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# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR 1998

## HEARINGS BEFORE A SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS HOUSE OF REPRESENTATIVES ONE HUNDRED FIFTH CONGRESS FIRST SESSION

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

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NOTE: Under Committee Rules, Mr. Livingston, as Chairman of the Full Committee, and Mr. Obey, as Ranking Minority Member of the Full Committee, are authorized to sit as Members of all Subcommittees.

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*Staff Assistants*

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FY 1998

WEDNESDAY, MARCH 19, 1997.

**SMITHSONIAN INSTITUTION**

**WITNESSES**

**I. MICHAEL HEYMAN, SECRETARY**

**CONSTANCE B. NEWMAN, UNDER SECRETARY**

**J. DENNIS O'CONNOR, PROVOST**

**L. CAROLE WHARTON, DIRECTOR, OFFICE OF PLANNING, MANAGEMENT AND BUDGET**

**RICHARD H. RICE, JR., SENIOR FACILITIES SERVICES OFFICER**

**DOUGLAS LAPP, EXECUTIVE DIRECTOR, NATIONAL SCIENCE RESOURCES CENTER**

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# Smithsonian Institution NEWS

## I. MICHAEL HEYMAN

### SECRETARY, SMITHSONIAN INSTITUTION

#### BIOGRAPHY

I. Michael Heyman, a law professor and former chancellor of the University of California at Berkeley, and most recently counselor to the Secretary of the Interior and Deputy Assistant Secretary for Policy, is the 10th secretary of the Smithsonian Institution. As the Smithsonian's chief executive officer, he heads a complex of 16 museums and galleries and the National Zoological Park, as well as scientific and cultural research facilities in 10 states and the Republic of Panama.

Heyman began his career at the University of California at Berkeley in 1959 as an acting professor of law and became a full professor in 1961. He was named professor of law and city and regional planning in 1966. His distinguished teaching career has included service as a visiting professor of law at Yale (1963-1964) and at Stanford (1971-1972).

Heyman became vice chancellor of Berkeley in 1974 and served as chancellor from 1980 to 1990. A strong leader and active fund-raiser, he strengthened the university's biosciences departments and successfully promoted ethnic diversification of the undergraduate student body while maintaining high academic standards. The university maintains several large museums, including the University Art Museum, the Lowie Museum of Anthropology and the Lawrence Hall of Science, and Heyman actively participated in their supervision while chancellor. After stepping down as chancellor in 1990, he was named Selvin professor of law and professor of city planning at Berkeley.

Heyman was counselor to Secretary of the Interior Bruce Babbitt as well as deputy assistant secretary for policy at Interior from 1993 to 1994. He is a member of the state bars of California and New York.

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Office of Public Affairs, Smithsonian Institution, Washington, D.C.

Born on May 30, 1930, in New York City, Heyman was educated at Dartmouth College, earning a bachelor's degree in government in 1951. He attended P.S. 9, Junior High 118, the Bronx High School of Science (one year) and Horace Mann High School, where he played football.

After a year in Washington as legislative assistant to Sen. Irving M. Ives of New York, he served as an officer in the United States Marine Corps, as a first lieutenant on active duty from 1951 to 1953, and as a Captain in the reserves from 1953 to 1958.

Heyman received his juris doctor in 1956 from Yale University Law School, where he was editor of the Yale Law Journal. He was an associate with the firm of Carter, Ledyard and Milburn in New York City from 1956 to 1957. He was chief law clerk to U.S. Supreme Court Chief Justice Earl Warren from 1958 to 1959.

Heyman's expertise goes well beyond the legal field. His interests include civil rights, constitutional law, land planning, metropolitan government, housing, environmental law and management, public-land law and affirmative action, and he is the author of many journal articles and papers on these subjects.

Over the years, Heyman has served on or chaired numerous boards and commissions, including almost four years as a member of the Smithsonian's Board of Regents (1990-1994). He has dedicated more than a decade of service to his alma mater—Dartmouth—as a member of its board of trustees from 1982 to 1993 and as chairman of the board from 1991 to 1993.

Heyman also has been a member of the board of trustees of the Lawyers' Committee for Civil Rights under Law since 1977.

He was the secretary for the California Advisory Committee of the U.S. Commission on Civil Rights (1962-1967); chairman of the City of Berkeley Human Relations and Welfare Commission (1966-1968); counsel to the Task Force on Demonstration and Protest of the President's Commission on Violence (1968-1969); a member of the board of directors of the Pacific Gas and Electric Co. (1985-1993) and the board of directors of the American Council on Education (1984-1985). He chaired the executive committee of the National Association of State Universities and Land-Grant Colleges in 1986.

He was Division I Subcommittee Chairman of the National Collegiate Athletic Association Presidents Commission (1986-1988) and chairman of the Bay Vision 2020 Commission (1989-1993).

Heyman has served as a consultant to the Virgin Islands Planning Office (1975-1976); the Government of American Samoa (1973-1974); the County of Kauai, Hawaii (1972-1973); the Tahoe Regional Planning Agency (1970-1975); and the San Francisco Bay Conservation and Development Commission (1968-1970). He advised the University of Hawaii on the creation of a law school (1971-1972); analyzed the land-planning systems of the Bureau of Land Management, the Forest Service and the National Park Service (1967-1969); and prepared a report for the Department of Health, Education and Welfare on race and education at Berkeley (1964-1965).

He was awarded The Koret Israel Prize in 1989 and was made a Chevalier de la Légion D'Honneur by the French government in 1985. He has received honorary degrees from the State University of New York (1990), The University of Maryland (1986), The Hebrew Union College—Jewish Institute of Religion (1984) and the University of the Pacific (1981).

Heyman is married to Therese Thau Heyman, senior curator on leave from the Oakland Museum in California. Their son, James, is a physicist and teacher.

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NOTE TO EDITORS: For more information, call Mary Combs at the Smithsonian Office of Public Affairs, (202) 357-2627, ext. 121.

## CONSTANCE BERRY NEWMAN

Constance Berry Newman became Under Secretary of the Smithsonian Institution in July, 1992. She was Director of the Office of Personnel Management from June, 1989 to June, 1992. For more than 20 years she managed public and private organizations. Among her major management positions were: Assistant Secretary of the United States Department of Housing and Urban Development, Director of VISTA, and President of the Newman & Hermanson Company. She was also Commissioner and Vice-Chairman of the Consumer Product Safety Commission.

From 1987 to 1988, Ms. Newman worked for the Government of Lesotho as a Cooperative Housing Foundation consultant to advise the Ministry of Interior regarding the establishment of a housing corporation to receive World Bank funding.

During her public career which began in 1961, Ms. Newman worked both as a career public servant and a political appointee with four Presidential appointments, three of which were confirmed by the Senate.

Ms. Newman was a Woodrow Wilson Visiting Fellow from 1977 to 1985 and a member of the Adjunct Faculty at the Kennedy School, Harvard University from 1979 to 1982. She has received an Honorary Doctor of Laws from her Alma Mater, Bates College, Amherst College and Central State University. In addition to receiving an A.B. from Bates College, she received a Bachelor of Science in Law degree from the University of Minnesota Law School. In 1985, she received the Secretary of Defense Medal for Outstanding Public Service. At present she serves on the Board of Trustees of The Brookings Institution and Bates College and is a member of the District of Columbia Financial Responsibility and Management Assistance Authority.

J. DENNIS O'CONNOR  
PROVOST, SMITHSONIAN INSTITUTION

J. Dennis O'Connor joined the Smithsonian Institution in December 1995 as the Institution's first Provost (chief programs officer). He is responsible for central planning, integration and oversight of research, exhibitions and education of the largest museum and research complex in the world.

Dr. O'Connor is a prominent biologist and educational leader who came to the Smithsonian from the University of Pittsburgh, where he served as Chancellor from 1991 to 1995. A native of Chicago, he earned a bachelor's degree from Loyola University, a master's degree from DePaul University, and a Ph.D. from Northwestern University. Dr. O'Connor has served as Dean of the Life Sciences at the University of California, Los Angeles, and at the University of North Carolina, Vice Chancellor of Research and Graduate Studies and Dean of the Graduate School, and as Vice Chancellor of Academic Affairs and Provost.

L. Carole Wharton  
Director, Office of Planning, Management and Budget  
The Smithsonian Institution  
Washington, D.C.

Dr. L. Carole Wharton was appointed to the position of Director of the Office of Planning, Management and Budget in December 1991. Prior to joining the Smithsonian, she spent three years as the Chief Planning Officer at Drexel University in Philadelphia. In that role she was responsible for leading the university's first strategic planning process, developing an institutional research office, and coordinating budget projections and priority setting. Before going to Drexel, she was engaged in planning activities at the University of Maryland Central Administration, serving over six years as the Director of Capital Planning. In that position, she was responsible for planning, programming, and budgeting of all university facilities, as well as for the acquisition and disposition of real properties.

Dr. Wharton has also served as Assistant Dean of Academic Development at St. Mary's College of Maryland, Dean of Students at Marjorie Webster College in Washington, D.C., and as a faculty member at Columbus College in Georgia.

A native of Virginia, Dr. Wharton holds a B.A. from Emory and Henry College, an M.A. from Florida State University, and an Ed.D. from The George Washington University.

## RICHARD H. RICE, JR.

Richard H. Rice, Jr., was Acting Director of Facilities Services from April 1995 until January 1996, at which time the title was changed to Senior Facilities Services Officer and he was named to the permanent position.

Mr. Rice, a Registered Professional Engineer, joined the Smithsonian Institution after a distinguished career in the United States Navy, his last assignment being in the Office of the Secretary of Defense.

Mr. Rice's education includes an M.S. in Civil Engineering from Stanford University, an M.S. in Ocean Engineering from the University of Miami, an M.B.A. from Golden Gate University, a B.S. from the United States Military Academy, and completion of the Management Program for Executives at the University of Pittsburgh.

He is the designated Safety and Health Official for the Smithsonian, and heads the Facilities Services Group, comprising more than fifteen hundred employees of the Office of Physical Plant, Office of Protection Services, and Office of Environmental Management and Safety.

## WELCOMING REMARKS

Mr. REGULA. Well, we will get the committee started. We are pleased to welcome you, Dr. Heyman.

Mr. HEYMAN. Thank you, Mr. Chairman.

Mr. REGULA. And your institution is on the side of the angels most of the time.

Mr. HEYMAN. Yes, I was going to say I try to keep it that way, but there are times.

Mr. REGULA. Some of the beef producers, I am sure.

Mr. HEYMAN. As you and I said, I really stepped in it that time.

Mr. REGULA. Let's go off the record a minute.

[Discussion off the record.]

Mr. REGULA. Back on the record.

We are pleased to welcome you, Ms. Newman and Mr. O'Connor and Ms. Wharton, Richard Rice. Where is Richard? He is right back there. Okay.

What we will do is put all your statements in the record and ask you to summarize. And I know I have a number of questions, and I am quite sure when the committee members get here they will also. So Dr. Heyman, it is all yours.

## OPENING STATEMENT

Mr. HEYMAN. Good morning, Mr. Chairman. I am going to try to compress what I said in my written statement and emphasize a few things.

There really are two major subjects. One is the priorities of the Smithsonian in future directions and the other one is a brief overview of the 1998 budget request.

As I think you know, my priorities during my Secretaryship have been to maintain the quality of the programs of the Smithsonian and to make the Smithsonian accessible to the American people outside as well as within Washington.

## AMERICA'S SMITHSONIAN

My appointment coincided with the Institution's 150th birthday. Planning had occurred, which I was able to implement, which supported bringing the Smithsonian to people across the country. That huge exhibition, which you saw in Los Angeles, America's Smithsonian, went to six cities in 1996. It opens in Portland, Oregon, in April 1997. It will go to Birmingham thereafter. I have my fingers crossed that we will be able to raise the monies necessary for Columbus, Ohio, and for San Jose and maybe one or two others but those are less probable.

So far it has had about 2 million visitors. It has had really rave reviews. It has had tremendous coverage. No Federal money has been in this; it was all trust money. There was good corporate sponsorship but obviously not enough, and the costs were in this first year more than we expected. We are quite optimistic that we can henceforth cover expenses by reducing expenditures and raising money in the places we are going and that we also can make up the deficit in ways that I can explain later if you are interested in that.

## SMITHSONIAN SESQUICENTENNIAL

The actual birthday party on the Mall, which was last August 10-11, had a total of about 650,000 visitors in the 2 days, the Saturday and the Sunday. Each museum of the Institution had a tent which was showing what it does and how its research is carried out and how it exhibits.

There were three sound stages. There was continuous entertainment. One of the entertainers made a very interesting remark. He said that at this event Washington felt like an ideal small town where everybody came together around this celebration, and I had that feeling, too.

And then there were TV specials during the year and there were a series of Smithsonian "Minutes," and between the two an awful lot of people around the country tasted a little bit of the Smithsonian.

## SMITHSONIAN HOME PAGE

The two other programs of access are, first, the Internet. We have a very large home page. It is about 35 hours. It fluctuates and keeps going up because the museums and research institutes keep adding more to their portions of it. We are getting around 8 million hits now a month. I don't know how long the people stay but that is a lot of hits, and as I indicated, that really is always changing, which is what is keeping up or increasing the number of hits. People keep coming back for new things to see.

## AFFILIATIONS POLICY

And then, of course, we have the affiliations policy that the Board of Regents adopted last year, which suggests that really at the request of communities, the Smithsonian will consider long-term loans of artifacts, mostly artifacts that are in storage. The hook is that the museum that borrows has to pay all the expenses in terms of transportation and insurance and the like.

[The information follows:]

TESTIMONY OF I. MICHAEL HEYMAN, SECRETARY  
SMITHSONIAN INSTITUTION  
before the  
HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR  
AND RELATED AGENCIES  
MARCH 19, 1997

Good Morning Mr. Chairman and Members of the Committee. It is my privilege to appear before this oversight committee to speak on behalf of the Smithsonian's priorities and future directions, and to present a summary of the Smithsonian's FY 1998 budget request. We deeply appreciate your continued support and value the personal interest you have shown in our programs and activities.

As you may recall, 1996 marked the 150th anniversary of the Smithsonian. In a landmark year packed with programs and events, we had specific objectives - to maximize access to the Institution and the National Collections and to include the public in celebrating the Smithsonian's remarkable role in portraying their achievements and cultural gifts in a dynamically diverse American community.

While "America's Smithsonian," that traveled to six cities, recording over 2 million visitors, and the Zoo's remarkable "Think Tank" exhibition on behavioral research and its innovative "Amazonia Science Gallery" were among a number of stellar exhibit openings, the highlight of the year fell on two balmy August days when 650,000 visitors joined Smithsonian staff volunteers on the National Mall at a grand birthday celebration, courtesy of our sesquicentennial corporate sponsors. At exhibition sites stretching from the Capitol to the Washington Monument, visitors were treated to demonstrations of our staff at work and a lively array of American cultural expositions. Flanked by three large sound stages offering continual live entertainment, families and friends stretched out on blankets and sampled foods from across America. Moved by the mood and fullness of the experience, one of the performers remarked that for a moment Washington felt like an ideal small town, where we all came together in shared curiosity and inspiration. We are determined to sustain this spirit of public participation and accessibility.

Building on enthusiasm generated by the "America's Smithsonian" tour, the Board of Regents adopted, in September, a new policy to make collections more available to a broader audience by forming collections-based affiliations with regional museums through long-term loans. The Provost and other Smithsonian officials have had promising discussions with the Los Angeles County Museum of Art, the Mexican Museum in San Francisco, and the cities of Long Beach, San Antonio, and Scottsdale, Arizona. Recently, a Memorandum of Understanding was signed by Bethlehem Steel Corporation and the National Museum of

American History for exhibit contributions toward the development of a museum to display artifacts of industrial America in Bethlehem, Pennsylvania, to be funded wholly by Bethlehem Steel according to the Regents' criteria.

Collection loans and research collaborations have been standard practice for the Smithsonian, particularly by the National Museum of Natural History, where collections are routinely used as baselines for both basic and applied research, as well as for practical applications by government and private entities. Our second most visited facility, and equally popular with school children and serious scholars, that Museum exemplifies the contemporary scope and priorities of the Institution, as well as recent funding strategies. A dynamic research center, headed by Mr. Robert Fri, the recently-appointed Director, the Museum sponsors expanding educational programs and is the repository of unique specimen collections, which are rapidly becoming available on-line. The development of the building's East and West Courts, which were authorized by this Committee, were designed to accommodate these diverse functions and will ultimately furnish research/collection space and public education and revenue-producing operations, respectively. Reflecting current financing trends, the East Court, scheduled for completion in January 1998, is Federally-funded, while the West Court, now in the final stages of construction proposal evaluation, will be privately-financed. The Institution's largest building, the Museum requires major capital renewal and will use the completed East Court for swing space and collection relocation during future renovation.

Last February we were deeply saddened by the untimely death of Sylvia Williams, Director of the National Museum of African Art. After a vigorous national search, however, we were fortunate to have selected her successor from among the Museum's senior curatorial staff. Upon her appointment in January, Dr. Roslyn Walker indicated her commitment to broadening the range of the Museum's collections and to initiate its first generation of traveling exhibitions.

In the last year, we were also pleased with the appointment of retired U.S. Navy Vice Admiral Donald Engen as the director of the National Air and Space Museum, who oversaw the 20th anniversary of the Museum's public opening in July. In its commemorative year, the Museum welcomed the installation of an exhibition marking the 50th anniversary of the U.S. Air Force, introduced the new IMAX movie, "Cosmic Voyage," and opened the popular inter-active exhibition, "How Things Fly" during 1996. Reorganization of the Museum is continuing, based on the recommendations of the National Academy of Public Administration.

A Capital Campaign Director for the Dulles Center has been selected to oversee fund-raising for the Center, which is planned for completion by December 31, 2001. The Center remains a major priority of both the Museum and the Institution.

Of the \$8 million authorized for the planning and design of the Center, \$4 million has been appropriated to date. In July we will be at the 65% phase of construction and design documentation for the building, at which point the original \$4 million will be expended. Currently, the Commonwealth of Virginia is concluding contractual negotiations with the Smithsonian to provide primary entrance into the facility, including the design and construction of the Route 28 interchange and roadways. Legislation authorizing the construction of the facility, using non-Federal funds, was signed by the President on October 1, 1996.

Based on recent trends toward creative financing of Federal construction and responding to a Congressional mandate in the face of unrelenting budgetary constraints, considerable effort has been focussed by the Institution on establishing private revenue sources. Although funding-raising efforts and corporate partnership projects brokered throughout the Institution have been beneficial, we clearly must be more creative and aggressive on the development side. Following a recent review of central and bureau-based development, we've outlined a preliminary strategy to coordinate and enhance fund-raising initiatives under the direction of a new Executive Director for Development, with whom I will work closely on an Institutional national campaign.

Equally critical to generating revenue are our business activities that sustain current programming levels. This area is currently being restructured to be more entrepreneurial and competitive in the marketplace, and a Business Officer will be selected shortly to oversee the revamped operations, including the press and media operations.

We're extremely pleased that two essential fund-raising goals have been met. An amount of \$7 million in private support was raised by the Cooper-Hewitt, National Design Museum for renovation of the Museum buildings and creation of the Design Resource Center. And, as the result of the National Museum of the American Indian Campaign, we now have \$36.7 million in hand, representing our one-third of the cost of the Mall museum which the authorizing legislation challenged us to raise from private sources.

The establishment and progress of the National Museum of the American Indian is the fulfillment of the promises that the Congress made not only to Indian people, but to the many other contributors who have donated \$36.7 million to the construction

fund. This historic achievement demonstrates the faith and financial support of private individuals, foundations, corporations and Native American Tribes across America to guarantee the presence and recognition of our native citizens on the National Mall, at the foot of the Capitol.

Our budget request for Fiscal Year 1998 includes \$58 million as the Federal Government's share to complete the construction of the National Museum of the American Indian on the Mall. While Congress has met its commitment to Native peoples regarding the Museum's satellite facilities, it has reached a crossroad in providing the funding to construct the National Museum on the Mall.

The Smithsonian sincerely appreciates the current budget constraints this Congress faces and has acted on Congressional recommendations to downsize the Mall facility. To keep the building within budget, reduce the size and still preserve the integrity of the design, some of the non-public or non-exhibit spaces were reduced or eliminated. One half of the fourth floor, previously planned for administrative space, has been eliminated, the exhibit support and collection management space was reduced, one restaurant was eliminated, and the museum shop was reduced. This represents a 15% reduction of the square footage from our previous conceptual plan, while public exhibition gallery space has remained the same. To reflect the educational mission of the Museum, a majority of the total area will be exhibition and/or educational public program spaces. Even so, the ratio of public space to expected visitor levels for the Museum will be the lowest of any museum on the Mall. We have reached the minimum space required to sustain the Museum's program. Furthermore, the building will occupy only 25% of the usable building site. The remainder of the site will be maintained green space, which will serve the Museum as outdoor public performance space.

