAL PARK SERVICE

Mr. WYATT. I wonder if you would prepare for the record and send a copy to the chairman and to me a statement defining where you think the Smithsonian role should be in connection with outdoor museums and/or parks and what the line of distinction is between the Smithsonian and the National Park Service. I think perhaps you would like to do this at your leisure, so to speak, rather than just an off-the-cuff rejoinder.

(The information follows:)

STATEMENT ON RELATIVE ROLES OF THE SMITHSONIAN AND
THE NATIONAL PARK SERVICE IN CONNECTION WITH OUTDOOR
MUSEUMS AND HISTORICAL SITES

The National Park Service has both a clear authority and a distinguished record in the preservation and interpretation of actual sites of historical significance within the United States. Examples that come readily to mind include the sites of early settlements (Saint Augustine, Jamestown), battlefields (Concord, Gettysburg) and buildings (Independence Hall, Fort Laramie).

It is the Smithsonian's view that the National Park Service should continue to establish and operate museums or museum-like exhibits at the properties under its jurisdiction. In this mission the role of the Smithsonian has been to aid the Park Service with both research and exhibits techniques. The record of mutually rewarding cooperation of this kind is noteworthy. A distinguished Smithsonian archeologist, Dr. John C. Ewers, has long been involved in the planning and preparations for museums or exhibits at such National Park Service sites as the Ocmulgee National Monument in Georgia, the Custer Battlefield Monument and Museum in Montana, and the Pipestone National Monument in Minnesota.

There are similar examples of cooperation between scholars and curators of other American museums and the National Park Service. An outstanding example of long term research support to the Park Service was the Smithsonian's River Basins Survey. This bureau of the Institution, which ran from 1945 to 1969, was established at the request of the National Park Service, the Bureau of Reclamation, and the Corps of Engineers to discover the most important Amerindian archeological sites threatened by dam construction and determine which ones should be preserved for their scientific research or public educational value. It remains only to say that all such cooperation between the Park Service and the American museum community should be encouraged, since well planned museums and exhibits can make all the difference in whether or not the visiting public has a meaningful learning experience, as opposed to simply "being there."

It is in the outdoor presentation of history at places other than actual historical sites that the Smithsonian and other museums should play their traditional role. Museums have traditionally been concerned with re-creating and dramatizing history from the ground up, whether indoors in a conventional museum building or outdoors in appropriately located, reconstructed settings. Museums should be ideally suited to the latter task, by virtue both of material resources and of long experience in the interpretation and presentation of our cultural heritage. Successful examples are many. The world renowned Nordiska Museum, Sweden's premier historical museum, has been a pioneer in moving outdoors. Starting in the late nineteenth century, the Nordiska Museum built a small

village at Skansen to present a broad span of Swedish cultural history. At Skansen the visitor may see and enter church buildings, shops, schools, ships and farm houses, some built from original materials and some totally reconstructed. In this country the New York State Historical Museum at Cooperstown has broadened from a general historical museum towards the presentation of the agricultural traditions of the region in which it is located through an outdoor re-creation of a nineteenth century farming environment.

The above are but two among many examples. In general, American museums are more and more embracing a philosophy of getting out from behind conventional building walls and static, glasscase exhibits towards living outdoor settings. This is because:

- (a) Pragmatic considerations of size of objects -- a complete house instead of a room thereof, or a ship itself instead of a marine drawing -- so require.
- (b) Outdoor elements permit the visitor to enter, inspect and then learn for himself, rather than to be held off with guard rails, glass cases and excessive labels. Outdoor elements are also ideally suited to adding the living or human factor to exhibits; that is, to the presentation of the craftsman as well as the object he makes. The Smithsonian's highly popular annual Festival of American Folklife is a living testament to the desirability of moving in this direction.
- (c) Most importantly, experience has shown that outdoor elements provide high learning motivation by placing the visitor in a total environment in which he himself imagines great events, an environment, in short, where he can more easily re-create and reinterpret his cultural heritage.

It is with this philosophy in mind that the Smithsonian has requested the total environment presentation of the American Revolution known as Outdoor Bicentennial Museum. It is also the rationale behind the National Armed Forces Museum Advisory Board Act of August 30, 1961, which authorized the Smithsonian to undertake "...exhibits and study collections not appropriate for the military exhibits of the Smithsonian Institution on the Mall" and to provide facilities "for the display of large military objects and for the reconstruction, in an appropriate way, on lands acquired pursuant to recommendations made under subsection (a) of this section, of exhibits showing the nature of fortifications, trenches, and other military and naval facilities characteristic of the American colonial period, the War of the Revolution, and subsequent American military and naval operations."

In summary, therefore, the emphasis of the National Park Service is on interpreting the historic and other values of properties under its protection, while the Smithsonian and other museums are mainly concerned with interpreting the past through both traditional and innovative museum methodologies. In defining respective responsibilities in particular cases, we believe the most important overall consideration is full consultation and cooperation between the two agencies as has so often been the case.

OTHER OUTDOOR MUSEUMS

Mr. WYATT. Also I would like to ask this question. Is there any other outdoor museum that might approach a national park or historic site sort of thing outside of the Washington area now in contemplation, by existing legislation or by drawing board, by the Smithsonian?

Secretary RIPLEY. In regard to the latter question, I can answer it right away. The only thing which might be construed as relating to a living historical museum which the Smithsonian has been consulted about is a bill introduced into this Congress under the sponsorship of Congressman Patman, as I recall, which has to do with a living historical farm. Congressman Patman and a group of other Members of the Congress have been very much interested in concepts of historical farming. We have been in correspondence with the Congressman about this legislation essentially in an advisory capacity. We do have in our Museum of History and Technology a curator who is very much concerned with farming technology, equipment, regarding the history of the evolution of farming which, of course, is of enormous importance in this country. So we have volunteered to act at no cost in an advisory capacity.

But as far as I am aware, that is the only concept of this sort which has come up. In any case, we have participated because we are in a special position of knowing something about the history of farming. Aside from that, I don't know of any other. We often get requests for advice. It doesn't matter where it comes from such as Ticonderoga, or someone here or someone there wants to know what kind of uniforms the people were wearing or what kind of music was being played. They come to us because we have a general encyclopedic compendium of information about things of this sort that happened all over the country.

Mr. WYATT. Thank you, Doctor.

DWIGHT D. EISENHOWER INSTITUTE

Mrs. HANSEN. What is your legislative authority for the Dwight D. Eisenhower Institute development?

Secretary RIPLEY. This also stems from the act of 1961, Madam Chairman, which called for the creation under the National Armed Forces Museum Advisory Board of a center to study the causes, background, philosophy, and history of war and peace. I have paraphrased the wording of this, but it is the 1961 act which specifically calls for this.

Mrs. HANSEN. How will this work be coordinated with other historic activities of the Revolution being performed by various Federal and State agencies?

Secretary RIPLEY. Within the Smithsonian, we are happy to say it will be coordinated within the Museum of History and Technology, which has a Department of Armed Forces History and it will be coordinated with that. We will also coordinate with interested outside organizations.

BICENTENNIAL OUTDOOR MUSEUM

Mrs. HANSEN. Have you considered other locations for the Fort Foote Bicentennial Outdoor Museum?

Secretary RIPLEY. Well, we have two locations, as you know, Madam Chairman. One is on that side of the river, on the Maryland side. The other is on the Virginia side and we plan eventually to develop them both. The Virginia site is below Alexandria. After the first flurry of concern, the citizens and the citizen groups seemed to be very happy about it, the main problem being traffic access.

Mrs. HANSEN. Where is that site located?

Secretary RIPLEY. Jones Point, it is called. It is under and to the south of the Woodrow Wilson Bridge. It is also under the jurisdiction of the Park Service and the Park Service plans to transfer it to us.

ANACOSTIA NEIGHBORHOOD MUSEUM

Mrs. HANSEN. Since Mr. Kinard, the Director of the Anacostia Neighborhood Museum, is present today I wonder if you could briefly highlight some of your activities for the committee.

Mr. KINARD. Thank you.

What we have been trying to do at the Anacostia Museum is, through a series of programs, involve the residents of Anacostia in what a museum is all about. Ultimately what it boils down to, as far as the community is concerned, is to offer them a basic redefinition of a museum by covering subject matter in which the people are interested. This is our number one effort. A majority of the Anacostia residents are black Americans. In this whole thrust of awareness and identity they are interested in the dynamics of the part that the American black man has played in the history and development of America. This is the historical point.

Second, they are interested in the dynamics of what a community is. In Anacostia, as well as in other parts of the city of Washington, there are many problems of housing, education, and crime. The people are interested in understanding the dynamics of these problems, so much so that if they can understand some of the root causes of the problem they would be in a much better position to say something and to do something about their conditions rather than just feel hurt. The museum's position or posture is if we can help gather through research information on the causes of these problems the local people would cease to have to insult the people, holler, or sit in people's offices. They could go with information and facts. The Anacostia Museum in its development is seeking today to be much more thorough in its research. We are producing many more facts about the programs that we present. This will help people participate in a much more wholesome fashion and ultimately not only participate in the development of individual integrity but gain a sense of community.

SUCCESSFUL ANACOSTIA PROGRAMS

Mrs. HANSEN. What have been some of your most successful programs?

Mr. KINARD. I think the exhibit we have just produced that recreates the history of Anacostia involving residents who lived there for a number of years, their involvement and understanding of what history has been all about, has been one of our most significant contributions.

Another successful continuing effort has been our presentations on the history of Africa which has a variety of allied programs that help young people in the community understand their cultural heritage.

Among other things that we have done is to take youngsters, as well as adults, to the Smithsonian proper on the Mall. Many have never been there before and it is so close but it is almost like a foreign country, as it were. We have taken residents from Anacostia to historical Williamsburg so that they could see somewhat the feeling and flavor of American history and participate in fact much more. So we have presented a variety of projects like these, including programs with schoolchildren in the surrounding neighborhood as well as the greater metropolitan area.

Mrs. HANSEN. As you know, the National Park Service is proposing a sizable sum be spent in fiscal year 1973 for national parks that were of particular interest to the black people.

Mr. KINARD. We are very fortunate that just recently the National Park Service opened the Frederick Douglass Home.

Mrs. HANSEN. Yes.

CONCERN FOR URBAN PROBLEMS

Secretary RIPLEY. May I pay tribute to Mr. Kinard, Madam Chairman, in public, as it were, for the wonderfully thoughtful job that he has performed as our director and say also that he has addressed himself in a very significant way to broad urban problems and, for example, highlighted them by his exhibit on rats and rat infestations which are, of course, a bad problem in every community and in every city.

Mrs. HANSEN. Particularly river communities. .

Secretary RIPLEY. And the exhibit was a tremendous success. It was a marvelous success. It really was a great eye opener to the public about the sort of ubiquitous character and the sinister problems of pollution and filth and disposal, and all this kind of thing that occur in every urban situation. It was a wonderful educational exhibition.

Mr. KINARD. Madam Chairman, might I say just a word about that? To just show the kind of things uncovered in this rat exhibition, the Health Department, Washington, D.C., did a survey of our community when they heard that the Museum was interested. We discovered that our community, 257,000 people, is 67 percent rat infested. Fifteen percent is an epidemic in any community. We discovered that there are seven different jurisdictions in Washington that are responsible for the control and extermination of rats. You are talking about the National Capital Housing Authority. In Anacostia we have more than 60 percent of all public housing in Washington. We have the National Capital Park Service which has a lot of open and vacant land in Anacostia. You have the St. Elizabeths Hospital in Anacostia which is a Federal establishment.

In addition to that, you have high rise and garden types of apartments which the developer is responsible for. You have the Capitol in Washington, which is an independent jurisdiction. You have the embassies. You have the GSA, which is responsible for Federal installations. Now, in the city of Washington, and the Mayor was very amused about this, never at any one time do these agencies get together

and launch a program to exterminate rats in the city, and he replied, "Well, that is our problem, fragmentation of services." So the residents were able to see, first, that here is a sort of economic-political problem that we need to address ourselves to and, second, that we who have apple trees, pear trees, cherry trees, and dog as well as bird feeders, need to keep them cleaned. So not only does the Government have responsibility but each citizen has a responsibility too. When you get into the economics on a local level as well as the national level, it ceases to be a parochial little museum and takes on national and international implications.

Thank you.

Mrs. HANSEN. Thank you very much, Mr. Kinard, and congratulations on your program accomplishments.

Mr. KINARD. Thank you.

FOLKLIFE AND AMERICAN COLLEGE THEATER FESTIVALS

Mrs. HANSEN. You are requesting an increase of \$60,000 for the Folklife and American College Theater Festivals. What will be the total amount of funding in this regard?

Secretary RIPLEY. I would like to ask Mr. Warner to speak to that if I may. He has a nice poster on the College Theater Festival also to show you.

Mr. WARNER. Madam Chairman, the program increase that we have requested for the Folklife and American Theater College Festivals totals \$60,000, with \$35,000 going to the Folklife Festival next year and \$25,000 for the College Theater Festival. We continue to get some very good outside support for the Folklife Festival. This year to date it totals \$155,000 from such organizations as the Bureau of Indian Affairs, the State of Maryland, certain Indian tribal councils, plus \$57,500 in indirect or in-kind help and services. That is the outside support that goes to the festival this year.

As Dr. Ripley mentioned with the College Theater Festival this year we have made a very nice poster for the Kennedy Center. It shows a portrait of Edwin Booth, the brother of John Wilkes Booth, playing Iago. This portrait came from the Cooper-Hewitt collection to the Portrait Gallery. Mr. Blair and Mr. Stevens saw it when the Gallery had an exhibition last year, *Portraits of the American Stage, 1771-1971*, and said, "This is what we need." Thus, it is the official poster for the College Theater Festival.

Mrs. HANSEN. Isn't it true that the very holding of the College Theater Festival has resulted in scholarships given by Irene Ryan?

Mr. WARNER. I have so heard. I haven't exact knowledge of how many, but we are looking forward again this year, in addition to the presentations at the Kennedy Center, to have a seminar.

Mrs. HANSEN. I was talking last night to some theater people and they think it is important that you continue the symposiums. I think the symposiums are an important part of the entire College Theater Festival.

Mr. WARNER. We certainly agree.

SCHEDULE OF THE THEATER FESTIVAL

Mrs. HANSEN. Please insert in the record a schedule of the College Theater Festival for fiscal year 1973 and what has been done so far in fiscal year 1972. Please indicate the names of the colleges participating.

Mr. WARNER. We have that, but we will be glad to supply it for the record.

(The information follows:)

AMERICAN COLLEGE THEATRE FESTIVAL
 Schedule of Productions

1972 Schedule

<u>Dates</u>	<u>School and Production</u>
April 17	United States International University <u>THE ROAR OF THE GREASEPAINT,</u> <u>THE SMELL OF THE CROWD</u>
April 18	Southern Methodist University <u>OEDIPUS REX</u>
April 19	Montana State Univeristy <u>THE PRICE</u>
April 20	Warsaw Theatre Academy <u>ACTS & EXERCISES ON SHAKESPEARE</u>
April 21	North Carolina School of the Arts <u>THE LITTLE FOXES</u>
April 22	University of Hawaii <u>BLACK DRAGON RESIDENCE</u>
April 23	Irene Ryan Scholarship Awards <u>EVENING OF SCENES</u>
April 24	University of Minnesota <u>365 DAYS</u>
April 25	Warsaw Theatre Academy (Poland) <u>ACTS & EXERCISES ON SHAKESPEARE</u>
April 26	Portland State University <u>THE MISANTHROPE</u>
April 27	Southern Illinois University <u>HOME</u>
April 28	Southeastern Oklahoma State College <u>OF MICE AND MEN</u>
April 29	University of Miami <u>THE BOY FRIEND</u>

1973 Schedule

The schools have not been selected for the 1973 schedule.

COOPERATION BY OTHER ORGANIZATIONS IN THE FESTIVAL

Mrs. HANSEN. What other organizations, either Federal or private, are cooperating with you in this venture?

Mr. WARNER. In the Folklife Festival or College Theater?

Mrs. HANSEN. Both.

Mr. WARNER. In the Folklife Festival this year we are receiving approximately \$40,000 from the Bureau of Indian Affairs. That is in part for the salary of Mrs. Clydia Nahwooksy whom we would like to employ. The Bureau has been very generous in funding her last year and this year. We have asked for a position increase in the fiscal 1973 budget for her. We believe it is time that she work for us and that we should put her on our roll. In addition to contributing to the Festival, Mrs. Nahwooksy is doing some very good work throughout the year in surveying the small on-site Indian tribal museums and what their needs may be. She serves us in a great many ways. She represents our principal position increase is in this year's request for the Division of Performing Arts.

Other organizations cooperating with us in the Folklife Festival are the Department of Labor and several labor groups. The AFL-CIO was very pleased with the demonstration in skills and trades that they had last year, so this coming summer we are having the lithographers, moulders, firefighters, carpenters, bricklayers, and bookbinders unions all coming.

As Dr. Ripley mentioned earlier, the State of Maryland is the featured State this year. We are cooperating with the National Capital Parks in I think a very rewarding form of cooperation on Hains Point. Maryland folk arts and crafts can't have justice done to them without including the water activities of the Chesapeake Bay. We have made some wonderful progress. We plan to bring at least five skipjacks, tonging boats, and related artisans representing a lot of these wonderful crafts that are fast disappearing to Washington. The main Folklife Festival will be ours on the Mall, but we are looking forward, in cooperation with the National Capital Parks, to having water activities at Hains Point.

Mrs. HANSEN. Hasn't the American College Theater Festival also received private contributions from one of the airlines?

Mr. WARNER. Yes. The three principal sponsors this year, as they were last year, are American Airlines, American Oil, and American Express. Of course, the arrangements for the commercial sponsorship are largely handled by the Kennedy Center staff. We keep in touch with them, of course, and our job remains to provide for the production costs and services to meet the actors, to stage the rehearsals, to get the scenery, and so on.

Mrs. HANSEN. Wasn't the American National Theater Association very active when this program began?

Mr. WARNER. Yes, they were.

Mrs. HANSEN. Are they still active?

Mr. WARNER. Yes; I believe especially in the preliminary organization of each festival.

Mrs. HANSEN. As I recall, Peggy Wood was one of the individuals who was most enthusiastic when this program was initiated.

Mr. WARNER. That is correct.

AMERICAN REVOLUTION BICENTENNIAL PROGRAM

Mrs. HANSEN. You are requesting \$1 million for the American Revolution Bicentennial Program. Give me the details on this and indicate how your effort will be coordinated with other Federal agencies.

Secretary RIPLEY. I think Mr. Blitzer can speak to that, Madam Chairman.

Mr. BLITZER. Madam Chairman, I might say that I think this marked jump from our 1972 appropriation really reflects our success in this program and reflects the fact that we are now starting to do things as well as simply planning them. The overall Smithsonian plan for the bicentennial involves virtually every part of the Institution in doing activities that are appropriate to it. It is centered to some extent in the District of Columbia but also has national and international outreach elements as you will see in this presentation. It consists to some extent of exhibitions that will last for some length of time, depending on how popular they are, but it will also produce permanent scholarly results, so we feel in every way it is a well coordinated program within the Smithsonian.

Specifically, the \$1 million in total that we are asking for in fiscal 1973 is to be distributed as follows. For the main exhibition in the Museum of History and Technology that we spoke about before, the "Nation of Nations Exhibit," we are requesting \$350,000. That will allow us to begin actual construction of that exhibition. For the bicentennial exhibition in the Museum of Natural History, "Ecology-U.S.A./200," we are seeking funding of \$60,000. This will be essentially further planning money. For other exhibition purposes in all the Smithsonian museums, and particularly in order to see to it that exhibitions that are done in all of our museums are also done in a way that will allow them to travel through our Traveling Exhibition Service, we are requesting \$80,000. Under the heading of the "Bicentennial Survey of American Art," which is our main scholarly program apart from the Encyclopedia of North American Indians, which is not funded under this line of our appropriation, we are requesting the following: The inventory of American paintings before 1914, \$55,000; catalog of Revolutionary era portraits, \$120,000; bibliography of American art, \$50,000; and the survey of folk culture and grassroots of American culture, \$25,000. Specifically earmarked for the Traveling Exhibition Service, apart from the \$80,000 that we hope to use to make many exhibits travelable, is an amount of \$10,000 for the Traveling Exhibition Service itself. For the Anacostia Exhibits Production and Training Center that Mr. Kinard and the Secretary have spoken about, there is an amount of \$200,000 in this budget. And finally, there is for general planning and administration and interagency coordination an amount of \$50,000.

That is a very quick runthrough.

TRAVELING EXHIBITS

Mr. McDADE. Do you have these traveling exhibits right now?

Mr. BLITZER. Yes, sir.

Mr. McDADE. Do you customarily require a charge?

Mr. BLITZER. Yes, sir. This is the catalog of the Traveling Exhibition Service in the Smithsonian.

Mr. McDADE. How are they financed?

Mr. BLITZER. Virtually by user charges. As you will see, every exhibition in the catalog has a price tag. That is so calculated that when it is all done, we come out even.

Mr. McDADE. I understand that, but aren't most of the people who would be users, small museums, and don't they also have financial problems?

Mr. BLITZER. I believe it is true to say this is the only national circulating exhibition service that has survived; and it is, we feel, a very important activity; and agreeing with you, in particular it is important for institutions that can't afford even the modest fees. You will see some less than \$100. We would like very much to depart from the principle that SITES must support itself and use appropriated money in order to support exhibitions.

Mr. McDADE. What were the costs last year that were imposed on users?

Mr. BLITZER. It would be equal to the total budget of the whole thing.

Mr. JAMESON. The Traveling Exhibition Service had income of \$173,000 in fiscal year 1971, is projected this year to have income of \$158,000, and an estimated \$180,000 for next year. This is essentially on a break-even basis.

Mr. McDADE. And that represents user charges?

Mr. JAMESON. Yes, sir.

Mr. McDADE. Why, since there is great concern that we make sure that everyone participates in the bicentennial, should we not, for example, encourage these bicentennial exhibitions to move around the country without cost to the users?

Mr. BLITZER. I would like very much to.

Mr. McDADE. Would you approve scaling down other parts of your budget to underwrite that cost?

Mr. BLITZER. I personally would, yes.

Mr. McDADE. Where, for example, in your own budget would you recommend that we get the money to make sure the bicentennial exhibitions get around cost free?

Mr. BLITZER. If in the 1973 request you add the \$80,000 which we have under "Other exhibits," which is precisely designed to make exhibitions that we are doing anyway suitable for shipping around the country, and the \$10,000 that we have under the Traveling Exhibition Service itself, that makes \$90,000 out of \$1 million for traveling exhibits. There is a real question, a genuine one in my mind, of when all of this should begin to be geared up for the bicentennial. I think there is a danger people will get bored with this before it ever happens. One of the features of this plan is the changing composition of the bicentennial expenditures as shown in this chart.

(The chart follows:)

American Revolution Bicentennial Appropriation

	<u>FY 71</u>	<u>FY 72</u>	<u>FY 73</u>	<u>FY 74</u>
<u>Major Exhibitions</u>				
Nation of Nations	75, 000	175, 000	350, 000	750, 000
Ecology/200		30, 000	60, 000	350, 000
1876	20, 000	10, 000		
Other Exhibits	125, 000*	30, 000	80, 000**	150, 000**
<u>Bicentennial Survey</u>				
Inventory of American Painting	50, 000	40, 000	55, 000	75, 000
Revolutionary Era Portraits	50, 000	50, 000	120, 000	120, 000
Bibliography of American Art	10, 000	15, 000	50, 000	50, 000
Folk Culture	25, 000	15, 000	25, 000	75, 000
<u>Outreach</u>				
Traveling Exhibits			10, 000	100, 000
Anacostia Travelling Exhibits Center	10, 000	10, 000	200, 000	30, 000
Handbook	10, 000			
<u>Planning & Admin.</u>	<u>25, 000</u>	<u>25, 000</u>	<u>50, 000</u>	<u>50, 000</u>
	\$400, 000	\$400, 000	\$1, 000, 000	\$1, 750, 000

Other exhibits in FY 71 includes: MHT Pavilions (30, 000); History Map (12, 000); Acquisition of Objects (40, 000); Corridors, Modules, Films (40, 000)

Other exhibits in FY 73 and FY 74 includes: provision for travelling versions of exhibition openings in Washington

One thing you see from this chart is that certain expenditures are nonrecurring thus freeing funds for other purposes. For instance, the \$200,000 request for Anacostia 1973 is, in effect, a one-time request as you see in the 1974 projection.

Mr. McDADE. I am still waiting for you to pinpoint my question.

Mr. BLITZER. My guess is that the \$90,000 we have in the 1973 budget would allow us to do an appropriate amount of this.

Mr. McDADE. It wouldn't underwrite all of your costs. We had testimony as to what your costs are. That is about half of them.

Mr. BLITZER. I was thinking of traveling exhibits for the bicentennial.

Mr. McDADE. You are saying \$90,000 would be the cost for traveling exhibits in the bicentennial exposition?

Mr. BLITZER. Yes; in 1973. The figure goes up to nearly a quarter of a million dollars in 1974.

One thing that has helped since our budget submission was completed and sent to you has been the announcement of the American Revolution Bicentennial Commission plan for bicentennial parks in every one of the States. As I understand this plan, the parks would have modular structures which will have a place or places for exhibits. If this plan becomes a reality, I would like very much for the Smithsonian to take leadership in providing the exhibitions.

Mr. McDADE. We have a sufficient community of users apart from whether that program gets off the ground anyway; don't you? You have a sufficient demand for this service?

Mr. BLITZER. We have about 200 exhibits listed on this Smithsonian Traveling Exhibition Service Catalog. That is, we have about 200 exhibitions on circulation at one time amounting to about 1,000 showings each year. You could say, conservatively, that 2,000 people go to each of these exhibits making a total of 2 million viewers.

Secretary RIPLEY. This service was started at the end of the war because there was a need, and it has been maintaining itself year by year on the basis of its income.

Now, as you point out very appropriately, the bicentennial is coming along with the demands for such exhibitions and the demand is going to go up tremendously. If they have these bicentennial parks in every State, they will need to have exhibits and other presentations.