Our FY 1998 request includes \$32 million for Repair and Restoration of Buildings which is targeted to correct critical conditions at four of our oldest buildings and allow us to continue to modify our aging facilities as part of the Major Capital Renewal Program. The Smithsonian Institution believes that a higher funding level, up to \$50 million annually, for the Repair and Restoration of Buildings account is needed to ensure that the Institution pursues responsible stewardship of present facilities. Likewise, \$3.9 million sought for the Construction and Improvements, National Zoological Account are for the maintenance, repair and improvement of our existing facilities at Rock Creek and the Conservation Research Center at Front Royal, Virginia. Though there is no request in this budget for Minor Construction, Alterations and Modifications projects, the Institution will need to continue the program in future years to

make building modifications to provide adequate and appropriate space in which its programs can operate.

In light of the current number of attacks on large public buildings such as the occurrences in Oklahoma City and Atlanta, we are reevaluating our security coverage and will be developing a major security plan.

For FY 1998, the Smithsonian is seeking \$334.6 million for operations. Included in the Salaries and Expenses account is a \$10.4 million increase to cover mandatory uncontrollable costs and keep existing staff and operations in place. The Smithsonian Astrophysical Observatory submillimeter array project, new facilities support, and collections information systems are major priority programs for which we request a total of \$6.5 million. Collectively, for FY 1998. Within the latter category, \$960,000 specifically is earmarked for collections information systems.

Mr. Chairman, of the Smithsonian's dual mission "to increase and diffuse knowledge," certainly the dissemination of our findings and professional expertise has been the larger challenge. The volume of our resources and the sheer size of possible audiences has defied the flexibility and range of conventional media. With the launching of our Home Page in 1995 and through the wonders of electronic circuitry, our collections, publications, lectures, symposia and staff can be just a few "clicks" away on the Internet from classrooms, libraries, and the home. Magazine features, specimens, sculptures, and fellowship applications are a fraction of items available today via our web pages. Usage on our Home Page increased ten-fold in 1996, exceeding 8 million hits a month, and websites continue to appear across the Institution, offering program-specific information to "visitors" regardless of proximity.

Although, without doubt, telecommunications dramatically increase our outreach, the Smithsonian's more traditional venues -our traveling exhibition service, lecture and tour series, educational workshops, to name a very few - continue to deliver expanding, quality public programming. The packets provided to each of your enclose material give a sampling of the educational outreach of the Institution. Focussing on community involvement, our education offices conduct professional development programs for teachers, highlighting museum-school partnerships as resources. Extensive workshops, curriculum guides, and instructional materials are furnished nationwide via regional workshops and on-line. In 1995 alone, 23 Smithsonian education bureaus served 1.15 million adults and families, 4.9 million students, more than 70,000 teachers, and 4,700 museum professionals. Some 370 educational publications were distributed to more than 3.65 million individuals.

Likewise, the Smithsonian's Traveling Exhibition Service has brought Smithsonian shows into the community, as you will see from the enclosed tour schedules for your home states. The local responses have been exciting, particularly in rural areas. We've included the brochures and clippings on the "Produce for Victory" and the "Barn Again!" exhibitions because the public involvement has been so spirited. We've never had a response similar to that of the small town of Cozad, Nebraska. The patriotic brochures and articles the community generated are remarkable. And, we've found that in towns along the tour route, the exhibitions have become the centerpieces of local drives fostering cultural tourism, capital improvement, local philanthropy, and the like. We will be happy to provide additional information on services available both to your visiting constituents and to your home areas.

I'd like to take a moment to assuage any concerns you or your constituents may have had as the result of misinformation that has circulated recently regarding the American Armed Forces History Collection at the National Museum of American History. Specifically, I want to clarify that there is no truth to the rumors that the Museum plans to reduce, eliminate or diminish in any way the American Armed Forces History Hall. This collection is one of the Museum's largest and we are fully committed to its preservation and exhibition. Although, unfortunately, we have lost some of the collection's curating staff recently due to death or to retirements, we are actively recruiting for a new curator with a strong background in American military history who will be responsible for updating the Armed Forces Hall and supervising any renovation of existing exhibitions. We've advertised the position broadly, including notices to the military service academies as well as to the American Legion and Veterans of Foreign Wars. Let me assure you that any renovations of Armed Forces exhibitions will proceed only after careful consultation with interested parties, including the various Military Services and veterans' groups.

Mr. Chairman, I would be glad to respond to any questions you and other Members of the Subcommittee might have on our FY 1998 budget request and on any other Smithsonian matters.

## COLLECTIONS ON LOAN

Mr. REGULA. Will the fact that you are going to rehab some of these facilities cause you to make more loans instead of putting the materials that are in storage while you rehab?

Mr. HEYMAN. It would be lovely if it worked out in that organized a way. I don't think it is going to. Because this whole idea is so new, it is going to take on very slowly.

You know, there is going to be a great rush of interest and then when people find out they have got to pay the tab, that will moderate how many people are, in fact—but I hope, you know, 10 years from now we see a lot of Smithsonian artifacts around the country.

## AGREEMENT WITH BETHLEHEM STEEL

The first formal agreement, which is a very preliminary agreement, is with Bethlehem Steel, which is creating a museum and has created the organization already. It is seeking to turn the old Bethlehem steelworks in the center of Bethlehem into a place of many activities, and one of them will be a museum of industrial history.

It gives us the opportunity to move an awful lot of very large artifacts we have never been able to display in a contextual setting, and it gives us an opportunity to do a show on the American Industrial Revolution in the way that we have never been able to because we do not have the room. So if this works out it is going to be wonderful.

Mr. REGULA. Will you staff it or will Bethlehem?

Mr. HEYMAN. We are going to curate it but they are going to pay for the time of the curators.

Mr. REGULA. This would be promoted in a sense simply as a satellite Smithsonian exhibit?

Mr. HEYMAN. Yes, satellite Smithsonian exhibit, not a museum, that is not a Smithsonian museum.

Mr. REGULA. Bethlehem is the primary sponsor?

Mr. HEYMAN. That is right. And I don't know what they are going to call that. I guess they are going to call that museum the Museum of Industrial History.

Mr. REGULA. But it will be promoted in part of your literature to attract a nationwide audience in terms of visitation; is that correct?

Mr. HEYMAN. Yes, we certainly will reference it.

Mr. REGULA. And will also be on the Internet, then?

Mr. HEYMAN. Oh, undoubtedly, it will end up on the Internet. We are kind of in the beginning stages of all of this. I just know we are going to have problems as we go on.

We are going to have political problems as we go because some places we will not go and some places we will, but I think it is worth taking on those kinds of problems both to get us out and to help ameliorate our storage problems.

## NATIONAL AIR AND SPACE MUSEUM DULLES CENTER

As you know, I have taken on or at least I have urged no new museums and I have urged no new research institutes, but I have had two big projects that were in the making when I became Sec-

retary. They had been previously authorized and in one instance certainly commenced. One is the National Air and Space Museum and that involves, of course, the Dulles Center. Under Admiral Engen's leadership, the new director's leadership, the schematics for this Dulles Center are just about finished and the fund-raising activity has commenced.

Mr. Skaggs, nice to see you.

Mr. SKAGGS. Good morning. Odd that you should recognize me at this point.

Mr. HEYMAN. Well, we both understand why.

The Federal share is relatively small. It is \$8 million, all in planning money. All the rest has to come from elsewhere. And we have just about exhausted the first \$4 million which have been appropriated, which will get us through schematics as of July but we want to continue the design process if we can possibly arrange it.

Virginia has turned out to be a very important player in this. They have spent about a million dollars so far on infrastructure design. They will spend an additional \$50 million on construction of the infrastructure.

Mr. REGULA. Fifty?

Mr. HEYMAN. Fifty. They are providing interest-free loan money for financial and fund-raising planning and they are providing bonding authority which will be one of the forms of financing the project.

It is enormously important as we seek to raise what is going to be around \$100 million that the momentum on this continue. If it flags, it makes it obviously more difficult to raise money. I will return to that for a moment when I touch on the budget.

#### NATIONAL MUSEUM OF THE AMERICAN INDIAN

The other project is the American Indian Museum, and we have spoken about that often. First, I am pleased to report that the Smithsonian has reached its goal in raising \$36.7 million for that museum.

When I became Secretary, I was clearly charged with completing the American Indian Museum that had been chartered by Congress to conserve and exhibit the Heye collection of over a million artifacts, most of which are still in storage up in the Bronx. And it has been a taxing but interesting responsibility.

At its heart it has three structures: One, a branch in New York City which has been completed, and it is in the old U.S. Custom House down by the Battery. That cost \$24 million. It was split \$8 million by the Federal Government, \$8 million by the city of New York, and \$8 million by the State of New York, but the Federal Government pays the operating expenses of that museum.

The second is the Cultural Resources Center, which is the collection center of the American Indian Museum to which all of those objects in the Bronx shall be moved. That is under construction now.

The Federal payments with regard to this are around \$41 million. It is going to end up that the private part of that, which I guess we had not thought we were going to have to do, will be somewhere around \$15 million. We have spent \$3 million of trust funds already in that project.

The crown project of the whole American Indian Museum undertaking of course is the intended Mall museum. The cost of that is \$110 million, and the Federal Government and the Smithsonian have already shared costs in planning and design. That planning and design is completed or is becoming completed. The remaining Federal share for construction is \$58 million. That appears in the President's budget.

It is no secret that the funding of this project has been controversial. I don't think the concept has been controversial but the monies to be invested have been controversial.

This is my fourth time before this committee on this issue. The first three involved the rescission of the first phase of construction of the Cultural Resources Center. The second concerned the funding of the second phase of the CRC. The third involved the final planning and design appropriation.

I argued unsuccessfully, unfortunately, here, strenuously, that in addition to the programmatic importance of this undertaking, promises have been made both to American Indians and to the donors of that \$36.7 million that I don't think ought to be unfulfilled, for a variety of reasons, and I don't really have to repeat them because I have said them with frequency at these hearings.

Various committees' statements, conference committee and the House committee and the Senate committee, have asked us to give scenarios that consume less Federal money than is intended here. I can say that we have worked very hard to conserve construction dollars within two related constraints. The first was maintaining the external shape of the building that you saw in schematics and thus the interior volume.

That volume, by the way, in comparison to our places on the Mall, is still relatively small. The foot print is about 25 percent of that small parcel of land. I think there is at least a lot of consensus that a smaller building on that site would be quite inconsistent with its place on the Mall and all of the other buildings that surround it.

The second constraint has been honoring the external design and the number of internal features. I want to stress something that I have never stressed quite as much as I will now, but the design of that building flowed from 17 consultations around the country between 1990 and 1993 with Indian groups. I have only had a little experience in that consultative process with the 535 tribes and other recognized groupings of Indians—coming to consensus is not an easy thing in that culture—and this set of consultations really came to a conclusion which has been universally acceptable to these groups.

In addition, there were five additional regional design workshops which included Indians and others. There has been an enormous amount of process that preceded this design as well as positive responses to the design from the Fine Arts Commission and the National Capital Planning Commission.

But within those constraints that I mentioned, we have done a number of things that are economizing since you saw the schematics and the preliminary plan last year. The major one was eliminating the mezzanine floor while also increasing public exhibit space. The ingenious solution that was arrived at was because the

height of the building would be the same, it was possible to hang the mechanicals off the floor above, if you will, to lower the ceiling where those mechanicals hung down and then to permit the ceiling to go up again in the important exhibition space.

But what we have turned out to have is more public exhibition space and new space than we have had previously. We have also reduced the space for administration and collection management, and more of that will be done at Suitland at the CRC than was originally intended, and we have eliminated a restaurant and we have reduced the museum store. And so the result is a place with a very high proportion of public space, in that sense more efficient than any of the other Mall museums.

Mr. REGULA. Have any of these activities reduced the cost?

Mr. HEYMAN. No, but they have kept it from going above what was the originally intended cost and on which we have put an absolute ceiling.

I, obviously, clearly hope there is going to be a positive response, and if I got it then I could start talking about other things the next year and the year following, so I will keep my fingers crossed.

#### FY 1998 BUDGET REQUEST

Now, let me talk about the budget submission itself. The President's budget is not a very complex one. There is an increase of \$16.9 million in salaries and expenses. Of that, \$10.35 million is for mandatory increases and for inflation. There are about \$6½ million worth of enhancements.

Mr. REGULA. You say \$10 million of the \$16 million is mandatory increases and inflation. What is the balance?

Mr. HEYMAN. The enhancements are \$1.2 million for SAO for operations of the submillimeter telescope array at the Hilo field station. And then the others are support for new facilities in the Natural History Building—

Mr. REGULA. So it is all operations?

Mr. HEYMAN. Yes, it is all operations.

Mr. REGULA. And what you do is you have to catch up on fiscal year 1997 as well as 1998 on your salary and other uncontrollables?

Mr. HEYMAN. Yes.

Mr. REGULA. I don't think any other agency has gotten that privilege in their budgets, fiscal year 1997 plus 1998.

Mr. HEYMAN. I will have to find out why we were so well treated by OMB.

Mr. REGULA. That is step one.

Mr. HEYMAN. I understand. If nothing else, I have found that out.

Mr. REGULA. A couple other hurdles. Okay.

Mr. HEYMAN. Well, the new facilities support is at Natural History in the East Court, which is now coming to completion. You know, the West Court improvement is all privately financed but the East Court is the one that has been federally financed.

The NMAI Cultural Resources Center, where construction has begun and will be getting along with respect to that, and then federally-supported facilities in Panama at STRI that Dennis knows all about that have been utilized in-depth for the first time.

And then a little under a million dollars for trying to continue to improve and make adequate our collection information systems. It is just clear that we simply have to do more than we have to date in digitizing information, in being able to access it not only inside but now that we have such a big Internet presence to start to permit people to look into our collection from the outside, and in order to do that we need a lot more equipment and a lot more software than we have to date.

#### COLLECTIONS IN STORAGE VERSUS ON DISPLAY

Mr. REGULA. What percent is in storage versus what you have on display?

Mr. HEYMAN. Well, somewhere around 95 percent.

Mr. REGULA. Is in storage?

Mr. HEYMAN. Yes, a lot of those are very teeny.

Mr. O'CONNOR. Mr. Chairman, it probably is not in storage but it is not on display. There are a large part of our study collection that are used on a regular basis.

Mr. REGULA. I am just concerned that you have things that will never be used and you keep adding buildings to store this stuff. It is like the attic in your home; you put it up there and it is long forgotten and it costs a lot of money.

Mr. HEYMAN. We are concerned about that and we have been and we have known about your concern and it is our concern, too.

Mr. REGULA. Are you somehow offering these to museums around the country or in some way lowering the number of things in storage that in all probability will never be on display or used?

Mr. HEYMAN. Well, there are two things we are doing. One is the policy on collection-based of affiliations. And in terms of the gross amount of space, for instance, if the Bethlehem one works out, that is a huge amount of space because the objects themselves are enormous.

Mr. REGULA. Will this include a lot of things that are currently in storage?

Mr. HEYMAN. Yes, that is right. Or it will free up space where it is presently on display and other things from storage can be put on display.

A second thing that Dennis stressed, and I guess I want to stress too, that the research collections are used, they are used for research and not for public visitation. So that collections can be seen, as you know, in terms of the research mission of the Institution.

A second thing we are doing is that we are starting to look much more closely at the de-accessioning policies and trying to make easier de-accessioning of materials that are no longer of primary use to the Smithsonian for research or potential exhibits. And Dennis is working with those in the Institution who are in the collection management operation. Those are the major things that we are doing.

The other thing is that we are collecting at a somewhat slower pace than we had been previously for a number of reasons, not the least being that there is no place to store, and that puts a kind of a cap on or at least induces you to find other kinds of solutions with regard to materials. But we have not created—as far as I know, since I have been Secretary, we have created no new collec-

tion space except for CRC and that in relationship to a collection that has been ill-housed in New York.

Mr. REGULA. Mr. Skaggs, as we go along, if something occurs that you would like to ask about, don't hesitate.

Mr. SKAGGS. Well, I sort of have been collecting, wool-gathering over here, so whenever we are at that point, I will just dive in.

#### FY 1998 CAPITAL BUDGET REQUEST

Mr. HEYMAN. On the capital side of the budget, obviously there is the \$58 million in there, and you know that at OMB, it has been just general knowledge, when there is a big construction project to try to budget it all in the first instance. I am told that is the way ships are also funded.

Mr. REGULA. Assuming we may not have as much money as we anticipate, would you be able to prioritize downward in the sense of how we spread the \$58 million and if there is \$30 million, we will get back to you to prioritize so that we can make the best use of whatever is going to be available in the way of any, if any, additional funds.

Mr. HEYMAN. I would welcome that consideration.

Mr. REGULA. I just don't want to arbitrarily make that kind of decision in the markup.

Mr. HEYMAN. Right. But I would be pleased to be able to speak with you about that when that comes to pass.

Mr. REGULA. Good morning, Mr. Yates.

Mr. YATES. Good morning, Mr. Chairman.

Mr. HEYMAN. Good morning, Mr. Yates.

Mr. YATES. Good morning. How are you?

Mr. HEYMAN. Fine, thank you.

Mr. YATES. I didn't mean to interrupt. Sorry.

Mr. HEYMAN. We have about \$3.85 million in the budget for R&R at the Zoo, which addresses a lot of problems and a number of those are safety and health problems. We have \$32 million in R&R in the balance for the Institution.

I have sort of two disappointments in this budget. One is the level of repair, R&R monies, because we have been on a wonderful pathway in the last 3 years, and I think that is very sound, and as you know from the exposition of that subject that we made last year, that if we could ever get up to \$50 million we really think we can take care of the Institution constantly and not have major deferred maintenance.

#### NATIONAL AIR AND SPACE MUSEUM, DULLES CENTER

The other disappointment is the Dulles Center because, as I say, we will run out of planning money in July. And now that all of this is coming together in terms of design, in terms of modular design so that you can do it by phase, in terms of getting the fund-raising operation really started, I really think it would be a shame to lose the momentum and send out any signals especially to those who are asking for big contributions.

Mr. REGULA. Are you satisfied that the State is doing its part?

Mr. HEYMAN. Yes, I am absolutely satisfied. In fact, Governor Allen before he goes out of office wants to get this all down, an ab-

solute commitment, so that it will bind any successive administrations in Virginia.

#### EDUCATIONAL OUTREACH

The last subject that I want to bring to your attention is just a little taste of outreach and what we are doing in K-12 education. You have a packet in front of you. I hope at some time you will take a look at this book. I think it is a wonderful book. It is a "Kid's Guide to the Smithsonian" and it is just wonderful; I encourage you to share it with your grandchildren and others.

Everybody has it. Well, in any event, are those in the package?

Mr. REGULA. Yes.

The other things that you have in your packet are just a few things from SITES, the Smithsonian Institution Traveling Exhibition Service. You know, well before I was Secretary, you started to provide Federal funding for the Smithsonian Institution's Traveling Exhibition Service and I think that that has permitted us to do something that we never were able to do before, which is to get out in the rural areas and the underserved areas in the United States with modest shows actually most of the time but ones that are exceedingly important.

Mr. REGULA. When you say "shows," do you mean that you send Smithsonian people out to a rural school? I mean, define what you mean?

Mr. HEYMAN. In your packet, you will see this eagle with red, white, and blue on the cover. This is a nice, little example. There was a SITES show on posters, World War II. It was a small show. The people in Cozad had to pay a fee in order to get it, as museums normally do to get traveling exhibits. They are quite reasonable fees.

This turned out to be the centerpiece of a month's worth of celebration in Cozad, Nebraska. It was just absolutely extraordinary. And I just let you look at what was created—not by the Smithsonian—but what was created within that part of Nebraska as a celebration that was——

Mr. YATES. What is that? You showed us the book but what does it contain?

Mr. HEYMAN. It contains all of the kinds of material, Mr. Yates, that——

Mr. REGULA. Did the school system do this?

Mr. HEYMAN. No, this was a group of people with two chairs and then a whole committee.

Mr. REGULA. Within the community?

Mr. HEYMAN. Within the community itself. It is really absolutely superb.

Mr. YATES. It is remarkable.

Mr. REGULA. How many of these have you had—dozens?

Mr. HEYMAN. We have about, what, 75 a year going around the United States.

Mr. YATES. And you respond to the community's request?

Mr. HEYMAN. Right. But what we also do, and this is in your envelope also, is that we put out a book that tells what is available and then people request it and then we try to make arrangements for it. But then whatever people want to build on top of the exhi-

bition that is coming, as for instance this, is just an added plus, in my perspective.

Mr. REGULA. How do schools know about this?

"BARN AGAIN!" EXHIBITION

Mr. HEYMAN. It really is not a school project usually. It usually is around a museum in a community, a little museum in a community. That is the way it usually occurs.