(Discussion off the record.)

ANACOSTIA EXHIBIT PRODUCTION CENTER

Mr. BLITZER. To add one thing in answer to Mr. McDade's question, the idea for the Anacostia Exhibit Center we have referred to several times really occurred to us in the context of the bicentennial precisely in connection with traveling exhibitions. The point of this is that there are lots of institutions that cannot afford expensive exhibitions or don't have the space for the kind of exhibitions we do on the Mall that should be served particularly during the bicentennial era. This really was the origin of the plan of the center as a bicentennial activity. This will be an addition to the \$250,000 in the 1974 budget. This also will devote itself to a large extent to producing bicentennial exhibits for other neighborhood museums or community centers or places that can't afford our regular offerings.

ECOLOGY—USA/200 EXHIBIT

Mrs. HANSEN. Isn't \$60,000 a relatively high price for architectural planning and detailing of exhibit units?

Secretary RIPLEY. That is Ecology—USA/200?

Mrs. HANSEN. Yes.

Mr. BLITZER. I can only say in our experience it is not. This is also to be a major exhibition. The Natural History Museum has engaged a first-rate consultant firm to work on this. This cost estimate for detailed planning is the figure that seems to our own exhibit people to be a sensible one.

Mrs. HANSEN. Please insert additional details of this activity in the record.

(The information follows:)

ECOLOGY—USA/200 DETAILED PLANNING AND DESIGN

The National Museum of Natural History has requested \$60,000 in fiscal year 1973 to continue planning and design for its major bicentennial presentation, Ecology—USA/200, including the first test exhibit units. These funds will be augmented by funding largely in the form of salaries of scientists of the National Museum of Natural History (NMNH) and of Office of Exhibits Program personnel in developing and testing the most significant units of the overall exhibition. These will deal with the effect of national decisions on the value systems of our culture. Topics never before covered in major exhibitions, but essential in any responsible statement on the future environment will be treated, such as, the cost of pure water.

To date, the information that is essential to a broad audience understanding of our national priorities in ecological planning and decisionmaking is available only in highly sophisticated computer technology. The translation to the medium of public exhibition requires not only expertise in the topic disciplines, but experimentation in techniques of communication for the popular audience—the majority.

Development and test unit expenditures are part of every major exhibition program and insure the effectiveness and success of the major investments in time and dollars that will be required in producing the final presentation. The funds requested for this normal "development phase" of a major presentation are an irreducible minimum for the objective required.

BICENTENNIAL ADMINISTRATION AND COORDINATION

Mrs. HANSEN. \$50,000 is requested to "Unify and render coherent" these multiple experiences in connection with the American Revolution Bicentennial. What do you plan here?

Mr. BLITZER. That is perhaps a rather too grand way of covering what we have in mind.

Mrs. HANSEN. You mean it is purple prose?

Mr. BLITZER. Slightly, I am afraid.

In the first place it includes the administration of our own program. In order that our program can continue as we get closer to the bicentennial year we really need at least one full-time person in the Smithsonian and one helper. Half of those funds would go to this.

There is an interagency exhibit planned down on Pennsylvania Avenue. We contributed \$3,000 to that effort.

Mrs. HANSEN. Will it be located in the Commerce Building?

Mr. BLITZER. Correct. We have given \$3,000 as our share of the planning of that because everyone else is doing it apparently.

The use of the rest of the \$50,000 perhaps justifies the purple prose a little bit. It is our feeling that starting now, working with the Park Service, with the National Gallery, and other organizations it should be possible to make the celebration more than just the sum of everything that is going on in Washington, by having common graphic schemes, by having common publications and catalogs, and by having signs telling people about exhibits, crowd conditions, and other things. We really do feel that with a relatively small planning and coordination expenditure we can create the feeling of a great international exposition.

NATIONAL VISITORS CENTER

Mrs. HANSEN. It is proposed that the National Visitors Center will be completed by then. Why would you have to supplement their activities?

Mr. BLITZER. Under this particular item I have been talking about?

Mrs. HANSEN. Yes.

Mr. BLITZER. It is not clear to me they will actually be doing the kind of things we suggest.

I am not saying they won't be asking you for money, but I am saying that I believe they will not be worried about the unification of the programs around the mall.

ENVIRONMENTAL SCIENCES PROGRAM

Mr. OBEY. Have you learned anything more in the study described on page 65 about the potential Pacific Sea snake problem if you develop a sea level Panama Canal?

Secretary RIPLEY. Dr. Challinor and I have just been in Panama about the snakes. We saw one being eaten by an Atlantic fish, a Jack. It appears that if an Atlantic fish tries to eat a sea snake, a reptile, one of three things is likely to happen.

If the fish attacks by the tail, the snake is likely to swing around and bite the fish, which means the fish dies. If it attacks it by the head, it may ingest the whole sea snake and swallow it, and that will be it, the sea snake is dead. If on the other hand, the sea snake gets so far down and tries to bite, the fish will instantly regurgitate the sea snake and both go away presumably happy. We saw this happen.

We do have these two small marine stations in Panama, one on the Atlantic side and one on the Pacific side, working with grants and with our own funds under the Smithsonian Tropical Research Institute. They are trying to discover almost everything about the ecology of reefs, the changes of reef structure, and the differences and changes in marine population between the Atlantic and the Pacific.

In fact we have discovered the crown-of-thorns starfish, for example, on the Pacific side for the first time. They are studying the changes in coral communities and coral structures, and the hybridization of fishes closely related to those in the Atlantic and Pacific, and some correlation as to what those potential hybrids will be like, whether they will have commercial value, or whether the commercial value will be less.

One of the comparisons we have been using is the study in Israel which we have been doing jointly with them on the influx of Red Sea forms into the eastern Mediterranean.

Mr. OBEY. Have you learned anything from that study?

Secretary RIPLEY. We have learned a lot of things from that about the relative aggression of certain species in one sea and their ability to take over as it were when they get into another sea and the hybrid possibilities.

In the case of the Mediterranean, three species of sardines have been affected, and the result seems to be that the hybrid sardines resulting from the influx are smaller, therefore potentially producing less commercially valuable fish. This kind of thing is extraordinarily interesting. We had a survey group from the Board of Regents, including Members of Congress, who went to Panama and I think they were greatly impressed with the work we are doing down there.

They had a most effective visit to the labs to see exactly what our young scientists are doing including studying the effects of oil pollution, in the Tropics on marine organisms and plants. There is a really horrendous problem of building a sea level canal and then having a large bore of water going through the canal twice a day with the tide.

In all of this the problem of influx and outgo of animals and plants that are antipathetic to each other is going to play a major role in changes. We are not pessimistic about it, we are not optimistic about it. We think it needs to be studied very, very carefully.

Mr. OBEY. You do feel your Red Sea work has been helpful in this matter?

Secretary RIPLEY. It has been absolutely extraordinary because it is the only other example we know of in history of such a thing actually happening and of these very diverse fauna coming into contact with each other.

Mr. WYATT. Will the Chairman yield?

Mrs. HANSEN. Yes.

COORDINATION OF OCEANOGRAPHIC AND ENVIRONMENTAL WORK

Mr. WYATT. Again I ask you, Dr. Ripley, to do this for the record after you have given thought to it. I would be interested in a statement by you explaining first your coordination and cooperation both in the area of oceanography and in the area of environment as to where you feel the Smithsonian's responsibility is and the line of demarcation between the Smithsonian and NOAA on one hand and the Environmental Protection Agency on the other. I have asked this question previously in another area in connection with the National Park Service.

My concern is one of coordination, wasteful duplication, the subject slipping between the cracks because no one is doing it, and also duplicate supervisory personnel, in other words, overhead that may be existing in two or more different organizations. I would appreciate it if you would do this for the record.

Secretary RIPLEY. I will be happy to do so.

(The information follows:)

The Smithsonian's Role in Oceanographic and Environmental Research and How it Relates to the Activities of the National Oceanic and Atmospheric Administration, the Environmental Protection Agency, and the Bureau of Sport Fisheries and Wildlife

The Smithsonian's mandate of "mission" is the increase and diffusion of knowledge, whereas each of the agencies and the bureau mentioned above are charged by Congress with very specific missions and responsibilities. For example the Smithsonian's research seeks to learn what is grass, while other government agencies have such missions as finding out how to make grass grow, quicker, taller, or greener. To accomplish their missions these agencies frequently have to refer to the Smithsonian for some of the basic information they need which the Institution has been accumulating over the past 125 years in its collections and scientific publications.

The National Oceanic and Atmospheric Administration (NOAA) has as its mission the management, conservation, and the development of the resources of the oceans and the atmosphere. NOAA's National Fisheries Service (NFS) is concerned with 1,000 or so species of commercially valuable marine fish. In pursuit of its mission this service draws heavily and continuously on Smithsonian collections and knowledge and to this end actually maintains a staff of about a dozen persons located in the Smithsonian's National Museum of Natural History. NFS research efforts are entirely focussed on the relatively few valuable or potentially valuable fish species while the Smithsonian ichthyologists are interested in the hundreds of thousands of kinds of marine life which may have no immediate commercial value, but which together form the total marine community of which the commercial species are a part and on which they depend.

In the atmosphere NOAA is concerned with weather prediction and modification, while the Smithsonian deals in such basic matters as the effects of ozone on ultraviolet light penetration, from which we are able to draw useful conclusions on how the sun's energy gets through our atmosphere to make plants grow. NOAA in turn often needs just such basic information for the purposes of their more limited missions. They frequently contract with the Smithsonian, or on a more informal basis work with individual scientists in pursuit of their interests. NOAA and the Institution are neither duplicatory or competitive, but complementary.

The Environmental Protection Agency (EPA) is responsible for setting emission standards, monitoring the environment in the United States, and judging environmental impact statements. To fulfill all these obligations the Agency must develop some bases against which to measure what is happening. The Agency draws frequently on Smithsonian scientists and Smithsonian resources for this base line information. For example, the Smithsonian started an experiment in 1907 to measure solar radiation reaching the Mall in Washington. During over 60 years of

continuous study, our Radiation Biology Laboratory scientists noted a steady decline in the ultra-violet rays getting through to the grass and trees on the Mall. By 1969 when the experiment was terminated, this reduction had grown to 16%. This kind of information is of considerable value to EPA in its work on air pollution effects in the United States, but the agency with its particular focus is not equipped to search out such basic and long-term data itself. It must be able to turn to the researchers in broad basic science, such as those of the Smithsonian, for information relevant to its specific field of interest. As a further example, EPA has contracted with the Smithsonian to learn what happens when fuel oil is spilled on a coral reef. Broader scale studies on coral reef ecology, including the problems of oil spills, have already occupied our scientists at the Smithsonian Tropical Research Institute for several years. Hence the Smithsonian is prepared to furnish the base line data the agency needs for their purpose of setting standards.

The Bureau of Sport Fisheries and Wildlife (BSFW) has the mission of safeguarding the birds and animals of the nation including measures to protection of our rare and endangered species. The Bureau's prime responsibility is to keep the popular game fauna plentiful enough to satisfy the hunting and fishing public. Just like the NFS the BSFW is really concerned with only 1,000 or so species. This Bureau too keeps a staff of about 20 persons permanently stationed at our National Museum of Natural History where they are in contact with the Smithsonian scientists and collections on which they can draw to carry out their mission. Again our efforts and work are complementary to that of the Bureau and not overlapping or competitive.

In conclusion, the Smithsonian is the only Government institution directly financed by Congress that has as its primary responsibility the development of basic ecology research. The understanding of ecology principles can only be achieved by years of research unimpeded by the need to fulfill specific missions.

There is often overlap within and between the research efforts of the large government agencies. Some is probably unavoidable, but the problem would be much worse if it were not for the Smithsonian's Science Information Exchange. For the past 20 years the Smithsonian has operated this facility to keep track of ongoing federally funded and other research. Input is recorded on computer tape and is available on short notice to any scientist or scientific program manager who is planning a research project. Unfortunately, input into the computer is not mandatory, so that considerable research by non-cooperating agencies and bureaus is not recorded. The General Accounting Office, the Federal Council on Science and Technology, and the Office of Management and Budget are trying to remedy this deficiency. What is important, however, is the existence of this service and its operation by the Smithsonian as the best means we have now to avoid duplication.

SMITHSONIAN TRADITIONS IN BASIC RESEARCH

Secretary RIPLEY. May I point out at the risk of seeming as if I were bypassing your statement, that a moment's reflection about the historical record of the Smithsonian's research and concern will I think reassure you that what we were started for and what we have been supported for all of these years, both with private funds and with support from the Government of a major sort now, is to undertake projects that are involved in basic research and basic science. This has been our most significant natural history contribution to American culture, that over the years we have been able with very little funds to start things which then become important.

I only have to go back to 1870, not very long ago, to think about the fact that my predecessor started concerning himself with fish in the Atlantic and actually said he felt that the United States at some point in history would be enormously concerned about the resources of the sea. After a few years he started something called the U.S. Fisheries Commission, which became the first fish commission. He wore two hats as Secretary of the Smithsonian and at the same time Fish Commissioner and served effectively in both roles until the Government could spin the Fish Commission off and develop the applied research with which now NOAA, the Environmental Protection Agency, and the former Bureau of Commercial Fisheries, and others are involved.

Mr. WYATT. In that statement include the Bureau of Sport Fisheries and Wildlife.

Secretary RIPLEY. Yes. We have continued to emphasize basic research, basic research often in areas where payoffs are not immediately apparent. As recently as 1964 I went to the Atomic Energy Commission and requested some funds from them to study the biological consequences of building a sea level canal. This request was turned down because when I cited the possible environmental effect or ecology, the authorities did not understand what I was talking about. In other words, basic research in the area of environmental concern is still a very new subject. It has become a very popular subject and a household word. But that does not mean that anybody other than the Smithsonian is still even today in 1972 encouraging basic research in environmental matters.

Mrs. HANSEN. Isn't this lack of basic research part of the problem that results in emotionalism rather than facts?

Secretary RIPLEY. Yes.

Mr. WYATT. Are you saying that the Environmental Protection Agency is not sponsoring and engaging in massive research in environmental problems?

Dr. CHALLINOR. I might answer that if I may. They are not doing much of this themselves. They will come to us, for example, and say will you tell us how much mercury existed in fish 50 years ago or 80 years ago. We can go into our natural history collections and by taking out samples of muscle tissue on seven tuna fish, for example, tell the Environmental Protection Agency and the Food and Drug Administration, which is responsible for setting limits of mercury content, that we found every fish examined had a mercury content greater than 0.5 part per million, which is the permissible limit. Those fish were caught between 1878 and 1909.

What this means is that we have been eating some tuna fish, for example, that have had greater than 0.5 part per million of mercury in them for almost a century. The addition of toxic mercury to the oceans by man's activity is still a relatively infinitesimal amount considering the total mercury that is in all the oceans together.

Mrs. HANSEN. Is mercury a basic part of the ocean?

Dr. CHALLINOR. Man's activities add relatively little compared to the total content of mercury in all of the oceans of the world. This is the sort of thing we can do.

Secretary RIPLEY. Would you agree—the doctor is more versed in this than I am—that in any survey of the amount of funds each agency of the Government has for marine research, oceanographic research and so on, that the Smithsonian is down near the bottom of the list with a small budget. We have been carrying on this work since 1870 and will continue to do so. It is essentially basic research. The degree to which some of the new agencies carry on basic research is essentially unknown to me but I can defend and will defend our ability and our effectiveness in conducting basic research in our special chosen areas, which include the environmental sciences.

MAJOR EXHIBITION PROGRAM

Mrs. HANSEN. You are requesting \$775,000 for three major exhibition programs. Please briefly give us the details of this request.

Secretary RIPLEY. I would like to ask Mr. Brooks, Madam Chairman, to speak to this because he has been especially concerning himself with this program.

Mr. BROOKS. With the support of the committee and the Congress we began the program last year with an appropriation of \$525,000 for one major exhibition on "The World of Living Things" in the Museum of Natural History, which is now under preparation and for which we anticipate completion on schedule, that is, provided that we receive the balance of \$250,000 in this year's appropriation to complete it. We anticipate the opening of that exhibit in the second half of fiscal year 1973.

In addition to that exhibition, this year we are requesting funds in the amount of \$500,000 for the preparation and production of a major exhibit in the Museum of History and Technology entitled "Of the People, By the People, For the People," an exhibit designed to show the relationships between the American people and their Government at all levels.

We are also requesting an amount of \$25,000 this year to plan the "Earthbound Benefits of Flight" exhibit in the National Air and Space Museum that was discussed earlier in the testimony. If you have further questions about the content of these major exhibits the museum directors responsible are here and can talk about them.

NATIONAL MUSEUM ACT

Mrs. HANSEN. An increase of \$400,000 is requested for the National Museum Act. Do you have any additional comments to make in this connection other than those you made this morning?

Mr. BROOKS. Adding to what Dr. Ripley said this morning, we have been able to fund some 18 projects with the Smithsonian's share.

Mrs. HANSEN. Please insert a list in the record of those 18 projects.

Mr. BROOKS. Yes.

(The information follows:)

A Listing of Projects Funded to Date

Title: A Program of Consultant Services to Small History Museums

By: American Association for State and Local History, Nashville,
Tennessee, William Alderson, Director

Amount Approved: \$26,850

The American Association for State and Local History proposes to establish a consultant service for small museums, whose budget is less than \$50,000. A roster of qualified professionals created for this project will advise on such matters as exhibition policies, exhibit fabrication, preparation of labels, record keeping, elementary conservation techniques, and general administration. The grant covers administrative costs, consultant fees, and one-half of the traveling expenses. Under the provisions of the grant, the museum requesting the consultant service will pay the remaining half of the travel costs.

Title: A Program of Training Workshops for Historical Museums

By: American Association for State and Local History, Nashville,
Tennessee, William Alderson, Director

Amount Approved: \$36,780

Under this grant, the American Association for State and Local History will offer five different workshops to the staff members of Historical Museums and Houses. They are:

- 1) Interpretation of History in Museum
- 2) Preservation of History through Motion Pictures and Television
- 3) Developing Effective Interpretation of Historic Sites
- 4) The Historical Society and Museum Security
- 5) Conducting Local History Workshops

Title: Seminar at Williamsburg

By: Colonial Williamsburg, Williamsburg, Virginia
James R. Short, Colonial Williamsburg Foundation

Amount Approved: \$10,500

For many years Colonial Williamsburg has given this successful seminar to "new-comers" in the area of administration of historical organizations and agencies. Mr. James R. Short of the Colonial Williamsburg Foundation has requested the above sum which is to be matched by the National Endowment for the Humanities to support the seminar which is experiencing increased costs and financial difficulties for the following reasons. First, the faculty has suggested that experienced administrators be included to broaden the seminar. Secondly, the American Association for State and Local History and the American Association of Museums are unable to continue their financial support.

Title: Publication: Guide to Historic Preservation, Historical Agencies, and Museum Practices: A Selective Bibliography

By: New York State Historical Association, Cooperstown, New York,
Frederick L Rath, Jr. Vice Director

Amount Approved: \$23,925

The New York State Historical Association published in December, 1970, the Guide to Historic Preservation, Historic Agencies, and Museum Practices: A Selective Bibliography, the only reference work in the combined fields. The Association wishes to expand the current program and publish a revised edition of the Guide in 1974-75. Although the application as submitted is for three years, the Advisory Council recommends underwriting one year for the above sum and a promise to consider continued support based upon progress of the project and appropriations from Congress for the National Museum Act.

Title: Proposal to Develop a Curriculum in Museology

By: American Association of Museums, Washington, D. C.
Kyran McGrath, Director

Amount Approved: \$27,100

Under this grant, the American Association of Museums proposes:

- a) to evaluate the effectiveness of current museum training programs
- b) to develop within the museum profession an awareness of the educational potentials available to museums
- c) to create an awareness in colleges and universities of the needs of museums in terms of college-trained personnel, and
- d) to recommend guidelines for college and universities offering museology courses.

Although the application requested a total of \$31,600, the Advisory Council agreed that the project as outlined could not produce the publication of the committee's results in the time allotted by the proposal. Therefore, the committee deferred action on the publication funds until another meeting.

Title: US-ICOM (Support Grant)

By: U. S. National Committee of ICOM, Washington, D. C.
Charles Cunningham, Chairman

Amount Approved: \$20,000

The US-ICOM Committee has requested the above sum to partially support the activities of the Committee and the salary of the Executive Committee.

Title: A Request for Matching Funds to Permit Twenty Summer Work
Projects in 1972.

By: New York State Historical Association, Cooperstown Graduate
Programs, Cooperstown, New York, Louis Jones, Director

Amount Approved: \$12,750

The Cooperstown Graduate Program, training conservators for the preservation of historic and artistic works, is now in its second year of function with its full commitment of twenty students. During the summer session, each student undertakes a work-project supervised by a master conservator. The Cooperstown Program has requested the above sum to support twentysummer projects which is to be matched by the New York State Council on the Arts.

Title: Systematic Biology: The Development of a National Program
on Resources and Resource Management

By: National Museum of Natural History, Washington, D. C.
Richard Cowan, Director

Amount Approved: \$7,200

The National Museum of Natural History requests partial support of studies leading to a conference and future action directed to the development of a national program for the management of the resources of systematic biology in the United States on a nationwide basis. The Advisory Council recommends supporting the publication and printing of the reports on the conference.

A Listing of Proposals Recommended

for Funding Subject to Final Approvals

A Proposal for the preparation of a book on "The Interpretation of Historic House Museums"

American Association for State and Local History,
Nashville, Tennessee

\$12,000

The American Association for State and Local History proposes to undertake the preparation of a book of about 200-250 pages on the interpretation of historic house museums or restorations. The book will treat not only the philosophy of interpretation but also the use of equipment, media, and people in achieving effective interpretation. Preparation of the book would require an estimated fifteen months, and would be published by the Association in the spring of 1973.

Mobile Training Laboratory for Museum Personnel

Kansas State Historical Museum, Topeka, Kansas

\$30,000 (2nd year funding approximately \$10,000)

There are approximately 106 small county-based museums in the state of Kansas. Because most of these operations are small, the resources of these organizations are extremely limited. Despite a wealth of good intentions, most of these museums are not operated on a professional level. The Kansas State Historical Society sends staff members to these organizations as they can be spared from their regular jobs, but because of staff time limitations, this can benefit only a small percentage of the local area museum.

To this end, this proposal establishes a museum training wagon stocked with tools a small museum can afford and a supply of inexpensive and expendable materials. Each museum will be visited for as long as a week over the two years. The consultant of the demonstration traveling unit would give talks illustrated by slides, photographs and artifacts, about

conservation techniques, records keeping, etc. Also, methods to build inexpensive professional quality exhibits would be taught. It is believed that the on-site visit will make far more significant changes in the quality of the museums. The Advisory Council considered this proposal an excellent prototype for other states to develop.

Three workshops in Museum Administration

American Association of Museums, Washington, D. C.

\$34,845

The American Association of Museums proposes to develop a comprehensive training seminar in Museum Administration to up-grade the qualifications of persons already employed in the museum profession and to help them meet the ever-increasing demands being made upon them by the public they serve. The seminar will be given three times at different geographic locations.

Assistance for a Museum Studies Program

University of Delaware, Newark, Delaware

\$15,750

The University of Delaware in conjunction with the Winterthur Museum, Hagley Museum and the Longwood Gardens requests funds to accelerate the development of a consolidated museum studies program. The funds will be used principally for library materials and information resources.

Support for Curator. A Journal for the Museum Profession

American Museum of Natural History, New York, New York

\$8,300

Curator, a journal for the museum profession, is published quarterly by the American Museum of Natural History. Now in its fourteenth year of publication, Curator was founded to fill a gap in the literature on museums and museum work. It offers an opportunity to professionals in museums of art, science and history to review and present their work, philosophy, objectives and methods. Over the past few years

the American Museum of Natural History has encountered financial difficulties in publishing the journal. The funds requested will materially assist the American Museum of Natural History in bringing this significant journal to the attention of museum professionals nationwide, and will enhance the effectiveness of Curator as a source for the publication and distribution to the literature on museum problems, methods, and technology.

Extension Services in Museum Training

Department of Art, Fisk University, Nashville, Tennessee

\$10,000

The Department of Art proposes to expand its services in museum training beyond the present curriculum of four courses in museum science through the extension of six workshops designed to meet the current needs of local, regional, and urban museum personnel by providing the following workshops.

(1) Exhibition Techniques - Three workshops in exhibition displays facilities will be offered to the students of Fisk University and museum personnel from the regional museums.

(2) Conservation and Preservation Techniques -- Three workshops will be held on conservation and preservation techniques with special emphasis on materials reflecting Afro-American culture. The students will learn to prepare museum specimens for exhibition and study purposes. Fisk University is a repository of one of the largest Afro-American collections in America.

National Museum Act/American Association of Museum Day at the Regional Museum Conferences.

American Association of Museums, Washington, D. C.

\$19,700

The American Association of Museums believes that its six regional conferences would provide a substantial national benefit if they could continue to receive financial assistance for the purpose of communicating knowledge and

ideas about museum techniques to museum personnel within their respective regions. These meetings will provide an excellent opportunity for museum administrators and professionals to confer and exchange ideas that can improve the services and benefits their museums offer the public.

The Association recommends that the topic of this year's program be on fund raising and fiscal management.

Museum Apprentice Program

Maine State Museum, Augusta, Maine

\$7,300

The Museum Apprentice Program was initiated to assure the future availability of trained museum technicians. These non-academically trained personnel are the skilled craftsmen who keep the museum operating through ingenuity and innate skills. Most of these people have been self-trained through years of on-the-job training. However, to continue to rely solely upon this method of training would hardly be realistic considering the variety of skills represented and the needs for such personnel.

The Development of an International Exchange Program for Museum Professionals

American Association of Museums, Washington, D. C.

\$18,125

At the meeting of the United States National Committee of the International Council of Museums in June, 1971, and again at the triennial meeting of the International Council of Museums in August, 1971, it was recommended that the American Association of Museums develop programs of international exchange for foreign museum professionals to visit the United States and for Americans to visit abroad. The following list of suggestions were made regarding the various types of foreign exchange programs that the AAM could sponsor:

- (1) In-Service Training for Museum Professionals
- (2) Museum Apprenticeships
- (3) 30 Day Tours
- (4) Specialized Seminars

Internship Program in Conservation

Cooperstown Graduate Program, New York State Historical Association, Cooperstown, New York

\$23,000

The initial entering class of ten students of the Cooperstown Graduate Program for training conservators is in the last semester of its second year. The third year consists of an internship in a museum under the supervision of a master conservator practicing in the trainee's chosen field of specialization. This is the final portion of the training program and is required for the M. A. degree. This proposal requests partial support of the internship program.

FUNDING AVAILABLE IN 1972

Mr. BROOKS. These projects and administrative expenses were funded from the \$400,000 which was the total available to the Smithsonian.

Secretary RIPLEY. The rest of the \$600,000 appropriated was transferred to the arts endowment and the humanities endowment.

Mr. BROOKS. We had to turn down a number of worthwhile projects this year. We received a total of some \$2 million in applications under the act this year which we think is remarkable for the first year of the program.

Mrs. HANSEN. Please insert in the record some example of the inquiries you have received.

Mr. BROOKS. We will be pleased to do so.
(The information follows:)

A Listing of Acceptable Proposals That Could Not Be Funded Because of the Lack of Funds

Title: Museum Education Research and Development

By: Milwaukee Art Center and University of Wisconsin, Milwaukee

Amount Requested: \$10,000

For the past year, the Milwaukee Art Center and Dr. C. G. Screven of the University of Wisconsin, Milwaukee have been developing a series of response and feedback facilities to study what the visitor learns in a museum environment. This proposal requested funds for a research assistant to assist in the program.

Title: Zoological/Curatorial - Intern Program

By: New York Zoological Society

Amount Requested: \$19,000

The Society requested funds to employ and train two interns at their Aquarium. In essence the program would provide the interns with on-the-job training in the following:

- 1) animal keeping practices
- 2) exhibits development
- 3) health programs
- 4) research
- 5) collecting
- 6) education programs such as public lectures.

Title: Art/Curatorial Internship Program

By: Whitney Museum of American Art, New York, New York

Amount Requested: \$28,000

The Whitney Museum of American Art offers training programs on both the undergraduate and graduate level in art, history, and curatorial duties. The museum proposes to develop specific training programs as part of its new downtown Manhattan Branch Museum. This on-the-job opportunity will permit the students to develop exhibitions to include selecting, obtaining, installing and cataloging works of art. Each intern will have the opportunity to work with the entire staff of the Whitney Museum.

Title: Museum Educators: A Training Program

By: Metropolitan Museum of Art, New York, New York

Amount Requested: \$30,000

This proposal cited the need to create more solid underpinnings for the profession of museum educators thereby to attract a sure and steady flow of talent, to develop a literature, and to open up communication routes to one another. Under this program, the interns would be given the following training:

- 1) Educational theory
- 2) Museum observation
- 3) Perception and Cognitive Theory
- 4) Exhibition construction
- 5) Educational technology
- 6) Testing and evaluation techniques
- 7) The development of community projects

Title: The Establishment of a National Clearinghouse
on Computerization of Museum Collection Records
Conference of Directors of Systematic Collections
through the National Museum of Natural History

Amount Requested: \$121,987

These funds will permit the establishment of a Clearinghouse to serve as a focus for data formatting and standardization in a concerted, inter-museum effort to better treat information about specimens in natural history collections.

Title: Assistance to Develop Within Four Museums a
Computerized System of Collection Management
and Research

Florida State Museum, Museum of Zoology, University
of Michigan, Museum of Natural History, University
of Kansas, New York Botanical Garden

Amount Requested \$101,112

Funds are being requested to assist four museum to develop the basic systems as used in the National Clearinghouse on Computerization of Museum Collection Records. The information generated by this project would provide proto-type method of computerization for other National History Museums

Title: Computer Cataloging Feasibility Study

University of Arkansas

Amount Requested: \$58,964

Over the past seven years the Museum Computer Network system has developed a set of basic computer programs which offer a means whereby both the housekeeping and research data of museums may be stored and retrieved on computers. The ability and degree to which this system can be applied to museums which vary in size, scope and staff ability remains to be demonstrated. It is proposed to test the viability of the Museum Computer Network system by cataloging collections to be found in five institutions located in two states with differing cultural, natural and economic resources. A program successfully incorporating variable data from different types of institutions should adequately demonstrate the utility of the system.

Title: Feasibility Study of the Establishment of a Central Conservation Laboratory Facility for the Museums in The Merrimack Valley of New England

Merrimack Valley Textile Museum

Amount Requested: \$7,113

For well over 150 years, small groups of interested citizens have been collecting and preserving books, manuscripts, prints and textiles that contain a wealth of material related to the cultural history of the Merrimack Valley which has been populated since the Colonial era of American history. Today, the Valley counts some fifty museums, historical societies and historic houses among its resources. The records deposited in these agencies by ten or eleven generations of residents constitute a significant cultural resource. Their usefulness today, however, is seriously impaired and their availability for tomorrow is greatly threatened because of wear, tear and physical neglect. The Merrimack Valley Textile Museums proposes to help solve this problem by constructing and equipping a conservation facility within an existing building. The funds requested would study the feasibility of this type of facility as a proto-type for other areas of the nation.

Title: Endangered Crafts/Human Skills: A Museum
Training Proposal

Pennsylvania Historical and Museum Commission

Amount Requested: \$ 20,500

For many years, many museum professionals have been increasingly concerned about the preservation of crafts and the impact this would have on the nation's museums. Less than a handful of museums or other training institutions in the United States are, at the present time, training new craftsmen, in the traditional crafts. Many museums are concerned also about the number of endangered crafts: endangered because the only known craftsmen are about to retire due to illness, or old age. The objectives of this project would be

(1) To make a study of the current and long-range needs for craftsmen-demonstrators in the museums of the United States surveying the following:

- (a) Crafts available in museums.
- (b) Crafts desired by museums if trained craftsmen were available.
- (c) Survey of endangered crafts.

(2) To establish a clearing house of places where apprentices might be accepted for training.

(3) To study the relationship of financial need and future federal support for para-professional training as it relates to the nature of the craftsmen-demonstrators.

SMITHSONIAN INSTITUTION LIBRARIES

Mrs. HANSEN. A program increase of \$232,000 is requested for documentation and conservation of the Smithsonian Institution Libraries. What are the requirements in this regard?

Mr. BROOKS. The request, Madam Chairman, is categorized in two major areas. First is the extension of basic services for which we are requesting seven positions and \$190,000. The seven positions, which carry a cost of \$52,000 of that \$190,000, are for two principal purposes. The first is to provide library staffing for our new and contemplated extension of museums, that is the Hirshhorn Museum and the National Air and Space Museum. These needs comprise three new positions.

In addition we are asking for four positions for branch libraries that are currently unmanned or undermanned in the Radiation Biology Laboratory, the National Museum of Natural History, and the Smithsonian Astrophysical Observatory. We feel that situation is an unsatisfactory one leading to poor control of library materials and poor service to the research staff. There is also a certain amount of inefficient time spent by the research staff without library service immediately available to them.

We are also seeking an increase in our library accessions budget, that is for the purchase of books, indexing services, and periodicals. This is an amount of \$87,000. Here I would point out that we are not trying to build a total and comprehensive library in the Smithsonian. We will spend a substantial part of this \$87,000 increase, if it is granted, for reference works so that we will be able to have the references readily available to curators and other scholars in the library.

Mrs. HANSEN. Isn't it true at this point in time that the increase in the cost of books has been almost astronomical?

Mr. BROOKS. Yes, ma'am, it has. I can supply a table for the record, Madam Chairman.

Mrs. HANSEN. Please insert the information in the record.

(The information follows:)

PRICE OF LIBRARY MATERIALS

U. S. Journals

	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>Average Price 1971</u>
Agriculture	163.8	187.5	216.6	\$ 5.74
Chemistry and Physics	222.6	264.9	381.6	38.31
Engineering	167.4	203.3	245.9	13.28
Fine and Applied Arts	144.2	154.2	180.8	8.17
History	129.9	143.4	167.4	7.40
Library Science	158.9	193.0	243.7	8.65
Math, Botany, Geology and General Science	219.3	266.5	319.9	20.06
Sociology and Anthropology	143.6	156.4	194.1	7.92
Zoology	155.8	176.4	239.9	19.29

U. S. Books

(Index 1967 = 100)

	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>Average Price 1971</u>
Agriculture	100.0	111.6	152.2	\$13.64
Art	100.0	103.1	132.0	16.41
Biography	100.0	126.9	132.4	11.64
History	100.0	133.0	148.6	12.97
Science	100.0	102.3	123.1	15.94
Technology	100.0	100.2	116.8	15.28

Sources: Publishers Weekly (Books); Library Journal (indexing services, serials)

PRICE INCREASES IN JOURNALS

Mr. BROOKS. For example, the average index price of journals in areas we are extremely concerned about botany, geology, and general science, has gone up on the basis of 100 in 1957-59; 266.5 in 1969; to 319.9 in 1971, an increase of 50 points or about 20 percent in 2 years. Other areas show similar increases.

Mrs. HANSEN. This is becoming an ever-escalating problem because libraries operate on limited budgets. The libraries must be severely troubled by the cost of books they have to acquire and should acquire.

Mr. BROOKS. We are indeed troubled by the same problem.

Secretary RIPLEY. We have the same problem with some 375,000 new books a year in science alone.

OFFICE OF THE SECRETARY

Mrs. HANSEN. An increase of \$157,000 is requested for the Office of the Secretary. Dr. Ripley, what are the details of this request?

Secretary RIPLEY. Mr. Bradley is the person who administers the Office most effectively and should speak to that.

Mr. BRADLEY. The first item in this request is for an Assistant Secretary at the amount estimated at \$42,000. Let me say this is a person to take over when I am able to retire this summer.

Mrs. HANSEN. Does this mean the committee is going to lose your able advice?

Mr. BRADLEY. That is very kind and generous of you.

Mrs. HANSEN. The committee indeed will be sorry to see you retire.

Mr. BRADLEY. It is true we are requesting a Federal position whereas I have for about 8 years been in a non-Federal position on the private roll.

The reasoning here is twofold. We do everything we possibly can with our so-called private funds which are tightly budgeted and approved by the Board of Regents. Many of our private funds are restricted to the purposes of the donors that we have a very limited amount of free funds.

Second, the present three Assistant Secretaries are on the Federal roll, and we feel that with a contribution on the part of the private funds to three heads of principal bureaus, and to the Secretary, the Treasurer, Assistant Treasurer, and others that we have a very substantial payroll burden to finance out of the private funds. It would be prudent for us to ask the committee to put my successor back on the Federal roll where I used to be 8 years ago.

AUDIT FUNCTION

The second item of \$45,000 is for the audit function which grew out of the 1970 effort on the part of the General Accounting Office to get us to be more audit conscious. I am glad to say we now have four internal auditors and this is a tremendously valuable investment in good management. They have to report to me simply because they should not be subservient to anyone other than the Secretary, and I act as his deputy. These men, therefore, are enabled to go into all of our operating units in sequence and make studies of the efficiency, propriety, and legality of the expenditure of funds.

We have been pushed very hard and we are pushing very hard to be able to expand this function in order to cover more ground.

SMITHSONIAN BUILDING CURATOR

The curator for the Smithsonian Institution Building is something we have not had. This is a building open to the public. Many people come there because they consider it to be something of an orientation point. They want to see representational exhibits as to what is in the other museums. It would be proper we think if we could acquire a curator and his clerk for the authentic pieces of art and other exhibits in the Smithsonian Building. This is an amount of \$20,000.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

The Secretary would probably want to speak to the next item which has to do with support for the American Association for the Advancement of Science meeting in the amount of \$20,000.

Secretary RIPLEY. The AAAS is having its last meeting in the wintertime in Washington. The Smithsonian helped to found the American Association for the Advancement of Science. We have agreed to host part of the proceedings, the seminars and discussions. I have been asked to be the general chairman which I feel is incumbent upon me in my duty as Secretary, and in that connection in order to mount exhibits and help to run this meeting we are asking for a line item this year on a one-time basis for this support.

In general program support, this is a requirement for \$18,000 for office supplies, equipment, travel, use of consultants, and contractual services to assist us in program planning and analysis. I am particularly keen to analyze our activities and welcome more than the auditing function in the analysis at all times of where our programs are going and how they are doing. \$12,000 is for necessary pay.

INCREASED POSTAGE COSTS

Mrs. HANSEN. You note in your justification that an additional \$20,000 is required to meet the additional postage rate increase. Is that correct?

Mr. WHEELER. Madam Chairman, all of the postage of the Institution is charged for convenience purposes to the Office of the Treasurer and this would represent the estimated increase in the postal rates.

Mrs. HANSEN. This was a direct result of the postage rate increase?

Mr. WHEELER. Yes.

Mrs. HANSEN. I think it is interesting to note the amount of postage costs throughout all the agencies this committee funds. Postage costs are a sizable part of the budgetary increases this year.

BUILDING MANAGEMENT DEPARTMENT

Four hundred and ten thousand dollars and 44 positions are requested for the building management costs of the Joseph H. Hirshhorn Museum and Sculpture Garden.

When will it be necessary to hire these employees?

Mr. BRADLEY. Madam Chairman, it is estimated that these people will come on in the spring. In other words, we will have them on board for one-third of the year or 4 months during the fiscal year 1973. This would be March, April, May, and June of 1973.

Mrs. HANSEN. Will this cost \$410,000?

Mr. BRADLEY. Of this total, \$118,000 is for the initial staffing level of 22 guards, 10 mechanics, and 12 custodians. In addition, as the building becomes operational, we must take on the expense of utilities, communications, and other services which amount to \$127,000 for a portion of the year.

Mrs. HANSEN. When will these costs begin?

Mr. BRADLEY. These costs should start in the winter of this calendar year. The sooner we assume the building services costs, the less it will cost the Government, because if the contractor does it, he would simply put a surcharge on these items. And, finally, we must fund fire detection and other systems for \$75,000; supplies and materials for \$40,000; and cleaning and maintenance equipment items for \$50,000. This represents a total increase of \$410,000 for initial protection and operation of this new museum.

Mrs. HANSEN. I have received a communique dated March 13, 1972, in regard to the Hirshhorn Museum and Sculpture Garden.

It reads in part:

According to Smithsonian Institution budget justifications for fiscal year 1973, Joseph H. Hirshhorn is now asking the Federal Government for the sum of \$2,048,000 in "salaries and expenses" funds to operate what he described as "my museum here" in the Washington Post, May 28, 1971.

The truth is that "my museum here" is actually a small and seedy office on the fifth floor of an apartment house in a run-down section of New York City.

This office was Hirshhorn's private office until the Federal Government began paying rent through appropriations through this subcommittee. The Federal Government also apparently pays the rent on Hirshhorn's storage areas for his private collection—to which he apparently still holds title.

The sum of \$2,048,000 for these limited services to the public is so exorbitant as to provoke disbelief.

The posture of the Smithsonian Institution has been to defend these expenses as necessary solely to organize the initial exhibition of some 1,000 pieces. Such "organization" should long since have been finished.

With the unlimited funds and staff available to the organization of the Hirshhorn exhibition of 1,000 pieces, the job should have been done in less than 1 year.

Now, it has dragged on for 5 years and at the cost of millions of dollars of taxpayers' money. Most of this activity and this expense has relieved Mr. Hirshhorn of costly burdens in the upkeep of his private collection.

A certain amount of the currently requested \$2,048,000 is said to be for construction costs on the museum and sculpture garden. At the time, Piracci Construction Co. is nearly 7 months behind schedule. At the earliest, at present speed, these questionable funds, to be used in the final stage of construction, will not be needed until April 1973. It would seem most feasible to leave these funds in the Federal Treasury until after the beginning of the next fiscal year at the end of June 1973, thus saving considerable interest on the deal. This construction sum, hidden in the request for "salaries and expenses" for the office and warehouses in New York, is said to total \$1,400,000.

What is your comment in this connection?

Mr. BRADLEY. Yes, Madam Chairman. May we also provide something for the record?

Mrs. HANSEN. Please do.

Mr. BRADLEY. Without becoming too critical of this, there is so much that is hard to handle because it is slanted. The business of the Hirshhorn Museum is not one simply of organizing for an opening in the fall of 1973. The Hirshhorn Museum today under a considerable gift is an operating museum. It does everything a museum normally does except one thing, and that is exhibit.

(The information follows:)

1. It is alleged that Federal funds are being used to maintain a "small and seedy" office, previously Mr. Hirshhorn's, in an apartment house in a rundown section of New York City.

Comment.—The office of the Hirshhorn Museum and Sculpture Garden, which is used exclusively for that purpose, is utilitarian and unostentatious rather than "seedy." It is not in an apartment house. It was never Mr. Hirshhorn's private office. It is located on 65th Street between Lexington and Park Avenues, which is not a rundown section of New York City.

2. It is alleged that the Federal Government is paying rent for the storage of Mr. Hirshhorn's private collection.

Comment.—The major part of the collection is stored in a warehouse in New York City. As contemplated by the 1966 agreement, Mr. Hirshhorn pays the rent on the warehouse areas used for storage of the collection—at the rate of \$42,165 a year. The remainder of the collection is stored in Mr. Hirshhorn's residences at no cost to the Government. In addition to rent, Mr. Hirshhorn spends approximately \$40,000 a year for insurance on the collection. The only Smithsonian expenditure on rent in the warehouse is for space used by the museum staff in preparing and documenting the collection and planning the opening exhibition.

3. It is alleged that the \$2,048,000 requested for the Hirshhorn Museum is an exorbitant sum for preparation of the opening exhibition, which preparation should by now have been completed.

Comment.—Of this total figure, \$1,426,000 represents the cost of furnishing and equipping the museum and sculpture garden. The salaries and expenses request is \$612,000, which is less than was appropriated for fiscal year 1972.

Public Law 89-788 authorized the appropriation of such sums "as may be necessary for the maintenance and operation of such museum and sculpture garden." It has been argued that Federal funding should not have begun until completion of the museum and sculpture garden construction. If this course had been chosen, the result would have been to delay the public opening of the museum and sculpture garden for several years. The Smithsonian and the Congress have wisely chosen to proceed with the preparation of the collection and the development of the exhibition and other museum programs during the period of planning and construction of the museum and sculpture garden.

The scope and nature of the work that has been done and continues to be done in preparation for the opening of the museum and sculpture garden has been and continues to be a matter of public record. The cataloguing and documentation of a collection of thousands of works of art in all media by hundreds of artists, the selection from this entire collection of about 1,000 paintings and sculptures for an opening exhibition, the preparation of these thousand works for exhibition in a national museum, the planning of that exhibition, and the development of a full range of museum programs including storage, research, exhibition, conservation and education—all of this is a truly monumental task. Comparative figures for the preopening expenditures of other Smithsonian museums are instructive. The attached table shows the appropriated "Salaries and expenses" funds used by the National Portrait Gallery, the National Collection of Fine Arts, and the Museum of History and Technology in the fiscal years immediately preceding their moving into their buildings: in each case a period of several months elapsed between the move and the official opening to the public. It should be noted that during the period reflected in these figures the National Portrait Gallery used a small exhibition area in the Arts and Industries Building, and the National Collection of Fine Arts used a small exhibition area in the Natural History Museum.

Place and fiscal year	Positions	Amount
National Portrait Gallery, 1967.....	19	\$610,000
National Collection of Fine Arts, 1967.....	45	739,000
Museum of History and Technology, 1963 ¹ (average employment).....	318	2,284,000

¹ Includes about 160 exhibits personnel and \$1,100,000 in associated "S. & E." costs.

4. It is alleged that \$1,426,000 for construction costs have been "hidden" in the request for the Hirshhorn Museum.

Comment.—The justifications submitted make absolutely clear the distinction between recurring and nonrecurring costs and spell out in detail the use proposed for each. It is our belief that all the items included in the \$1,426,000 nonrecurring request may appropriately be funded through our salaries and expenses appropriation. We have been informed that the museum building will be substantially completed by the end of this calendar year. To insure prompt opening to the public, and effective operation of the museum in its new building, it is essential that procurement and installation of furniture, furnishings, movable equipment and other items be funded in fiscal year 1973.

COOPER-HEWITT MUSEUM

Mrs. HANSEN. How many positions do you currently have at the Cooper-Hewitt Museum?

Secretary RIPLEY. Mr. Ault, do you have that?

Mr. AULT. We have five, Madam Chairman.

Mrs. HANSEN. Please justify your need for nine additional positions.

Mr. AULT. Madam Chairman, of those nine positions two are guard positions, two are custodial people, and five are mechanics. These positions are to maintain and protect the building for the opening, hopefully some time next year.

Mrs. HANSEN. What sort of visitation record do you have at this museum?

Secretary RIPLEY. Virtually nothing at the present time. At present, it serves as a collection and research facility with specialists and professionals. We are preparing ourselves for an opening.

Mrs. HANSEN. What type of exhibits are you planning at the Cooper-Hewitt Museum?

Secretary RIPLEY. This is the principal source museum for the decorative arts and has been the most important source for the textile and decorative arts industries for resource materials. When we open for the public it will be known as the National Museum of Design and it will display all kinds of design arising from our source materials and from the kinds of usage that we will get from interaction with schools and colleges.

Mr. BLITZER. To make sure it is clear, we had said earlier, Madam Chairman, the museum originally had been in New York at Astor Place and Fourth Street. It has been moved to Fifth Avenue and 90th Street. We have been given by the Carnegie Corporation a magnificent mansion occupying one block, between 90th and 91st Streets.

SPACE RENTAL

Mrs. HANSEN. You are requesting \$190,000 for space rental for housing authorized programs and necessary support services. What would occur if the committee didn't approve all your additional positions? Would you need this new space?

Mr. BRADLEY. Madam Chairman, the answer is that part of this requested space, about half, is contingent on 1973 increases causing additional demands for space. About half is required for present tight squeezes and demands for relief right today.

Mrs. HANSEN. Where is the space located?

Mr. BRADLEY. The proposed space is located in L'Enfant Plaza just 1 block south of the Smithsonian building.

Secretary RIPLEY. It is very accessible for us and it is apparently on a very favorable basis.

Mrs. HANSEN. How successful is L'Enfant Plaza?

Secretary RIPLEY. I have no idea except it seems to be increasingly used. I have been over there in the lunch hour and it is very, very crowded. It is just jammed. The public part of it is coming along very well, quite surprising I might say, Madam Chairman, because as you drive by it it looks fairly vacant and yet you go in underneath, like Rockefeller Center, and there are all sorts of under-walkways and arcades and these areas seem to be a hive of activity.

SCIENCE INFORMATION EXCHANGE

Mrs. HANSEN. Please insert justification pages 1 through 10 in the record at this point.

(The pages follow :)

SCIENCE INFORMATION EXCHANGE

1971 Appropriation.....	0 ¹ / ₂
1972 Appropriation.....	\$1,300,000 ² / ₁
1973 Estimate.....	\$1,600,000

The Smithsonian Science Information Exchange (SSIE), in operation for 22 years, has been managed by the Smithsonian Institution since 1953 at the request of, and in behalf of, the federal agencies. As of July 1, 1971, the Smithsonian took over the funding of the Exchange for the development and maintenance of the data base by obtaining a direct appropriation. Prior to that time funds were provided by the National Science Foundation. In order to provide an efficient mechanism for the operation of the Exchange, it was incorporated as a non-profit Corporation in the District of Columbia in mid-June 1971. Incorporation was determined to be the most effective means of operating the Exchange in view of the complexities of charging users fees for services, the income from which makes up the balance of the funds required for overall operation of the Exchange, and for other reasons.

Management of the Exchange is accomplished by means of a Board of Directors and an Advisory Council. The latter is made up of representatives from federal agencies, industry, private foundations, fund raising agencies and universities, and represent those groups which are the prime users of SSIE's services. The Council is responsible for advising the Board of Directors on (a) the value and effectiveness of the Exchange, and (b) potential improvements that might be made in the Exchange to improve both input and output services. This Council in August 1971 reaffirmed the value and usefulness of SSIE.

The SSIE data bank annually receives and processes about 100,000 one-page records (2.5 to 3 million data elements) of research planned or in progress. About 80 percent of the input comes from federal agencies and 20 percent comes from private foundations, universities, state and local governments, industry, and some foreign sources. From this data bank, SSIE answers questions from the national science community about who is currently working on what project(s), where, when, and with whose support. The purpose of this national service is to help investigators and administrators avoid unwarranted duplication and unnecessary overlap of complex programs and to assist in more efficient planning and management of research projects and programs. It is one to three years from the time a project is planned and started until the time it is completed and reported. Efficient planning and management requires the earliest information about what others are doing.

For FY 1973 the Exchange is requesting an appropriation of \$1,600,000 (see Table I) to cover the cost of collecting and processing input into the data bank. Since December 1968, non-federal users have paid for retrieving, synthesizing, and packaging requested information. All users have paid for such services since July 1969. Table II shows income by type of use and user for fiscal years 1970 and 1971 as well as projections for FY 1972. Charges are reviewed regularly and adjusted as necessary. The Exchange was funded in FY 1971 at an annual level of \$1,680,000 by the National Science Foundation. The FY 1972 appropriation was approved at \$1,300,000 but \$1,600,000 is required in FY 1972 to cover the basic cost of collecting, processing, and

¹/Funded by contract with the National Science Foundation for the 10-month SIE fiscal year 1971 at an equivalent annual level of \$1,680,000.

²/Excludes \$300,000 proposed for supplemental.

storage of data. An additional \$300,000 is being sought in a supplemental appropriation in order for the Exchange to retain operational capability after May 1972. It will also fund a user study recommended by the General Accounting Office and the Office of Management and Budget on the future role of the Exchange in serving a changing science community.