There is happening right now in Ohio, actually, a show called "Barn Again!" And the same thing is happening in relationship to that. This is a pot from St. Paris, Ohio, as with this other material created in relationship to the events that are going to surround "Barn Again!"

Mr. REGULA. They are coming to my district in June or July, Smithfield, Ohio. They have several in Ohio.

Mr. YATES. They all are coming to your district.

Mr. HEYMAN. Mr. Yates, I don't know if I should highlight this, but in your package you have the new scheduled SITES exhibitions in your state.

Mr. YATES. Mr. Heyman, I would congratulate you and commend you upon listing all the exhibits in Ohio.

Mr. REGULA. Mr. Skaggs has a question. We are just kind of doing it informally here.

Mr. SKAGGS. Permit me, Mr. Chairman, I have got another subcommittee going on. I just want to get a couple questions in and then I need to leave.

I first seized on the comment I think you made in connection with the status of part of what was going on with the Museum of the American Indian, which was "becoming completed," which I think has a nice metaphysic to it. But more seriously, I have asked this question in years past just to get a feel for the research part of the budget.

RESEARCH

What percentage of the overall request for Federal funds will be going into intramural research activities?

Mr. HEYMAN. I am hesitating because we have had a financial management system that has never told us that. It has grouped research with exhibitions essentially.

When I have sought to look at us overall and get a feel for it, I really came to the conclusion we are about 50/50, about 50 percent on public programs and exhibitions and about 50 percent on research. In fact, I came to the conclusion in the Museum of Natural History it was maybe 60 or 70 percent research in relationship to public programming.

We ought to start to be able to pick up that information now in a systematic way since we changed the management information system but that really harkens back to our origins as both a set of research institutes and a set of museums.

Mr. SKAGGS. That leads to another topic that we have visited before and that is whatever system of coordination and avoidance of duplication that you all have in place with the other Federal agencies that fund research. If you could again remind me of where things stand in making sure that your astronomy work is not du-

plicating what NSF is funding, what you are doing in history is not duplicating what NEH may be doing, and so on, and what systems are in place to make sure that in a structured way we are talking to each other across those lines.

Mr. HEYMAN. I am going to let the Provost take a shot at that.

Mr. O'CONNOR. Congressman Skaggs, one of the ways of not being duplicative in any extreme sense, especially in the example you cite, astronomy, has to do with the structure of astronomy nationally and the fact that one of the most precious commodities in astronomy is telescope time. And consequently most telescopes are receiving NSF dollars to support them. There are groups that assign time in a competitive fashion for those projects.

And, so, our work, when we are going on to a telescope, say, other than the three—the submillimeter array that is just now being completed—is done in a competitive fashion and in a non-redundant fashion and largely that is the result of a national structure in astronomy.

In other areas such as taxonomy or in evolution, our work, in general, complements that kind of work that goes on in universities around the country, and it also offers venues such as the venue in Panama to do the kind of tropical evolution and ecology that other universities don't have. And so in large part our science is part of a large national picture and there is really very little redundancy in what we do.

Mr. SKAGGS. What are the mechanisms, though, to assure that? I mean, are the appropriate program officers in the Smithsonian talking to their counterparts at NSF or NEH on a regular basis?

Mr. O'CONNOR. Regular basis. And with the Department of Agriculture and with the Forest Service. In all of those areas, we are in conversation on a regular basis with them.

Mr. SKAGGS. And we would hear a similar story if we asked the folks at NSF?

Mr. O'CONNOR. Oh, I think so, yes. The program directors, in fact, at NSF, we don't directly compete for any of their resources. The only resources that we generally get from NSF are educational resources.

Mr. SKAGGS. I didn't mean that you tried to get any of their money, but again whether the people who are doing biology at NSF are talking with people doing biology in the Smithsonian to make sure that you are not overlapping in the funding that you or the activities that you are engaged in.

Mr. O'CONNOR. That is true, sir. And a large part of that again goes back to the peer review system that is in place at NSF.

Mr. SKAGGS. Is there any document that lays all of this out anywhere or does there need to be or is this sort of common law?

Mr. O'CONNOR. I can put some materials into your hand. I will do that.

Mr. SKAGGS. Thanks. Thank you, Mr. Chairman. Excuse me for having to go to another hearing.

Mr. REGULA. That is perfectly all right. I am glad you can get those in.

[The information follows:]

## RESEARCH COORDINATION

The Smithsonian's research efforts focus on issues uniquely suited to the Institution by virtue of the combination of its collections, landholdings and unique astronomical instrumentation. Further, the Smithsonian is interested in long-term questions (i.e. how ecosystems function over long periods of time) that can only be performed by an institution devoted to fundamental research with a permanent staff engaged in multi-disciplinary investigations. The Institution's research is often coordinated with other federal agencies and universities to ensure that it does not duplicate other on-going research programs or to ensure that it fills a unique niche. In particular, the national collections in areas of art, history, and natural science support research that would be impossible to carry out elsewhere.

The Smithsonian employs a number of mechanisms for ensuring that duplication is not occurring. At the federal level, the Institution participates in the deliberations of the National Science and Technology Council and coordinates its efforts with the other science activities of government. Outside of the government, the Institution relies on tracking trends in the various disciplines where it conducts research by reviewing appropriate journals, attending national meetings, participating in research consortia, and by widely consulting experts in the field. Research results are shared with colleagues and in this way, SI work is subjected to the scrutiny of their peers which helps to avoid overlap and redundancy. In addition, the Institution relies heavily on peer review of its research in the sciences and is given feedback on the particular niche it fills in the disciplines represented at the Institution. Some areas of our research may appear to be duplicative, but the approach used to carry out the research is different, yielding complementary results.

We do work collaboratively with the U.S. Geological Survey, with the Department of Agriculture, the Agricultural Research Center. We have a Memorandum of Agreement with the Forest Service for collaborative forest studies. So in a number of ways we work very closely with the agencies. We have a long-history of National Marine Fisheries Service and Department of Agriculture staff actually assigned to work in our National Museum of Natural History building.

The Smithsonian is a participant in the interagency subcommittee on Global Change (a subcommittee to the Committee on Environmental and Natural Resources). This assures that Smithsonian Global Change research at sites such as Chesapeake Bay, Panama, and Carrie Bow Cay in Belize are not duplicating other U.S. Global Change research. In some cases, research grants are obtained from agencies such as DOE or EPA to support specific projects at these sites. The Smithsonian also participates in conferences and workshops of such research networks as the National Science Foundation's Long-Term Ecological research Network and Land Margin Ecosystem Research Network and the international Man and the Biosphere network. The majority of the research carried out by the Smithsonian Astrophysical Observatory (SAO), a joint Smithsonian-Harvard research institute, is funded by the National Aeronautics and Space Administration, and the scientists at SAO work closely with astronomers world-wide in sharing instrumentation, telescope time and research results.

The Smithsonian Environmental Research Center (SERC) is a member of the Chesapeake Bay Research Consortium, which also includes representatives from Johns Hopkins, the University of Maryland, the Philadelphia Academy of Sciences, the College of William and Mary, and Old Dominion University. SERC regularly interacts with administrators of the Environmental Protection Agency, their program committees and workshops.

The National Zoological Park's Conservation Research Center works regularly with the U.S. Fish and Wildlife Service, other zoos and state agencies to increase the population of endangered species. CRC recently worked with the State of Maine and the EPA in developing a methodology for mapping and quantifying bare areas in the Casco Bay region of Maine. This methodology has broad application for identification of critical habitats for protected areas as well as endangered species.

The Smithsonian Tropical Research Institute (STRI) is charged with the protection of the Barro Colorado Nature Monument, an important part of the Panama Canal watershed, and the only U.S. supported mainland tropics research station where scientists can study the tropical environment year-round. All STRI facilities are designed to service scientists from other U.S. agencies and universities, and the visiting scientists from the U.S. comprise the majority of our visitors. Some good examples of this collaborative work are the recent approval by the National Science Foundation of the STRI research vessel to be used by U.S. researchers and a project presently under consideration by the Department of Energy to establish at STRI the first large scale CO<sub>2</sub> enhancement experiment to test the impact of global climate change on the growth of tropical forests.

These interactions with other agencies ensure that our research is complementary and non-overlapping with other government agencies. Participation in these various scientific networks places Smithsonian research at specific sites for both a national and a global perspective.

## SMITHSONIAN ENVIRONMENTAL RESEARCH CENTER

Mr. REGULA. Following up on Mr. Skaggs, have you a research facility in Maryland, and do you work with EPA at the Chesapeake Bay office to avoid duplication?

Mr. O'CONNOR. Yes, sir.

Mr. REGULA. I think Mr. Skaggs has an important point. We had USGS yesterday, and I assume you communicate with them on some of your science to ensure that the government is not spending money on duplicative efforts.

Mr. O'CONNOR. In mineral sciences, our volcanologists, the people that study volcanos, are in constant contact.

Mr. HEYMAN. SERC in the Chesapeake Bay is an interesting one because so much of their work is done in a consortium with a whole variety of the other agencies and consequently the research on the Chesapeake is really well or pretty well coordinated because they are all working together in a single consortium.

Mr. REGULA. Have you finished?

## SMITHSONIAN OFFICE OF EDUCATION

Mr. HEYMAN. One other thing I wanted to do was I wanted to tell you something that I am only becoming aware of in a systematic way, which is the amount of activity that we have that is devoted to K through 12 education. And Dennis just created out of a number of entities at the Smithsonian, the Smithsonian Office of Education, so we are really beginning to see what all of those things are.

The variety of things that we do within the District of Columbia, for instance, we have two magnet schools, teacher's nights, a whole variety of things that we do in curriculum.

## NATIONAL SCIENCE RESOURCES CENTER

But I just wanted you to have one example of this, and I asked Doug Lapp, who is the Executive Director of the National Science Resources Center which puts together science curriculum for public schools or schools in general all over the United States, just to give you a sense of what that is and what that means. It will be very quick.

Mr. REGULA. I was wondering what that was all about.

Mr. HEYMAN. I am sorry Mr. Skaggs had to go. I think he would have had fun with this.

Mr. LAPP. We wanted to illustrate a little bit about what we have been doing with school districts across the country.

One of the problems we have had in the past with kids learning science and technology is that it has all been mediated through reading—textbooks and diagrams. So we developed a program called Science and Technology for Children that involves 24 different units for grades 1 through 6. We developed and field tested it in districts across the country and it is now nearing completion. It has been under development for the past 8 years, funded by the MacArthur Foundation initially, a lot of support from Dow Chemical Company, later support from the National Science Foundation and Department of Education, and a number of other corporations.

The idea is to get kids into science through hands-on investigations of their own, not just demonstrations but actually getting engaged with the phenomena. And I just put something in front of you here as an example of an activity that we have done in a lot of contexts.

#### ELECTRIC MOTOR DEMONSTRATION

The last time I did this was in Durban, South Africa, actually with a bunch of teachers; and the South African government has gotten interested in this as well. This is an "ugly compass," we call it. It has got a couple of what we call refrigerator magnets; and if you get far away from anything else magnetic, it will point north.

You will see there is another little magnet there on your tray, and I am going to ask you to pick it up and see if you can affect the armature of this thing. And I will give you a clue, the poles of this magnet, unlike the ones we used in school when we were there, are the flat faces. So the North Pole is the flat face on this magnet, so that is the powerful one. And just see if you can use that magnet to make that armature keep going around. Because not only does that act like a compass—

Mr. REGULA. It works.

Mr. LAPP. Not only does that act like a compass, it also acts like the armature of a motor. See if you can use the opposition, the repelling part the magnet to get it to go away perhaps.

Mr. YATES. They don't repel; they will attract.

Mr. HEYMAN. Just turn it around, Mr. Yates.

Mr. LAPP. Try the other side there.

Mr. YATES. I can't get the balance.

Mr. LAPP. There it goes.

Mr. REGULA. I see what you mean.

Mr. LAPP. So kids can learn this by switching the poles of the magnet. They can get this one to repel and this one to attract and that one to repel. They are reversing the field in this case and they are acting like the commutator. So they get the first idea of the motor straight. Then we bring them to the fact that there is electricity involved, in motors. That is what this other cup is concerned with because you see there is a coil there. That little push-button will energize it.

See with your compass if it will swing around when you press down the button. You can see the compass responds. Then bring it closer to your armature here, close to the magnets, and just push the push-button and see what happens.

Mr. YATES. Nothing.

Mr. LAPP. Maybe you can bring the coil near the magnet there.

Mr. REGULA. It pulls it in.

Mr. LAPP. What does it do on the other side?

Mr. YATES. I think I ruined it.

Mr. LAPP. With a little bit more practice, they can actually get this going so that on one side it attracts and on other one it will repel, and as they keep on doing this, they can make a motor out of this, an impulse motor.

It is all building up to an idea. You know, kids have lots of toys at home that have motors that look like this, and when they pull

them apart they find there are magnets inside and a little armature, but they really can't see it work because it is all closed up.

Mr. YATES. Why don't you apply your talents toward making an electric automobile?

Mr. REGULA. This is step one.

Mr. YATES. That is why I asked the question.

Mr. LAPP. We have materials that address that with kids. They discuss reducing pollution, using electric automobiles, and then they get to thinking about, well, where does the electricity come from that operates electric automobiles; and it sometimes comes from polluting power plants, so then they begin thinking about that as well.

But what we have done here is to take this armature out for kids to get it where they can see it as it is working. They suspend it on a set of brushes. So if you bring the magnet up close to the armature here, it turns. It is a little more efficient than the coil was, obviously. But we wanted you to see this. This is just one part of a K through 6 elementary school program.

We have field tested this unit across the country and we have brought in school district people from over 200 school districts over the past several years to learn about hands-on science. We have brought them into the Smithsonian for a week-long institute—we bring in superintendents of schools, their science supervisors and people that can provide some real leadership.

Mr. YATES. How long have you been doing this?

Mr. LAPP. About 7 years. There is a list of districts that have participated in your book here, but there are over 200 districts across the country. A number of them are districts from large urban centers.

We have been working very closely with the New York City schools. We have Chicago involved with Leon Lederman's group in Chicago. We have formed some partnerships with a number of industries, such as Hewlett-Packard and Dow Chemical, that help their districts to support this kind of science in their schools.

Mr. HEYMAN. What proportion of kids do you think are using this NSRC hands-on curriculum?

Mr. LAPP. Well, from the districts that are participating in the institutes alone, we have over 2 million kids in grades K through 6, so it is getting close to 20 percent of the kids in the Nation.

Mr. YATES. How do you do it? Do you make these devices and send them out or do they make it themselves?

Mr. LAPP. Both actually. Our publisher-manufacturer's kits provide everything a class of 30 kids needs to do these experiments, and then we encourage school districts to make their own little factories to create these kits and recycle them. So for instance, in Schaumburg, Illinois, outside of Chicago, they have had a science material center for many years that assembles these kinds of materials, into science kits. They will send a kit to the sixth-grade teacher; she uses it and sends it back to the center where it is refurbished and sent out to another school. They can really get economies of scale this way. We have now hundreds of these centers operating across the country.

## FUNDING FOR EDUCATION

Mr. YATES. Has your budget for this operation been growing?

Mr. LAPP. Actually, it is always a struggle.

Mr. YATES. What do you mean by "struggle"?

Mr. LAPP. It is always a struggle to raise money for education.

Mr. YATES. But does your budget for this operation come out of the Smithsonian's budget or does it come from a private donation?

Mr. LAPP. It is shared. There is a small part that comes out of the Smithsonian, both trust and Federal. We have grants from a number of industries. We have some grants from the National Science Foundation, grants from the Department of Education, so this is a shared thing.

Mr. YATES. What is your budget?

Mr. LAPP. About \$3 million a year total, including the grants.

Mr. YATES. Has this grown?

Mr. LAPP. It has grown over the past several years, yes.

## SAO EDUCATION PROGRAM

Mr. REGULA. I see you have this program, Micro Observatory News, where the high school girl explores the birthplace of stars. Of course, this is not quite parallel but it is in a sense; it is part of the outreach program.

Does this mean that a school in Illinois can communicate with one of your observatory people?

Mr. O'CONNOR. That is correct, Mr. Chairman. It is out of our astrophysics operation up in Cambridge, and anybody who can have access to the Internet can have access to telescopes that—

Mr. REGULA. Are you saying that the student could actually use the Internet system? Is it hooked into the telescope so that you would reach the equivalent experience of actually being there and looking through the telescope?

Mr. O'CONNOR. That is correct, sir.

Mr. HEYMAN. Most telescope observation now is not like peering through a telescope, it is really looking at a screen. So what they are seeing over the Internet is the same thing as the astronomer sees who is sitting at the base camp of any of our telescopes.

Mr. REGULA. Is there a schedule so that the student or the teacher will know whether this will be available?

Mr. O'CONNOR. There is a schedule. I don't have it with me but there is a schedule. There is a way of getting queued up in order to access the material.

Mr. REGULA. Do you get a lot of activity, and is it growing as people learn about it?

Mr. O'CONNOR. It is relatively new so it is starting to grow. It is starting to pick up now that schools are gaining access to the Internet.

Mr. HEYMAN. What it really requires is high school teachers who are really interested in it, who know what they are doing and who cooperate with regard to the creation and the use of the curriculum which comes out of SAO. And there are going to be about five or six dedicated telescopes. These are ones with a lot of range. You cannot look this way so much but you can look out very far, and they will be queuing and they will be—and you can always see

them because they are going to be placed in various locations in the world so at least some of them will always be in the dark.

#### DISTRIBUTING EDUCATION INFORMATION

Mr. REGULA. How do you alert the schools as to what you have to offer? How do people learn about it?

Mr. LAPP. We do a broad mailing every year for these institutes. That is one of the brochures in front of you attached to that list.

Mr. REGULA. It goes out to schools across the country?

Mr. LAPP. Across the country. We especially target the school districts that are receiving support from the National Science Foundation Systemic Initiatives. What we try to do is be a catalyst for them, and help get them organized. We run our institutes on a very, very organized basis.

We got help from Hewlett-Packard in developing a strategic planning manual, because we feel one of the things that school districts lack is this ability to plan for the long range, 5 years out. We help them to plan all the things they need to do to get a good science program in place, including the teacher training, the materials, the assessment, and all the rest, including building community support with local industry.

So that is something we think we really have gotten a handle on and we are helping lots of school children across the country. By the time they leave us, they have the strategic plan that they need to go back to their school boards, and their local business and industry partner, to get something moving.

Mr. REGULA. I assume that the National Education Association must have a publication that goes out to all the members, which would be mostly teachers, in the country that maybe they would give you public service type of announcement where you put a little blurb in about this?

Mr. LAPP. That is a very good question, and we also approach school district administrators through their publications.

Mr. REGULA. These are great but people have got to know about them.

Mr. LAPP. We have more demands than we can supply. We are just at the selection point now for two institutes and we have had about twice as many applications as we can accept.

Mr. YATES. I would follow-up on your question, Mr. Chairman.

Mr. REGULA. Certainly.

Mr. YATES. You brought out the fact that students through their entry into the Internet can look through these telescopes. Am I stating this correctly?

Mr. LAPP. Yes.

Mr. YATES. What about the person who isn't a student who has a computer? Is there any way they can do it?

Mr. REGULA. The public.

Mr. O'CONNOR. Yes, sir, anybody who has access to the Internet would have access to these images.

Mr. HEYMAN. I don't think they are going to end up being able to program them, but they will be able to observe whatever is being observed at the school level.

Mr. YATES. Well, suppose just as you publish what you are doing for the schools of the country, how can the public in general get

this kind of information so that with their computers they can engage in the activities that you are making available to the schools?

Mr. O'CONNOR. This I believe, Congressman Yates, that this particular example of the Smithsonian Astrophysics Observatory material would be accessible through the Smithsonian Home Page, and so the public in looking at our home page and our events and activities would ultimately be able to access this. But it is not a particularly—today the access that way is not particularly user friendly; it has to be refined. It takes too many hits on the old mouse to actually get to the site.

Mr. YATES. What do you mean by hits on the mouse?

Mr. O'CONNOR. It takes too many instructions.

Mr. YATES. I am not familiar with the mouse. I feel at a real loss because I don't know how to operate a computer. I grew up without computers, computers became popular after I was 65 years old, and I was not smart enough to leave the golf course and learn about computers.

Mr. O'CONNOR. I would be happy to demonstrate for you, sir.

#### SMITHSONIAN'S FINANCIAL RESOURCES

Mr. YATES. Okay. I may take you up on that as soon as I learn how to punch a button. This is just another example of what an incredible and unique institution the Smithsonian is. In my mind, it is one of the truly great institutions of the world. I don't know of another institution in the world that compares with the Smithsonian. There are museums, there are scientific organizations, there are art museums in various parts of England, France, and other civilized countries of the world, and yet I don't know of any of them that holds a candle to the Smithsonian. And that is why I kind of shudder at the prospect of your not having adequate money to carry on your activities, and that is what I am leading up to.