Table III presents revenue, expenditure, and related data from FY 1966* up through and including projections for FY 1973. Comparison of the data for those two years reveals the following:

- Although staff size was reduced by 48 percent over the period, the rising cost of salaries and benefits result in a projected FY 1973 dollar outlay for personnel 8 percent greater than the actual personnel costs incurred in FY 1966.
- The staff reduction over a period of increasing input processing volume was partially offset by increasing technological sophistication, an increase reflected by the 40 percent rise in projected outlays for ADP equipment. The balance of the effect of the staff reduction was absorbed by an erosion of the quality of the SSIE data base.
- As a result of significant reductions in staff size and operating expenses other than those related to ADP equipment, costs projected for FY 1973 exceed those incurred in FY 1966 by only 8 percent.
- Funding at a level of \$1,600,000 for FY 1973 represents a decrease in federal support of 16 percent from the FY 1966 level.
- Revenues from SSIE sales are projected at \$425,000 for FY 1973, an increase of 32 percent over the current year. It is not reasonable to anticipate a greater rate of growth which might provide some funds to offset input costs.

No additional funding over the FY 1972 level is requested, assuming the supplemental appropriation for \$300,000 is approved. The amount of \$1,600,000 represents the minimal amount required to maintain data flow into the SSIE system and the future development of the data base manipulation techniques necessary to insure a system which will be responsive to the needs of SSIE users.

Maintenance of a national data bank of ongoing research activity requires a clearly identifiable level of funding support below which it becomes no longer practical to attempt to update the data base. This minimum level of operations is constrained by the necessity for technical skills in a variety of scientific disciplines to evaluate and process input data, the requirements for maintenance and update of the automated data entry, search and retrieval system, and certain minimum, fixed operating expenses. Where inadequate staff support is available for processing incoming material, significant delays occur in entering administrative and subject indexing data into the computer. Such data cannot be recovered and included in material sold to users, thus decreasing the value of the material provided. Considerable man-hours are required to work out and maintain effective input as government reorganization and turnover of personnel necessitate repeated contacts with agency representatives. SSIE will not be able to maintain the data bank without the supplemental \$300,000 requested in FY 1972, or without the \$1,600,000 requested in the FY 1973 budget.

*FY 1966 was selected as a base year in that it covered a period of peak activity, i. e. activity at a maximum level above that required for sustenance of basic operations.

SSIE will continue to develop improvements in both the input process, storage and search capabilities of the system. New computer system improvements are being considered and will be developed to provide for more efficient operation within the confines of the proposed budget.

With regard to increased input the Exchange notes two new sources. Input from state governments will be actively sought following pilot projects developed with the help of the Office of Intergovernmental Science Programs at NSF and the National League of Cities. These projects are both geared to improving input and use of SSIE by state and local governments. Contact has already been made with all state governments to familiarize them with SSIE and its services. In addition, knowing the importance of international research on such broad problems as environment and other urban problems, SSIE expects to further input of foreign research by reciprocal agreements with various foreign research information programs already established for ongoing research. Input from these programs is expected to result ultimately in an increase of some 15,000 projects. The ability to absorb these additional workloads will be dependent on improved efficiencies developed within the system and the availability of some supporting funds from the sponsoring agency.

About 65 percent of the output service goes to the federal agencies and an additional 20 percent to their grantees and contractors. Their requests range from retrieval of records (at one dollar each) to the preparation of printed annual catalogs of 1,500 pages (at \$25,000) describing the current national research effort, for example in water resources, marine sciences and environmental quality. Table IV shows input and output volume statistics for FY 1971. Table V lists catalogs and other publications prepared by the Exchange. The total revenue from all output products in FY 1972 is projected at \$322,000. More rapid increases in revenues from user charges have been difficult due to an almost constant federal R&D budget in spite of rising research costs. Under the circumstances early and adequate information is more essential than ever to efficient planning and management in research as well as in any other enterprise.

The SSIE data bank is the only one of its scope and size in the world that deals with information about current research activities applicable to planning and management purposes. It is the only source of coherent and comprehensive information that can quickly define and describe the broad multidisciplinary and multi-agency (government and private) programs of immediate national importance.

TABLE I
SMITHSONIAN SCIENCE INFORMATION EXCHANGE, INC.
PROPOSED BUDGET FY 1973

	<u>TOTAL COST</u>	<u>DATA BANK COST*</u> (Federally Appropriated Funds)	<u>OUTPUT COST</u> (User Charges and Other Income)
Personnel	\$1,470,642	\$1,163,800	\$306,842
Salaries	1,301,453	1,029,911	271,542
Benefits	169,189	133,889	35,300
Contract Services			
Travel	7,000	5,600	1,400
Transportation of Things	2,000	1,600	400
Rents			
Telephone	9,000	7,020	1,980
IBM	240,038	187,230	52,808
Xerox	9,000	7,200	1,800
Building	98,500	76,830	21,670
Other	8,000	6,400	1,600
Printing	4,000	3,200	800
Other Services			
Equipment Maintenance	4,000	3,120	880
Other	20,000	16,000	4,000
Supplies	15,000	12,000	3,000
Acquisition of Capital			
Equipment	12,820	10,000	2,820
TOTAL	<u>\$1,900,000</u>	<u>\$1,500,000</u>	<u>\$400,000</u>
SI Services	125,000	100,000	25,000
GRAND TOTAL	<u>\$2,025,000</u>	<u>\$1,600,000</u>	<u>\$425,000</u>

*Previous year (FY 1972) input costs of \$1,600,000 were met by \$1,300,000 in Federally Appropriated Funds and one-time funds of \$300,000 from a supplemental appropriation.

TABLE II

Income for SSIE Services
by Type of Use and User

Government Fiscal Years (1 July - 30 June)

Fiscal Year	Months	Federal Users		Non-Federal Users			Grand Total
		User Charges	Contract Income	User Charges	Contract Income	Total	
1970	12	61,733	70,473	68,538	--	68,538	200,744
1971	12	80,033	77,610	73,438	--	73,438	231,081
1972	6*	43,386	64,325	57,300	11,700	69,000	176,711
1972	12**	92,095	104,325	101,880	23,700	125,580	322,000

*First 6 months of FY 1972

**Currently projected

TABLE III
 SSIE Revenues & Expenditures
 (1966 - 1972)

SSIE Fiscal Year	Staff Size		Staff Salaries and Benefits		ADP Equipment Expense		Other Operations Expense	
	Actual	% Increase (Decrease)	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	(6%)	1,380	1%	178	4%	313	(5%)
1968	139	(15%)	1,427	5%	217	27%	331	0-
1969	134	(18%)	1,330	(2%)	246	44%	382	15%
1970	88	(46%)	1,396	2%	254	49%	368	11%
1971*	87	(47%)	1,363	0-	250	46%	309	(7%)
1972**	87	(47%)	1,439	5%	258	51%	301	(9%)
1973**	85	(48%)	1,470	8%	240	40%	315	(5%)

SSIE Fiscal Year	Total Cost of Operations		Direct Federal Support		SIE Revenues		Input Processing Volume	
	Actual (1,000)	% Increase (Decrease)	Actual (1,000)	% Increase (Decrease)	Actual (1,000)	% Increase (Decrease)	Actual	% Increase (Decrease)
1966 (Base Year)	1,866	--	1,902	--			75,800	--
1967	1,871	0-	1,850	(3%)			84,400	12%
1968	1,976	6%	2,000	5%			95,700	26%
1969	1,958	5%	1,800	(5%)	173	--	91,200	20%
1970	2,018	8%	1,707	(10%)	212	--***	88,000	16%
1971*	1,921	3%	1,680	(12%)	231	9%	90,000	19%
1972**	1,922	3%	1,300	(32%)	322	52%	94,000	24%
1973**	2,025	8%	1,600	(16%)	425	100%	94,000	24%

* 10 month fiscal year projected on a 12 month basis

** Projection based on current minimum requirements

*** 1970 was selected as a base year for comparison of revenues as cost recovery program covered only a portion of FY 1969

TABLE IV
SERVICES PROVIDED BY THE SSIE IN FY 1971

Type of Service - Input	Source and % of Total Input Documents into the Data Base		Total Number of Projects Registered
	Federal	Non-Federal	
Input of research project resumes into data bank including scientific, administrative indexing.	80%	20%	96,601
Type of Service - Output	Number of Requests	Number of Requests	Total Income from Service
Searches on data base for scientific and technical information and by administrative information such as supporting agency, location of work, etc.	790	990	\$69,811
Preparation of computer printouts and tables of data from information in SSIE data base.	6	2	\$1,351
Large administrative and/or subject requests for which no standard price exists and which involve special handling.	31	30	\$55,547
Requests for searches of data base in which all projects attributed to a given research investigator are retrieved.	3,780	388	\$8,445
Subject searches of SSIE data base to retrieve information on ongoing research on a regularly scheduled basis (selective dissemination based on user profiles).	97	109	\$8,701
Distribution of Notices of Research Project documents on a regular basis to selected agencies supporting research (almost always involves their own research program).	33,041	0	\$3,304

Type of Service - Output	Number of Requests	Number of Requests	Total Income from Service
Retrieval of Notices of Research Project documents from data base by SSIE accession number or supporting agency contract or grant number.	1,077	214	\$1,358
Subject or administrative searches of the archival files of SSIE data base. Covers the period 1949-1969.	14	20	\$4,954
Contracts for Research Catalogs.	6		\$77,610
TOTALS	38,842	1,753	\$231,081

TABLE V

List of Catalogs and Other Publications Relating to Ongoing Research
Prepared by the Smithsonian Science Information Exchange

1. "Environmental Research Catalog" - FY 1971. Prepared for the Environmental Protection Agency, Washington, D.C., 1972 (In press).
2. "Water Resources Research Catalog". Prepared in 1965, 1966, 1967, 1968, 1969, 1970 (1971 in preparation) for Office of Water Resources Research, Department of the Interior. Superintendent of Documents, Government Printing Office, Washington, D.C.
3. "Water Resources Thesaurus". Prepared 1966 - revised 1971 for Office of Water Resources Research, Department of the Interior. Superintendent of Documents, Government Printing Office, Washington, D.C.
4. "Marine Research" - FY 1968. (Prepared for Executive Office of the President, National Council on Marine Resources and Engineering Development) Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402, 1970.
5. "Outdoor Recreation Research". Prepared in 1966, 1967, 1968, 1969, 1970 (Prepared for Bureau of Outdoor Recreation, Department of the Interior) Superintendent of Documents, Government Printing Office, Washington, D.C.
6. "Current Population Research 1966, 1967, 1968, 1969". (Prepared annually for National Institute of Child Health and Human Development, National Institutes of Health, HEW, Bethesda, Maryland 20014). Published by U. S. Department of Health, Education and Welfare.
7. "Recent Research in Public Administration - A Reference 1969". (Prepared for Office of Metropolitan Development, U. S. Department of Housing and Urban Development, Washington, D.C. 20410). Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402, 1969.
8. "Recent Research in Intergovernmental Relations 1968". (Prepared for Office of Metropolitan Development, U. S. Department of Housing and Urban Development, Washington, D.C. 20410). Government Printing Office, 1969.
9. "Recent Research in Planning 1968". (Prepared for Office of Governmental Relations and Planning Assistance, U. S. Department of Housing and Urban Development, Washington, D.C. 20410). Government Printing Office, 1969.
10. "Research on U. S. International Trade". (Prepared for Export Strategy Staff, U. S. Department of Commerce, Washington, D.C.). Government Printing Office, 1970.
11. "Neurological Disease and Blindness Catalog 1969". (Prepared for National Institute of Neurological Disease and Blindness, National Institutes of Health, HEW, Bethesda, Maryland 20014).

12. "Sustaining University Program, NASA". (Prepared in 1969 and 1970 for Office of University Affairs, National Aeronautics and Space Administration, Washington, D.C. 20546). Government Printing Office, 1970, 1971.
13. "Catalog of Federally Funded Housing and Building Research and Technology". (Prepared for Office of Urban Technology Research, U. S. Department of Housing and Urban Development, Washington, D.C. 20410). Superintendent of Documents, U. S. Government Printing Office, Washington, D.C., 1970.
14. "Food Distribution Research Projects in Progress 1969". Food Distribution Research Society, Hyattsville, Maryland, 1970.
15. "Dental Caries Research FY 1969". (Prepared for National Institute of Dental Research, National Institutes of Health, Department of Health, Education and Welfare, Washington, D.C.). Superintendent of Documents, U. S. Government Printing Office, Washington, D.C., 1971.
16. "Dental Research in U.S. and Canada". Prepared in 1970 (1971 in preparation) for National Institute of Dental Research, NIH, Bethesda, Maryland, 20014. Superintendent of Documents, U. S. Government Printing Office, Washington, D.C., 1971.
17. "Dental Health" - FY 1970. Prepared for Division of Dental Health, NIH, Bethesda, Maryland, 20014. Superintendent of Documents, U. S. Government Printing Office, Washington, D.C., 1971.
18. "Pesticides Research -- Water" - 1971. (In preparation) for Environmental Protection Agency, Washington, D.C.

USER CHARGES

Mrs. HANSEN. In your testimony on the request in the supplemental for 1972 you indicated you were going to have higher user charges. If this is so, why do you need \$1.6 million for the Science Information Exchange in 1973?

Secretary RIPLEY. We have Dr. Hersey here, the Director of the Science Information Exchange and I would like to ask him to answer that.

Dr. HERSEY. Madam Chairman, the question, as I understood it, was if we anticipate additional revenue from user income why are we asking for \$1.6 million in Federal funding for input costs. At the present time, as we increase our user output, the costs for the performance of the services that are required to provide this output also go up commensurately. We don't anticipate that there will be any surplus income to apply to input costs during the next year or two until such time as our user income reaches approximately a figure of \$600,000.

GENERAL ACCOUNTING OFFICE REPORT

Mrs. HANSEN. The GAO issued a report on the activities of the Science Information Exchange. Please comment on their conclusions.

Mr. HERSEY. I think it is a very good report, Madam Chairman. If I interpret it correctly, it says that the Science Information Exchange is doing an effective job. However, its effectiveness could be considerably improved if the Federal agencies were more complete in their submission of research reports to the Exchange. I believe their recommendation to the Office of Management and Budget was that a study be carried out to establish more clearly the role of the Science Information Exchange as a part of that Office's responsibility. If it is determined from that study that the Exchange should continue, the question of mandatory input should be considered by the Office of Management and Budget since this is one of the reasons the GAO feels that the Exchange has not been getting maximum usage. A number of agencies in the GAO survey reported that they were not using the Exchange because it was not complete. I might point out that in some cases the same agencies are the ones which are not submitting their data on a timely basis.

Mrs. HANSEN. How do you plan to correct this situation?

Dr. HERSEY. Two things, Madam Chairman. One is that the Office of Management and Budget has concurred in the execution of such a study as was recommended by the General Accounting Office and money for that is in our request for the \$300,000 supplemental appropriation which we have submitted to the Congress. As a second course of action, we have carried out on our own a series of briefings with many of the agencies. We are trying to reach as many of the agencies as possible to encourage them to submit their input to us on a timely basis. I might say that I hope the General Accounting Office report will also stimulate and encourage input by the agencies.

Secretary RIPLEY. May I say, Madam Chairman, at this point that a statement or any remarks that the committee cared to make on the matter of input would be of enormous help to us. I feel, and it is the principal reason why we continue to support the Science Information

Exchange and continue to believe in its viability, that if the Exchange didn't exist someone would invent it. If for some reason the Science Information Exchange goes out of business largely because of the lagging attitude of many of the major Government agencies to supply the very information which they can then criticize us for not producing or having, someone else will recreate an exchange and this will cost the Government a great deal more money. A prudent expenditure of funds would be better spent on something that already exists. If this kind of logic appeals to the committee a statement of some sort in your report suggesting that all agencies do put in information would produce a very salutary effect.

NEED FOR COORDINATION OF SCIENTIFIC INFORMATION

Mrs. HANSEN. Dr. Ripley, this committee for many years, has been concerned with the escalation and proliferation of uncoordinated efforts. I think one of the things people in the scientific world are particularly concerned about today is having a central place to go to find scientific information. I believe the Office of Water Resources Research, uses the Exchange as a source of information.

Secretary RIPLEY. Yes, they do.

Mrs. HANSEN. Many municipalities do not have research centers and they need a place to find what the total input has been on a given problem. I think if the Science Information Exchange were properly used it could save a great deal of money because of the necessity for information of many other departments. The problem of the average user is to locate the places where they can find the answers.

Secretary RIPLEY. A perfect example of that occurred several years ago. Dr. Hornig, because we have the water resource data bank, asked us for a survey of the research being done on water resources. In 48 hours the Science Information Agency had a package on his desk which was a full compendium of all research then being done. Well, that is exactly what should be done and that is exactly the kind of service that you need. When the data is only partial, when you don't get the right people to say the right things, you don't have full information.

MUSEUM PROGRAMS AND RELATED RESEARCH

Mrs. HANSEN. Please insert justification pages 1 through 5 in the record at this point.

(The pages follow:)

SMITHSONIAN INSTITUTION
MUSEUM PROGRAMS AND RELATED RESEARCH
(SPECIAL FOREIGN CURRENCY PROGRAM)

1971 Appropriation	\$2,500,000	Equivalent in "Excess" Foreign Currencies
1972 Appropriation	\$3,500,000	
1973 Estimate	\$6,000,000	

An appropriation of \$6,000,000 in foreign currencies determined by the Treasury Department to be in "excess" to the normal needs of the United States abroad is requested for Fiscal Year 1973. The appropriation will be used to continue a program of grants to United States institutions for field research in those countries where "excess" local currencies which have accumulated are available. The research will be performed in areas of Smithsonian Institution interest and competence according to the following general program areas:

Commitment of Funds by Program Area

	FY 1966 - 71 Cumulative <u>Commitments</u>	FY 1972 Estimated <u>Commitments</u>	FY 1973 Appropriation <u>Request</u>
Archeology and Related Disciplines	\$ 7,563,357	\$ 1,823,575	\$ 2,220,807
Systematic and En- vironmental Biology	4,905,044	1,399,940	2,993,090
Astrophysics and Earth Sciences	727,391	192,485	497,103
Museum Programs	153,500	60,000	265,000
Grant Administration	61,690	24,000	24,000
	<hr/> \$13,410,982	<hr/> \$3,500,000	<hr/> \$6,000,000

For the past two years, grants awarded to American institutions by the Program have been exceeding the annual appropriation. In FY 1970 there were program obligations of \$2,922,681 equivalent in "excess" foreign currencies against an appropriation of \$2,316,000; in FY 1971, obligations of \$3,100,365 against an appropriation of \$2,500,000. These commitments absorbed all "carry over" from previous years, and, by the end of FY 1970, and during the first half of FY 1971 some approved research had to be delayed and rescheduled in order to be funded.

Grants have benefitted or will benefit more than 200 institutions of higher learning in thirty-two states. Benefits include the participation

of pre- and post-doctoral research scholars, and the acquisition of unique study collections which benefit not only grantees but numerous additional specialized collaborating institutions in the United States.

The FY 1972 increased appropriation of \$3, 500, 000 should enable the program to meet its commitments during the current fiscal year. However, the development and expansion of regular programs, as well as the opening up of important new research possibilities, especially in India and Poland, have resulted in a rising demand for "excess" research monies which makes an increased appropriation in FY 1973 necessary.

A joint Indo-American Ecology Symposium held in February 1971, resulted in plans for a major program of "environmental assessment" studies to be carried out jointly by Indian and American scientists and institutions; the basic scientific data expected to be developed by this program will not only contribute to the solution of environmental problems in developing India but will add vital data on the environment of use to American scientists and institutions working on U. S. environmental problems.

Similarly, a high-level visit in the spring of 1971 by the Chairman of the Polish Committee for Science and Technology has opened important new possibilities for joint American-Polish research by which American scientists and institutions can take advantage of highly sophisticated Polish facilities and experience without the expenditure of hard research dollars to perform comparable research in this country.

These major new opportunities for research follow similar opportunities in Yugoslavia and Pakistan described in last year's appropriation request. The projection for continued collaboration between basic research institutions in fields of Smithsonian interest in all of these countries is expected to remain high for as long as "excess" currencies are available in spite of varying political factors at the national level. At the same time, the American institutions performing research in Israel under Smithsonian sponsorship are now phasing out the major effort, with many accomplishments which the Program has financed there in the past six years; Israel is expected to be removed from the Treasury's "excess" currency list on June 30, 1972; consequently, FY 1972 will be the last year in which the Program will commit funds there, but the funds formerly committed to Israel will be more than absorbed by the new opportunities opening up elsewhere.

In addition to the need for an increase brought about by these new opportunities, the increase in FY 1973 is essential to support continuing field studies in the Smithsonian's traditional disciplines of systematic and environmental biology and anthropology which today are recognized

as basic to an understanding of the problems of environmental quality and cultural change.

The increase is essential also 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.

Finally, the increase is essential to permit, in some cases, multi-year obligation of funds for research in those "excess" currency countries, like Tunisia and Morocco, where the excess designation by the Treasury Department is subject to termination at any time because "excess" accounts are small. Failure to obligate funds for a reasonable number of years for projects in such countries could prematurely terminate worthy studies by United States institutions without receiving full value from funds already expended. The Smithsonian appropriation has never been adequate to permit obligation of funds for more than one year of research at a time. Ceylon, where multi-year research has been underway, was removed from the "excess" currency country list at the end of fiscal year 1970. The Institution was only able to provide for orderly completion of the research going on there by making multi-year obligations against monies originally committed for research in other countries. The Program will of course, continue to require annual Advisory Council review to determine satisfactory research progress of these and other multi-year studies prior to authorizing disbursement of each successive year's funds.

USE OF FOREIGN CURRENCIES SAVES 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.

OUTSTANDING ACHIEVEMENTS OF RESEARCH SUPPORTED BY SMITHSONIAN FOREIGN CURRENCY GRANTS

The following are examples of some of the outstanding results achieved by American scientists and institutions working under grants from the Program:

1. Smithsonian - Yale Arbovirus Laboratory collaboration has demonstrated that contrary to previous scientific opinion, migrating birds can transport infective 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 captured by Smithsonian field teams in Egypt.
2. Yale University students of fossil remains of man's earliest ancestors have found the skull and jaws of the common ancestor of all higher primates, including apes and man. This creature lived about 28,000,000 years ago. This discovery is considered the most important find in the last fifty years, bearing on man's evolution and on that of the apes.
3. The Smithsonian Astrophysical Observatory has, in collaboration with Tel Aviv University in Israel, successfully demonstrated that the basic principles and techniques emerging from the study of atomic particles are also applicable to the heretofore unexplained motions of groups of stars and of galaxies, opening important new fields for study of man's universe.
4. The Hebrew Union College, Cincinnati, Ohio excavation at Gezer, Israel serves as a principal field training ground for American biblical scholars and archeologists. This city was given by Pharoah Shishak as a dowry to his daughter who became King Solomon's queen. These excavations have furnished conclusive proof of the city's destruction by Nebuchadnezzar.

5. Smithsonian studies in collaboration with Hebrew University in Jerusalem of the movement of marine life through the man-made, sea-level Suez Canal show that the majority of commercially valuable fish taken in the Eastern Mediterranean originated in Red Sea. These studies have saved the United States thousands of hard research dollars because one result is a tested model for studies being prepared by the National Academy of Sciences in connection with a possible sea-level canal at Panama. Taken together with studies of the movement of marine-life, particularly predators, through the Erie and Welland Canals into Lake Erie, the Suez Canal studies provide dramatic evidence of the consequences of man's modification of his environment.

6. The University of Pennsylvania museum, by applying modern computer methods to the scattered stones of the Egyptian Temple of Akhnaten, 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.

LIST OF PROJECTS

As in past years, a list of the illustrative projects of American institutions in many states being supported by the Special Foreign Currency Program, being developed in anticipation of such support, or considered worthy of being developed, has been prepared in support of this FY-73 appropriation request. In addition to the information usually included about each project--grantee institution, project title, amount of "excess" funds committed or to be committed to the project--a more extended explanation of what each project entails has been included this year. Owing to the increased length of the resulting document, this list of projects is being submitted separately as supplement to the Budget Justifications for Fiscal Year 1973.

This list of illustrative projects represents the Institution's selection of possible projects which appear most promising for successful development and implementation during Fiscal Year 1973. It should be noted, however, that actual implementation of these projects, and the distribution among disciplines and countries^{1/} of "excess" currencies appropriated will be contingent upon review and approval on competitive scientific merit by the Smithsonian's national scientific advisory councils; review and approval as not contrary to U.S. national interest by the Department of State and U.S. embassies abroad; review and approval of each project by the appropriate agency of the host country; and conclusion, where required, of a satisfactory agreement between the American grantee of the Smithsonian and an appropriate collaborating institution in the host country.

^{1/} See country distribution chart on page 3 of Special Foreign Currency Program Project List in budget justification supplement.

EXPANSION OF PROGRAM

Mrs. HANSEN. Your appropriation for 1972 was \$3.5 million. You are requesting \$6 million for 1973. Why should this activity be expanded to that extent?

Secretary RIPLEY. Our Mr. Warner I think can supplement what I mentioned this morning. Mr. Warner, would you like to add to that?

Mr. WARNER. All I can say, Madam Chairman, is we could use every penny of it and we still feel that this is an extremely advantageous way of saving dollar costs to carry out research abroad both for ourselves and for the many American institutions of higher learning that are served through the program.

(Discussion off the record.)

CONSTRUCTION

Mrs. HANSEN. Please insert justification pages 1 through 15 in the record at this point.

(The pages follow:)

SMITHSONIAN INSTITUTION CURRENT BUILDING PROGRAM

<u>Project</u>	<u>Est. Total Cost</u>	<u>Appropriated to Date</u>	<u>Fiscal Year 1973 Request</u>
Construction and Improvements, National Zoological Park	\$58,057,000	\$ 8,903,000	\$ 675,000 <u>1/</u>
Restoration and Renovation of Buildings	14,279,000	8,873,000	5,409,000 <u>2/</u>
Construction: Joseph H. Hirshhorn Museum & Sculpture Garden	15,000,000	15,000,000 <u>3/</u>	0
National Air & Space Museum	41,900,000	1,900,000	40,000,000
Bicentennial Park Planning	275,000	0	275,000

1/ Building and facilities repair and planning cat exhibit.

2/ Arts and Industries Building air conditioning and renovation, \$3,500,000; storage building for National Air and Space Museum, \$125,000; Mt. Hopkins, Arizona, Observatory road and power improvements, \$220,000; National Portrait Gallery third floor renovation, \$250,000; Chesapeake Bay Center for Environmental Studies research facilities, \$50,000; Smithsonian Tropical Research Institute facility repairs, \$35,000; Library collection and work spaces, \$100,000; General building repairs and improvements, \$779,000; National Museum of History and Technology library addition planning, \$250,000; and Feasibility studies, \$100,000.

3/ Excludes \$200,000 for relocation of the Armed Forces Institute of Pathology and \$1,000,000 legally committed by Mr. Joseph H. Hirshhorn for construction.

CONSTRUCTION AND IMPROVEMENTS
NATIONAL ZOOLOGICAL PARK

1971 Appropriation.....	\$200,000
1972 Appropriation.....	\$200,000
1973 Estimate	\$675,000

An appropriation of \$675,000 is requested for planning the new lion and tiger exhibits and for renovation and repairs of existing facilities at the National Zoological Park.

During the past year the architectural firm of Faulkner, Fryer and Vanderpool and landscape architect Lester Collins have been preparing a new and revised Master Plan for the entire Zoo as requested by the Commission of Fine Arts. This plan will emphasize the animal exhibits in a park-like setting, minimizing the architectural features, such as buildings. The latest techniques in animal exhibition, management, care, and education are being incorporated into this plan. At the same time, the eighty-year old Zoo continues to be used by millions of visitors from all over the country. Renovations and repairs must continue in order to keep the present zoo habitable for the animals and enjoyable to the visitors even while plans are being completed for a fully modernized Zoo.

The National Capital Planning Commission and the Fine Arts Commission have given preliminary approval to the Master Plan and it is believed that final approval will come in March 1972.

Funds are requested in the following categories:

1. Planning (\$275,000)

Funds in the amount of \$275,000 are requested to cover architectural engineering fees for construction design for the large cat exhibit.

This exhibit will consist of three large outdoor, all weather exhibits for lions and tigers separated from the public by water moats. The public will be able to view these animals without hinderance by bars or other visual obstructions in a well planned, attractive, and ecological type exhibit. There will be family groups of these magnificent popular cats for the education and enjoyment of the visitors. Three glass-fronted exhibit cages will show the animals during inclement weather or mothers with very young cubs. Ample off-exhibit space for animal dens will also be provided. Three small areas of educational and graphic materials on the exhibits will be available to the public. This exhibit will be located on the hill presently occupied by the 1890 Lion House. This old building will be removed to make way for the new modern exhibit. Plans for the new quarters for the smaller cats, such as the leopards, pumas, jaguars, etc., will be submitted and funds requested in the future.

2. Repairs and Renovations (\$400,000)

Funds in the amount of \$400,000 are requested 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 almost overwhelming workload of repairs necessary to just keep the buildings open. Funds will be used to repair and replace some of the old free standing cages that house

some of the smaller animals; repair sidewalks; and purchase essential building equipment, such as sliding doors for the elephant house; and for major landscape projects. These renovation and repair projects are accomplished, keeping in mind the Master Plan for the renovation of the Zoo and the projected life expectancy in relation to eventual replacement. One of the major projects of the coming year will be the repair and/or replacement of sidewalks, as necessary, in the Zoo, such as those at the Bear Dens and the Elephant House.

RESTORATION AND RENOVATION OF BUILDINGS

1971 Appropriation....\$1,725,000
 1972 Appropriation....\$ 550,000
 1973 Estimate.....\$5,409,000

An appropriation of \$5,409,000 is requested for the following projects:

Arts and Industries Building air conditioning and renovation	\$3,500,000
Storage building for National Air and Space Museum	125,000
Mt. Hopkins, Arizona, Observatory road and power improvements	220,000
National Portrait Gallery third floor renovation	250,000
Chesapeake Bay Center for Environmental Studies research facilities	50,000
Smithsonian Tropical Research Institute facility repairs	35,000
Library collection and work spaces	100,000
General building repairs and improvements	779,000
National Museum of History and Technology library addition planning	250,000
Feasibility studies (parking and National Museum of Natural History Research Center)	<u>100,000</u>
Total	\$5,409,000

Arts and Industries Building

An appropriation of \$3,500,000 is requested for the major restoration and improvement of the Arts and Industries Building, for use for "The Year of the Centennial". This will be a major exhibition, recreating in many details the distinctive flavor of American life at the time of the Centennial Exposition of 1876. The Smithsonian will develop an exhibition, using many of the objects acquired after the Centennial Exposition of Philadelphia in 1876, to evoke the world of 1876, the atmosphere and style of our nation midway between its founding and its 200th birthday. It is estimated that four million persons would visit this building in the Bicentennial year.

The building, described as Modern Romanesque, was constructed in 1880. It has been declared a "Landmark of Importance" by the Joint Landmarks Committee of the National Capital Planning Commission and the Commission of Fine Arts. It is a one-story brick structure with 163,000 square feet of floor space. Partial second floor levels have been constructed

and a mezzanine borders the east, west, and south halls. Four additional second floor areas are now under construction, using funds appropriated in FY 1971. The four main halls are in the form of a cross with the rotunda located at the center. These main halls combined with the adjoining smaller exhibit spaces on the main floor provide 80,000 square feet of extremely adaptable space with the ceiling heights ranging from 14 feet under the galleries to 42 feet in the main halls.

The large open areas of the building, free of structural or architectural interferences, combined with high ceilings, arched openings, and the overall spaciousness, established the "Exposition" character of the structure. The decision of the Board of Regents of the Smithsonian to use the major portion of this building for exhibition purposes presents an unparalleled opportunity to display industrial, technological, architectural, scientific, and other large-scale exhibits which cannot be accommodated by other museum buildings. The location of this significant and unique building on the Mall adjacent to other buildings of the Smithsonian Institution provides a convenient and accessible facility for the visiting public.

The funds requested will be used for the installation of heating, ventilating, air conditioning, and humidity control systems for the entire building and for special equipment, fixtures, furnishings, floor coverings, decorative treatments, and lighting. The proper preservation and conservation of museum objects for the future cannot be satisfactorily accomplished except by the installation of the proposed systems. This long overdue improvement will also provide comfort for visitors and staff.

The rotunda and four main exhibition halls will be restored to the 1876 appearance; severely needed public restrooms will be installed; obsolete and potentially hazardous electrical and utilities systems will be replaced; the west entrance will be opened to give visitors access to the area south of the Smithsonian Institution Building; and related improvements will be accomplished to provide convenience, utility, and safety.

The cost estimate includes the following:

<u>Estimated Renovation Costs</u>	<u>Amount</u>
Construction contracts and contingencies	\$2,694,000
Reservations (special equipment, fixtures, furnishings, floor coverings, decorative treatments, and lighting, etc.)	545,000
 <u>Estimated Services (GSA)</u>	
GSA design contract review	\$12,000
Duplication, bids, etc.	20,000
Engineering and design completion	75,000
Construction supervision	<u>154,000</u>
	<u>261,000</u>
Total Renovation Costs	\$3,500,000

With this appropriation, the project can be started at the beginning of FY 1973 and the work can be completed in sufficient time for the installation of the special exhibitions for the Bicentennial Celebration in 1976.

Storage Building for the National Air and Space Museum

An amount of \$125,000 is requested for the construction of a 20,000 square-foot prefabricated steel storage building, to be located at the Silver Hill Facility, Silver Hill, Maryland, for the use of the National Air and Space Museum.

At the present time, there are 42 aircraft in outdoor storage at Silver Hill. Of this number, 26 are partially disassembled and crated in 97 large boxes. In addition, there are 50 large space artifacts, and approximately 100 aircraft engines also in outdoor storage. This type of storage cannot prevent further deterioration and will result in costly restoration if continued.

Although one additional building will not completely solve this unsatisfactory outdoor storage, it will provide space for these items in immediate need of adequate protection from the elements, and for those items requiring restoration for display in the new Air and Space Museum.

Mt. Hopkins Observatory Power and Road Improvements

An appropriation of \$220,000 is requested for correction of deficient power supply and road conditions at Mt. Hopkins, Arizona. As the Smithsonian Astrophysical Observatory's Mt. Hopkins facility develops, the demands on the electrical power system must be accommodated. For the protection and proper operation of the expensive and sophisticated electronic instrumentation now coming into use, the antiquated electrical power distribution systems must be improved.

In FY 1971, engineering studies were initiated to determine the appropriate power system for Mt. Hopkins. During FY 1972, a final system design will be completed, enabling installation to be undertaken in FY 1973. This cost, estimated by a local power company, is \$120,000.

For the safety of its staff, and others who must travel to and from the Mt. Hopkins facility, it is also necessary to improve the pioneer access road. Although usable during the initial construction of the Observatory, the road now presents a daily hazard to all users with its narrow hairpin turns, poor surface, and inadequate drainage.

The initial improvements to the Mt. Hopkins road will consist of replacement of gravel in badly worn areas, hard-topping of selected sections where dust or moisture is particularly troublesome, and widening and regrading of narrow turns and areas where drainage problems exist. These costs are estimated at \$100,000.

National Portrait Gallery Third Floor Renovation

An appropriation of \$250,000 is requested for the renovation of the Great Hall on the third floor of the Gallery in order that it can be used for the public display of expanding permanent collections, as well as for special loan exhibitions. It is not always possible or desirable to exhibit all portraits at the same time. A study-storage area is needed so that such portraits can be available to be conveniently viewed upon request at all times, and for study areas for visiting scholars and members of the Gallery

staff working on special research projects which will be expanding considerably, especially in connection with projected exhibitions and publications celebrating the Bicentennial of the American Revolution. This renovation will include overhead lighting above the skylight of the Great Hall to provide effective illumination for this historic interior space, now considerably darker than adjacent gallery areas, flexible museum lighting for exhibition purposes, and appropriate fixtures for study-storage and work areas.

In addition to making it possible for the National Portrait Gallery to make full use of this already extant space, these changes will enhance the public appreciation of one of the most striking interior spaces in the nation, a renowned example of the Nineteenth Century American Renaissance Style, once the largest room in the United States.

The National Portrait Gallery Commission is particularly anxious that this vast and magnificent area not be wasted when the public interest in this historic chamber and the Gallery's practical need for it are so apparent. The estimated costs are based on a study by a consultant who has been responsible for much of the most recent relighting of the Capitol, as well as for the new wing of the Museum of Fine Arts in Boston.

Chesapeake Bay Center for Environmental Studies (CBCES) Research Facilities

An appropriation of \$50,000 is requested to improve the facilities at the Chesapeake Bay Center for staff and visiting scientists.

In order to provide badly needed research space, CBCES must renovate the existing two-story, roofless barn. This renovation will include electrical, sewage, and water services; repairs to the building such as a new roof, stairways, interior partitions, resilient tile floor covering, lighting, doors and hardware, interior and exterior painting; and the installation of a heating and ventilating system. Special needs would consist of the installation of laboratory sinks, base and wall cabinets, and surfaces suitable for general laboratory usage. These costs are estimated at \$30,000.

It is also important to begin construction of a small dormitory facility to house visiting researchers. At the present time, this is accomplished in an inadequate manner by preempting space in the main office building ordinarily used for administrative activities. This facility would be a modular-type prefabricated building of approximately 1,400 square feet of floor space, on a preconstructed foundation with electrical, sewage, and water services. Special needs would consist of kitchen equipment, furniture, and furnishings suitable for a dormitory building. These costs are estimated at \$20,000.

Smithsonian Tropical Research Institute Facility Repairs

An appropriation of \$35,000 is requested for laboratory building and other facility repairs. For over 40 years a number of frame shelters have been maintained on Barro Colorado Island to provide work space and living facilities for scientists working on the Island. Despite modern methods of wood treatment, partial replacement of these facilities has been a continual need due to termite and ant infestation and deterioration in the humid tropical environment. Large scale use of insecticides in this area would be detrimental to research efforts performed on the Island.

Despite logistical and construction problems, future structures on Barro Colorado Island will incorporate masonry materials to the fullest extent practical. However, a minimal amount of \$30,000 is needed to repair the existing structures in order to continue their useful life. An additional \$5,000 is requested to repair the large marine research pier at the Naos Island installation.

Library Collection and Work Spaces

An appropriation of \$100,000 is requested to continue a program started in the FY 1971 budget to improve spaces in Smithsonian Institution buildings for the proper care and accessibility of library materials. In FY 1971 \$50,000 were appropriated for such improvements in the Natural History Building and in FY 1972 \$25,000 for the Lamont Street Building.

The FY 1973 funding would be used for three projects with approximate allocation as follows:

--\$60,000 for the double-decking, remodeling, and outfitting of reference and reading space in the Natural History Building to complete the project initiated with the FY 1971 appropriation. Double-decking of cataloging space will be accomplished with that appropriation. This is the Central Library as well as the library for the National Museum of Natural History.

--\$20,000 for improving space in the History and Technology Building to accommodate stacks and reading area.

--\$20,000 for converting space and providing built-in and other special equipment to maintain controlled conditions for valuable rare books.

These improvements would create additional research service areas for the use of Smithsonian staff as well as for better service to visiting researchers, students, and the general public.

General Building Repairs and Improvements

An appropriation of \$779,000 is requested for several Smithsonian buildings and facilities for improvements and repairs to prevent further deterioration, improve public safety, enhance appearance, and to facilitate the program operations in these buildings.

History and Technology Building

An appropriation of \$160,000 is requested to repair the roof of the building; reroute a defective eight-inch sanitary sewer line; repair granite stonework around the second floor terrace to correct a serious leak; and install storm windows to prevent further damage due to the presence of excessive condensation.

Natural History Building

An appropriation of \$90,000 is requested to repair and clean the interior and exterior stonework; repair the stone retaining wall (for safety purposes); install drinking fountains in public areas; repair and resurface an area which includes the floor surface from the east side ambulatory to the east door and loading docks; and paint exhibit and work spaces.

Smithsonian Institution Building

An appropriation of \$197,000 is requested for additional restoration and renovation of the Smithsonian Institution building and grounds. With funds previously appropriated, the first major interior restoration of this historically important and well-known building, originally constructed in 1855, has been completed. It was necessary, however, to forego many necessary planned improvements to reduce costs. Some of the improvements which were deferred include the installation of a humidification system; repairs to the exterior stonework; painting and waterproofing; window repairs and replacements; and the installation of fire detection and extinguishing systems.

Freer Gallery of Art

An appropriation of \$84,000 is requested for the following projects: renovate the sky-light areas of the exhibit halls; construct an X-ray equipment room for the conservation program; install handrails on the public stairs as a safety measure; install special security, fire detection and extinguishing systems; and install a lawn-sprinkler system for the landscaped areas to improve the appearance of the grounds.

Fine Arts and Portrait Galleries Building

Funds in the amount of \$184,000 are requested to complete several improvements originally included in the plans for remodeling the Fine Arts and Portrait Galleries Building, but were deleted due to rising costs.

Of this amount, \$50,000 is requested to renovate an area of approximately 20,000 square feet on the first floor of the building. It was believed that this space could be reserved for future expansion, but it is now urgently required for offices, collection, and work space. This renovation work includes heating, ventilating, air conditioning, lighting, flooring, repairs, and plastering and painting. An amount of \$22,000 is requested to restore point-up, and replace damaged or deteriorated interior and exterior marble and stonework.

There are also several requirements for improvement of the protection and mechanical operations of the building, including the installation of fire detection and extinguishing systems; installation of an emergency electric power generator and a standby booster pump for the domestic water system; partial replacement of the hot and cold water line risers not replaced during remodeling; and the replacement of heavily corroded aluminum fin coils throughout the building.

Correction of the following deficiencies will contribute to the safety of the visiting public and employees, as well as enhance the appearance of the building: rebuild the exterior stone steps at the 9th Street entrance to conform to the D.C. Building Code, and improve the inner court.

Smithsonian Silver Hill Facility

An appropriation of \$64,000 is requested for necessary improvements and expansion at the Smithsonian Silver Hill Facility. An additional 10,000 square feet of storage space is planned by the construction of a steel mezzanine. Required improvements include the installation of restrooms,

a sewage disposal system, and surface-water drainage systems. Also urgently needed is the renovation of Building 1A for an automotive repair shop to accommodate the repair of motor vehicles, as well as forklifts, material handling equipment, lawn equipment, and small electrical and gasoline powered machines.

National Museum of History and Technology Library Addition Planning

An amount of \$250,000 is requested for architectural plans for additional library space in the National Museum of History and Technology. The steady growth of the NMHT collections, and the intensification of the Museum's research programs, have made its present library facilities inadequate to the needs of its staff, and of the many visiting scholars it receives each year. It is evident that this problem will become more severe in the years ahead. The Institution must begin now to plan for its solution.

In addition to this urgent general need, the Institution wishes particularly to provide appropriate facilities for a great collection of rare books in the history of science and technology that may be offered as a gift. This collection, which was brought to our attention by the Office of Science and Technology, has been appraised conservatively at substantially more than a million dollars. Its acquisition by the National Museum of History and Technology would greatly enhance our already prominent and distinguished Department of Science and Technology, and would truly establish the Smithsonian as a national center for the history of science and technology.

The original architect of the History and Technology Building has designed a sixth-floor addition that would tastefully and economically meet both the overall requirements and the particular need for added library space. Based upon a GSA estimate, this much needed improvement could be constructed, equipped, and furnished for approximately \$4,000,000.

Feasibility Studies

An appropriation of \$100,000 is requested to provide for feasibility studies on parking and a National Museum of Natural History Research Center. The parking study is to determine alternatives and their costs to achieve an adequate solution to the parking problems faced by the many visitors to the Smithsonian Institution's museums, art galleries, and other facilities. The National Museum of Natural History Research Center funds are to conduct studies, and prepare a detailed report, on the physical plant requirements for the research programs of the National Museum of Natural History, and related programs of biological and environmental research and services of the Smithsonian Institution. The studies will include restatements of the programs, site exploration and development plans, investigation of systems, buildings and services to meet the program requirements, preliminary drawings and specifications for recommended construction, a phased program for construction and utilization and cost estimates for each portion of the program.

Parking Problems

It is of paramount importance to undertake effectively, and at the earliest opportunity, the problem of inadequate parking for visitors. Ever increasing numbers of visitors journey from afar to the Mall only to be in competition for the very limited parking spaces available. Without immediate action the situation can only get worse. Underground parking has been studied but remains

a distant prospect. Off-the-Mall, or fringe parking, with the assurance of suitable connecting transportation, may provide the only practicable interim solution.

This study would be initiated with the cooperation of the General Services Administration and the National Park Service. If the public is to be served, efforts must not be delayed.

National Museum of Natural History Research
Center Planning

The research collections of the National Museum of Natural History and its staff of scientists engaged in research based on the collections had by 1967 outgrown the space designed for this program in the Natural History Building on the Mall (despite the two wings added to the original building during the early 1960's). The collection of scientific specimens have continued to grow, now numbering over 55 million. Public exhibition halls have been converted to provide space for the collections and personnel, and the collections have spread into stairwells and corridors. Working conditions are intolerably inadequate. The crowded conditions of the collections are wasteful of the time of the staff scientists and of the visiting scholars who use the collections for research, for identification, and for other practical services to biologists, ecologists, and resources planners in Federal, state, and private agencies throughout the country and the world.

By far the largest collections and programs involved are those of the systematic and taxonomic sciences, which are increasingly employed in the studies, training, and planning for a better environment. In a report to the National Science Foundation by the Conference of Directors of Systematic Collections, January 1971 (The Systematic Biology Collections of the United States: An Essential Resource), it is said,

"The health of the world ecosystem depends squarely on keeping as much diversity in the natural world as we possibly can. Because knowledge of the kinds of creatures in our world is fundamental to real understanding of their interaction, the great specimen collections are the very cornerstones to studying, comprehending, and living within the world ecosystem. This nation must recognize the critical character of this absolutely essential national resource--- and---support its maintenance and use."

In the past, elements of the Smithsonian systematics program have been separated and relocated but this has proved detrimental to the unified and cross-disciplinary functioning of the work. All experience points to the need to provide facilities to accommodate all of the interlocking elements of the program in one facility with room to develop the capability to meet the growing demands for national services. It is not possible or indeed desirable to provide additional space for these collections and programs on the Mall. The Mall facilities should be developed for maximum service to the accelerating public attendance in the exhibition buildings and for the educational programs of the Smithsonian.

In 1968, the Board of Regents of the Smithsonian Institution approved the submission to the Congress of proposed legislation to authorize the planning and construction of support and depository facilities. The bill introduced by Senators Anderson, Fulbright, and Scott was passed, with amendments, by the Senate on July 17, 1970. This legislation as passed by the Senate is in process of being reintroduced in the 92nd Congress.

CONSTRUCTION
NATIONAL AIR AND SPACE MUSEUM

1971 Appropriation.....\$	0
1972 Appropriation.....\$	1,900,000
1973 Estimate.....\$	40,000,000

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. At present, no structure exists on this federal land.

In 1966, the Congress enacted legislation authorizing the construction of the National Air and Space Museum but deferred appropriations for construction until expenditures for the Vietnam conflict had shown a substantial reduction. Construction plans and specifications for the proposed museum building were completed and were accepted by the Commission of Fine Arts and the National Capital Planning Commission. The cost of the building, built to those plans and specifications, was estimated to be \$40 million dollars in 1965. Unfortunately due to the rising costs of labor and materials, this same building would now cost between \$60 million and \$70 million.

The space program, with its Mercury, Gemini, and Apollo flights, has caused a considerable increase in the public's interest in aeronautical and aerospace matters. During FY 1971, almost 3.5 million visitors were counted in the Arts and Industries Building and the Air and Space Building, both of which are used to house temporarily a very small portion of the collections and exhibits of the National Air and Space Museum. With the additional space available in the new building, the National Air and Space Museum will be able to use a wide range of the more than 200 aircraft and thousands of aerospace objects in the collections to interpret the historical and technological progress of aviation and aerospace science to the millions of visitors that will come to the Museum annually. It is estimated that 5 million visitors will come to this major new museum in its first year.

The Air and Space Museum already has in its collections such historically significant aircraft as the original Wright Brothers Flyer, Lindbergh's "Spirit of St. Louis," the NC-4 (the first to fly the Atlantic), the Bell X-1 (first to exceed the speed of sound), as well as Alan Shepard's Freedom 7, John Glenn's Friendship 7, and the Apollo 11 Command Module, Columbia, to name a few.

To demonstrate and exhibit technological progress, the Museum can choose from simple rotary engines built at the turn of the century to the huge Saturn F-1 engine which produces 1 1/2 million pounds of thrust. This collection of aeronautical and aerospace items, the finest in the world, must have a new Museum to be displayed properly to the public.

This building, in addition to being a showcase for historic machines, will also encompass a wide variety of exhibits concerned with the new science and technology of the Space age. The public will be able to see gathered together under one roof, for the first time, an explanation of how man has used a broad range of disciplines to achieve flight, and how he may extrapolate these into the future. The impact of flight upon our environment and our culture will

be investigated and exhibited to the public using the latest multi-media techniques. A planetarium chamber will be included, but in addition to viewing the conventional star show, the visitor will be able to "travel" through space to the surface of the moon or the planets. Another important adjunct will be the Historical Research Center, providing not only an aerospace library and film center, but facilities for research scholars as well. This center will make available the Museum's vast resources of photographs, drawings, technical manuals, films, and other documentary and archival materials.

During a Symposium on the National Air and Space Museum held on January 18, 1971, Senator Barry Goldwater, Dr. Wernher von Braun, Congressman Frank T. Bow, and Congressman James G. Fulton jointly proposed the following resolution be presented to the Board of Regents of the Smithsonian Institution:

- That the Smithsonian Institution should press for construction of the authorized National Air and Space Museum Building;
- That a study of changes in the original approved design should be undertaken immediately in order to determine the feasibility of lowering construction costs;
- That a firm date of July 4, 1976 should be established for the opening of the new museum building as a major element of the Smithsonian Institution's contribution to the commemoration of the Bicentennial of the American Revolution;
- That consideration be given to constructing a major underground parking facility beneath the Mall in order to alleviate the increasing problem of automobile parking in the vicinity of the Mall;
- That consideration of the joint venture by the National Park Service and private capital be explored. This action would complement the requirement for parking facilities as a significant factor in construction of the National Air and Space Museum.

In consideration of the rising costs of the building and the increased public interest in air and space activities, an appropriation of \$1,900,000 for planning and redesign, and for the specifying of programs, facilities, and installations was approved by the Congress for FY 1972. With the splendid cooperation of the General Services Administration, the firm of Hellmuth, Obata, and Kassabaum, Inc. has been selected and the redesign is underway using the latest design, construction, and exhibit techniques to lower the cost of the building to \$40 million without sacrificing the intent of the building to serve as a great center, on the Mall, for public education and enjoyment and scholarly research. This is the same architectural firm that performed the original design. Based on their familiarity with program needs, it is anticipated that the redesign will proceed quickly and that the award of a construction contract will be possible in mid- FY 1973. An appropriation of \$40 million is requested in FY 1973 to meet this construction schedule and permit the Museum to be opened by July 4, 1976.

CONSTRUCTION
BICENTENNIAL PARK PLANNING

1971 Appropriation.... \$	0
1972 Appropriation.... \$	0
1973 Estimate.....	\$275,000

Approval of now-pending legislation (S. 2153 and H. R. 10311) would authorize establishment of Bicentennial Park at two federally-owned sites on the Potomac--Fort Foote, in Prince George's County, Maryland, and Jones Point, on the southern edge of the city of Alexandria, Virginia. Pending legislation also would authorize formal negotiations with the Department of the Interior for transfer of these sites to the Smithsonian Institution. The sites have been offered informally by the National Park Service for outdoor museum use.