Do you have adequate funding to carry out your mission? I think that in former times when there was not quite the emphasis on a balanced budget that we seem to be having now that your funding was adequate to carry out your purposes. Now that the emphasis is on cutting the budget, are you getting by? You are growing aren't you?

Mr. HEYMAN. Well, you will always have to grow some.

Mr. YATES. Yes. Well are you growing?

Mr. HEYMAN. Yes. I mean, we are growing in some kinds of programs. Like, for instance, this whole educational undertaking is expanding. Our budget—well, it is hard to say. Certainly our Federal budget is not growing in this regard. But we are finding other sources of revenue to help.

Mr. YATES. What other sources are you finding and in what amounts?

Mr. HEYMAN. I don't have those but I could really give those to you, Congressman Yates.

Mr. YATES. Well, we are interested in what your total budget is, both appropriations and private donations. As long as I can remember, and I think you still do have a private budget and an appropriations budget.

Mr. HEYMAN. That is correct.

Mr. YATES. And both of them of course are subject to the purview of this committee. Although there was a time when that was disputed.

Mr. REGULA. Dillon Ripley.

Mr. YATES. That is right. Dillon Ripley thought you were a private institution. And I think it was 1977 when we had the show-down, and I said to him, you are getting a hundred million dollars from the government. That has the essence of having some quality of being a public institution. So we had a long investigation. Have you ever read that?

Mr. HEYMAN. I have not but this Secretary has no question about the fact. What kind of Federal entity is another issue, but I have no doubts about Federal connection.

Mr. YATES. But anyway, that is what I am interested in is making sure that the Smithsonian, which again I consider it a unique institution, does have the funding to carry on its activities.

Now do you have to cut back as a result of not having adequate funds in any of your activities?

Mr. HEYMAN. Well, what we have been doing obviously is, putting aside the Indian Museum, the only thing that has been growing, we have been losing FTEs so we have fewer full-time equivalent positions now then we did previously.

#### WORK YEAR REDUCTIONS

Mr. YATES. Well, I keep getting word that as you lose your FTEs, you are making your existing employees do the work, too.

Mr. HEYMAN. Well, to the extent we can get away with it.

Mr. REGULA. If you will yield, Mr. Chairman, I don't think we have lost FTEs; have we?

Ms. NEWMAN. Oh, yes.

Mr. YATES. You heard Ms. Newman's expression, Mr. Chairman. She said, oh, yes.

Mr. REGULA. That is Vice President Gore's initiative that caused that, not this committee.

Mr. YATES. I would agree with that. The fact that he does it does not make it any better.

Ms. NEWMAN. Do you want to do the numbers or do you want to hear those later?

Mr. REGULA. Have you finished your statement?

Mr. HEYMAN. Yes, sir.

Mr. YATES. Did you want to tell the Chairman about the FTEs?

Mr. REGULA. Go ahead.

Ms. NEWMAN. If we look at fiscal year 1993 as a beginning point, we have gone from 4,825 FTEs down to 4,598. These are authorized. In the 1997, 1998 budget, we are talking about 4,378 FTEs. So you see there is a major reduction since fiscal year 1993.

And the plan, based on our agreement with the Office of Management and Budget is after 1999 we would go down to 4,303, which is one of the reasons why we were so pleased with the buy-out authority because it allowed us to bring these numbers down in a way that did not disrupt the organization. But there is a reduction.

Mr. YATES. Well, how much of a cut can you stand in your budget this year?

Mr. HEYMAN. Well, I am certainly—I am going to plan on at least at the moment on our getting what is being asked for.

#### FISCAL YEAR 1998 BUDGET

Mr. YATES. Is this a minimum budget?

Mr. HEYMAN. Yes, the S&E increase is really a minimum budget. The \$10½ million, Congressman Yates, will keep us even in relationship to last year but adds for wage increases and for inflation.

The other part, which would be \$6½ million in enhancements, are activities that will become a little bit more enriched than previously but at a fairly modest level.

#### VOLUNTARY CONTRIBUTIONS

Mr. YATES. Do you collect from the public at the entrances to your museums now?

Ms. NEWMAN. We have boxes for voluntary contributions in it.

Mr. YATES. How much does that bring in?

Ms. NEWMAN. Very little funding. To be honest, we have pretty much covered the cost of the operation of the boxes.

Mr. YATES. Mr. Regula and I have had some differing opinions on this, and he has won, frankly.

Mr. REGULA. On the parks.

Mr. YATES. Yes, I was just going to say, parks now have a substantial entrance fee for people coming to them. I forget what it is for Yosemite, but I was shocked by the amount of money they have to pay to get in.

But at any rate, I hope it will keep your institutions free as long as we can. It would be nice if we can do it for the next 2 years, as long as I am here. After that, do what you want.

Mr. HEYMAN. I have somewhat similar plans.

Mr. YATES. Well, perhaps we can get a sympathetic chairman. He is usually sympathetic.

#### NATIONAL MUSEUM OF THE AMERICAN INDIAN

But, at any rate, now that we know that you need the amount of money that OMB has approved for you—what are you doing about the Indian Museum? Is the Congress being derelict about that? Do you have an agreement where we would put up a certain amount of money—assuming we collect a third I think of the total cost from the public. I am told you have collected a third from the public.

Mr. HEYMAN. Yes, sir.

Mr. YATES. And how much money do we have to put up now—we being the Federal Government.

Mr. HEYMAN. Well, in terms of the construction cost for the museum, \$58 million; and that is in the President's budget.

Mr. YATES. And that will construct the museum?

Mr. HEYMAN. Yes.

Mr. YATES. What else will you need beyond that?

Mr. HEYMAN. Well, operating money, obviously, as time goes on.

Mr. YATES. But nothing in connection with the construction or furnishing of the building?

Mr. HEYMAN. There is a \$6 million equipment fund thereafter. That is about it.

Mr. YATES. But that goes on over the years, doesn't it?

Mr. HEYMAN. Well, yes, it certainly can be gradual. But the other problem we are all going to have to face is moving the materials down from New York to Maryland, which is going to be a costly operation.

Mr. YATES. Any idea as to what the cost will be?

Mr. HEYMAN. Well, we are estimating around \$10-20 million, because we have to conserve the materials.

Mr. YATES. Over how long a period? It depends on the amount of money you get.

Mr. HEYMAN. That is right.

Mr. YATES. If you get \$2 million, you move \$2 million worth of stuff.

Mr. HEYMAN. Yes, sir.

Mr. YATES. What happens if you don't get the \$58 million this year?

Mr. HEYMAN. Well, if we were assured that we were going to get the \$58 million in the course of construction, in other words if this were phased in and we were permitted to start, that would be fine. I think the Chairman was alluding to the possibility in any event that we might discuss this before markup.

Mr. YATES. Have you drawn an alternate plan for phasing? By that I mean, if instead of getting \$58 million the committee decides to provide funds for phasing in the construction program, do you have any plans for the number of years that you would want to undergo this?

Mr. HEYMAN. Well, I mean I am now talking off the top of my head Mr. Yates, but my sense about this is once we really get started constructing this in the manner in which it is designed it ought to go on and get completed. It is not going to be usable otherwise. Unlike the Dulles facilities where we have really tried to think in terms of modules, on this one it is an entire building.

Mr. YATES. So even if you phase it in over time, you have to get a pretty substantial appropriation this year for it?

Mr. HEYMAN. Yes.

Mr. YATES. I see.

Thank you, Mr. Chairman.

Mr. REGULA. Mr. Moran, we have been busy asking questions, so we will give you a shot at it.

Mr. MORAN. Thank you, Mr. Chairman.

I first want to ask Sid, did you bring this in for show and tell?

Mr. YATES. No. No. They brought it, and they have shown and they have told.

Mr. MORAN. I was impressed.

Mr. YATES. I could never do this.

Mr. HEYMAN. We would be pleased to put on a little show for you afterwards.

Mr. MORAN. Not necessary.

Mr. YATES. This is for smart kids. I couldn't do it.

## SMITHSONIAN AFFILIATIONS

Mr. MORAN. Let me ask you—it is nice to see you, Mr. Secretary, Madam Under Secretary. I want to follow-up on the questioning that both the Chairman and the Ranking Democrat, former chairman, asked of you, how we are using the—our plans to use the resources that are not adequately being made available to the public now, what are our future plans really.

It seems one of those areas is to use private resources where they are available, supplemented by your professional expertise and some of your artifacts. For example, we have talked about a couple museums in northern Virginia that would complement the Smithsonian but for which the Smithsonian would not be responsible, whether it be liability for the cost of construction or even operations, but they cannot be done right without consultation from the Smithsonian and, of course, lending the artifacts that you might have.

Now, have you thought about that? Do you have any kind of contingency plan? Is there any ability for a private organization to set itself up to fund something with the use—I think it would have to be pledged in order to generate the private money, the professional expertise that you have available? The Indian Museum is kind of hybrid in that way, with private money that you are raising, but I would like to hear from you.

I mentioned to Mr. Berry, for example, that we talked about a national sports museum where we would build on Ken Burns' video and the experience of the Negro leagues and development of women and sports and so on and make a technologically up-to-date facility with an IMAX screen and so on. And then the Army wants a museum because it has a half million really priceless artifacts that it cannot display. Can you give us some guidance on what the possibility of something like that might be?

Mr. HEYMAN. Well, Mr. Moran, the Regents last year adopted a set of policies which I will be happy to make available to you which talk about collection-based affiliations. And the short of it is that we are beginning to explore, at the request of places that would like to borrow, lending on a semipermanent or long-term basis artifacts, objects from museums in the Smithsonian, where all the costs would be paid by the receivers.

But this is part of a desire on the Smithsonian's part to get out around the country and not solely be here, number one; and, number two, to be able to display, often in context, materials that we simply do not have enough room to display in our existing museums.

So we are open to conversations with respect to those matters, but the first thing we should really do is to provide you with a set of policies so that you see what the contours are of what the Regents adopted.

## NATIONAL AIR AND SPACE MUSEUM DULLES CENTER

Mr. MORAN. That would be very helpful. It is a shame that there is so much gathering dust that is inaccessible to the public for lack of financial resources. We can understand a lack of public resources, but if there are potential private resources that would en-

able the displaying of those artifacts, we ought to pursue that, and I think there are such opportunities.

I am also very much interested in the Indian Museum. I think that is a terrific idea that we want to advance. And I know that you have been making progress on the Air and Space Annex out there at Dulles. It is in Mr. Wolf's district. I know Mr. Wolf has been speaking with the Chairman and has spoken——

Mr. REGULA. He has already.

Mr. MORAN. I am sure he has. But I gather that you will finish spending the \$4 million that was initially available, that will be concluded this fiscal year I gather.

Mr. HEYMAN. Well, it will be concluded by July. There is some hope that there will be a supplemental appropriation bill this year that might result in a little bit of money to permit us to continue into the next fiscal year.

Mr. MORAN. Okay. Well, I know that you have been very accomodating to that. I know it is important to Mr. Wolf and others who want to be able to show these kinds, whether it be a plane or missile or spacecraft or whatever; and you just cannot conceivably find the room down at the Air and Space Museum, so it does make some essential——

Mr. HEYMAN. That is really the problem. We can't show large aircraft there.

Mr. MORAN. But I think you are doing a wonderful job. It is a priceless resource, as Mr. Regula and Mr. Yates have said; and we just want to find out how we can best give you the kind of financial support and political support to keep it the best in the world.

Mr. HEYMAN. Thank you, sir.

Mr. MORAN. So we thank you for what you are doing.

Mr. YATES. Mr. Chairman, may I ask a few more questions?

Mr. REGULA. Sure.

#### SITES CATALOGUE

Mr. YATES. I just want to congratulate you on the update of the SITES catalogue. I think they are spectacular. I remember years ago when SITES was just a closet institution, really just a minor part of the Smithsonian. Now it is the country's museum. You go out to the country through SITES. And these catalogues are just beautiful, particularly the ones for 1996 and 1997.

That cover is like a French impressionist. It is a beautiful thing. I note from the your explanation within the cover that it was commissioned for your 150th anniversary.

Ms. NEWMAN. Yes.

Mr. YATES. Where is this painting?

Ms. NEWMAN. We have posters, Mr. Yates.

Mr. YATES. I love these posters.

Ms. NEWMAN. It has already been noted.

Mr. HEYMAN. We have certain efficiencies.

Mr. YATES. I would hope Chairman Regula, upon receipt of that poster, would think it was not too artistic and would put it up in this committee room.

Mr. REGULA. You will get it framed for us?

Mr. YATES. Sure, they will frame it for us. We will take down the piece that talks about the Cuyahoga Valley.

Mr. REGULA. I think Georgia O'Keefe might go.

Mr. YATES. Okay. I will put it up in my office.

#### SMITHSONIAN EXPANSION

At any rate, I think this is a spectacular operation. It is growing all throughout the country.

I remember years ago the question came up as to—when the Smithsonian was building new buildings, the question came before our committee, why should they build new buildings in Washington? Why shouldn't the Smithsonian be made a part of the country? Why don't you have a Smithsonian West, for example, and have a branch in Canton, Ohio—you know, as far west as Canton?

You were shaking your head a moment ago, Mr. Chairman. But I can see now that perhaps it is not needed. But the SITES operation is a real possibility for bringing the Smithsonian to every part of the country, rural as well as urban; and I think that is great.

Mr. HEYMAN. Well, I think that is where our expansion really is; and it is in traveling and lending. It is in getting out of Washington. It is communicating in ways—taking advantage of technology, probably doing more with television than we have done before. In other words, it is not going to be building-based. It is going to be information-based or object-based but not building-based. And I think that is a healthy way for us to think about—of expansion.

Mr. REGULA. But the cost is local.

Mr. HEYMAN. And then the cost gets distributed in a whole bunch of ways that are different from the classical ways of paying.

Mr. YATES. You talked about expanding. Do you have an expanded building program as well? Do you require other new buildings in order to carry on your activities?

Mr. HEYMAN. Well, I will be happy if, in the balance of your term and mine, I get this Indian Museum and Dulles Center really concluded. Those are two very large undertakings, and I think they are going to strain all our capacities in fund raising and Federal funding.

Mr. REGULA. Costs don't stop with the building, because you have staff; and that is why we need fees.

Mr. YATES. Oh, yes. That is why you need fees.

Mr. REGULA. Yes.

Mr. YATES. Well, I can see that in the Dulles part of it, Mr. Chairman.

Mr. REGULA. Well, I think you anticipate fees at Dulles, don't you?

Mr. HEYMAN. Well, that is an open question, not one that I have certainly put to bed.

Let me also say that we are also trying very hard to find some opportunities for office space which would be a trade-off against rent, largely because I don't think we are doing this as efficiently now as we could. I think we could end up with more space if we do it essentially in terms of ownership rather than paying inflated rent. Our rental account is pretty big.

#### SMITHSONIAN CHILDREN'S BOOK

Mr. YATES. Now are these sold or distributed?

Mr. HEYMAN. They are sold.

Mr. YATES. What is the cost?

Ms. NEWMAN. \$14.95.

Mr. YATES. Is anybody buying them at that price?

Ms. NEWMAN. Yes, very successful.

Mr. REGULA. Are they in your catalogue? Shops but not the catalogue?

Ms. NEWMAN. It is in the press catalogue. It is not in the mail order catalogue.

Mr. REGULA. Will you put it in the mail order catalogues?

Ms. NEWMAN. Yes.

Mr. YATES. What are your new musical albums?

Mr. HEYMAN. Congressman Yates, I don't know if you have been down, or, Mr. Regula, if you have been down to the Portrait Gallery, but we have a show called "Red, Hot and Blue" which is just absolutely extraordinary. It is just so much fun. And, in connection with that, we put out a set I guess of three CDs and a catalogue that is a book on the history of American music.

Mr. YATES. I have a book, and it is just beautiful.

Mr. HEYMAN. You ought to try to get down there. It is just a wonderful show. We have been having a succession of celebrities come.

Mr. REGULA. How long will that go on?

Mr. HEYMAN. It closes in July. There is still plenty of time.

Mr. YATES. Well, you have not had enough celebrities unless you can get the Chairman down.

Mr. HEYMAN. I went over to greet a distinguished graduate of Berkeley—you know that I once taught and was once chancellor there—Gregory Peck, and he came and stayed two and a half hours, and he was just absolutely enchanted by it.

Mr. YATES. I would think he would be. All your galleries are just beautiful. Air and Space still gets the bulk of your trade, though.

Mr. HEYMAN. Yes.

#### REPAIR AND RESTORATION FUNDING

Mr. REGULA. One of the things I am concerned about is, as you know, we have been pushing the, repair and restoration, and last year we got it up to \$39 million, and of course you said you needed \$50 million; and now it is back to \$32 million. As a matter of policy, I think that we are only building big costs in the future by failing to meet repair and restoration that ought to be done today; and I have to say that I would feel compelled to get that number up.

Mr. HEYMAN. Well, that certainly would not disappoint me, Mr. Regula. I think that the cut in the OMB budget is due to the fact that they have only a certain amount of money that they felt they could devote to the Smithsonian. And under the policy of doing all of the funding for a major building in the first year, they ran out of money; and thus they looked elsewhere for it.

Mr. REGULA. Well, I see repair and rehabilitation took the hit for the Indian Museum in the final analysis. Isn't that a fair analysis?

Mr. HEYMAN. Yes, I think so.

## NATIONAL ZOOLOGICAL PARK SAFETY NEEDS

Mr. REGULA. Well, that is what concerns me. And of course, as you add these facilities, then you only exacerbate your repair and rehabilitation problems. The zoo, for example, I think has some real health and safety concerns; and yet the request is level; and that means some of those are not going to get taken care of. This is a potentially dangerous situation.

Ms. NEWMAN. Mr. Chairman, we are interested in working on the buildings and planning for the buildings at the zoo; but I want to assure you that we have determined the extent to which there are safety problems there; and those have been addressed. There were this last year some problems with fire alarms, and we—in conjunction with resources that we had and some conversation here with the committee staff, we are able to handle that. So as far as the zoo is concerned, we do have it on a schedule of repair and restoration; but I don't want you to be concerned about the safety issue.

## SMITHSONIAN RESEARCH

Mr. REGULA. I would be interested in what concrete results you have from research. I saw this article about the xenon gas research yields new potential for medical imaging. That sounds like a very productive activity or very productive result of some esoteric type of research that you are doing.

Mr. O'CONNOR. Well, it is, I think, going to enhance the magnetic resonance imaging enormously. And the pictures that we have already generated with some of the earlier teams Mr. Chairman, I think it is going to enhance the capacity for physicians in diagnostics.

Mr. REGULA. I would like for you to put in the record an example of each of the research centers, like Panama, for example, of maybe one or two instances where what has been produced is having impact on people in the United States and enhancing their quality of life. If you will put these in the record, I just want to be sure that we are not doing research for research's sake.

Mr. O'CONNOR. Well, sir, in Panama in particular, we have started and now are cooperating with 12 other countries in what I think is a very exciting project.

Mr. REGULA. Do they contribute part of the cost?

Mr. O'CONNOR. Yes, sir. It has to do with tropical forest. Through those studies, we are discovering which trees grow very rapidly, and that then will permit reforestation of particular areas with commercial hardwoods.

Mr. REGULA. Well, that is the kind of thing I would like to get in the record. Xenon gas is a good example that our investment is paying off in terms of the quality of life for people.

Mr. YATES. Off the record, Mr. Chairman.

[Discussion held off the record.]

Mr. O'CONNOR. Mr. Chairman, we will provide you with examples.

[The information follows:]

## EXAMPLES OF RESEARCH AT THE SMITHSONIAN INSTITUTION

## NATIONAL MUSEUM OF NATURAL HISTORY (NMNH)

1. *The collections-based research* in NMNH contributes to the health and well-being of American citizens by providing vital information on human disease, on public health issues, and on the impact of humans on natural ecosystems and resources. Some examples:

**LYME DISEASE** How long has Lyme Disease been present in eastern North America? Museum collections of ticks from the 1940's have been analyzed for the genetic indicators of the microorganism responsible for the disease, and there is solid evidence that this disease has been present for at least 30 years, long before it was recognized by doctors. Even older collections show that the disease has been present at some sites for a much longer time. This information allows medical scientists to trace the spread of the tick and the disease.

**MERCURY LEVELS IN FISHES** Concern about high levels of mercury in tunas and swordfishes led scientists to ask a question that only museum specimens could answer. Has the level of mercury in fishes been rising over the years along with industrialization and pollution? Sampling of tissues in museum collections revealed that mercury levels in tuna caught 100 years ago, before widespread pollution, are comparable to those in today's tuna. Apparently, some fishes always concentrate a background level of mercury in their bodies.

**BIRDS STRIKING AIRPLANE ENGINES** The museum's bird collections are being used to help save human lives by providing identifications of the remains of feathers from birds that are caught in airplane engines. Knowing what species of birds are involved enables the design of engine parts that are capable of withstanding bird strikes, and it also enables planning of methods for keeping certain species of birds away from airports and flyways. These steps greatly reduce the risk of airplane crashes following bird strikes.