Preliminary planning for Bicentennial Park initially will embrace site development to include a modest visitor center, parking and other necessary visitor facilities, a parade ground, a naval ordnance park, an outdoor theater, and a boat landing. Special attention will be given to exhibits having significance to the national observance of the 200th anniversary of the American Revolution, such as a continental encampment, palisaded fort, etc. Fort Foote Park now is relatively unimproved, lacking in every way facilities necessary for operating an outdoor museum where visitation may be expected to total thousands of persons every day during good weather months. Thus, initial planning must take into account total site development, bearing in mind, where necessary, landscaping to enhance the natural beauty of the site. All such planning must be preceded by a careful evaluation of the site to insure that site development moves hand-in-hand with highest ecological standards.

It is essential that the above facilities be constructed and staffed so as to be in full operation, open to the public, on July 1, 1976. Comprehensive, detailed planning should be sufficiently well advanced by the close of FY 1973 to insure adequate time for actual construction, staff hiring and training during FY 1974 and 1975 to meet the planned opening date. Site development, planning and the preparation of staffing plans, scripts, etc., will be accomplished in collaboration with competent outside consultants. Approximately \$1,500,000 will be required in both FY 1974 and FY 1975 for construction and staffing.

NATIONAL ZOOLOGICAL PARK

Mrs. HANSEN. You are requesting \$275,000 for planning a large cat exhibit. What are the details of this request?

Secretary RIPLEY. Dr. Reed.

Dr. REED. Madam Chairman, we like to refer to it as the large feline exhibit. This is the plan for the first phase of the reconstruction of the National Zoological Park which will be for the lions and the tigers.

Mrs. HANSEN. How many large cats do you presently have at the zoo?

Dr. REED. At the present time we have about six of these large cats. We have the lions and the tigers. There will be more than this in the new exhibit.

Mrs. HANSEN. From what source are you going to receive them?

Dr. REED. It is going to be very easy to get them. The breeding capacity of the lions and tigers is great.

Secretary RIPLEY. Not so good with tigers but very good with lions.

Dr. REED. That is right. I think the tigers are going to come along all right.

Secretary RIPLEY. Then, of course, you have leopards, jaguars, ocelots, and puma.

Dr. REED. I would like to show you this schematic plan. We have yet to go into the details, but we do have the schematics done already of the new large feline exhibit. This will be moated. It is surrounded by water moats 26 feet wide and it is well established that this exceeds the jumping distance of the large cats.

This is a dry moat in between the two to keep the cats from mixing it up. This is a cutaway plan. The zoo visitors will be standing on the sidewalk looking across the water at the animals. This dry moat with a fence down the center keeps the cats from jumping across and getting at each other. These animals will be outdoors, I am sure, at least 330 days of the year. There will be concrete or cement pads with radiant heat in them, so that even in the worst weather the cats can go out and lie in warmth in sheltered areas. There will be plenty of space underneath the sidewalk for their dens.

Mrs. HANSEN. Is their habitat going to be in keeping with their natural habitat?

Dr. REED. It is planned that this will not duplicate their natural habitat but will suggest it. We cannot duplicate Africa. We cannot duplicate India. But we can plant plenty of bamboo in there.

Mrs. HANSEN. You are going to give the impression of their natural habitat?

Dr. REED. Yes, and there will be no bars. You will be looking at these animals over the water. You will have nothing between you and the animals except space.

VISITOR SAFETY

Mrs. HANSEN. What kind of contingencies are you prepared for? Suppose a youngster jumps in the water?

Dr. REED. As you will notice, there is a section here between the visitor guard rail and the edge of the moat, so that if a child goes over the guard rail he doesn't fall into the moat. He falls into some plant material. This is what we refer to as our kiddie catcher to keep chil-

dren from going into the moat. Probably along the edge there will be small hand holds or rails. Anybody who got down there would have something to grab hold of, but not something that the tigers or lions would get on and climb out.

Mrs. HANSEN. But you can sense the child's fright if he fell over the guard rail and thought he might be headed for the moat.

Dr. REED. Taking that into consideration we have these kiddie catchers. Should a child go over the guard rail, he is actually in a wall. This lip will rise up 18 inches to 2 feet so he is in a little cement pocket.

We have done this in other places in the zoo. Ever since the tragedy of the lion we have been very much concerned with visitor safety.

The \$275,000 that we are asking for for planning will cover four smaller projects also, but this is the major project. We have the schematic plans as you see here, and with these funds we will go to detailed construction plans next year, with construction of the feline exhibit the following year.

OTHER ZOO CONSTRUCTION PROJECTS

These are some of the other things we are planning to do. This we won't see for a couple of years but this is a plan for the polar bear exhibit. There will be a little audiovisual theatre here to show you the picture of the polar bear, perhaps slides, perhaps movies, showing his natural habitat, his biological performances, and also pointing out why this is a valuable resource to us as human beings.

Mrs. HANSEN. Will this exhibit again suggest the natural habitat?

Dr. REED. Again, yes. This may be made out of concrete but will simulate and suggest the ice floes and the pack ice. This is our master plan that we are now working on. It has been preliminarily approved by the Commission of Fine Arts and the National Capital Planning Commission. You can see we are subordinating the buildings to the natural areas of the park. In fact, some of the buildings you won't even see. There will be smaller units buried in the hill under the ground, such as the penguins underneath here. The only real major buildings, and I don't think you would call them major in the sense of the old elephant house, will be the house with the giraffes simply because we couldn't find a way to do away with that house and the house with the gorillas and orangutans down here.

The rest will be small buildings so we will not be asking you for a grand building like the elephant house built during WPA days. They will be smaller units scattered around. We are emphasizing the park, making this truly a lovely park for people.

Mrs. HANSEN. I was going to say that is one of the things I would think could be done very effectively.

Dr. REED. We are planning on this. The buildings that we have will stay with the exception of the old lion house. That 1890 monstrosity has to go and be replaced by this lovely exhibit that you saw there.

The polar bears will be down here. The other bears will be across the stream from them. We will not have quite as many animals as we could have. What we want to do is have a broad zoological representation. For instance, instead of having all the sea lions and all of the seals, we will have a representative selection of them and then, by

graphic and audiovisual presentations, we will expand the educational dimensions of the exhibit. One seal, maybe the harbor seal that you are familiar with out on the west coast, represents seals. We will tell how the other seals differ from him and how he differs from the sea lion. Maybe we will have the sea lion here, the Patagonian or maybe the California sea lion.

Secretary RIPLEY. Provided they are still alive by that time.

Dr. REED. This is the general plan that we have for making this an animal park where we will exhibit animals in a lovely parklike atmosphere, not trying to duplicate nature. You notice we are not going in for the huge cement artificial rockworks and mountains, and artificiality like that. This is, I think, passé now. We are exhibiting animals, and we are exhibiting them in a parklike atmosphere. If they live in trees, they will have trees. If they live like the tigers in bamboo, we will put bamboo around them.

Secretary RIPLEY. I might point out, Madam Chairman, that those parallel lines in the upper left of the plan are a proposed hillside parking garage area which we would like to fund some day, possibly with a bond issue or some similar kind of financing. Doing parking this way would free many acres in the zoo that are presently flattop asphalt parking for cars; isn't that right, Dr. Reed.

Dr. REED. It is about 12 acres that we will free for exhibits from the parking. Also there are about 50 acres that we are not using now that will be used for exhibits. We will expand the use of the zoo. In addition, all of this area now unused will be used. The old pistol range which was a rock quarry—some of the original buildings in the zoo were built from rock quarries right in the park—will be for baboons. You know they live in the high mountains of Ethiopia and run up and down rocks all the time. So we have the same thing here, not Ethiopian rocks, but rocks.

I think this will make a very nice thing. We plan to have a very interesting exhibit in this area right in here where we are going to put the pandas when they arrive.

PANDA EXHIBIT

Dr. CHALLINOR. It might be appropriate to show where we are going to put the pandas.

Dr. REED. Yes; the pandas will go right in here. What we are going to do is this. This building which was recently constructed. It is about 4 or 5 years old now and does have air conditioning in it. The pandas coming from the high mountain bamboo forests of Szechwan Province, China, require air conditioning. Now, no other zoo in the world has air conditioning except the Chinese zoo and we must do as well as the Chinese. We will modify several of the cages in here for these animals where we already have the air conditioning and glass fronts to protect them from human colds and also to keep the cold in there and for their security. There will be nothing between you and the panda except the glass and the visitors' guardrail. On one side it is humanproof. On the other side it is panda-proof.

This yard down here will be used for the pandas on the outside. Since they are solitary animals we will have to have two yards because we don't know whether they have been living together or not. The visitor will be standing on the roof terrace of this building and

we have all of this area to look at the animals down below in these two yards. It is already constructed. We will have to put this little short dry moat which will not be very difficult. Then on the inside the animals will occupy these two cages, glass front here, glass on the back, so you look through. You don't get the impression that the animals are locked up in a house because there is glass on the outside, but it will be temperature controlled for the animals.

Mrs. HANSEN. Will you visit the zoo in Peking when you are there?

Dr. REED. Yes. If you want more details may we speak off the record?

Mrs. HANSEN. Yes.

(Discussion off the record.)

Dr. REED. We have preliminary approval of the master plan. We don't have approval of the panda plan, but since this is remodeling of a presently existing building, there should be no trouble in getting approval. I wish to start work on this immediately.

Mrs. HANSEN. I think the committee has received a reprogramming request for remodeling the existing building.

Dr. REED. Yes, Madam Chairman, you have. It covers redoing this building, plus doing something for the animals that are now occupying that space. This will be mainly fencing.

Mrs. HANSEN. What is currently occupying that space?

Dr. REED. The Bongo antelope which is one of the rarest.

Mrs. HANSEN. What are you going to do with the Bongo antelope?

Dr. REED. We are going to put them behind the bird house. There is a lovely draw there and you will be able to look down into this draw from this walk along here and see the animals in a wooded area. Now, this is exactly like where the animals come from, because these animals are never found except in very deep forests in Africa. So we are developing more of a happy habitat for them that is more like the ecology of their own home than is the present exhibit. There are not enough trees in this exhibit, but these will be in a forest like they are at home. I think they will be much happier there. Incidentally, we are breeding the Bongo now. We are the first zoo to do that. We have one calf born and two pregnant females now. Momentarily we are expecting another calf to be born. There will be a matter of fencing and some simple sheds in here. That will be under \$100,000 I am sure. But then for the pandas, I do not have a price tag as yet for you because we just don't have the plans that far developed. We have to plan and build at the same time, because I have 3 weeks to come up with the proper housing for the pandas.

Mrs. HANSEN. It would be a disaster if anything happened to the pandas after they arrived.

Dr. REED. Madam Chairman, this is a major responsibility. Everybody in the country says, "You are lucky. You are getting pandas." I know the responsibility that rests on our shoulders and, while we are willing to accept our responsibility, it will be stimulating, to say the least.

Mrs. HANSEN. When is your feline exhibit going to be completed?

Dr. REED. We figure it will be completed in about 3½ years. We will get working drawings this coming year. We will ask you for construction money in fiscal 1974 and would plan on completion about 18 months later.

ARTS AND INDUSTRIES BUILDING RENOVATION

Mrs. HANSEN. You are requesting \$3.5 million for air-conditioning and renovating the Arts and Industries Building. What is your comment in this regard?

Secretary RIPLEY. Yes, Madam Chairman. I think Mr. Bradley could speak directly to that.

Mr. BRADLEY. Madam Chairman, we were able to get started on this several years ago through funds appropriated to us under this "Reconstruction and Repair" heading in our budget. We have spent about \$133,000 on planning and are spending \$500,000 on decking. The \$3.5 million will provide air conditioning and some renovation to a building that is vintage 1879. It has about 163,000 square feet in it. This would be a wonderful investment not only for the comfort of the people that we have in there on the second floor including the National Air and Space Museum staff for the time being, but also for literally millions of people that come there every year to see the exhibitions.

Secretary RIPLEY. It is a very heavily visited building with very inferior services, including restrooms and similar services, and no air conditioning of any sort in the public areas, none whatsoever, so it is as hot as the hinges in the summer.

AIR AND SPACE MUSEUM STORAGE BUILDING

Mrs. HANSEN. You are requesting \$125,000 for a storage building for the National Air and Space Museum. What is your legislative authority for this activity?

Mr. BRADLEY. We have legislative authority of that general nature that charges the Secretary with taking charge of and taking care of the collections. Madam Chairman, we have used a rule of thumb that if a project is of the order of \$100,000, perhaps with escalation now to \$200,000, that we need not apply to the legislative committees for specific authority, but we have been very careful not to exceed about that amount. For example, with the repair and restoration of the Smithsonian Institution building which cost about \$2.8 million, we were very careful to look into it and there we have authority to repair the building. We have that.

This building will be at our Silver Hill, Md., storage facility and will be in the nature of a temporary corrugated steel building, of which we have probably 22 out there already that were acquired on yearly increments, so to speak. This building would be very economical; there will be 20,000 square feet for \$125,000. We think we have ample general authority to proceed with this. We have never been challenged.

Mrs. HANSEN. What are the details of your request of \$125,000?

Mr. BRADLEY. We are going to use the building for the Air and Space Museum to move aircraft and under items under roof. There are 42 aircraft in outdoor storage at the present time. Of these 26 are partially disassembled and crated in large boxes. There are 50 large space artifacts of various kinds and approximately 100 aircraft engines. Our attempt would be to prevent deterioration under roof with as many of those as we can fit into 20,000 square feet.

MOUNT HOPKINS ROAD AND POWER IMPROVEMENTS

Mrs. HANSEN. Justify your request of \$220,000 for power and road improvements at Mount Hopkins Observatory.

Mr. BRADLEY. The \$220,000 may be broken down into \$120,000 for the power supply system up on the mountain and \$100,000 to help out with the road. I can speak from personal experience. I have been up and down that road three times. It is simply a road ground out with a bulldozer, and it certainly should be given hard topping to the extent of our available funds, and some widening. It is essentially a one-way road with turnouts every now and then, and it takes you about an hour to wind your way up the 10 miles to the top.

The power requirement is essentially for a distribution system whereby the switchgear, the underground conduits, the fuse boxes, and so forth, would be installed in order to prevent the power outages that we have been experiencing. This is very necessary in order to keep the experiments going once they get started.

Secretary RIPLEY. This is an extremely rugged country. The mountain goes straight up 8,000 feet. It is a hogback and you have to work right up on top.

NATIONAL PORTRAIT GALLERY RENOVATION

Mrs. HANSEN. Justify your request of \$250,000 for the National Portrait Gallery third-floor renovation.

Mr. BRADLEY. That is primarily to make usable the third floor of the gallery, which is one of the handsomest rooms in the city. The very center part of it is a rotunda that was used initially for displays and receptions for the original Patent Office when it occupied this building. These funds are needed in order to bring the lighting in this area up to museum standards, open a portion of the long gallery that is along the line of F Street, and also restore the central rotunda which has two iron beams cutting across it and therefore destroying the appearance of this great room with probably a 45-foot ceiling. This would then bring into museum use what today is simply a rather backwater storage area.

TROPICAL RESEARCH INSTITUTE REPAIRS

Mrs. HANSEN. You are requesting \$35,000 for the Smithsonian Tropical Research Institute facility repairs. What are the details of this request?

Secretary RIPLEY. Dr. Challinor, would you like to speak to that?

Dr. CHALLINOR. This is largely for the part of our station located on Barro Colorado Island in Gatun Lake. One of the major problems we have there is termites. To the extent possible, we have constructed small structures of concrete cinderblock. However, we have many wooden buildings which go back to the 1930's. This funding is needed because of the high cost of maintaining wooden buildings in a tropical forest. Their maintenance is now becoming a rather desperate problem. We cannot use insecticides in this forest to get ride of termites

because we would kill other insects as well, and our major policy on the island is that no plants, animals, or insects are allowed to be collected or destroyed.

Secretary RIPLEY. I can testify to that, Madam Chairman. I am covered with red spots from the bites of chiggers and ticks that I found on that island, and a distinguished Member of Congress was barely rescued from the bite of a particularly ferocious ant that was on his neck. In fact, he gave a medal to the man who plucked it off his neck and avoided a very poisonous bite. It is a highly interesting place from the point of view of entomology.

LIBRARY SPACES

Mrs. HANSEN. Justify your request of \$60,000 for the double-decking, remodeling, and outfitting of reference and reading space in the Natural History Building.

Secretary RIPLEY. This is for our library.

Mr. BRADLEY. In the Natural History Building space is at a premium and any chance we can get we go in for double-decking. Where we have 17-foot ceiling heights we cut it in half and this doubles the floor area. We do need it because we are bulging in that building. As you say, we did get started in Natural History and also at Lamont Street. Similarly in the Museum of History and Technology we can improve our working space for the library to accommodate stacks and reading area. And finally we would like to convert space for a rare book room in the Arts and Industries Building, the one we just described as needing the air conditioning.

GENERAL BUILDING REPAIRS

Mrs. HANSEN. \$779,000 is requested for several Smithsonian buildings and facilities for improvements and repairs to prevent their further deterioration, improve public safety, enhance appearance, and to facilitate the program operations in these buildings. Of the total you are requesting \$160,000 is for the History and Technology Building to repair the roof of the building, reroute a defective 8-inch sanitary sewer line, repair granite stone work, et cetera. I gather this is to improve safety conditions and make necessary improvements?

Mr. BRADLEY. Part of it is safety, exactly, and part of it is improvement. Part of it is the arresting of deterioration. When you consider we have 3.5 million square feet under our care with a replacement cost of several hundreds of millions of dollars it is prudent for us to come to you and ask for funds of this kind to maintain, protect, and improve the property.

NATURAL HISTORY BUILDING

Mrs. HANSEN. \$90,000 is requested for the Natural History Building to repair and clean the interior and exterior stonework; to repair the stone retaining wall; install drinking fountains, et cetera. Justify this request.

Mr. BRADLEY. This is a request to keep the building in repair and to improve its utility by such things as installing drinking fountains, repairing an area where the floor surface is dangerous, and painting in the exhibit and work spaces.

SMITHSONIAN BUILDING

Mrs. HANSEN. Justify your request of \$197,000 for the Smithsonian Institution Building.

Mr. BRADLEY. With funds that you were so kind as to appropriate to us we made an interior restoration of this building which was completed originally in 1855. However, because of cost escalation we had to trim some of the things out of the restoration and renovation project and here we would like very much to try to complete the job. I think that figure was \$2,794,000 that we have already invested and this represents those items that we couldn't get in. The humidification system is badly needed to reduce the amount of static electricity.

Secretary RIPLEY. It is very dry in this building because we were unable to complete that portion of the work for lack of funds.

Mr. BRADLEY. The request would also permit window repairs and installation of fire detection and extinguishing systems.

Mrs. HANSEN. I would think this would be mandatory.

FINE ARTS AND PORTRAIT GALLERIES BUILDING

Mrs. HANSEN. You are requesting \$184,000 for the Fine Arts and Portrait Galleries Building. This includes \$50,000 to renovate an area of approximately 20,000 square feet on the first floor.

Secretary RIPLEY. This area was never completed at the time of the original renovation because we ran out of funds.

Mrs. HANSEN. What has been your escalation in repair costs?

Mr. BRADLEY. We could supply that for the record.

Mrs. HANSEN. Please do.

Mr. BRADLEY. I would imagine 10 percent a year compounded.

(The information follows:)

The cost index for construction increased 44 percent from fiscal year 1968 to the middle of the fiscal year 1972.

Our fiscal year 1973 budget submission included \$779,000 for general building repairs and improvements. Costs of labor and materials have increased substantially in recent years. The R. & R. projects are handled as construction contracts and bids vary depending upon the specific size and complexity of the work, work methods used by contractors, season of the year, contractor management, labor problems, and business conditions. We do not have repetitive jobs of a similar type that can be used to establish a base line for comparison over a period of years. The annual increased costs on construction type projects has been approximately 6 percent. On this basis the \$779,000 request includes a 30-percent increase (\$223,700) above the costs of performing this work back in 1967.

SILVER HILL IMPROVEMENTS

Mrs. HANSEN. Justify your request of \$64,000 for your Silver Hill facility.

Secretary RIPLEY. Again this includes double-decking and the installation of restrooms which are very deficient there. And also a sewage disposal system and surface water drainage system. We have a lot of standing water when it rains.

HISTORY AND TECHNOLOGY LIBRARY ADDITION

Mrs. HANSEN. You plan an addition to the National Museum of History and Technology library. Where will this addition be located and what is the total cost?

MR. BRADLEY. This would be on the sixth floor level of the History and Technology Building where there is an opportunity to roof over the area hidden behind the parapet wall as shown on this drawing. It would produce a great deal of choice space without being very visible from the ground level. It is right there where we need it. We believe we could produce this addition for an estimated cost of about \$4 million total. This \$250,000 would provide the planning to get us started. It would be for the architectural plans that would make it possible for us then to know exactly what it is going to cost and how it would work. We know it is feasible.

MRS. HANSEN. You say in your justification: "The institution wishes particularly to provide appropriate facilities for a great collection of rare books in the history of science and technology that may be offered as a gift." Is this gift certain?

MR. BLITZER. No, Madam Chairman. We are still talking to the owners. This evidence of our ability to house the collection would be very valuable.

Secretary RIPLEY. Unfortunately when this building was designed we had a very deficient space assigned for a library. I cannot think why. It was back in the early sixties. Although the museum staff was estimated at its present size, they were extremely forgetful that the staff needs books and we had a major collection of books.

We now do have the opportunity to build up the appropriate collection—I think Dr. Boorstin would second what I have to say very strongly—especially in this area and especially with this fantastic collection that has been offered to us.

DR. BOORSTIN. May I make one comment. We have an opportunity in our museum to provide another unique facility—that is, to make it possible for students in the history of science and technology to use rare books in the presence of the objects. The three dimensional objects, the machines, sextants, and the compasses and so on which we have sometimes in unique examples. And until now we have not been able to provide this facility largely because we have not had the place to put the books. If we do not get this one collection that has been mentioned, there are other collections which are in prospect and which we would think we would have a very good chance to attract if we could promise scholars the opportunity to use the rare books along with the rare instruments we already possess. It would be adding to the value of the whole collection.

VISITOR PARKING

MRS. HANSEN. You are requesting an appropriation of \$100,000 for feasibility studies on parking. There have been hundreds of parking studies and the National Park Service is expanding its tourmobiles so people will not have to park on the Mall.

Mr. BRADLEY. Madam Chairman, we approached with a great deal of respect this problem of parking. We realize you might well say we are not in the parking business, but we are in the museum business. We have been told by the Planning Commission in rather abrasive terms that we are a part of the problem that generates the parking problem. So we did collaborate 3 years ago with the Park Service in studies of underground parking under the Mall. But there are at least two good obstacles to that. One is cost because you run into money when you go underground. You run into water and collide with a high cost per unit.

Possibly even more important is the very difficult problem of ripping up the Mall. As you know when we went into the Hirshhorn project there was no joy about the business of intruding on the Mall. I really think that we would like to give a lot of study to off-Mall parking which would be reasonably accessible to the Mall but not under the Mall or else we would face the prospect of excavating for some substantial period of time, some years, in order to get garages under the Mall. Like the subway it would be nice after you get it, but there is quite a price to pay while you are trying to get it.

Secretary RIPLEY. You have only to look at the Mall and there are still fences and things around.

NATURAL HISTORY RESEARCH CENTER

Mrs. HANSEN. What is the legislative authority for the National Museum of Natural History Research Center for which you are also asking planning funds?

Mr. BRADLEY. We are asking for feasibility study funds under our general authority. Again we would not go into either detailed drawings or certainly construction without specific authority. We believe that our general authority to be responsible for planning, operating, and administering the Smithsonian carries with it this sort of preliminary planning wherein we run up the periscope and look ahead as to costs, priority, feasibility, location, and so forth. This is not embarking on a project, this is simply a study as to the feasibility of a project.

Mr. GALIFIANAKIS. Does that appropriation of \$100,000 relate to parking for the National Museum of Natural History?

Mr. BRADLEY. In part; yes, sir. It would relate to parking for any of the museums in the Mall. You see people travel from one to the other.

Mr. GALIFIANAKIS. Is the feasibility study a condition that is necessary or could you avoid a feasibility study by dealing directly with the prospective contractor who would take on the liability and responsibility of the feasibility in the first place? We are always doing feasibility studies at very high expense. Why can't we use the procedure that says we are thinking about doing this and let those who are inter-

ested in the construction and the building talk about the feasibility of it and carry the constant responsibility and liability that goes with it?

Mr. BRADLEY. We do not have authority along those lines. We understand the Public Buildings Service currently has legislation before the Congress that would authorize it to do that nationwide but we don't have that authority. Our way has been traditionally to go into a feasibility study, to talk with possible parking operators to see if there is a community of interest and particularly financial advantage that you can mix in Federal land or Federal dollars with private land or private dollars and try to get into some of the utility type of parking, somewhat similar to the visitor's center at the Union Station, where they have a mix of dollars.

Our only way to get started on that under existing authority would be to have authority to get into a feasibility study, negotiations, and exploration.

(Discussion off the record.)

BUDGET APPENDICES

Mrs. HANSEN. Please insert appendix justification pages E-1 through E-15 in the record at this point.

(The pages follow:)

SMITHSONIAN INSTITUTION
"SALARIES AND EXPENSES"

REPORT ON THE NUMBER OF PERMANENT POSITIONS
BY ORGANIZATION UNIT

	1971 Actual	1972 Estimate	1973 Estimate	Increase 1973 Over 1972
National Museum of Nat. History	271	335	373	38
Smithsonian Astro. Observatory	57	57	58	1
Smithsonian Trop. Res. Inst.	45	52	58	6
Radiation Biology Laboratory	40	46	48	2
Off. of Environmental Sciences	34	39	42	3
National Air & Space Museum	41	44	64	20
Center for the Study of Man	7	10	13	3
Center for Short-Lived Phen.	1	3	3	0
Nat. Zoological Park	247	286	286	0
Nat. Museum of Hist. & Tech.	158	157	163	6
Nat. Collection of Fine Arts	70	72	78	6
Nat. Portrait Gallery	38	39	46	7
J. H. Hirshhorn Mus. & Sc. Gard.	18	21	35	14
Freer Gallery of Art	7	8	14	6
Archives of American Art	0	11	12	1
Nat. Armed Fcs. Mus. Adv. Bd.	8	6	7	1
Anacostia Neighbor. Museum	11	15	18	3
Off. of International Activities	8	9	10	1
International Exch. Service.	9	9	9	0
Div. of Performing Arts	7	7	10	3
Off. of Public Affairs	12	12	13	1
Am. Revolution Bicentennial	2	2	2	0
Environmental Sciences Prog.	3	8	8	0
Major Exhibitions	0	0	0	0
Nat. Museum Act	0	3	3	0
Academic & Ed. Programs	18	22	24	2
Research Awards	0	0	0	0
Conservation Analytical Lab.	11	13	16	3
Smithsonian Archives	6	6	8	2
Smithsonian Inst. Libraries	54	59	67	8
Registrar	30	31	32	1
Photographic Services	20	23	27	4
Secretary	38	40	47	7
General Counsel	9	9	10	1
Treasurer	31	33	35	2
Personnel	31	32	35	3
Press	25	25	26	1
Inf. Services Division	14	14	17	3
Off. of Smithsonian & Nat. Museum Prog.	9	9	9	0
Exhibits	165	159	159	0
Supply	21	21	21	0
Management Analysis Off.	9	10	10	0
Duplicating	7	7	8	1
Other Central Support	13	13	13	0
Bldgs. Manage. Dept.	768	793	877	84
TOTAL	2,373	2,570	2,814	244

SMITHSONIAN INSTITUTION
"Salaries and Expenses"

Report of Obligations by Objects
(In thousands of dollars)

	1971	1972	1973	1973	Increase
	<u>Actual</u>	<u>Estimate</u>	<u>Base</u>	<u>Estimate</u>	1973 over 1973 Base
11 Personnel Compensation . . .	\$25,380	\$27,741	\$27,996	\$30,884	\$2,888
12 Personnel Benefits	2,064	2,359	2,388	2,625	237
21 Travel & Transportation of Persons	397	596	587	679	92
22 Transportation of Things . . .	198	245	222	307	85
23 Rent, Communications, and Utilities	2,564	2,917	2,916	3,560	644
24 Printing and Reproduction .	502	645	673	839	166
25 Other Services	2,996	4,609	4,926	5,965	1,039
26 Supplies and Materials	1,191	1,807	1,723	2,239	516
31 Equipment	937	1,801	1,864	4,540	2,676
41 Grants	<u>656</u>	<u>875</u>	<u>875</u>	<u>1,326</u>	<u>451</u>
Total Obligations	\$38,885	\$43,595	\$44,170	\$52,964	\$8,794
Lapsing	<u>10</u>	<u>1,106</u>	<u> </u>	<u> </u>	<u> </u>
TOTAL Appropriation	\$36,895	\$44,701		\$52,964	

SMITHSONIAN VISITORS
(By fiscal year)

Fiscal Year	Smithsonian Institution Building	Arts and Industries Building	Museum of Natural History	National Air and Space Building	Freer Gallery of Art	Museum of History and Technology	Fine Arts & Portrait Gallery	Total ^{9/}
1961	1,024,526	2,912,371	2,047,973	987,858	130,746	(1)	(3)	7,103,474
1962	1,222,112	3,471,050	2,113,053	1,986,319	130,597	(1)	(3)	8,923,131
1963	1,630,280	3,534,182	2,288,397	2,673,618	183,359	(1)	(3)	10,309,836
1964	1,311,061	2,457,243	2,512,306	1,854,186	168,625	2,509,774 ^{1/}	(3)	10,813,195 ^{2/}
1965	1,065,635	2,028,175	3,051,472	1,705,683	210,972	5,091,776	(3)	13,153,713
1966	870,010	1,746,715	2,988,006	1,494,922	222,089	4,829,112	(3)	12,150,854
1967	1,020,312	1,638,873	3,409,957	1,484,422	212,920	5,546,102	(3)	13,312,586 ^{4/}
1968	847,176	1,344,622	3,257,957	1,123,698	169,533	4,750,023	30,888	11,523,897 ^{7/}
1969	275,259 ^{5/}	1,493,141	2,916,749	1,225,959	179,374	4,174,071	166,177	10,430,730 ^{7/}
1970	681,255 ^{5/}	2,557,155 ^{6/}	3,269,791	1,839,373	217,305	5,483,555	216,523	13,583,702 ^{8/}
1971		1,985,732	3,456,755	1,337,445	190,425	5,955,128	194,468	13,801,208

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 visits to the National Zoological Park annually and 50,000 to the Anacostia Museum are excluded from these totals.

SIGNIFICANT EXHIBITS, FISCAL YEAR 1971

Natural History Building

Japanese Armor
 Indian Images
 Moon Rock

Reptile Photo Exhibit
 Flora of North America

History & Technology Building

Music Machines--American Style
 Do It the Hard Way--Rube Goldberg
 Electricity Hall Section

Ghandi Exhibit
 Automat
 Campbell Museum Collection

National Air & Space Museum

Apollo 14
 NASM Art Exhibit

Robert McCall Exhibit

Arts & Industries Building

Hand of Man in America
 Finnish Design

Woman

Anacostia Neighborhood Museum

Black Patriots of the American
 Revolution
 Lorton Reformatory: Beyond Time
 Moments - A Photographic Exhibit

"...Toward Freedom"
 D.C. Art Association - Third
 Annual Exhibit

Performing Arts

Folk Festival on the Mall - Fourth Annual Event

Fine Arts and Portrait Gallery Building

Boris Anisfeldt
 Black Artists of the 1930's and
 1940's (Education)

William H. Johnson
 Thomas Eakins
 William Glackins Drawings

Financial Report

The total operating support for the Institution is composed of federally appropriated funds (including special foreign currency monies), research grant and contract awards, and private funds in the form of gifts and endowment fund income for both restricted and unrestricted purposes. With the exception of private unrestricted funds, the uses of these monies are limited to the specific purposes designated by the appropriation, grant, or gift, with the funds recorded separately in over 1,500 individual accounts.

Total funds for operations and for construction in fiscal years 1968-1971 are shown below (in thousands):

	FY 1968	FY 1969	FY 1970	FY 1971
OPERATING FUNDS				
Federal appropriations				
Salaries and expenses.....	\$26,784	\$29,150	\$32,679	\$36,895
Special foreign currency program.....	2,316	2,316	2,316	2,500
Subtotal.....	29,100	31,466	34,995	39,395
Research grants and contracts	11,584	11,624	10,825	9,312
Nonfederal funds:				
Gifts (excluding gifts to endowments)				
Restricted purpose.....	442	1,806	2,290	1,905
Unrestricted purpose.....	27	181	17	356
Income from endowment and current funds investment				
Restricted purpose.....	870	924	999	1,115
Unrestricted purpose.....	368	441	281	330
Miscellaneous.....	190	476	503	406
Total Operating Support.....	<u>\$42,581</u>	<u>\$46,918</u>	<u>\$49,910</u>	<u>\$52,819</u>
 CONSTRUCTION FUNDS (Federal)				
National Zoological Park.....	\$ 400	\$ 300	\$ 600	\$ 200
National Air and Space Museum.....	-	-	-	-
Joseph H. Hirshhorn Museum.....	803	2,000	3,500	5,200
Restoration and renovation of buildings..	1,125	400	525	1,725
Total.....	\$ 2,328	\$ 2,700	\$ 4,625	\$ 7,125

Federal Appropriated Funds

OPERATIONS (SALARIES AND EXPENSES).—As shown above, Congress has provided increases in appropriations to the Smithsonian in

recent years. The substantial inflation in this period, however, absorbed a large part of these increases. Throughout this period, also, there existed the need to provide for the natural growth of museum and scientific research collections, to meet established commitments toward improvement of the Institution's museums, and to participate more fully in growing research fields such as ecology and oceanography. Together these forces placed a severe strain upon operating budgets and accentuated existing shortages of support for our research scientists and museum directors. Fortunately, this situation has now been recognized and the increase in our appropriation for operations (salaries and expenses) for FY 1972 will make a good start toward alleviating these shortages in many areas.

The division of the Institution's federal appropriations (excluding special foreign currency program) for operating purposes in recent years among its broad areas of service has been as follows (in thousands):

	<i>FY 1968</i>	<i>FY 1969</i>	<i>FY 1970</i>	<i>FY 1971</i>
Science.....	\$ 9,566	\$10,467	\$11,761	\$13,495
History and Art.....	4,045	4,287	5,081	5,878
Public Service.....	973	1,159	1,445	1,442
Museum Programs.....	3,128	3,260	3,592	3,744
Administration.....	2,155	2,526	2,733	3,051
Building Maintenance.....	6,917	7,451	8,067	9,285
Total.....	\$26,784	\$29,150	\$32,679	\$36,895

Additional detail for FY 1971 is shown in Table 1 on page 22.

SPECIAL FOREIGN CURRENCY PROGRAM.—These funds, representing a portion of the U.S. Government's holdings of blocked currencies in nine foreign nations, have been awarded to the Smithsonian annually since 1964 to administer a program of grants to more than fifty museums and universities in the United States for the purpose of carrying on research in the related foreign currency countries. The uses of these currencies during FY 1971 were as follows (in thousands):

	<i>Archeology</i>	<i>Systematic and Environmental Biology</i>	<i>Astrophysics and Earth Sciences</i>	<i>Museum Programs</i>	<i>Grant Admini- stration</i>	<i>Total</i>
Ceylon.....	\$ 18.0	\$ 431.7	\$ -	\$ -	\$ -	\$ 449.7
India.....	492.4	287.9	11.5	8.7	1.7	802.2
Israel.....	521.1	281.4	-	-	1.2	803.7
Morocco.....	3.9	41.6	-	-	2.9	48.4

Pakistan.....	47.1	42.4	-	-	-	89.5
Poland.....	39.8	-	3.0	1.1	-	43.9
Tunisia.....	61.7	15.2	-	-	-	76.9
Egypt.....	266.6	43.5	23.7	-	-	333.8
Yugoslavia.....	315.8	73.4	-	3.1	-	392.3
Total.....	<u>\$1766.4</u>	<u>\$1217.1</u>	<u>\$38.2</u>	<u>\$12.9</u>	<u>\$5.8</u>	<u>\$3040.4*</u>

* Includes unobligated balance from previous fiscal year.

These grants are audited by the Smithsonian internal auditing staff aided by foreign independent accountants in some cases, and also more recently with the assistance in foreign countries of the audit staff of the U.S. Department of Agriculture.

CONSTRUCTION.—An additional \$5,200,000 was appropriated in the fiscal year 1971 budget for the construction of the Joseph H. Hirshhorn Museum and Sculpture Garden. This made a total of \$11,303,000 appropriated for this project since the initial planning appropriation was received in fiscal year 1968. This left a final appropriation of \$3,697,000, the balance of the \$15,000,000 authorized by Congress for the project, to be obtained in the fiscal year 1972 appropriation. Construction is scheduled to be completed in the fall of 1972.

Of the \$1,725,000 of appropriations for restoration and renovation of buildings appropriated to the Institution in fiscal year 1971, \$774,000 was for the repair of fire damage suffered in the third floor of the National Museum of History and Technology in September 1970. An additional \$500,000 was for the necessary redecking of space in the Arts and Industries Building to provide additional office areas.

Research Grants, and Contracts

Total grants and contracts carried on by the Institution in each of the past years, by awarding agency, were as follows (in thousands):

	<i>FY 1968</i>	<i>FY 1969</i>	<i>FY 1970</i>	<i>FY 1971</i>
Department of Health Education and Welfare	\$ -	\$ 272	\$ 326	\$ 297
Department of Defense.....	1,334	1,667	1,086	843
National Air and Space Agency.....	7,294	7,265	6,561	4,930
National Science Foundation.....	2,355	2,099	2,246	2,028
Other.....	601	321	606	1,214
Total.....	<u>\$11,584</u>	<u>\$11,624</u>	<u>\$10,825</u>	<u>\$ 9,312</u>

As indicated in last year's annual report, cutbacks by NASA, especially for the satellite tracking program at our Smithsonian Astrophysical Observatory, caused a further reduction in grants and contracts awarded to the Institution in fiscal year 1971. Adjustments in expenditures and personnel at the Observatory have been carried out as a result.

Table I, shows the usage of grant and contract monies by various bureaus of the Institution. Over 95 percent goes for scientific research—notably to our Astrophysical Observatory, to anthropologists and other scientists in the National Museum of Natural History and for studies in the environmental sciences. Grants from the National Science Foundation were largely for the funding of the Science Information Exchange which has been operated by the Smithsonian since 1953. For the fiscal year 1972, funding responsibility has also been transferred to the Institution, to become a part of its federal appropriation request with a corresponding reduction in future NSF funding.

Private Funds

In addition to federal appropriations and awards of research grants and contracts the Institution benefits from private funds received in the form of gifts and as income from its endowment and other investment funds. Not including contributions to endowment funds (discussed below), a total of \$2,261,000 of gifts was received during fiscal year 1971, about the same level as in the previous year. Income from investments amounted to \$1,444,000. An additional \$406,000 was obtained from memberships, special fund-raising drives, and fees.

Following traditional practice, private fund accounts of the Institution are audited annually in their entirety by independent public accountants. Their report for fiscal year 1971, including comparative balance sheets and a statement of changes in balances in all the various funds, appears on pages 25-31. (Grant and contract monies received from federal agencies are audited annually by the Defense Contracts Audit Agency; audits of federally appropriated funds are conducted by the Institution's internal audit staff and from time to time by the General Accounting Office.)

UNRESTRICTED PRIVATE FUNDS.—Private funds are vital to the maintenance of the Institution, permitting it flexibility of operations, nonpolitical objectivity, and greater attraction for valuable national collections to benefit its millions of visitors. Unfortunately,

its total sources of private funds in fiscal year 1971 provided only 8 percent of overall operating revenues, with federal appropriations accounting for a growing portion of total support.

It is important to note, furthermore, that these private funds are dedicated largely to restricted purposes. This was the case for 77 percent of our fiscal year 1971 investment income and, in recent years, nearly all of the gift monies. In fiscal year 1971, however, the latter included \$365,500 for unrestricted operating purposes; this was of immense value in aiding the Institution to approach a balance in its current unrestricted private funds operating budget despite the continued rise in costs of salaries, services, and supplies. The gap between income and expenditure was reduced to \$138,690, a notable improvement over previous years. Nevertheless, the loss of these unrestricted private funds during the year was disappointing. The balance of these funds was \$1,719,657 at 30 June 1971. This is below the desired level of working capital for the Institution; it must be rebuilt in future years by surpluses to be obtained by careful control of expenditures and by enlargement of our sources of income.

An examination of the present application of our private unrestricted funds is useful in understanding how this desired result may be achieved. Table I sets forth total Smithsonian income and disbursements—federal, nonfederal, and grant and contract monies—by bureaus, offices, and activities. In this table the revenues and expenses of our computer centers (which are run on a break-even basis) and of our revenue-producing “activities” have been netted out; only the net excess of disbursements is included in order to clarify their effect. From this table it may be seen that unrestricted funds are used in part to support new programs (Anacostia Museum, Chesapeake Bay Center), provide additional resources for certain established programs and supporting services (libraries, academic programs, Smithsonian Institution Press, performing arts), and to finance our revenue-producing “activities” until they can become fully self-supporting. Additionally, private unrestricted funds pay for administrative costs associated with these nonfederal expenditures, including the large amount of grants and contracts and the “activities” themselves—all of which are charged for a share of these administrative expenses in an effort to recover such expenses as fully as possible.

Results of the revenue-producing activities themselves in fiscal year 1971 were as follows (in thousands):

	<i>Museum</i>		<i>Press*</i>	<i>Magazine</i>	<i>Associates</i>	<i>Per-</i>	
	<i>Total</i>	<i>Shops</i>				<i>forming</i>	<i>Arts</i>
Sales and Revenues.....	\$4,654	\$1,020	\$ 148	\$2,412	\$ 597	\$ 142	\$ 335
Less Cost of Sales.....	2,188	686	134	1,134	193	-	41
Gross Income.....	2,466	334	14	1,278	404	142	294
Gifts.....	52	-	-	6	46	-	-
Total Income.....	2,518	334	14	1,284	450	142	294
Expenses.....	2,763	327	150	1,393	410	200	283
Income (loss) before charge for adminis- trative costs	(245)	7	(136)	(109)	40	(58)	11
Less Administrative Costs	289	87	23	100	31	20	28
Net Income (loss).....	\$ (534)	\$ (80)	\$(159)	\$ (209)	\$ 9	\$ (78)	\$ (17)

* 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.

The *Smithsonian* magazine continued to gain acceptance and show excellent progress during this first full year of operation. Its loss, due in part to nonrecurring costs, was greatly reduced, and circulation at the fiscal year-end exceeded 250,000. Break-even results are expected in fiscal year 1972.

On the other hand, the continued loss (\$80,000) in our Museum Shops, although caused in large part by liquidation of large unsalable inventories acquired in previous years, was most disappointing. The need for great business attention to the Shops and other similar activities has become abundantly clear. Effective in July 1971, Mr. Harry R. Albers has been given this responsibility by his appointment as Business Manager, Office of the Treasurer.

Another major factor causing the imbalance in private unrestricted fund accounts was the substantial underrecovery of private fund administrative expenses. An intensive study of this problem has been completed and with the adoption of certain policy changes the loss from this source should be reduced. If this can be accomplished and if expected improvements in financial results of the magazine and shops are also achieved, the Institution should make a start in fiscal year 1972 toward the desired rebuilding of its current operating funds.

From a different angle, our year-old Development Office is

actively at work in conjunction with the newly organized National Associations program at building an active national group of Smithsonian friends who will assist in the raising of additional sorely needed unrestricted private funds. At the same time the Office is soliciting contributions for a number of specific funding requirements of the Institution and is launching a program to make clear the need for future individual gifts and bequests. Additional unrestricted funds thus obtained could be constructively used to restore needed working capital, to provide equipment to outfit properly the Institution's photographic services division and Museum Shops (enabling the Institution to help itself by increasing revenues in these areas), to develop more rapidly its public education programs in new fields of audiovisual techniques, and to finance a great variety of research projects or collection acquisitions now stifled for lack of funds—to name but a few pressing requirements.

RESTRICTED PRIVATE FUNDS.—As indicated earlier, a total of \$1,905,000 of gifts for restricted operating purposes was received during fiscal year 1971. Major donations included \$276,000 for the Cooper-Hewitt Museum of Decorative Arts and Design in New York City, representing principally the payment of previous outstanding commitments toward reestablishment of this Museum. The Carnegie Corporation has agreed, subject to court review and certain terms and conditions, to donate the Carnegie Mansion as a site for this Museum. Strong measures are now needed to obtain the very substantial funds for rehabilitating the building for museum use and to provide future operating funds.

Continued progress was made in acquiring additional land at the Chesapeake Bay Center for Environmental Sciences and a new \$25,000 gift was received for that purpose during the year. To exercise a favorable option to acquire one of the properties, it was necessary, however, to obtain a bank loan of \$175,000 which it is hoped can be repaid within the near future from additional donations. Other acquisitions and proposals for additional grants are in process.

In another field, gifts totaling \$243,000 were contributed toward the important underwater research efforts centered at the Institution's new oceanographic center in Fort Pierce, Florida, at which will be based the *Johnson-Sea-Link* submarine and the *J. Seward Johnson* oceangoing submarine tender, contributed to the Institution by Mr. Edwin A. Link and Mr. J. Seward Johnson. These were in addition to the substantial income for this purpose

received from a large special endowment fund. In part these funds financed the purchase of 172 acres of land at this center in June 1971, but it is expected that an interested foundation will repurchase this land within the near future while continuing to dedicate it to the same purposes. A final three-year grant of \$259,000 to the Smithsonian-associated program of "Reading is FUNdamental" assured successful continuation of this valuable venture. Numerous other contributions for important research, educational and museum projects included those for Anacostia Museum, the Fourth International Symposium, and the acquisition of additional collection items. A listing of individual donors is shown on pages 19-21.

In addition to gifts, endowment funds established for specific purposes provided \$1,114,000 of investment income and miscellaneous sources added another \$195,000 of restricted purpose income in fiscal year 1971. Of the investment income \$674,000 was for operation of the Freer Gallery, \$116,000 was dedicated to the Marine Center oceanography program referred to above, and the remaining \$324,000 was provided for a great variety of purposes designated by the donors.

Utilization of these gifts and restricted purpose investment income may not, of course, occur in the same year as the one in which they are received, with the result that year-end balances show considerable variations from year to year. In fiscal year 1971 land acquisition at the Chesapeake Bay Center required expenditure of \$288,000 of money received for this purpose in previous years and unusually large collection purchases by the Freer Gallery drew down its previously accrued investment income balance by \$180,000. These two items largely account for the decline in total restricted fund balances from \$2,241,000 as of 30 June 1970 to \$1,762,000 on 30 June 1971.

ENDOWMENT FUNDS.—The value of the Institution's endowment funds increased during the year, reflecting both additional gifts of \$1,677,000 and also general increases in values of securities to reach a total market value on 30 June 1971 of \$45,905,000 (\$42,632,000 of stocks and bonds, \$1,000,000 permanent loan to U.S. Treasury, \$2,176,000 real estate, and a \$97,000 note receivable). In addition, current fund investments on that date had a market value of \$2,727,000. The endowment fund gifts included a \$1,310,000 addition to the Oceanography Research Fund and a \$79,000 bequest for unrestricted uses.

Most of the Institution's endowment funds are handled in three separate investment accounts consisting of the Freer Fund

(\$18,805,000 market valuation of 30 June 1971), dedicated to providing operating income the Freer for Gallery of Art; Endowment Fund No. 3 (\$12,331,000), dedicated entirely to oceanographic research; and the Consolidated Fund (\$11,470,000), in which all other restricted and unrestricted endowment funds have for many years been pooled for investment purposes. These funds, as well as current account investment funds, are summarized in Table 2. A listing of the individual investments held in the various endowment funds may be obtained upon request to the Treasurer of the Institution.

Increasing attention has been given to the monitoring of these funds in the past two years with the result that the Board of Regents appointed in September 1970 a new Investment Policy Committee consisting of the Secretary (ex-officio), three Regents (Mr. William A. M. Burden, Chairman; Dr. Crawford H. Greenewalt; and Mr. James E. Webb) and four experienced investment executives (Messrs. Harold F. Linder, Donald Moriarty, Charles H. Mott, and William R. Salomon). After reviewing the investment problems of the Institution, the Board of Regents, on the recommendation of this Committee, has adopted a number of changes affecting our endowment funds. Effective 1 July 1971, three new investment management firms have been given the responsibility for investing different portions of the funds. Discretion has been granted to the managers to carry out this responsibility, subject to general policy guidance and prompt reporting requirements imposed by the Board.

A listing of individual funds included in our Consolidated Investment Fund and their related investment income in fiscal year 1971 is set forth in Table 3.

Donors to the Smithsonian

The Smithsonian Institution gratefully acknowledges gifts and bequests received during fiscal year 1971 from the following:

\$100,000 or more:

Ford Foundation
J. Seward Johnson
Mrs. Marjorie Merriweather Post

Atlantic Foundation
Battelle-Memorial Institute
Mrs. Mary Graham Bruce
Carnegie Foundation
Joseph P. Crane Foundation
William H. Crocker

\$10,000 or more:

Mrs. Hugo Astor
Mrs. W. Vincent Astor

William L. Elkins
Daniel and Florence Guggenheim
Foundation

\$10,000 or more—Continued

Susan Morse Hilles Agency
 Interdisciplinary Communications
 Association
 International Business Machines
 Corporation
 Iran Foundation
 Junior League of Washington, D. C.
 J. D. R. 3rd Fund, Inc.
 J. M. Kaplan Fund, Inc.
 Charles F. Kettering Foundation
 Hoffman La Roche Foundation
 Miami Beach Tourist Authority
 Ambrose Monell Foundation
 National Foundation for the Arts
 and Humanities
 National Geographic Society
 State of New York
 Edward J. Noble Foundation
 Prospect Hill Foundation
 Rockefeller Brothers Fund
 Rockefeller Foundation
 Laurence S. Rockefeller
 Clara Louise Safford Estate
 San Diego Zoo
 The Scaife Family of Pittsburgh
 Hattie M. Strong Foundation
 Bertrand L. Taylor
 Wenner-Gren Foundation
 Xerox Corporation

\$1,000 or more:

Amalgamated Meat Cutters and
 Butchers Workmen of North
 America
 American Conservation Association,
 Inc.
 American Council of Learned
 Societies
 American Federation of Information
 Processing Society
 American Philosophical Society
 Anonymous
 W. Andrew Archer
 Avco Corporation
 Bakery and Confectionery Union
 Barra Foundation
 Henry W. Bass
 Beal Foundation
 Clay Bedford

Louis D. Beaumont Foundation
 David P. Becker
 Bernard P. Bishop Museum
 Jacob Blaustein
 Elizabeth Booker
 Brunschwig & Fils, Inc.
 Morris and Gwendolyn Cafritz
 Foundation
 Charron Foundation
 Cleveland Foundation
 Continental Oil Company
 Cook Industries, Inc.
 Pamela C. Copeland
 Cornell University
 Dairy Industry Committee of
 Metro Washington
 Elsie DeWolfe Foundation
 Dillon Fund
 Government of District of Columbia
 Alfred U. Elser, Jr.
 FAUNALABS, INC.
 Joseph Fenykovi
 Harvey Firestone
 Friendship Fund
 General Electric Company
 General Telephone and Electronic
 Corp.
 George Washington University
 Gordon D. Gibson
 Bruce Gilchrist
 Glass Bottle Blowers Association of
 the United States and Canada
 William P. Graham
 Crawford H. Greenewalt
 Norris Harkness
 Harvard University Press
 Hill and Knowlton, Inc.
 Charles Horsky
 International Association of Bridge,
 Structural, and Ornamental Iron
 Workers of America
 International Telephone and
 Telegraph Co.
 John B. Jago
 Johns Hopkins University
 Marguerite Kellogg
 Ellsworth P. Kelly
 Mannheimer Kunstverein
 Phyllis Lambert
 Jack L. Leon
 Charles A. Lindbergh

\$1,000 or more—Continued

Link Foundation
 Howard Lipman
 Sally P. Livingstone
 Lockheed Aircraft Corp.
 Marcus Ward Lyon, Jr. Estate
 Mr. and Mrs. Robert S. McNamara
 Merck & Co., Inc.
 City of Monroe, Louisiana
 Museum d'Art et d'Historie, Geneve
 National Audubon Society
 Mr. and Mrs. Hugo V. Neuhaus
 New York Foundation
 New York Times Foundation
 Dan H. Nicholson
 Northern Trust Company
 Occidental Petroleum Corporation
 The Poynter Fund
 H. Vnon Petrikovits
 Preservation Society of Newport
 County
 Mrs. Augustus Riggs IV
 Ralph Rinzler
 Mrs. Clifford Robertson
 Rubin Foundation, Inc.
 Sidney Printing and Publishing Co.
 Symonds Foundation
 E. W. Thaw and Co.
 John B. Trevor, Jr.
 Marcie Brady Tucker Foundation
 W. M. Underwood Co.
 UNESCO
 Union Trust Co.
 United States Steel Corp.
 Mrs. H. G. Van Roijen

Dorothy Wallenstein
 Ellen Bayard Weedon Foundation
 Howard Weingrow
 William Woodward, Jr.
 Zoological Board of Victoria, Australia

\$500 or more:

Madame Leon Barzin
 Harry H. Bassett
 William Beinecke
 Bell and Howell Foundation
 Carroll Cartwright
 Caterpillar Tractor Co.
 Lois Clark
 Alice De Leman
 Michael Desfayes
 Early Birds
 Electronic Corporation of America
 Clifford Evans, Jr.
 Peter A. Frank and Co.
 Grossman Publications
 Mason E. Hale, Jr.
 Samuel J. Holladay
 Institution of International Education
 Johnson City Foundation
 Abraham Melamed
 Elinor Merrell
 Dorothy S. Payer
 Phillips Petroleum Company
 Revlon Foundation
 Scovill Manufacturing Company
 E. R. Squibb and Sons
 Strahein and Somann
 The Upjohn Company
 William C. Whitney Foundation
 Marie and Joseph Wilson

We also gratefully acknowledge other contributions in the amount of \$34,289.86 received from 484 persons during fiscal year 1971.