**AIDS RESEARCH** African monkeys in the Museum's collections, collected between 1896 and 1971, show evidence of the *Simian Immunodeficiency Virus*. This is strong evidence that today's *HIV* evolved from the monkey virus, and thus we provide an essential historical perspective on the disease. Our scientists helped pioneer this use of museum specimens in medical research.

**DEEP-SEA RED CRABS AND POLLUTION** Deep-sea red crabs are now being commercially fished. Before the industry got under way, there was some concern expressed about some pigmented lesions on the bodies of these crabs collected from off New York - were these caused by increased chemical pollution, and were the crabs unsafe to eat? Scientists from NMNH were able to settle this question by studying collections of the same species of crabs that were made over 100 years ago. The lesions are also present in the same numbers in the older collections; they are a natural phenomenon, not related to chemical waste.

**SEA TURTLES AND THE SHRIMP FISHERY** Scientists NMNH discovered that the ages of sea turtles can be determined by studying growth rings in their bones. The rings indicate not only the age, but also the age at which reproduction can occur. We learned that sea turtles remain as juveniles for as much as 20 years. This information was instrumental in persuading the shrimp industry of the Gulf Coast of the U.S. to use turtle exclusion devices, which enable young turtles, which have not yet had an opportunity to reproduce, to escape from the shrimp nets.

**NEW PESTS OF COMMERCIAL CROPS** A Museum researcher discovered that the Cereal Stem Moth, an important threat to the winter wheat crop in Europe and Russia, has unexpectedly turned up in the U.S. Its early identification from our collections has enabled the early formulation of effective plans for control of the pest.

**DISPOSAL OF NUCLEAR WASTE** Safe disposal of nuclear waste is crucial to our future health and well-being. Near the Yucca Mountain site in Nevada are volcanic areas that have erupted in the recent geological past. Our scientists have used our collections to assess the risk of near-future volcanic activity in the Yucca Mountain area.

2. *Public Exhibits* in NMNH make important contributions to the well-being of citizens. These exhibits are based upon, and derived from, behind-the-scenes research efforts, and they provide intellectual stimulation, education and enjoyment for over six million visitors annually.

### SMITHSONIAN TROPICAL RESEARCH INSTITUTE (STRI)

The Center for Tropical Forest Science (CTFS) of the Smithsonian Tropical Research Institute is carrying out long-term research on tropical forest productivity, dynamics, and management within 13 research programs in 12 countries of Asia, Latin America, and Africa. The basic and applied research generated from these projects are critical to our efforts to conserve the tropical forests. Examples of specific projects that are of particular interest to Americans include:

**REDUCING THE IMPACT OF GLOBAL GREENHOUSE GASES** CTFS is developing models of how tropical forests, which sequester and store carbon, can help us counterbalance the carbon that humans are releasing into the atmosphere. Through proper management, tropical forests can provide opportunities for the United States and other developed countries to meet their obligations under the Climate Change Convention. The models being developed by CTFS use the example of a Malaysian rainforest to demonstrate how carbon can be stored in forests while they also generate revenues from controlled extraction of valuable tropical hardwoods.

**NEW COMPOUNDS IN TROPICAL PLANTS** CTFS is joining with the Walter Reed Army Medical Research Institute to investigate potential valuable medicinal compounds in plants of

Central West Africa. For many generations, residents of Cameroon and Nigeria have compiled medicinal remedies that are based on local plants. Only in recent years has the international scientific community begun to realize that often there is a chemical basis for these local remedies. CTFS and Walter Reed, in conjunction with African collaborators, are identifying plants used in local medicines, screening them for compounds with medicinal value, and evaluating the ecological conditions under which these plants can be harvested and conserved. Particular attention is being given to a new species of liana *Ancistrocladus korpenis* with promising anti AIDS properties. This project is funded through the US National Institutes of Health.

**REFORESTING THE WATERSHED OF THE PANAMA CANAL** The economic health of the Panama Canal depends, in part, on the ecological health of its surrounding forests. These forests are protection from costly erosion and resulting sedimentation of the canal, which potentially affect the waterway. CTFS is actively working on projects to reforest denuded pastures within the watershed using tree species that are native to the region and provide valuable resources to local farmers. The majority of the traffic in the Panama Canal originates from or is destined to U.S. ports.

#### SMITHSONIAN ENVIRONMENTAL RESEARCH CENTER (SERC)

**SOLAR RADIATION** SERC documented the increased levels of biologically damaging Ultraviolet-B solar radiation in Hawaii which resulted from record low concentrations of ozone in the atmosphere.

**BLUE CRAB POPULATION** SERC scientists found that current management of the blue crab population, which favors over-fishing of large males, will probably have long-term detrimental effects on the population. It is these male crabs that are most important to maintaining a large, healthy population.

#### SMITHSONIAN ASTROPHYSICAL OBSERVATORY (SAO)

**ENHANCED IMAGING TECHNIQUE** In an unusual collaboration between SAO scientists and medical specialists at Boston's Brigham and Women's Hospital, an experimental technique to enhance Magnetic Resonance Imaging (MRI) through the use of hyperpolarized atoms of xenon gas had its first tests on living tissue, including the imaging of a human oral cavity. When inhaled, the harmless gas can produce a many-thousand-fold improvement in MRI's ability to image those areas with low water content, such as the lungs and fatty brain tissue.

#### NATIONAL MUSEUM OF AMERICAN HISTORY (NMAH)

**COMMUNITY INVOLVEMENT IN EXHIBIT DEVELOPMENT** In conducting research for the Museum's upcoming exhibition *Pursuing Promise*, staff spent significant time working with communities in Bridgeport, Cincinnati and Charleston. By letting people know that their history is important, it has helped them to understand their contribution to American society. This community development is valuable to people's understanding of history overall.

## COMPARISON OF VISITATION TO FUNDING LEVELS

Mr. REGULA. Okay. Some of the visitation costs, I was looking at the Custom House in New York. I figure it comes out to the about \$50 a visit.

Mr. HEYMAN. We have really got to look at those figures again, and I better get back to you on that analysis. Because I only saw it yesterday, and I wasn't satisfied with that. I just don't understand it, and I have got to look into it.

Mr. REGULA. The Indian Museum is \$14.7 million, and the same number of visitors at Cooper-Hewitt in New York is \$5.16 million. That is almost triple the cost per visitor.

Mr. HEYMAN. Well, I have got a lot of problems with this piece of paper.

Mr. REGULA. Well, maybe it is not accurate. I don't know.

Mr. HEYMAN. I got a fiscal year 1997 Federal budget. I have 1995 visitation. Some of the museums were not open for all of 1995. I just really want to look at this, but we will get that back to you.

## NON-FEDERAL FUNDING SOURCES

Mr. REGULA. Also, I notice in—where is it—one of your statements you said—this was in the *Washington Post* on December 18 of 1996. It is talking about Orkin, and it quotes you: "The only way for museums to survive and thrive if we find funds nowhere else," said Heyman, "we are doomed at least to a static future and, worse, to one of continuing erosion."

And I assume that represents a real concern that you have and why you are reaching out to corporate sponsors.

Mr. HEYMAN. Yes.

Mr. REGULA. Frankly, I would rather have fees than corporate sponsors, but that is a trustee decision at this juncture.

Mr. HEYMAN. It is, and I find the fee issue a really tough issue and I thought a lot about the parks.

Mr. REGULA. I might tell you that I have asked the parks, what the reaction on the part of the public has been to fees? And they have had no complaints.

Mr. HEYMAN. One of my problems here—there are a lot of problems. But one of my problems here, we get a lot of sporadic and erratic use of the museums and people go over for lunch, for an hour, and it is a very different kind of user pattern than parks.

Mr. REGULA. That is sort of like Golden Eagle, where you buy the ticket that lets you in any museum for a period of 12 months.

Mr. HEYMAN. Well, it is a never-ending subject of inquiry within the Smithsonian as well as outside.

Mr. REGULA. Right. But I am concerned about the Orkin approach.

Mr. HEYMAN. That has been a tremendous success. It really has been.

Mr. REGULA. I understand that.

Mr. HEYMAN. Well, I was making a little joke in the *Washington Post*; and the *Post* did not seem to get what I was saying.

Mr. REGULA. Off the record.

[Discussion held off the record.]

Mr. REGULA. That was off the record.

You are opening a new shop at National Airport. I think you have had one in Baltimore since 1995.

Ms. NEWMAN. Right.

Mr. REGULA. You see this as a pattern of outreach and do you make some profit on these?

Ms. NEWMAN. Yes. First of all, the agreement is that we do not use our funds for the development of the shop. The risk is all on the part of the developer, of the third party. We, however, have a great deal of input in the design of the shop, the products sold and the image of the Institution. Royalty then comes to the Institution.

As a matter of fact, we are being approached by other airports, given the extent to which the developers believe this is useful in airports. From our point of view, it is another way of communicating to people coming into the city that here is a wonderful stop while you are in Washington.

Mr. REGULA. Well, do you anticipate going beyond the periphery of the greater D.C. area? I mean, basically, it would be Baltimore, National; but would you contemplate Chicago or Cleveland?

Ms. NEWMAN. We have had questions raised about shops in Chicago and New York and Grand Central Station, for example. But, for us, the first question is where is the money coming from, because we are not going to—

Mr. REGULA. You mean to develop the shop so the developer has to do this?

Ms. NEWMAN. That is right. But it is a wonderful opportunity for the Institution.

Mr. REGULA. It is, obviously, a success. I just saw the gentleman that had the duty free shops and sold them for an enormous profit.

Mr. HEYMAN. One of them, in any event.

Mr. REGULA. Yes, one of the two. He gave away the vast bulk of a couple billion dollars.

Mr. HEYMAN. I wish he had known about the Smithsonian.

Mr. REGULA. I noticed that, according to the article I read, he only kept \$5 million out of an enormous fortune. So this is sort of something you develop little by little.

#### FUNDRAISING

Mr. HEYMAN. We are trying to do modest incremental development of a number of those kinds of activities, and perhaps the one that has the most potential is to do more product development. We do very little. But there are so many objects and patterns and the like at the Smithsonian that people could use usefully if we get the right way of doing it. I think it would probably add to our profit in that regard.

Mr. REGULA. All but the quilts.

Mr. HEYMAN. Well, it depends on who makes them.

Mr. REGULA. How have your contributions been? Are you going up or down?

Mr. HEYMAN. Our contributions this year are a little lower than last year, but that is because of fewer very big, major gifts. And last year we had a \$10 million gift that was not replicated this year.

But if you look at contributing membership, which is sort of like the annual funds, we are doing okay. And I keep looking at that

and try to nudge that up and nudge that up, because it is the contributing members who, over time, make larger gifts when they are able and when they are really interested in it. So it is the base that I am really interested in.

But we have got to do more with that, and we are contemplating very seriously having a capital campaign for the Smithsonian and position ourselves in terms of fundraising in a much more organized way than we have been.

Mr. REGULA. And that would be capital for what?

Mr. HEYMAN. Mainly endowment. Not for buildings but for mainly endowment. It is what has happened in the big State universities. And now if you look at places like University of California or Ohio State University or University of Michigan, all of them are involved in serious fundraising in which a campaign is usually one of the ways to organize and also attract a big bump-up in terms of contributions.

Mr. REGULA. Let me say off the record.

[Discussion held off the record.]

#### GOVERNMENT GRANTS AND CONTRACTS

Mr. REGULA. Well, back on the record.

I note in your nonappropriated funds you have government grants and contracts for \$46 million, which is a pretty good chunk. What kind of activity did you do for that \$46 million?

Mr. O'CONNOR. The largest single component of that, Mr. Chairman, is up at the Smithsonian Astrophysical Observatory, and those grants are largely from the National Aeronautics and Space Administration.

Mr. REGULA. And they are conditioned on your producing information that they find useful?

Mr. O'CONNOR. We submit proposals for particular attempts of observing phenomenon; and if they like the proposal, it is funded.

Mr. HEYMAN. And then they go out sometimes for requests which we can keep.

Mr. O'CONNOR. For example, they had a request out recently for the management of the new satellite observatory, and we will be managing that facility.

Mr. REGULA. And you have some among your own facilities and some you will manage for other agencies?

Mr. REGULA. This would be a tribute to the quality of your scientists, I would think.

Mr. O'CONNOR. I think, Mr. Chairman—without being too far off base, I think it is nationally acknowledged that the Smithsonian-Harvard Astrophysics Group is the best astrophysics group in the country and probably in the world. It is not a particularly widely known group, but they have made some really substantial observations.

Mr. REGULA. I think the whole area of research that you do is very little known as far as the public. They think of the Smithsonian as being these buildings down on the Mall. But Panama, astrophysical, it is quite an asset of the country and most of the world.

Mr. HEYMAN. I really believe that, but you never know how much you ought to talk about your research. It is a little like—I keep

going back to the analogies of running a State university, how much you talk about your research and how much you talk about undergraduate teaching. So it is a little tender from time to time. But we have been making our story known in research I think in the last number of years with greater frequency.

SMITHSONIAN OUTREACH

Mr. REGULA. I like the outreach programs. As you know from prior hearings, I have always pushed hard to get agencies to outreach so the country can benefit; and I think what you are doing in many of the things we have discussed this morning is making it available to schools in an educational program.

I assume that colleges and universities can also take advantage of what you are doing, and what we are going to have very shortly in Stank County, which is interactive programs where both the scientists and the students will be actually able to converse.

Mr. HEYMAN. Yes, the Natural Partners Program; and I am looking forward to increasing that activity. Because we are doing it now in Mississippi and Tennessee and Alabama, and now we are going to be moving to Ohio. And that can be a wonderful program. I really do think so.

We have close to 700 interns every year from—largely from colleges but also from high schools from around the country. Some get paid. Some don't. But each of them has an experience working with some folks at the Smithsonian, and it is really sought after, and people really like it.

Mr. REGULA. I would think so, yes. We have had some from our district that get involved in these programs, and I am quite sure that the people would certainly welcome that opportunity.

Some of your donors give money for specific purposes, I assume, where you have an earmark and then some for general purposes, is that correct?

Mr. HEYMAN. Mostly designated and less unrestricted. I am always partial to the latter, but—

Mr. REGULA. Yes, I can understand that.

Well, I think we will have questions for the record; and I am quite sure some of the other members will. We have a real problem because members have three subcommittees going.

But we are going to have a challenge here to prioritize this, because OMB gave you perhaps a better boost than they have many of the other agencies that we have in this committee. And they are all very substantive needs that we find in Park Service, Forest, et cetera, so I am quite sure we will get back to you and say, this is how much we have that we can do, given our 602(b) allocation, and in light of that would you prioritize. We want to work with you to make the best use of the funds available.

Mr. HEYMAN. I would be very pleased if you could do that, sir.

Mr. REGULA. So once we get a 602(b) allocation, then we will have a better idea of what we can do.

Thank you very much for coming.

Mr. HEYMAN. Thank you very much.

Ms. NEWMAN. Thank you.

Mr. REGULA. The committee is adjourned.

[The following questions and answers were submitted for the record:]

## ADDITIONAL COMMITTEE QUESTIONS

## FY 1998 Budget Priorities

Question 1: The fiscal year 1998 budget contains \$57 million in increases for operations (+\$16 million) and construction funds for the National Museum of the American Indian (+\$58 million). Should funding not be available for all these requests, can you please prioritize your request?

Answer: The request is an expression of our overall priorities. Within that request our highest priority is the Salaries and Expenses (S&E) Account. It includes about \$10 million for funding mandatory cost increases in salaries, rent, communications, utilities, and library materials. The S&E account also seeks an increase of some \$6 million for the final increment of operating funds for the submillimeter telescope array of the Smithsonian Astrophysical Observatory; operating support for three facilities; and improvements to the Institution's collections information systems that will make them more robust and the collections more accessible.

Our second priority is the \$32 million requested for the Repair and Restoration of Buildings Account (R&R), followed by the \$58 million for construction of the Mall museum building of the National Museum of the American Indian (NMAI), and the \$3.85 million that we seek for construction and improvements at the National Zoological Park. As an alternative, it would be possible to fund the NMAI construction contract in phases assuming language is included in the appropriation to allow the Smithsonian to award the contract for the full amount pending appropriation of the remaining amount the following year. The Institution would require a minimum appropriation of \$29 million, or one-half of the construction request, in FY 1998 in order to award the construction contract.

Question 2: \$10.4 million of the operational request is for fixed costs. Are all these costs directly associated with fiscal year 1998 increase?

Answer: Yes. All of these costs, including annualization of the pay increase in January of 1997, are fiscal year 1998 costs. Funds not provided by Congress in fiscal years 1996 and 1997 for fixed costs have not been included in this request.

Question 3: \$6.5 million of the increase is associated with program increases for the submillimeter telescope array, new facilities such as the East Court and the National Museum of the American Indian's Suitland facility, STRI and enhancements to the new collection information system. Can you please prioritize these requests and indicate if the individual requests could be phased?

Answer: The priority is as follows, with number 1 being the top priority:

1. Submillimeter telescope array operations

2. New facilities operating support
  - a. East Court
  - b. National Museum of the American Indian Cultural Resources facility
  - c. Smithsonian Tropical Research Institute
3. Collections information systems enhancements

Items 1 and 2 cannot be phased. These costs must be funded in order to operate the submillimeter array and to open and/or operate these other facilities. The collections information systems enhancements can be further phased, although it would slow the Institution's progress in putting collections information online to the public.

Question 4: Your operating request describes some costs as "extraordinary." Can you give a more detailed description of this need?

Answer: Yes. The Library's ability to provide serials and books in multiple disciplines for research purposes is a key to ensuring high quality, up-to-date research from our scientists and scholars. The inflation that the Institution has experienced in the book and journal area has been staggering. As reported by the Association of Research Libraries in February 1997 (see attached article), the annual average increase for serial (magazine/journal) unit prices has been 9.5% and, for monograph (book) unit prices, 5%, since 1986. This results in the purchase of fewer publications at a higher cost where there has been no corresponding increase in funds available.

The Institution has not been immune to these effects; its inflation rate in fiscal year 1996 was 13.5% on serial subscriptions and 3% on book purchases. Since 1987, the Institution has canceled over 1,200 subscriptions and its annual book purchases are half the number that were purchased in 1986. Book purchases have been reduced to maintain needed serial subscriptions.

Another component of the inflationary costs of library materials has been the impact of foreign exchange rates on library purchases. The Institution purchases approximately 35% of its journals from foreign sources. Depending upon the strength of the dollar, the difference in currency conversion is typically passed along to the purchaser. If the dollar is strong, the Institution benefits from the favorable rate of exchange; if the dollar is weak, the opposite is true. These costs have contributed to the Institution's inability to maintain constant purchases over time, especially since the dollar's value has been lower on the whole during this period.

# STATISTICS & MEASUREMENT

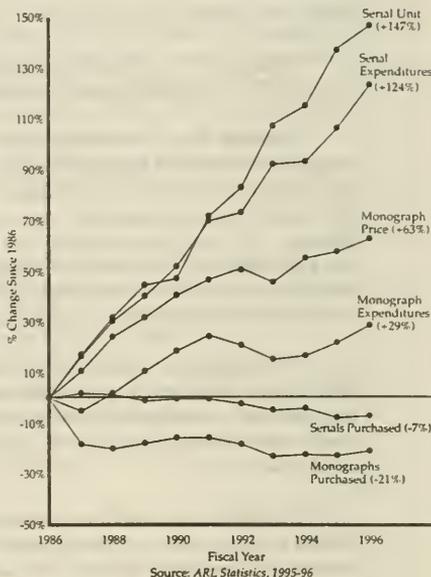
Julia C. Blixrud, Senior Program Officer

## ARL LIBRARIES' PURCHASING POWER CONTINUES TO DECLINE

Data from the recently published *ARL Statistics, 1995-96* show that while ARL libraries more than doubled expenditures for serials from 1986 to 1996, they purchased 7% fewer serials. During the last decade, libraries shifted expenditures for monographs to meet some of the demands of increasing serial prices, thereby reducing the number of monographs purchased by 21%. At the same time, the unit price for monographs increased by 63%. As the table shows, since 1986, the annual average increase for the serial unit price has been 9.5%; the annual average monograph unit price increase is 5%. Both are higher than general inflation trends in North America during the same period. As the graph illustrates, although ARL libraries are spending more, they are not keeping up with serial and monograph costs.

*ARL Statistics, 1995-96*, presents data on a wide range of topics, including collection size and growth, materials and operating expenditures, staffing levels, and library services. The 120 page book is available for \$71 (\$41 ARL members). Contact the ARL Publications Department <pubs@cni.org> or see <<http://arl.cni.org/stats/Statistics/stat.html>> for more information.

## MONOGRAPH AND SERIAL COSTS IN ARL LIBRARIES, 1986-1996



## MONOGRAPH AND SERIAL COSTS IN ARL LIBRARIES, 1986-1996 MEDIAN VALUES FOR TIME-SERIES TRENDS

Year	Serial Unit Price	Serial Expenditures	Monograph Unit Price	Monograph Expenditures	Serials Purchased	Monographs Purchased
(No. of Libraries)	(43)	(103)	(63)	(99)	(43)	(63)
1986	\$88.81	\$1,517,724	\$28.65	\$1,120,645	16,198	33,210
1987	\$104.30	\$1,770,567	\$31.76	\$1,064,484	16,518	27,214
1988	\$117.25	\$1,979,604	\$35.63	\$1,141,226	16,443	26,541
1989	\$128.47	\$2,130,162	\$37.74	\$1,241,133	16,015	27,268
1990	\$130.81	\$2,304,744	\$40.26	\$1,330,747	16,182	27,999
1991	\$152.43	\$2,578,309	\$42.04	\$1,400,738	16,149	28,027
1992	\$162.72	\$2,630,827	\$43.31	\$1,353,865	15,846	27,158
1993	\$184.71	\$2,919,756	\$41.78	\$1,295,807	15,463	25,583
1994	\$191.13	\$2,932,091	\$44.51	\$1,309,807	15,583	25,803
1995	\$211.29	\$3,133,885	\$45.27	\$1,365,575	14,942	25,719
1996	\$219.46	\$3,393,307	\$46.73	\$1,444,015	15,069	26,262
Annual average percent change	9.5%	8.4%	5.0%	2.6%	-0.7%	-2.3%

Source: ARL Statistics, 1995-96

Question 5: A large portion of the request for utilities and communication increases are costs associated with the National Museum of the American Indian's Cultural Resources Center in Suitland. Can you describe in greater detail how the additional \$1,050,000 will be spent?

Answer: A total of \$800,000 will be spent on communications cabling for the facility which is necessary prior to occupancy. This includes funding for design (\$85,000), telephone vertical (floor-to-floor) wiring (\$75,000), data and audio-visual vertical (floor-to-floor) wiring (\$71,000), and all other related horizontal (same-floor) cabling, equipment and terminations (\$569,000).

The remaining \$250,000 will be used to design (\$30,000) and equip and install (\$170,000) the core telephone system (switching equipment), and to purchase and install phone sets (\$50,000).

This communications system will foster cultural program development and presentation within the Museum and across geographic distances, and will follow a standard infrastructure design for all three Museum sites (New York City, Suitland and Washington, DC). The above costs are estimated based on actual experience at the George Gustav Heye Center in New York.

#### National Museum of Natural History East Court

Question 6: Your budget request indicates that the costs associated with moving offices, laboratories and specimens into the new East Court building was originally forecast to be accomplished using existing in-house resources. What circumstances changed to necessitate requesting an increase to accomplish this move?

Answer: Existing in-house resources are being used to accomplish the move but are insufficient to meet the costs that have been revealed over the past year by detailed planning for the relocation of collections. Millions of extremely fragile specimens, some of them in very old storage units, will be involved. Insect collections, including beetles, butterflies and moths, include many specimens that were collected and stored as early as 1881. They represent irreplaceable records of biodiversity that may be invaluable for future study. The move will require inspection, cleaning, pest control, stabilization, inventory control, and the final relocation. The specialized supplies and equipment and the supplemental contract labor needed to accomplish this work in reasonable time are beyond the museum's resources. This work, along with the efficient relocation of offices and laboratories, will require the supplemental funding requested so that the move to the new building can be effectively carried out in coordination with the schedule for the building-wide mechanical renovation project and so the interruption of regular scientific work and loss of access to important and currently utilized reference collections can be minimized.

## National Museum of American Indian Cultural Resources Center

Question 7: The request contains a \$893,000 increase for the NMAI Suitland facility for security, basic maintenance and equipment. Will this amount cover all security, maintenance and equipment needs?

Answer: Of the \$893,000 increase for the NMAI Suitland facility, \$600,000 includes funding for an adequate amount of equipment necessary for the maintenance of the building. The staff requested for FY 1998 (3 FTEs and \$137,000 for security and 3 FTEs and \$156,000 for building system maintenance) are the initial complement of staff required to operate this facility. The Office of Physical Plant will ultimately require 17 FTEs and \$791,000 to operate and maintain building systems, make minor repairs, and care for the grounds. The Office of Protection Services projects a total requirement of 20 FTEs and \$800,000 to provide security for the building and the irreplaceable collections to be housed there. The Institution will request resources to complete required staffing in FY 1999.

Question 8: When is the facility scheduled to open?

Answer: The Suitland facility is scheduled to be completed in September 1998. It will be open for staff occupancy at that time, and transfer of the collections will begin.

Question 9: Although the costs are not discussed in this budget, what are you projecting the costs associated with moving the collection from New York to Suitland to be and how many years will be required to complete the relocation?

Answer: NMAI has estimated the move of the collection will cost \$17.5 million over a period of 5 years. This estimate includes the cost to move the collection as well as the relocation of NMAI staff from the present location in the Bronx.

Question 10: What are you projecting the costs and FTE level for operating the Suitland facility to be once the move is completed?

Answer: The operating costs of the Cultural Resources Center in Suitland, when fully operational, are expected to be \$8,727,000, which includes \$2,968,000 in SI support costs for security, maintenance, utilities, and libraries. The FTE level would be 85 for the NMAI staff and 41 for other Smithsonian support for a total of 126 FTE.

Question 11: What will be the savings associated with not having a warehouse/storage facility in the Bronx once the Suitland facility is fully operational?

Answer: The Smithsonian does not project savings in operating costs for the Bronx facility, as program and support staff and resources currently devoted to Bronx operations will ultimately be transferred to the Cultural Resources Center in Suitland once that facility is operational and the move of collections has been completed. By not retaining the building, however, the Institution will be able to avoid long term repair costs that would be needed to

bring the building, large portions of which are in poor condition, into acceptable condition for other collection uses.

#### Smithsonian Tropical Research Institute

Question 12: Can you give a more detailed description of how the \$335,000 will be spent at the STRI facilities?

Answer: The STRI request consists of \$200,000 for facilities management support and \$135,000 for contractual security support. In the period between FY 1991 and FY 1997, STRI completed the major components of its Master Plan authorized by Congress in 1986. This has involved the construction or renovation of about 95,000 sq. ft. of research and support facilities. These include new housing and research laboratories at Barro Colorado Island, the renovation of the Ancon facility to house the Center for Tropical Paleocology and Archaeology, a new Logistics Support Center, a major library expansion and renovation, new marine labs and a modern molecular biology laboratory. In addition, STRI now maintains two construction cranes for research on the forest canopy and a major research vessel.

These facilities, dispersed throughout the Isthmus, have more sophisticated electrical, cooling and hydraulic systems than those they replaced and their maintenance is complicated by the extremely harsh tropical climate. The requested \$200,000 is needed to hire the minimum maintenance and repair staff for these additional facilities. During the last eight years no new hires have been made for support of facilities and STRI now uses vastly greater numbers of generators, boat motors and vehicles. In addition, our new telecommunication systems require maintenance of microwaves, antennas, spread spectra, satellite uplink and related network equipment.

The necessary personnel for supporting these and our other facilities are:

1. One electrician
2. One air conditioning mechanic
3. Three motor/engine mechanics
4. One inventory/procurement specialist
5. One telecommunications maintenance specialist

These personnel will require \$30,000/annum support in materials, tools, equipment and transportation (to service the dispersed sites).

The portion requested for security (\$135,000) will be used to contract additional guard services for all of these facilities. We have found that contracting security services is most efficient and cost-effective in Panama. The security services are needed to protect the facilities and the 200 employees and more than 300 visiting scientists, who base their research at STRI because of its modern facilities and installations with convenient access to tropical rainforests

and the coral reefs of both the Atlantic and Pacific Oceans. Providing adequate maintenance and security is essential to the safe and efficient operation of STRI's research program.

Question 13: Can you provide a priority for the STRI increases?

Answer: The first priority must be for the security services (\$135,000). Maintenance of the facilities is, however, important to ensure the new electrical and hydraulic systems are adequately maintained since the climate is harsh and there is constant usage of all the facilities by both staff and visitors from around the world.

#### Collections Information System

Question 14: How much has the Smithsonian spent to date on the Collections Information System and what is the total projected cost for this system?

Answer: With funding provided by Congress in the late 1970s for inventorying the collections and automating the associated data, the Institution focussed its energy on providing improved accountability for the collections, particularly those of high value. By the conclusion of that program in the 1980s, the Institution had amassed a valuable data base of collections information, but with little means to access it efficiently.

From the 1980s until today, the Institution has steadily worked towards providing greater access to this information, while increasing its quality and comprehensiveness. Today the museums of the Institution are focussed on providing high-quality, multimedia, collections-based information to the Nation. To do so, planning and development has begun on establishing an open-system architecture within the Institution, capable of networked collaboration with other institutions. In addition, a strategy to digitize approximately one million photographs of our objects, with attendant curatorial information, is being designed.

The current annual base budget for collections information systems is approximately \$2 million, included as part of the line-item for several museums. In addition, many one-time (including multi-year phased) costs have been funded through the Information Resource Management Institution-wide line-item (totaling \$2.3 million to date). Most of this spending to date reflects hardware, software, contractual support, and related supplies and equipment to build the basic information systems and typically does not include data entry, digitization of data, nor infrastructure costs which can be determined only on an ad hoc basis.

The total projected cost over the next three years to build the basic information systems required for the Collections Research Information System (CRIS) at Natural History, the Art Collections Information System at the six art museums (ARTCIS), and the Collections Information System (CIS) at American History is approximately \$8.1 million. NMAI, NASM, and the Center for Folklife and Cultural Studies are beginning to identify their CIS needs and are expected to use the same basic platform and software chosen by the NMAH or ARTCIS. The Institution is designing a strategy to digitize approximately one million

photographs of the Institution's objects with their attendant curatorial information. The plan, estimated to be in excess of \$25 million over the next five years, will also include making these images accessible to the public and the necessary Institutional infrastructure support that has come about as a result of new advances in technology.

Question 15: The budget indicates that this project is a public/private partnership. How much is planned for the federal contribution and for the private side? How much has been raised to date from non-federal sources?

Answer: The Institution has contributed approximately \$400,000 from Trust resources over the past several years sources to build the basic information system as discussed above. This figure does not include in-kind contributions of hardware.

Question 16: How does the public access this information, is there a charge and does the Institution benefit from those consumer costs? If so, can these funds be used to further enhance the system?

Answer: The general public accesses the Internet through commercial vendors, paying whatever service fee the provider charges for that access. Many schools, libraries and universities offer access to the Internet at no cost. The Institution does not charge for access to any of its Web sites.

The Institution has had a contract with America On-Line (AOL) since 1993, which provides a payment to SI based on the number of hours AOL customers are logged into their *Smithsonian On-Line* Web site. This income has been used to support a computer specialist to provide technical support for participating units (those contributing program material to the AOL Web site), for design services, and for a library science internship at the National Museum of American Art to support their on-line reference service.

#### Woodrow Wilson International Center for Scholars Relocation

Question 17: When do you expect the Woodrow Wilson Center for Scholars to relocate to its new location?

Answer: The Woodrow Wilson International Center for Scholars plans to relocate to its new location in the Ronald Reagan Building by early in the summer of 1998.

Question 18: What plans does the Smithsonian have for utilizing the vacated space?

Answer: The Castle Building is scheduled for a major repair and renovation project for which planning has begun. This planning includes determining which offices should reside in the Castle. Ultimately, the space occupied by the Woodrow Wilson Center will be used to reduce the leased space currently used by the Institution.

## Funds to Secure Against Terrorism

Question 19: The Congress provided over \$935,000 for security associated with a terrorism request in fiscal year 1997. Exactly how were those funds spent?

Answer: The Institution is spending the funds on the most urgent components of a planned program to reduce its vulnerability to terrorism. The specific items being procured this year are listed below. The Institution has determined that installation of mail screen equipment for our facilities requires a more immediate expenditure of funds than previously planned. Hence, that part of the project has accelerated. Additional requirements in these and related areas will be met in future years as funding becomes available.

Central Mail/Package Screening Equipment	\$595,000
Magnetometers	105,000
Access Control Equipment	200,000
Barriers	35,000
Total	\$935,000

## Smithsonian Institution Reorganization

Question 20: The Smithsonian has been implementing a major reorganization for the past several years. Is this effort completed and what efficiencies have been achieved?

Answer: On March 1, 1997 the Institution moved the Office of Sponsored Projects from the purview of the Under Secretary to that of the Provost and essentially completed the reorganization initiated in 1995 by Secretary Heyman. In that process, the layer of six assistant secretaries between the units and the Smithsonian's executive management was eliminated, resulting in greater decentralization of activity and of decision making, as well as enhanced communication between management and operations.

At the same time, the clustering of related units under the Provost and the Under Secretary has improved lateral communication among units and enabled management to have a more holistic view of issues and programs. For example, with the exception of the budget office, which reports directly to the Secretary, all of the units with responsibility for managing Institutional funds report directly, rather than through an assistant secretary, to the Under Secretary, who also is responsible for its revenue-generating activities such as fund raising, concessions, shops, and publications. The Provost has responsibility for all Museums and Research Institutes and for associated Education and Scholarly Services units such as the Smithsonian Office of Education and the National Science Resources Center. Bringing units such as these under a single umbrella enhances interaction among them and the development of programming that can be distributed through the museums and through external networks. These efficiencies in management and communication have been paralleled by efficiencies resulting from administrative consolidations of units.

## Downsizing

Question 21: To assist the Smithsonian in achieving its downsizing goal of eliminating 295 FTE's by FY 1999, the Congress provided special buy-out authority on two separate occasions. What FTE reductions have been achieved as a result of that authority? How many positions have been refilled? What is the net savings to the Institution?

Answer: In the first buy-out authority under the Federal Workforce Restructuring Act of 1994, the Institution reduced 206 FTE. Only seven critical positions were refilled. The total savings of \$9.5 million associated with the 206 FTE were withdrawn in the appropriations process in FY 1995 and FY 1996.

In the second buy-out authority in FY 1996, a total of 204 employees participated; 93 positions are in the process of being refilled, primarily at a lower level. The Institution used the savings from the buy-out (\$9.8 million) to fund the 93 positions that are being refilled and to cover the costs of a portion of the FY 1996 pay raises that were not funded by Congress.

## Smithsonian Institution Affiliations

Question 22: The Smithsonian appears to be lending more of its artifacts and providing technical assistance to communities around the nation. Can you provide the Committee with a list of these interactions and describe the process the Institution has set up to deal with these requests?

Answer: The Smithsonian has a long practice of loaning collections, for study and research, and of collaborations of many kinds with other museums. Technical assistance is often provided on-site, in writing or in conversations. The recent decision by the Regents to increase lending activities through affiliations represents a relationship in which the borrowing organization is responsible for all the costs associated with long-term possession of Smithsonian objects.

Many queries regarding possible affiliations have been initiated by museums and local governments around the country. To date, one agreement has been signed establishing a formal relationship with Bethlehem Steel to assist in planning and providing objects for exhibits at a proposed privately-funded National Museum of Industrial History. Discussions are taking place with the Los Angeles County Museum and the City of Long Beach. However, no formal agreements have been signed.

A full explanation of the process is provided with the response to Question 58.

## National Zoological Park Construction and Improvements

Question 23: The budget request includes level funding in the amount of \$3.85 million for Construction and Improvement at the National Zoological Park and the Front Royal facility. Can you describe in detail exactly how these funds will be used?

Answer: The following listing of projects details how the funds will be used.

## 1998 Project Listing

Prior-ity	Area	Item	Request to OMB \$7.5 mil	Request to Congress \$3.85 mil	Animal Welfare	Safety
1a	Amazonia	Annual Filter Maintenance	\$10,000	\$10,000	X	
5	Upper Bear Lines	Repair Roof Structural Failure	\$50,000	\$50,000	X	X
	Beaver Valley	Replace Storm Grates	\$15,000	\$15,000		X
7	Bird House	Replace Doors	\$30,000	\$30,000	X	
	Bird House	Emergency Generator	\$20,000		X	
	Boiler Room	Replace ladder to generator	\$25,000			X
	Commissary	Resurface floor/refrigerated prep room	\$15,000			X
	Compactor Site	Install Sanitary Drain	\$25,000			
	CRC-Front Royal	Bldgs 47, 28, 5/8 & 4/9	\$145,000			X
4a	CRC-Front Royal	Admin. Bldg Fire Improve.	\$15,000			X
10	CRC-Front Royal	Barn roof	\$45,000	\$45,000	X	X
4b	CRC-Front Royal	Dorm. Sprinkler, Smoke Detection & Fire Alarms	\$50,000	\$50,000		X
	CRC-Front Royal	Hardy bird complex	\$30,000	\$30,000	X	
4c	CRC-Front Royal	Fire Prot. Systems Evaluation and Implementation Plan	\$200,000		X	X
	CRC-Front Royal	Building 4	\$15,000			
	CRC-Front Royal	Administrative Building HVAC Upgrade	\$85,000			X

Priority	Area	Item	Request to OMB \$7.5 mil	Request to Congress \$3.85 mil	Animal Welfare	Safety
2a	CRC-Front Royal	Emergency Contingency and Repairs	\$175,000	\$175,000	X	X
9	Deer Area	Replace/repair walls and roofs	\$400,000	\$70,000	X	X
	Elephant House	Upgrade electrical service and distribution	\$240,000		X	X
3a	Elephant House	Install Fire Alarm/detection system	\$100,000	\$100,000	X	X
	Elephant House	Replace Office HVAC & Ceiling	\$70,000			X
	General Svcs. Parking Bldg.	Repair wall leaks & column capitals	\$500,000			X
8	Kangaroo Yard	Replace retaining walls, correct erosion	\$50,000	\$50,000	X	
	Lion/Tiger Moat	Replace waterproofing of moats	\$500,000			X
	Mane Restaurant	Renovate HVAC, roof, siding, windows, electrical, etc.	\$1,000,000			X
	Police Stations	Emergency Generator - modify exhaust	\$10,000			X
	Small Mammals	Upgrade mechanical system	\$280,000		X	X
1b	Zoo Wide	Annual HVAC Maint. Contract	\$600,000	\$600,000	X	X
1c	Zoo Wide	Annual Fence and Gate Repairs	\$15,000	\$15,000	X	X
1d	Zoo Wide	Annual Glass Replacement	\$25,000	\$25,000	X	X
1	Zoo Wide	Annual Painting Maintenance	\$50,000	\$25,000		
1f	Zoo Wide	Annual Fire Alarm Maintenance Contract	\$40,000	\$40,000	X	X
1g	Zoo Wide	Annual Tree Maintenance	\$85,000	\$85,000	X	X
1h	Zoo Wide	Annual Irrigation System Maintenance	\$25,000	\$25,000		
1j	Zoo Wide	Annual Security System Maint.	\$35,000	\$35,000	X	X

Priority	Area	Item	Request to OMB \$7.5 mil	Request to Congress \$3.85 mil	Animal Welfare	Safety
1k	Zoo Wide	Telecommunications Infrastructure	\$50,000	\$50,000		
3b	Zoo Wide	Upgrade Fire Alarm, Detection and Suppression Systems	\$1,500,000	\$1,500,000	X	X
6	Zoo Wide	Repair Blue Road	\$500,000	\$500,000		X
1l	Zoo Wide	Accessibility Improvements	\$100,000	\$100,000		
1m	Zoo Wide	Upgrade Graphics in One Zoo Area	\$75,000	\$25,000		
2b	Zoo Wide	Emergency Contingency	\$300,000	\$200,000	X	X
		Total	\$7,500,000	\$3,850,000		

Question 24: The Smithsonian requested \$7.5 million from OMB for the Zoo and the Front Royal facilities. What projects will not be funded at the \$3.850 level that would have been accomplished with the additional funds? Are there any serious health and safety projects unfunded?

Answer: The list of projects following question 23 details which projects are projected for funding at the \$7.5 million and the \$3.85 million levels. Those projects which address animal health and safety issues are noted with an "X" in the "Animal Welfare" and "Safety" columns.

Question 25: The justification describes the Zoological Park facilities as being nearly 100 years old and lists serious health and safety problems such as failing utility systems, electrical wiring, fire and smoke detection systems and monitoring of animal life support systems that are in dangerous disrepair. Can you site the 10 most critical repairs necessary to ensure that the animals under your care are protected?

Answer: The following lists the ten most critical projects required for the next year. These projects are noted in the "priority" column of the attached listing of projects with the same corresponding priority numbers.