TABLE 1.—Source and applications of funds (in thousands)
Year ended 30 June 1971

Funds	Federal Funds	Non-Federal Funds			Grants and Contracts
		Total	Unrestricted	Restricted	
FUND BALANCES—1 July 1970..	\$ —	\$ 4,512	\$ 1,870	\$ 2,356	\$ 286
FUNDS PROVIDED					
Federal Appropriations.....	\$36,895				
Investment Income.....		\$ 1,444	\$ 330	\$ 1,114	\$ —
Grants and Contracts.....		9,317			9,317
Gifts.....		2,261	356	1,905	
Other.....		406	211	195	
Total Provided.....	\$36,895	\$13,428	\$ 897	\$ 3,214	\$ 9,317
TOTAL FUNDS AVAILABLE.....	\$36,895	\$17,940	\$ 2,767	\$ 5,570	\$ 9,603
FUNDS APPLIED					
<i>Science:</i>					
Environmental Science.....	\$ 724	\$ 1,317	\$ 42	\$ 762	\$ 513
Nat'l Museum of Nat. Hist.....	4,339	849	—	236	613
National Zoological Park.....	3,163	60	—	34	613
Science Info. Exchange.....	—	1,675	—	—	1,675
S.A.O.....	2,107	3,745	—	58	3,687
Other Science.....	3,162	900	—	115	785
Total.....	13,495	8,546	42	1,205	7,299
<i>History and Art:</i>					
Nat'l Portrait Gallery.....	784	1	—	1	—
Nat'l Collec. of Fine Arts.....	1,040	123	—	121	2
Freer Gallery.....	57	927	—	927	—
Nat'l Museum of Hist. and Tech.....	2,243	103	40	62	1
Other History and Art.....	1,754	974	98	876	—
Total.....	5,878	2,128	138	1,987	3
<i>Public Service:</i>					
Revenue Producing Activities					
Smithsonian Press.....	691	136	136*	—	—
Performing Arts.....	215	245	58*	44	143
Other.....	—	103	103*	—	—
Anacostia Museum.....	151	97	39	58	—
Other.....	385	389	—	290	99
Total.....	1,442	970	336	392	242
<i>Museum Programs:</i>					
Libraries.....	744	60	53	7	—
Exhibits.....	2,409	14	—	14	—
Other Programs.....	591	15	8	—	7
Total.....	3,744	89	61	21	7
<i>Buildings Management Dept</i>	9,285	0	0	0	0
<i>Administration:</i>					
Direct.....	3,051	2,434	2,434	—	—
Overhead Applied.....	—	—	(1,964)	203	1,761
Net Administration.....	3,051	2,434	470	203	1,761
TOTAL FUNDS APPLIED.....	\$36,895	\$14,167	\$ 1,047	\$ 3,308	\$ 9,312
FUND BALANCES—30 June 1971	\$ 0	\$ 3,773	\$ 1,720	\$ 1,762	\$ 291

* Net loss before administrative charges; "Other" excludes \$52,000 gifts reported in gift income above.

TABLE 2.—*Summary of investments in stocks and bonds
of private funds, 30 June 1971*

<i>Funds</i>	<i>Book Value</i>	<i>Market Value</i>
INVESTMENT ACCOUNTS FOR ENDOWMENT FUNDS		
Freer Fund:		
Cash.....	\$ 13,746	\$ 13,746
Bonds.....	6,742,844	5,711,771
Convertible bonds.....	491,500	443,500
Convertible preferred stock.....	210,566	192,506
Common stocks.....	5,869,837	12,443,830
Total.....	<u>\$13,328,493</u>	<u>\$18,805,353</u>
Consolidated Funds:		
Cash.....	149,913	149,913
Bonds.....	4,188,588	3,607,052
Convertible bonds.....	471,842	376,900
Convertible preferred stock.....	252,799	147,492
Common stocks.....	5,917,075	7,188,655
Total.....	<u>\$10,980,217</u>	<u>\$11,470,012</u>
Endowment Fund #3:		
Cash.....	1,375	1,375
Bonds.....	777,625	798,875
Common stocks.....	6,352,570	11,530,750
Total.....	<u>\$ 7,131,570</u>	<u>\$12,331,000</u>
Miscellaneous:		
Cash.....	—	—
Bonds.....	10,065	9,500
Common stocks.....	3,322	16,608
Total.....	<u>13,387</u>	<u>26,108</u>
Total Endowment and Similar Funds investments ...	<u>\$31,453,667</u>	<u>\$42,632,473</u>
CURRENT FUNDS		
Special Endowment Fund:		
Cash.....	\$ 304	\$ 304
Bonds.....	558,728	457,962
Convertible bonds.....	243,050	205,950
Convertible preferred stock.....	106,584	101,400
Common stocks.....	769,051	792,747
Total.....	<u>1,677,717</u>	<u>1,558,363</u>
General Fund:		
Cash.....	70,000	70,000
Short-term notes.....	929,001	924,989
Total.....	<u>999,001</u>	<u>994,989</u>
Miscellaneous:		
Common stocks.....	182,345	173,675
Total Current Fund investments	<u>\$ 2,859,063</u>	<u>\$ 2,727,027</u>

TABLE 3.—Consolidated investment fund

Funds Participating in Pool	Investment		Unexpended
	(Book Value) 1971	Income 1971	Income 30 Jun 71
UNRESTRICTED FUNDS.....	\$ 4,164,751	\$175,204	\$ —
RESTRICTED FUNDS:			
Abbott, William L.....	\$ 180,649	\$ 8,876	\$ 2,621
Archives of American Art.....	23,649	214	186
Armstrong, Edwin James.....	3,188	129	—
Arthur, James.....	69,309	3,413	3,838
Bacon, Virginia Purdy.....	160,442	6,928	12,904
Baird, Spencer Fullerton.....	63,452	3,051	126
Barney, Alice Pike.....	49,702	2,446	300
Barstow, Frederic D.....	1,732	85	1,515
Batchelor, Emma E.....	58,715	2,738	2,555
Bicker, George F.....	275,364	11,990	32,646
Brown, Roland W.....	55,958	2,333	2,798
Canfield, Frederick A.....	66,828	3,760	—
Casey, Thomas Lincoln.....	21,721	1,070	2,385
Chamberlain, Frances Lea.....	48,800	2,402	8,091
Cooper, G. Arthur, Curator's Fund.....	1,502	50	—
Cooper-Hewitt Museum.....	158,645	5,828	40,597
Division of Mammals Curator Fund.....	3,439	131	924
Division of Reptiles Curator Fund.....	591	22	47
Drake, Carl J.....	270,121	9,936	24,368
Dykes, Charles.....	74,607	3,671	—
Eickemeyer, Florence Brevoort.....	18,836	927	9,051
Guggenheim, David and Florence.....	176,211	4,604	4,888
Hanson, Martin Gustav and Caroline Runice.....	15,407	758	10,274
Hillyer, Virgil.....	11,389	561	5,891
Hitchcock, Albert S.....	2,737	136	1,056
Hrdlicka, Ales and Marie.....	104,260	4,249	3,219
Hughes, Bruce.....	33,172	1,635	19,359
Johnson, E. R. Fenimore.....	14,383	561	3,067
Kellogg, Remington, Memorial.....	9,580	87	75
Lindsey, Jessie H.....	634	24	171
Loeb, Morris.....	151,131	7,518	1,393
Long, Annette E. and Edith C.....	943	48	968
Lyons, Marcus Ward.....	7,710	70	—
Maxwell, Mary E.....	33,992	1,674	28,846
Myer, Catherine Walden.....	35,013	1,723	3,490
Nelson, Edward William.....	41,099	1,896	427
Noyes, Frank B.....	1,670	87	940
Pell, Cornelius Livingston.....	12,850	636	8,527
Petrocelli, Joseph Memorial.....	12,850	635	6,638
Ramsey, Admiral and Mrs. DeWitt Clinton.....	480,156	18,962	54,052
Rathbun, Richard Memorial.....	18,436	911	9,987
Reid, Addison T.....	30,823	1,517	460
Roebling Collection.....	209,097	10,243	—
Roebling Solar Research.....	43,259	1,959	—
Rollins, Miriam and William.....	301,552	13,147	10,221
Smithsonian Agency Account.....	104,055	2,277	—
Sprague, Joseph White.....	2,196,963	79,103	—
Springer, Frank.....	31,075	1,528	17,860
Stevenson, John A.....	10,355	415	349
Strong, Julia D.....	17,330	857	1,624
T. F. H. Publications, Inc.....	7,848	275	4,369
Walcott, Charles D.....	193,095	8,226	—
Walcott, Charles D. and Mary Vaux.....	797,383	39,228	3,251
Walcott Botanical Publications.....	100,112	4,757	—
Zerbee, Francis Brinckle.....	1,646	81	1,436
Total Restricted Funds.....	\$ 6,815,466	\$280,388	\$347,790
Total Consolidated Fund.....	\$10,980,217	\$455,592	\$347,790

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 1971 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, or 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.

In our opinion, except for the method of accounting for fixed assets and related depreciation described in note 1, 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 1971, and the results of its operations for the year then ended, in conformity with generally accepted accounting principles which, except for the adoption of the accrual basis of accounting for all funds described in note 2 in which we concur, were applied on a basis consistent with that of the preceding year.

PEAT, MARWICK, MITCHELL & CO.

27 August 1971

SMITHSONIAN INSTITUTION
BALANCE SHEET OF PRIVATE FUNDS 30 JUNE 1971

(With comparative figures for 1970) (note 2)

	<i>1971</i>	<i>1970</i>
<i>Assets</i>		
CURRENT FUNDS:		
Cash:		
In U.S. Treasury	\$ 413,857	\$ 49,599
In banks and on hand (including \$79,273 in sav- ings; \$17,214 in 1970)	235,270	168,225
Total cash	<u>649,127</u>	<u>217,824</u>
Receivables:		
Accounts	774,772	352,814
Advances—travel and other	194,835	146,269
Reimbursements—grants and contracts	1,369,306	1,835,671
	<u>2,338,863</u>	<u>2,334,754</u>
Inventories at net realizable value	522,908	544,413
Investments—stocks and bonds at cost (market value \$2,656,723; \$2,900,264 in 1970)	2,788,759	3,409,426
Prepaid expense	116,988	39,541
Deferred magazine subscription expenses (note 3)	404,472	267,300
Equipment (less accumulated depreciation of \$71,636; \$49,932 in 1970) (note 4)	521,325	64,115
Total current funds	<u>\$ 7,342,442</u>	<u>\$ 6,877,373</u>
 ENDOWMENT AND SIMILAR FUNDS:		
Cash	165,033	77,533
Note receivable	96,663	96,934
Investments—stocks and bonds at cost (market value \$42,467,439; \$29,456,568 in 1970)	31,288,633	30,213,145
Loan to U.S. Treasury in perpetuity	1,000,000	1,000,000
Real estate (at cost or appraised value at date of gift) (note 5)	2,176,219	1,760,448
Total endowment and similar funds	<u>\$34,726,548</u>	<u>\$33,148,060</u>
See accompanying notes to financial statements.		

SMITHSONIAN INSTITUTION
BALANCE SHEET OF PRIVATE FUNDS 30 JUNE 1971
(With comparative figures for 1970) (note 2)

Liabilities and Fund Balances

	<i>1971</i>	<i>1970</i>
CURRENT FUNDS:		
Notes payable (note 4).....	\$ 654,613	\$ -
Accounts payable.....	814,581	1,381,000
Accrued liabilities.....	570,068	63,986
Unrestricted fund balance.....	1,719,657	1,858,347
Deferred income:		
Magazines subscriptions.....	1,400,926	1,030,115
Other.....	130,249	16,627
	1,531,175	1,046,742
Restricted fund balances:		
Gifts.....	1,109,718	1,493,041
Grants and contracts.....	290,741	286,144
	1,400,459	1,779,185
Unexpended income:		
Freer.....	210,562	389,906
Other.....	441,327	358,198
	651,889	748,104
Total current funds.....	\$ 7,342,442	\$ 6,877,373
ENDOWMENT AND SIMILAR FUNDS:		
Mortgage note payable (note 5).....	293,641	310,697
Fund balances:		
Endowment funds—income restricted:		
Freer.....	13,328,493	13,188,994
Other.....	14,166,763	13,099,645
Current funds reserved as an endowment—income unrestricted.....		
	5,055,073	5,098,973
Real estate acquisition fund.....	1,882,578	1,449,751
Total fund balance.....	34,432,907	32,837,363
Commitments (note 6)		
Total endowment and similar funds.....	\$34,726,548	\$33,148,060

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Statement of Changes in Fund Balances
Year ended 30 June 1971

Current Funds

	<i>Total</i>	<i>Unrestricted funds</i>		<i>Restricted funds</i>			
		<i>General</i>	<i>Activities</i>	<i>Gifts</i>	<i>Grants and contract</i>	<i>Unexpended income</i>	<i>Other</i>
						<i>Free</i>	
Balance at 30 June 1970.....	\$4,511,854	1,869,941	—	1,566,028	286,144	434,873	354,868
Adjustments from cash to accrual basis.....	(126,218)	(11,594)	—	(72,987)	—	(44,967)	3,330
Adjusted balance at 30 June 1970.....	4,385,636	1,858,347	—	1,493,041	286,144	389,906	358,198
Additions:							
Grants and contracts net of refunds.....	9,316,961	—	—	—	9,316,961	—	—
Investment income.....	1,448,758	334,452	—	34,200	—	673,625	406,481
Gifts and bequests.....	2,261,285	304,292	52,218	1,895,589	—	1,705	7,481
Gross profit on sales.....	2,465,922	—	2,465,922	—	—	—	—
Rental.....	1,166,723	1,166,723	—	—	—	—	—
Other.....	251,629	56,926	—	127,042	—	67,259	402
Net gain (loss) on sale or exchange of investments.....	(4,541)	(4,541)	—	—	—	—	—
Total additions.....	16,906,737	1,857,852	2,518,140	2,056,831	9,316,961	742,589	414,364
Deductions (additions):							
Expenditures:							
Salary and benefits:							
Administrative.....	3,972,791	2,678,092	1,294,699	—	—	—	—
Research.....	5,720,632	—	—	712,667	4,537,637	386,771	83,557
Purchases for collection.....	599,043	—	—	317,518	—	249,891	31,634
Travel and transportation.....	644,201	65,751	58,272	152,537	323,104	31,223	13,314
Equipment and facilities.....	1,319,378	116,450	23,979	349,249	808,459	12,865	8,376
Supplies and material.....	800,841	161,974	171,309	125,358	264,351	74,237	3,612
Rent and utilities.....	567,656	263,907	18,915	15,832	269,002	—	—
Communications.....	147,641	69,150	17,116	11,872	49,445	—	58
Contractual service.....	2,377,568	318,773	493,967	759,459	639,968	126,529	38,872
Computer rental.....	653,121	—	—	1,182	651,939	—	—
Promotion and advertising.....	662,026	—	662,026	—	—	—	—
Depreciation.....	22,404	—	22,404	—	—	—	—
Administrative expenditures applicable to other funds.....	—	(2,254,104)	289,700	116,364	1,761,099	40,417	46,524
Total deductions carried forward.....	17,487,302	1,419,993	3,052,387	2,562,038	9,305,004	921,933	225,947
Adjusted balance at 30 June 1970 brought forward.....	\$4,385,636	1,858,347	—	1,493,041	286,144	389,906	358,198
Total additions, brought forward.....	16,906,737	1,857,852	2,518,140	2,056,831	9,316,961	742,589	414,364
Total deductions, brought forward.....	17,487,302	1,419,993	3,052,387	2,562,038	9,305,004	921,933	225,947
Transfers in (out):							
Income added to principal.....	(63,322)	—	—	—	—	—	(63,322)
Transfer to unexpended income.....	257,320	—	—	—	—	—	257,320
Transfer to endowment funds.....	(227,064)	(21,053)	—	(206,011)	—	—	—
Transfer to restricted funds—gifts.....	—	—	—	300,945	—	—	(300,945)
Transfer for designated purposes.....	—	(13,037)	—	26,950	(15,572)	—	1,659
(Transfer to grants) computer services to commercial users.....	—	(8,212)	—	—	8,212	—	—
Transfer in support of activities.....	—	(534,247)	534,247	—	—	—	—
Total transfers.....	(33,066)	(576,549)	534,247	121,884	(7,360)	—	(105,288)
Net income (loss) after transfers.....	(613,631)	(138,690)	—	(383,323)	4,597	(179,344)	83,129
Balance at 30 June 1971.....	\$3,772,005	1,719,657	—	1,109,718	290,741	210,562	441,327

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Statement of Changes in Fund Balances
Year ended 30 June 1971

Endowment and Similar Funds

	Total	Endowment		Current funds reserved as an endowment	Real estate acquisition fund
		Freer	Other		
Balance at 30 June 1970.....	\$32,837,363	13,188,994	13,099,645	5,098,973	1,449,751
Adjustments from cash to accrual basis.....	-	-	-	-	-
Adjusted balance at 30 June 1970.....	<u>32,837,363</u>	<u>13,188,994</u>	<u>13,099,645</u>	<u>5,098,973</u>	<u>1,449,751</u>
Additions:					
Grants and contracts net of refunds.....	-	-	-	-	-
Investment income.....	-	-	-	-	-
Gifts and bequests.....	1,676,848	-	1,345,256	79,776	251,816
Gross profit on sales.....	-	-	-	-	-
Rental.....	-	-	-	-	-
Other.....	-	-	-	-	-
Net gain (loss) on sale or exchange of investments.....	(114,370)	139,499	(130,193)	(123,676)	-
Total additions.....	<u>1,562,478</u>	<u>139,499</u>	<u>1,215,063</u>	<u>(43,900)</u>	<u>251,816</u>
Deductions (additions):					
Expenditures:					
Salary and benefits:					
Administrative.....	-	-	-	-	-
Research.....	-	-	-	-	-
Purchases for collection.....	-	-	-	-	-
Travel and transportation.....	-	-	-	-	-
Equipment and facilities.....	-	-	-	-	-
Supplies and material.....	-	-	-	-	-
Rent and utilities.....	-	-	-	-	-
Communications.....	-	-	-	-	-
Contractual service.....	-	-	-	-	-
Computer rental.....	-	-	-	-	-
Promotion and advertising.....	-	-	-	-	-
Depreciation.....	-	-	-	-	-
Administrative expenditures applicable to other funds.....	-	-	-	-	-
Total deductions carried forward.....	-	-	-	-	-
Adjusted balance at 30 June 1970, brought forward.....	<u>\$32,837,363</u>	<u>13,188,994</u>	<u>13,099,645</u>	<u>5,098,973</u>	<u>1,449,751</u>
Total additions, brought forward.....	<u>1,562,478</u>	<u>139,499</u>	<u>1,215,063</u>	<u>(43,900)</u>	<u>251,816</u>
Total deductions, brought forward.....	-	-	-	-	-
Transfers in (out):					
Income added to principal.....	63,322	-	63,322	-	-
Transfer to unexpended income.....	(257,320)	-	(257,320)	-	-
Transfer to endowment funds.....	227,064	-	46,053	-	181,011
Transfer to restricted funds—gifts.....	-	-	-	-	-
Transfer for designated purposes.....	-	-	-	-	-
(Transfer to grants) computer services to commercial users.....	-	-	-	-	-
Transfer in support of activities.....	-	-	-	-	-
Total transfers.....	<u>33,066</u>	-	<u>(147,945)</u>	-	<u>181,011</u>
Net income (loss) after transfers.....	<u>1,595,544</u>	<u>139,499</u>	<u>1,067,118</u>	<u>(43,900)</u>	<u>432,827</u>
Balance at 30 June 1971.....	<u>\$34,432,907</u>	<u>13,328,493</u>	<u>14,166,763</u>	<u>5,055,073</u>	<u>1,882,578</u>

See accompanying notes to financial statements.

SMITHSONIAN INSTITUTION
PRIVATE FUNDS

Notes to Financial Statements

30 June 1971

1. *Accounting for Fixed Assets.*—The Institution records additions to fixed assets as follows: museum shops and computer equipment purchased with now appropriated funds are capitalized in the current fund; land and buildings acquired by gift are recorded in the endowment and similar fund at the 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; land buildings, furniture, equipment, works of art, living and other specimens, and certain other similar property purchased from federal appropriations, nonappropriated funds, except as indicated above or proceeds of gifts are not included in the accounts of the Institution; depreciation is recorded only for the computer and business-type activities.

2. *Basis of Accounting.*—On 1 July 1970 the Institution changed its method of accounting for restricted funds and endowment and similar funds from the cash receipts and disbursements to the accrual basis. The comparative balance sheet has been restated to reflect this change—with this change, all private funds of the Institution are accounted for on the accrual basis.

3. *Deferred Magazine Subscription 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.

4. *Notes Payable.*—The notes payable of 30 June 1971 are summarized as follows:

6% unsecured note payable to a bank due 25 June 1972	\$175,000
Installment note payable secured by computer equipment due 30 June 1976 in monthly payments of \$7,993.64	479,614
	\$654,614

5. *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 \$252,700 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%.
- b. A \$40,941 note on property acquired for \$118,533. The note is payable in monthly installments of \$451.02, including interest at the rate of 6%, with the final payment due on 1 November 1989.

6. *Commitments.*—Pursuant to an agreement, dated 9 October 1967, between the Institution and the Cooper Union for the Advancement of Science and Art,

the Institution acquired, on 1 July 1968, all funds belonging to the Cooper Union for use exclusively for museum purposes, and certain articles of tangible personal property as defined in the agreement.

The agreement provided, among other covenants, that the Institution would maintain a museum in New York City and has pledged in excess of \$800,000 for the support of such a museum. Pledges in the amount of \$660,000 have been collected to date.

Mrs. HANSON. Dr. Ripley, I appreciate the very detailed presentation you have made today. I also want to say the committee is going to miss Mr. Bradley. He has done a terrific job for the Smithsonian Institution and he has had some very tough problems to handle through the years. The committee has come to feel that Mr. Bradley is a witness of the highest integrity.

I want to thank all the members of the Smithsonian staff who contributed to making this a very informative day. It was a distinct pleasure and privilege to have our astronaut, Mr. Collins, present.

Secretary RIPLEY. We are happy Mr. Collins is with us.

Mr. GALIFIANAKIS. Mr. Collins appeared in my district and we made a joint appearance.

COMPARISON OF BUDGET INCREASES

For the record I want a comparison of the increase in the budget request from last year and this year with only two changes, that which relates to increase in salaries and the other figure that relates to other increases as compared to last fiscal year.

Secretary RIPLEY. We will be happy to supply that.
(The information follows:)

SMITHSONIAN INSTITUTION—INCREASES REQUESTED IN "SALARIES AND EXPENSES"

	Increase—	
	1972	1973
Pay.....	\$3,109,000	\$3,123,000
Other.....	5,563,000	5,671,000

Secretary RIPLEY. May I echo your words about Mr. Bradley and say I count on him enormously and hope he will not be unknown to this committee in the future because I hope he will have time to give us some more of his wisdom and so on in connection with certain special projects.

Mr. GALIFIANAKIS. May we add our commendation to Mr. Bradley.

Mr. HANSEN. Thank you very much.

TUESDAY, MARCH 14, 1972.

NATIONAL FOUNDATION ON THE ARTS AND THE HUMANITIES

NATIONAL ENDOWMENT FOR THE ARTS

WITNESSES

MISS NANCY HANKS, CHAIRMAN
MICHAEL STRAIGHT, DEPUTY CHAIRMAN
VANTILE WHITFIELD, DIRECTOR, EXPANSION ARTS
CLARK MITZE, DIRECTOR, STATE AND COMMUNITY PROGRAMS
JOHN SPENCER, CONSULTANT TO THE MUSEUM PROGRAM

Mrs. HANSEN. The committee will come to order.

This morning we have the National Endowment for the Arts. We are particularly pleased to welcome the Chairman of the National En-

SMITHSONIAN INSTITUTION LIBRARIES



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