1. All annual maintenance and repair projects
2. Emergency contingency to address unanticipated failures and repairs
3. Zoo-wide fire alarm, detection and suppression system improvements
4. Conservation Research Center fire alarm, detection and suppression system improvements
5. Repair failing roof structure at Upper Bear Line
6. Blue Road repairs

7. Replace rusted doors at Bird House
8. Correct erosion in the Kangaroo Yard
9. Repair/replace walls and roofs at Deer Area
10. Repair barn roof at Conservation Research Center in Front Royal

Additional priorities at the Zoo include developing a project listing and implementation plan for Zoo-wide infrastructure improvements. This work includes:

- Replacing the remaining outdated 3160 volt electrical system with a more efficient system to reduce electrical line losses.
- A site-wide analysis of storm drainage to improve storm water detention and eliminate erosion problems throughout the Zoo and replace failed portions of the system.
- A site-wide analysis of sewer piping to eliminate the combined storm and sanitary portions of the system and replace inadequate piping.
- Continued maintenance of road infrastructure to improve safety.
- Installation of a complete building automation system and a computerized preventive maintenance system for all building elements and equipment.
- Complete renovation (Major Capital Renewal) of at least one major building and grounds area each year to upgrade structural system, mechanical system, electrical system, fire and life safety systems, accessibility, replace roof, restore building exteriors and interiors, upgrade graphic exhibit material, upgrade animal interior and exterior enclosures, and generally improve the appearance and function of the facility. This work restores a building to the beginning of its life cycle and reduces day-to-day maintenance costs.

Question 26: Several years ago there was a tragedy that occurred at the Philadelphia Zoo which resulted from a faulty fire alarm system. Could that situation occur at your facility?

Answer: The Philadelphia fire was caused by deteriorated heat trace (an electric wire used to heat exposed water piping) and poor maintenance of the fire alarm system. It is unlikely that this situation would happen at NZP, because heat trace has been removed, and a competent fire alarm maintenance contractor tests the systems annually and makes regular repairs and improvements. In addition, buildings are toured by NZP Police and HVAC staff to ensure that problems of any kind are detected quickly. The Institution is in the process of designing a central fire protection monitoring system and portions of that system will be installed this year.

## Repair and Restoration at the Institution

Question 27: This Committee has urged the Smithsonian to place a greater emphasis on serious backlog maintenance and delay major new museums and costly exhibits for a time. The Smithsonian came to this Committee only last year and presented a package of \$250 million in critical backlog maintenance particularly at four of the most popular museums.

You stated that unless \$50 million per year was appropriated over the next ten years, there would very likely come a day where for safety reasons museums would close to the public. Yet you bring a budget to Congress that recommends \$32 million (\$7 million less than this Committee provided this year) and \$18 million less than your own report recommends. Can you explain your request?

Answer: Appropriations of \$50 million a year for the next decade will be central to the Institution's ability to catch up with its backlog of maintenance and repairs and preserve the landmark structures with which it has been entrusted. The request before you reflects the Office of Management and Budget policy of fully funding major construction projects in a single year. In the year in which the National Museum of the American Indian Mall Museum funding is being requested, there were not sufficient projected resources to cover \$58 million for NMAI and \$50 million for R&R.

Question 28: Of the \$32 million in the R&R request, only \$9.1 million will be used for major renewal projects, the balance of \$22.9 million will be used for other repairs. Can you explain why so little is being used for your most critical projects?

Answer: The entire \$32 million will be used to correct the most critical repair needs of Smithsonian buildings. A certain amount each year must be devoted to the kinds of repairs, such as to leaking roofs, broken HVAC equipment, or serious life safety and health deficiencies, that require immediate attention, regardless of which building is involved. Historically, the annual requirement for these kinds of projects has been around \$20-\$25 million, which consumed our entire appropriation until very recently when annual funding was increased. This left little funding to begin planning and design of the major capital renewal projects at the four buildings whose deteriorating condition is of greatest concern.

The Institution remains committed to correcting the overall conditions of the four buildings mentioned in the budget request. The proposed spending plan for the \$32 million includes \$9.1 million for design or construction of major capital renewal work in each of the four buildings, as well as approximately \$6 million in "other repairs" in these buildings. Planning and design of projects of the magnitude and complexity of the major capital renewal projects takes several years, and requires careful sequencing to ensure that staff and collections can be safely and productively housed in alternative locations (either within the building or in another facility) during construction. The Institution has developed a plan for the necessary "swing space" at the National Museum of Natural History and is completing design of a major component of the work. As soon as the East Court Infill Building is complete in 1998, we

will move staff and collections so we can begin construction in the interior of the building. We are designing the work at the other three buildings, and concurrently pursuing alternatives to providing "swing space" for those projects as well.

#### National Museum of American Indian Facilities

Question 29: Your budget states that economic realities have guided the Smithsonian to request only \$32 million for its most critical repair work and yet this same budget requests \$58 million for a new museum of the American Indian. How do you explain this priority?

Answer: The legislation establishing the National Museum of the American Indian required that no less than one-third of the cost of the Museum on the Mall be raised privately. That money has been raised. It is now that the federal funds must be requested. However, as stated in question 27, there were not sufficient projected resources to cover both additional R&R and fully fund construction of the Mall Museum in FY 1998.

Question 30: This Committee has given very specific directions to the Smithsonian for the past two fiscal years regarding the downsizing of the project. Although your statement details certain downsizing of the structure, has this effort resulted in a reduction of the federal contribution?

Answer: The downsizing detailed in the statement has allowed the Institution to remain within the \$110 million overall budget set for the building several years ago, but has not reduced the federal contribution to the project. We believe that the building now planned is the minimum size required to fulfill our commitment to present this important collection to the public, and further reductions would compromise our ability to accomplish the mission of the museum. Moreover, a smaller building would not fit in with the overall scale of other buildings on the National Mall.

As we have reported to you previously, the Institution has been successful in reaching its goal of raising \$36.7 million to construct the NMAI Mall Museum. This amount represents the original commitment we made to Congress for private funding of the Museum. The national campaign undertaken by the Institution achieved a significant response from individuals, foundations, corporations and Native American tribes throughout the country. Current membership is approximately 70,000, and we've been successful in retaining members at a high rate. The vision we presented to potential donors was based on an understanding that Congress would provide the remaining two-thirds of the funding required to proceed with the project. Donors such as the Pequots, who pledged \$10 million, made their gifts explicitly contingent upon this premise. The Smithsonian could risk losing some of these pledges if the federal/trust funding mix is changed. Moreover, such a significant change in the basis upon which support for this project was sought from donors would seriously impact the whole notion of public/private partnerships which is at the core of the Institution's ongoing fundraising efforts.

Question 31: Assuming construction is completed in the future, what are the total costs necessary to equip, staff and move the collections to the facility?

Answer: The only portion of the collection that will be located in the Mall Museum will be specific objects chosen for exhibitions. The rest of the collection will be housed at the Cultural Resources Center in Suitland, Maryland. The Salaries and Expenses funds necessary to equip and staff the Mall facility are estimated to be \$21.9 million. The \$21.9 million includes \$4.7 million for one-time expenses for equipment, \$10 million for one-time expenses for the opening exhibits, \$3.6 million for additional SI support operating expenses, and \$3.6 million for an additional 77 FTE and operating costs.

Question 32: Once operational, what will be the yearly operational costs associated with this new facility? Please provide the same operational costs for the New York and Suitland facilities once they are fully operational?

Answer: When the Mall Museum is fully operational, the Institution projects a recurring operating cost of \$12.4 million. This is made up of NMAI operating costs of \$8.8 million and SI support costs for security, maintenance and utilities, and libraries of \$3.6 million. NMAI's New York museum is fully operational at about \$3.8 million plus \$2.7 million for security and maintenance. The Suitland facility will require \$5.8 million for NMAI operations and the SI support costs are expected to be \$3 million when fully operational.

#### Alterations and Modifications

Question 33: In order to provide the \$58 million for the new facility, no funds were requested for the Minor Construction, Alterations and Modifications account for fiscal year 1998. What high priorities will not be funded should the Committee agree with this no funding request?

Answer: The Institution's decision to defer funding for Alterations and Modifications in FY 1998 will delay several very important projects. These include advanced planning and design of future A&M projects; Gamboa pier site improvements at the Smithsonian Tropical Research Institute; exhibit hall demolition and space modifications and improvements at the National Museum of Natural History; and stormwater management and the approach road at the Smithsonian Environmental Research Center in Edgewater, Maryland.

Question 34: What high priority facilities planning activities will be delayed should the Committee agree with the Administration's no funding request?

Answer: The most significant planning activity that will be delayed in FY 1998 is the ongoing effort to explore alternatives to costly leased space for long term needs. Currently, the Smithsonian leases about one million square feet of space. Much of this space is located in Washington, DC, and is used for long term administration, light industrial, and storage needs.

Many of the leases will expire over the next three to five years, and the Smithsonian has an opportunity to achieve significant cost savings by locating these functions in owned space. The Smithsonian is currently evaluating a variety of options in these areas, but additional resources will be needed in future years to complete a thorough identification of requirements and investigation of options for replacing leased space, and to develop specific plans for acquisition and use.

#### National Air and Space Museum Dulles Center

**Question 34a:** The Committee has invested \$4 million for the planning of the Dulles Air and Space Museum Extension. The private sector has raised \$2.4 million. What is the current status of the project?

**Answer: Planning.** All planning and programming tasks leading to the design of the new facility have been concluded except for the environmental assessment. A draft environmental assessment is under review by the public and by federal, state, and local agencies. It is anticipated that the Federal Aviation Administration, the lead agency for environmental assessment approval for Dulles, will complete its approvals of the document in September 1997.

**Design.** The combined FY 1996-1997 appropriations of \$4 million, plus \$0.5 million from the Commonwealth of Virginia, fund the schematic design and design development phases of the project, to include drawings and documents that fix and describe the size and character of the project. NASM will receive the formal schematic design submission from the architect in April 1997. Refined cost estimates and outline specifications will be produced, upon which construction documents will be based. The remaining federal appropriation is needed now in 1997 to prepare the building construction documents. These documents should be completed in 1998, with building construction commencing soon thereafter.

**Design--Site.** The present level of funding provides for design through the 65 percent phase of construction documentation for the infrastructure (site). The remaining federal appropriation is needed no later than October 1997, to complete the construction documents in a timely manner so that Virginia can schedule infrastructure construction.

**Virginia Contribution.** The Virginia Department of Transportation and SI will sign a contract for the design of a new Route 28 interchange in the coming weeks. Design work will be accomplished by the project architect. This \$926,000 design is funded by the Commonwealth. A public hearing on the interchange will be scheduled for September 1997. Construction of the site improvements should begin in June 1998, funded by Virginia.

**Question 35:** Has the Commonwealth of Virginia followed through on its commitments on this project regarding infrastructure and other funding? Please describe those commitments.

Answer: The Commonwealth of Virginia is fulfilling all its commitments to the Smithsonian to provide infrastructure and funding for the Dulles Center. A Memorandum of Understanding (MOU) between the Smithsonian and the Commonwealth of Virginia was signed by Secretary Heyman and Governor Allen. The MOU, dated April 22, 1996, calls for the Institution, in consultation with Virginia, to prepare a budget and plan of financing. In the agreement, Virginia offers \$6 million in appropriated funds for construction, infrastructure support estimated at \$30 million to \$40 million, bonding authority up to \$100 million, and a \$3 million interest-free short-term loan. Virginia will also provide assistance to the Smithsonian with its fund raising campaign, working with business groups and non-profits operating in the Commonwealth.

Question 36: Will this project be delayed because there are no funds provided in this budget request for additional planning?

Answer: The Smithsonian team and its architects have completely obligated the \$4 million that was appropriated in FY 1996-1997. The combined 1996-1997 appropriations, plus \$0.5 million from the Commonwealth of Virginia, fund the schematic design and design development phases of the project, to include drawings and documents that fix and describe the size and character of the project. The current level of appropriation also allows the Smithsonian to begin preparation of construction documents, drawings, and specifications that detail the requirements for infrastructure (site) construction. Funds in hand will complete 65 per cent of site construction documentation.

The remaining \$4 million federal appropriation is needed now to prepare the construction documents for the building. These documents should be completed in 1998, with building construction commencing soon thereafter, to meet the goal of completing and opening the facility in late 2001. This level of appropriation will also allow completion of the infrastructure (site) construction documents in a timely manner so that the Commonwealth of Virginia can schedule its construction tasks without delay.

The Smithsonian urgently needs the remaining appropriation as soon as possible, or all design work on the Dulles Center will halt. This \$4 million will provide for the construction documentation phase of the project.

Question 37: What funding did the Smithsonian request to OMB for the Air and Space Extension project and for A&M and planning?

Answer: In its FY 1998 budget request to OMB, the Smithsonian requested \$2 million to complete design of the National Air and Space Museum Dulles Center. This request assumed full receipt of the FY 1997 request to Congress. Congress appropriated only \$3 million of the \$5 million requested leaving \$4 million to complete the design.

In its FY 1998 request to OMB, the Smithsonian requested \$5 million for A&M projects to make building modifications to provide adequate and appropriate space and

\$500,000 to continue planning for future construction requirements in conjunction with programmatic goals.

#### Government Performance and Results Act

Question 38: This Committee is highly supportive of the Governments Performance and Results Act which requires the development of performance standards and Strategic Plans, due in September. What progress has the Smithsonian made on this effort?

Answer: The Smithsonian has been engaged in strategic planning for several years. As part of this process, in September 1993, the Board of Regents appointed the Commission on the Future of the Smithsonian to examine the Smithsonian, its mandate (i.e., its mission) and its roles. Secretary Heyman worked with the Commission in its consideration of the future of the Smithsonian. In 1995, the Commission issued its report, including recommendations in the areas of research, collections, exhibitions, education, governance, finance and management. The Board accepted the report, and since that time, the Secretary and senior management of the Smithsonian have been engaged in a variety of activities to further develop and refine the goals and objectives of the Institution, in line with the requirements of the Government Performance and Results Act.

Question 39: The Smithsonian is required by law to closely consult with the Congress and specifically this Committee on the substance of these plans and standards. Congress's definition of consult means meaningful give and take on the development of these plans. Considering the September date is only six months away, when can the Committee expect to receive a draft plan?

Answer: The draft strategic plan for submission under the Government Performance and Results Act is now under review within the Institution. Once these internal reviews are completed, the Secretary will present the draft plan to the Board of Regents at its May 1997 meeting. After the Board's review, the Institution will provide the draft to the Appropriations Committees, as well as those Committees with oversight jurisdiction over the Smithsonian, and will arrange to meet with the Committees to discuss the plan.

#### Comparison of Smithsonian Institution Museums and Resources

Question 40: The Committee compared several museums with similar visitation numbers. The National Museum of the American Indian in New York has the exact visitation number as the Cooper-Hewitt and 166,000 less than the Freer and Sackler. However the FTE and operational costs for the NMAI in New York far exceeded the other two. Can you explain this inequity?

Answer: While the number of visits in FY 1996 to the National Museum of the American Indian Museum (NMAI) at the George Gustav Heye Center in the U. S. Customs

House in New York is approximately 166,000 less than the recorded visits in the same fiscal year to the Freer and Sackler Galleries, the Institution's records do not indicate that the visits to the Cooper-Hewitt Museum in New York are equal to those at the National Museum of the American Indian. The following table shows the recorded visitation numbers for the three museums for FY 1995 and FY 1996.

In making cost-per-visit comparisons, only the cost of the NMAI New York facility should be considered. Using the full budget of the NMAI line-item, which includes the Washington components of NMAI, would distort the comparison. Thus, only the New York portion of the NMAI budget, adjusted to include administrative overhead provided by the Washington office, is reflected in the table below.

	FY 1995 Visits	FY 1995 Budget	Cost per visit in FY 1995	FY 1996 Visits	FY 1996 Budget	Cost per visit in FY 1996
Cooper- Hewitt	89,073	\$5.2m	\$58.00	25,246	\$5.6m	See notes
Freer/Sackler	642,917	\$11.2m	\$17.42	485,400	\$12.5m	\$25.75
NMAI-Heye Center	321,585	\$5.0m	\$15.55	318,891	\$5.2m	\$16.31

NOTE: Cooper-Hewitt Museum was closed from August 21, 1995 to September 16, 1996.  
George Gustav Heye Center opened to the public on October 30, 1994.  
Budgets include operating funds from appropriated and non-appropriated sources.

#### Corporate Patrons

Question 41: Mr. Heyman, earlier this year you gave a speech regarding museum fundraising. You were quoted as saying that "Corporate patrons are the museums last hope" and "we are doomed, at best, to a static future and at worst to one of continuing erosion.

If I may bring to your attention the fact that this Committee has provided major increases to the Smithsonian when other agencies have suffered decreases the past several years. This Committee has also provided additional funds the last several years not only for operational increases both for new facilities in Panama (95,000 sq feet), a new museum of the American Indian in New York, Suitland and planning for a mall facility, planning funds for a new extension for Air and Space in Virginia, a new submillimeter array telescope in Hawaii, a new East Court extension, and several new Grasslands exhibits at the Zoo to name just a few new items.

How can you possibly justify your statements?

Answer: The Smithsonian has long recognized the generosity of the Committee in addressing its specific needs, particularly in these times of very limited resources. However, the list cites facilities, all of which have impact on the Institution's resources for staffing, information technology, communications systems, utilities, and central services such as legal counsel and accounting.

While the Committee's increases have been crucial to modernizing laboratories and instrumentation at the Smithsonian and creating new space for current activities and public programs, the fact remains that the increases have not kept pace with inflation. As a result, base funding for the Institution has eroded significantly in the past decade. Reorganizations and staffing reductions have been of some assistance in combating erosion while meeting increasing demands of the public, but, as Smithsonian staff is well aware, we are an Institution doing more with less.

If we are to remain on the front lines of science and if we are to create innovative exhibitions and learning experiences for visitors on the Mall and for those whom we visit in their schools and living rooms, major infusions of money will be required to support the new programming, staffing, and technological development essential to carrying our venerable mandate well into the 21st century. Certainly, we will look to the Congress for help in this effort, which we believe worthy, but which we also recognize must compete with a myriad of other needs in Congress.

Ideally, we would like to create partnerships with corporations here and abroad to pursue the cutting-edge research and innovative programming that will assure a dynamic future for the Institution, and work with Congress to stem the erosion to our base and sustain operations.

#### National Museum of American History Military History Collection

Question 42: There has been concern about the future of the Military History collection and exhibitions at the National Museum of American History. Can you assure the Committee that there are no plans to dramatically change this exhibit?

Answer: There are no plans to dramatically change the exhibitions which make up the military history hall. The Museum does plan to update and improve the appearance of the oldest of the exhibitions in that hall. It has remained essentially the same since the hall opened in 1965.

Question 43: What is the status of finding a new curator of Military History?

Answer: The advertisement for the military history position opened in January of 1997 and recently has been extended an additional month until April 30, 1997. There are several key professional conventions during April where the position will be advertised. In addition, each of the military service academies have been notified, along with the VFW, and the

American Legion, and will share the job advertisement with their memberships through their publications.

#### Smithsonian Museum Shop at the National Airport

Question 44: The Smithsonian has just announced that a new store will be opening at National Airport this summer. How many other stores does the Smithsonian operate outside the museum complex?

Answer: Since May 1995, the Smithsonian has operated a museum shop at the Baltimore-Washington International Airport. The shop, located adjacent to the observation and exhibit areas of the facility and undertaken at the request of the Maryland Aviation Administration, features aviation- and flight-related products.

Question 45: How much revenue is generated from those outside sources?

Answer: In FY 1996, the BWI shop generated sales of \$125,000. That shop is operated as an outreach activity of the Smithsonian, with any operating losses covered by the Maryland Aviation Administration.

Question 46: Are there plans to open additional locations?

Answer: At this time, except for these airport locations, there are no plans to open additional museum shops in locations other than in Smithsonian facilities.

#### Smithsonian Tropical Research Institute Research

Question 47: The Smithsonian Center for Tropical Forest Science (CTFS) in Panama has undertaken a unique research project which scientist believe will provide valuable information for research management and forest sustainability in the U.S. Can you describe what those benefits to the U.S. might be?

Answer: The Center for Tropical Forest Science of the Smithsonian Tropical Research Institute is carrying out long-term research on tropical forest productivity, dynamics, and management within 13 research programs in 12 countries of Asia, Latin America, and Africa. The basic and applied research generated from these projects are critical to our efforts to conserve the tropical forests. Examples of specific projects that are of particular interest to Americans include:

*Developing solutions to reduce the impact of global greenhouse gases.* CTFS is developing models of how tropical forests, which sequester and store carbon, can help us counterbalance the carbon that humans are releasing into the atmosphere. Through proper management, tropical forests can provide opportunities for the United States and

other developed countries to meet their obligations under the Climate Change Convention. The models being developed by CTFS use the example of a Malaysian rainforest to demonstrate how carbon can be stored in forests while they also generate revenues from controlled extraction of valuable tropical hardwoods.

*Searching for new medicinal compounds in tropical plants.* CTFS is joining with the Walter Reed Army Medical Research Institute to investigate potential valuable medicinal compounds in plants of Central West Africa. For many generations, residents of Cameroon and Nigeria have compiled medicinal remedies that are based on local plants. Only in recent years has the international scientific community begun to realize that often there is a chemical basis for these local remedies. CTFS and Walter Reed, in conjunction with African collaborators, are identifying plants used in local medicines, screening them for compounds with medicinal value, and evaluating the ecological conditions under which these plants can be harvested and conserved. Particular attention is being given to a new species of liana *Ancistrocladus korpensis* with promising anti AIDS properties. This project is funded through the US National Institutes of Health.

*Reforesting the watershed of the Panama Canal.* The economic health of the Panama Canal depends, in part, on the ecological health of its surrounding forests. These forests are protection from costly erosion and resulting sedimentation of the canal, which potentially affect the waterway. CTFS is actively working on projects to reforest denuded pastures within the watershed using tree species that are native to the region and provide valuable resources to local farmers. The majority of the traffic in the Panama Canal originates from or is destined to U.S. ports.

Question 48: Are the results of that research likely to contribute to reforestation of degraded tropical ecosystems with valuable tropical hardwoods? Will the results have any application for reforestation techniques in the United States?

Answer: The benefits produced by tropical rainforests are spread across the globe rather than being restricted to residents of the countries in which the forests are found. Every American reaps the profits from these forests, whether through agricultural crops which were bred from tropical strains, medicines that were developed from tropical plants and animals, air which has been cleansed of carbon by forest sinks, or simply tropical hardwoods that grace our homes.

Despite their great global value, these forests are rapidly disappearing. Their fate will depend largely on the actions taken during this decade and the next. Yet we lack even the most fundamental information that is necessary to conserve and manage tropical forests such as how many tree species exist in the tropics and where they occur.

Most current reforestation of degraded tropical ecosystems is accomplished with a few exotic softwood or rapidly growing hardwood species. These are generally of low value and are used for pulp. The Center for Tropical Forest Science identifies native hardwoods which,

for the same cost of establishment and maintenance in plantations, can produce a much more valuable crop, at harvest. These technologies could be applied to temperate zone plantations which are also dominated by monocultural softwoods.

#### Smithsonian Astrophysical Observatory Xenon Gas Research

Question 49: Research performed at the Smithsonian Astrophysical Observatory in Boston has led to a major medical spin-off that may help save human lives. This breakthrough involves magnetized xenon gas. Can you describe how they made this discovery, and its potential medical applications?

Answer: SAO scientists using a method to produce laser-polarized xenon gas (Xe-129) that was developed by them for high-precision measurements in fundamental physics, seized the opportunity to become involved in an exciting new area of research--using this gas to apply Magnetic Resonance Imaging (MRI) to parts of the human body not accessible via ordinary MRI (such as the brain and the lungs). In 1994, a collaboration between the SAO and the Brigham and Women's Hospital (BWH) of the Harvard Medical School was initiated. A primary focus of this work in the SAO laboratories is to develop a large-scale system that can produce laser-polarized xenon gas in quantities sufficient for use in biomedical studies. Activities of this collaboration included the first observation of a rat lung using Xe-129 which distinguished the different signals coming from the lung tissue and the gas volume, the first image of laser-polarized xenon in a human being (the oral cavity), studies of the behavior of polarized Xe-129 in blood, and model calculations of the build-up of inhaled, polarized Xe-129 in human tissues. A U.S. patent, "Method and System for Producing Polarized Xe-129 Gas," has been allowed and issuance is expected in 1997.

This new technique holds considerable promise in the diagnosis of various diseases and in studies of biological processes such as perfusion, the transport of gas between blood and tissue. In many cases this new technique would be complementary to ordinary MRI, providing additional and enhanced diagnostic information. As mentioned, several important organs which could be imaged better using laser-polarized xenon gas are:

- The lungs; inhalation of polarized Xe-129 would aid in determining the location of lung regions affected by asthma, emphysema, tuberculosis, and other diseases;
- The brain; vastly better images of the brain's white matter could be obtained with polarized Xe-129 deposited there by the blood. This could permit early-stage diagnosis of multiple sclerosis and other diseases affecting the myelin sheaths around nerves. In addition, such MRI studies might well shed light on the poorly understood anesthetic effect of xenon.

We note, too, that magnetic resonance imaging with laser-polarized Xe-129 can be done at much lower magnetic fields than those necessary for ordinary MRI. This reduction should permit the use of much lighter, smaller and thus cheaper magnets for imaging.

Although it would not make current MRI apparatus obsolete, the new technique would allow specific tests to be performed on cheaper systems, thus helping, ultimately, to reduce medical costs for important diagnostic procedures.

#### Smithsonian and the Internet

Question 50: Is the Smithsonian using the Internet for science education?

Answer: In the National Museum of Natural History (NMNH), the Internet is used for education in a variety of ways. Through the Museum's home page, access can be gained to numerous Web pages, including the *Arctic Studies Center*, *Exploring Marine Ecosystems*, *Hologlobe*, *Natural Partners*, *Ocean Planet*, *In search of Giant Squid*, *Seeds of Change Garden*, and *Insect Zoo*. The *Natural Partners* initiative is rapidly increasing in scope and coverage, with new electronic field trips planned and underway. In addition to the Museum's general educational presence on the Internet, there are very large NMNH scientific databases available for use by scientists worldwide, and these are being accessed with increasing frequency.

The NMNH Natural Partners Program has regional partners throughout the United States. Working closely with university, school, community-based and other government agency partners, they have piloted and evaluated three highly effective distance learning models: live two-way video conferencing, electronic field trips, and interactive, curricula and standards-based Web sites.

The Smithsonian Astrophysical Observatory (SAO) is currently using the Internet to educate science and math teachers (eventually to inform parents and school administrators as well) as part of the Smithsonian's initiative with the Annenberg/CPB Math and Science Project known as the Annenberg/CPB Channel, to broadcast education reform programming nationwide. Teachers and others use the Internet to carry out discussions and access text materials and other information helpful in implementing their reforms. In addition, SAO is collaborating with Harvard to create a nationally broadcast television series for children which uses the Internet as its primary point of contact for instruction. Children will use the Internet to interact with the program and change the outcome of a story broadcast on-air, while at the same time revising their own thoughts about some difficult scientific concepts.

The Smithsonian Tropical Research Institute (STRI) Web page on the Internet was highlighted in October 1996 by Yahoo as one of the best sites on the Internet. This year STRI is in the process of expanding the section on science education, in order to share with the general public, particularly younger students, the marvels of the tropical environment and the need to conserve it. The information for this education part of our Web page is derived primarily from the research conducted at STRI.

The National Science Resources Center (NSRC) is working with hundreds of school districts across the U.S. to help them establish effective science education programs. To

improve access to expertise in science education reform, the NSRC plans to establish an Electronic Networking for Science Education Reform (ENSER) project that will make use of the Internet to connect lead teachers, school district administrators, scientists, and community leaders in five regions of the United States. This network will involve 44 school districts that serve approximately 223,000 students in grades K-8. By providing these school districts with a means of accessing science education information and resources not otherwise available, the ENSER network will help to reduce the disparities between "science-rich" and "science poor" communities. The project will also serve as a national model for the use of electronic networking technology for advancing science education reform.

As part of its mission to bring more focus and synergy to educational endeavors at the Institution, the Smithsonian Office of Education will soon launch a Smithsonian-wide Education Area on the Smithsonian Web (<http://educate.si.edu>). The Education Area will include lesson plans on many different subjects that are based on the Institution's exhibitions and collections. Science-based materials currently online include the following:

- *Art to Zoo*, the Smithsonian's quarterly curriculum journal for educators in grades 4-9, focusing on issues on archaeology, ocean ecosystems, and ocean/weather interactions. Each Art to Zoo contains background materials for teachers, step-by-step lesson plans, student activity pages, and resources for further study.

- *Ocean Planet* curriculum kit based on the traveling exhibition. Features six lesson plans with background information; statement of learning objectives; list of required materials; step-by-step procedures; student activity pages (in Adobe Acrobat format); and a list of additional resources, including connections to the online version of the *Ocean Planet* exhibition.

Eventually, the Education Area will link to the Smithsonian Astrophysical Observatory's on-line materials, including the *Private Universe* project, as well as to all other online Smithsonian science education materials.

In collaboration with the Smithsonian's Office of Education, the Smithsonian Institution Libraries has converted the exhibit *From Smithsonian to Smithsonian: the Birth of an Institution* into an on-line exhibition with a curriculum packet on 19th-century United States history for students and teachers of grades 9 and 10. In early 1997, this on-line version of the temporary 150th anniversary exhibit, with the full exhibit text, images, and additional nineteenth-century documents and sound will be available to the world-wide Internet audience.

Question 51: What is the purpose of your Internet telescope project, how did the idea develop and who can access the automated telescope?

Answer: The Smithsonian Astrophysical Observatory telescope project aims to raise the quality of science education by giving students and teachers access to powerful scientific instruments. We know that the best way to learn science is to *do* science - hands-on, with the "real tools of the trade." From the convenience of their classrooms, teachers and students can

use the Internet to point the telescopes, set the controls, and take images of the Moon, planets, and distant stars and galaxies. Right now Comet Hale-Bopp is a popular subject. Students use the telescopes to learn about the sky, to carry out their own investigations, and to collaborate on research projects with Smithsonian scientists. This project also makes it much easier for classes -- even in different countries -- to share information - images and data - which makes it possible for them to collaborate on investigations that just could not be done previously. A major emphasis is equity of access: the telescopes are accessible not just from the classroom, but also from after-school workshops, libraries, even shopping malls.

The idea for these educational telescopes evolved over the last decade, when the Smithsonian Astrophysical Observatory began to automate several of its research telescopes. SAO's work on developing telescope cameras and the ability to enhance images by computer led to the designing and building of a small, self-contained educational telescope that is impervious to weather, easy to use, yet produces wonderful pictures of the sky.

The telescopes have been used by children as young as third grade, right on up through high school. Any school with access to the Internet can make use of them. Right now a team of teachers from Alaska, Massachusetts, North Carolina, New Mexico, and Ohio are developing activities appropriate for different grade levels. The schools don't have to purchase or maintain fancy instruments, or have a clear or cloudless site. In fact, for students in cities where one cannot see much of the night sky, these telescopes open up a whole new window on the universe.

Question 52: Will this project have importance beyond astronomy?

Answer: Absolutely. This project is one of the first projects to use the Internet not just as a source of existing information, but as a way to gain new knowledge, by investigating the natural world. It is also one of the first to help us understand how people learn over the Internet. Thus, this project is helping us to understand how to maximize the benefits of the Internet.

Question 53: Who is funding this initiative?

Answer: The Smithsonian supports this project through the salary of its project manager and through the installation of a telescope at the Smithsonian's Observatory in Arizona. Additional support has come from grants from the National Science Foundation to Harvard University and gifts-in-kind from private corporations.

#### Private Universe Project

Question 54: What is the Private Universe Project?

Answer: The Private Universe Project developed broadcast quality videos to help teachers understand the problems children encounter in learning science. They were designed

to guide teachers in preparing more effective strategies for teaching and learning. Local public television stations are broadcasting the videos.

Question 55: How is this different from other education reform initiatives currently underway at the Smithsonian?

Answer: The Private Universe Project complements the education reform initiatives, such as those working to develop standards for the nation's schools, ongoing nationwide, by providing a clear set of goals to help guide and focus the work being carried out. Smithsonian's Project raises some provocative and disturbing questions, such as, "how can students graduate from prestigious schools like Harvard or MIT, and yet not understand simple third grade concepts in science?" In answering questions like these, the Project's videos show what research can tell us about how such problems can be solved.

Question 56: Who is your target audience?

Answer: As part of Smithsonian's initiative, a series of television programs have been developed to be broadcast nationwide on PBS, starting this Spring. These broadcasts will reach educators and members of the general public who are actively working toward the improvement of science education in the nation's schools. The television broadcasts, representing about half the project's \$2.7 million budget, was made possible through private funding provided by the Annenberg/CPB Math and Science Project. The other funds were mostly for research and for developing and implementing related teacher education programs, and were provided by the National Science Foundation.

APPROPRIATIONS QUESTIONS ON IMPLEMENTATION OF THE  
GOVERNMENT PERFORMANCE AND RESULTS ACT

Question 57: (1) GPRA, known as the Results Act, requires each executive agency to issue, no later than September 30, 1997, a strategic plan covering at least five years. In addition to a mission statement grounded in legislative requirements, the plans are to contain general goals and objectives that are expected to be outcome- or results-oriented (such as to improve literacy) as opposed to output- or activity-oriented (such as to increase the number of education grants issued).

-- What progress is the agency making in developing its strategic plan, including defining its mission and establishing appropriate goals?

-- Has the agency identified conflicting goals for any of its program efforts? If so, what are the performance consequences of these conflicting goals and what actions--including seeking legislative changes--is the agency taking to address these conflicts?

Answer: The Smithsonian has been involved in strategic planning for several years. As part of this process, the Institution's Board of Regents appointed the Commission on the Future of the Smithsonian in September 1993. Secretary Heyman worked closely with the Commission in its consideration of the future of the Smithsonian. The Commission's report, issued in May 1995, included a number of recommendations in the areas of research, exhibitions, collections, education, governance, finance and management, which the Secretary, and senior management of the Institution have considered in drafting the strategic plan as required by GPRA.

The mission of the Smithsonian has not changed since it was initially stated in the bequest of James Smithson of England, which led to the Organic Act of 1946 establishing the Institution "for the increase and diffusion of knowledge." The goals of the Institution flow directly from this mission in the areas stated above: research, exhibitions, collections and education. The Institution has not found that the goals conflict with one another, except in competition for resources. Furthermore, no legislative changes are required in order to implement the plan once completed.

(2) Strategic plans must be based on realistic assessments of the resources that will be available to the agency to accomplish its goals. As you are developing your strategic plan, how are you taking into account projected resources that likely will be available--especially as we move to a balanced budget? What assumptions are you making? How are you ensuring that your goals are realistic in light of expected resources?

Answer: The Institution's strategic goals, and the objectives and strategies that flow from them, reflect the priority areas we are pursuing or planning to pursue in support of our mission to increase and diffuse knowledge. We recognize in our plan that full and complete accomplishment of our goals and objectives will depend on the level of resources available to us. At the same time, we also recognize that while little change can be expected in the level of Federal resources available to the Institution, we must continue to pursue other avenues of

funding and sources of income if many of our objectives are to be achieved in the five-year timeframe of the plan. For that reason, increases in fund raising and other revenue sources are included as integral parts of the plan itself. While we cannot guarantee full success in obtaining the levels of funding required, we will be measuring our progress in this area as well as in the programmatic areas included in the plan.

(3) For Congress, the heart of the Results Act is the statutory link between agency plans, budget requests, and the reporting of results. Starting with fiscal year 1999, agencies are to develop annual performance plans that define performance goals and the measures that will be used to assess progress over the coming year. These annual goals are to measure agency progress toward meeting strategic goals and are to be based on the program activities as set forth in the President's budget.

-- What progress have you made in establishing clear and direct linkages between the general goals in your strategic plan and the goals to be contained in your annual performance plans? OMB expressed concern last year that most agencies had not made sufficient progress in this critical area.

-- More specifically, how are you progressing in linking your strategic and annual performance goals to the program activity structure contained in the President's budget? Do you anticipate the need to change or modify the activity structure to be consistent with the agency's goals?

-- Overall, what progress has your agency made--and what challenges is it experiencing--defining results-oriented performance measures that will allow the agency and others to determine the extent to which goals are being met?

Answer: An integral part of the Smithsonian's internal planning and budget process this spring will be the development of the performance plan to be submitted with our budget request to OMB in the fall. As part of this effort, performance goals are being identified that link to the goals and objectives contained in the strategic plan. The strategies and measures that have been developed as part of the strategic plan will also guide the development of the performance goals at the programmatic level, as well as the more detailed performance measures to be included in the performance plan. While there are challenges involved in developing outcome-oriented measures for some of our activities, such as research and education, we expect these measures will be refined over time as we implement the plan. At this time, we do not anticipate that any changes will be required to the activity structure contained in the President's budget.

(4) If applicable, what lessons did the agency learn from its participation in the Results Act pilot phase and how are those lessons being applied to agency-wide Results Act efforts? What steps is the agency taking to build the capacity (information systems, personnel skills, etc.) necessary to implement the Results Act?

Answer: The Smithsonian did not participate in the pilot phase of the Results Act. However, as part of our annual internal budget and planning process, we are continuing to examine the

resources and skills needed to accomplish our goals and objectives, and will focus our requests for resources to meet those needs based on the priorities identified during that process.

(5) The Results Act requires agencies to solicit and consider the views of stakeholders as they develop the strategic plans. Stakeholders can include state and local governments, interest groups, the private sector, and the general public, among others. Who do you consider to be your agency's primary stakeholders and how will you incorporate their views into the strategic plans?

Answer: As the national museum complex of the United States, and repository of national collections in history, natural history and art and portraiture, the Smithsonian includes all citizens among its stakeholders. From the beginning, the public has been represented in Smithsonian policy-setting and direction by the inclusion of citizen (as well as Congressional) representatives on the Board of Regents. The Board has been and will continue to be actively involved in review of the goals and objectives of Smithsonian programs, which are now being included in the draft strategic plan. Other advisory boards, both at the Institutional level and the museum or unit level, provide additional opportunities for review of the Institution's priorities and plans. In the case of specific programmatic areas of the Institution, such as research and education, there are long-established collaborations or partnerships which will continue to allow for input on the Institution's plans in these areas. In addition, the Institution used the vehicles of surveys and focus groups to determine the views of those for whom the Institution exists.

(6) For the Results Act to be successful, agencies with similar missions, goals, or strategies will need to ensure that their efforts are coordinated. What other federal agencies are you working with to ensure that your strategic plans are coordinated? What steps have you taken to ensure that your efforts complement and do not unnecessarily duplicate other federal efforts?

Answer: The Smithsonian is associated with three other entities, which were established by Congress as part of the Smithsonian Institution but are governed separately by their own boards. These are the National Gallery of Art, the Kennedy Center, and the Woodrow Wilson International Center for Scholars. The Secretary of the Smithsonian serves on the board of each of these institutions. In addition, there are frequent discussions between the managers of the Smithsonian and their counterparts in these other institutions regarding programs and plans. During this period when development of strategic plans has been underway, there have been additional discussions on the planning process. Since each of these entities has been chartered by Congress for specific purposes, we have not found duplication of effort to be an issue.

(7) The Results Act requires agencies to consult with Congress as they develop their strategic plans. Since these plans are due in September, now is the time for agencies to begin the required consultations. What are your plans for congressional consultation as you develop your strategic plan? Which Committees will you consult with? How will you resolve differing views?

Answer: We are now working to complete a draft of the strategic plan, which the Secretary will present to the Board of Regents at its May 1997 meeting. Once the Board has completed its review of the draft plan, we will submit the draft to the Appropriations Committees and to the appropriate oversight committees. After the Committees have had an opportunity to review the draft plan, we will schedule meetings with them to discuss the plan and receive their comments. Once we have heard the views of the various Committees, it will be easier to determine how to resolve any differences there might be among them.

(8) In passing the Results Act, Congress sought to fundamentally change the focus of federal management and decision making to be more results-oriented. Organizations that have successfully become results-oriented typically have found that making the transformation envisioned by the Results Act requires significant changes in what they do and how they do it.

-- What changes in program policy, organization structure, program content, and work process has the agency made to become more results-oriented?

-- How are managers held accountable for implementing the Results Act and improving performance?

-- How is the agency using Results Act performance goals and information to drive daily operations?

Answer: As strategic planning has progressed over the last several years at the Smithsonian, a number of organizational changes aimed at consolidating functions and offices for more effective and efficient operations have occurred. For example, the new Office of the Provost was created, and three former offices (the Assistant Secretaries for Education, Science, and Art and Humanities) were eliminated. Recently, several functions were consolidated into the new Smithsonian Office of Education which will focus the Institution's efforts in a more concentrated manner on the various educational and outreach efforts that had been spread throughout the Institution. As we complete the development of performance goals and measurements in our internal budget process this year, this information will be used to assess the ongoing operations of the various components of the Institution, and will provide feedback for making additional decisions as to organizational or programmatic changes that will enhance the outcomes we are striving to achieve in support of the Institution's mission.

## QUESTIONS SUBMITTED BY REPRESENTATIVE RALPH REGULA

## Smithsonian Off the Mall

Question 58: I have read several articles lately about the Smithsonian's efforts to take their collections off the Mall. Most recently you entered into an agreement with Bethlehem Steel to loan hundreds of Smithsonian artifacts for display in a proposed new museum of industrial history to be located in Bethlehem, Pennsylvania. I think this is an intriguing concept in terms of providing public access to Smithsonian collections, but my concern is the financial obligation of the Smithsonian with respect to these collaboratives. One article I read, for example, in the *Philadelphia Inquirer* said the Smithsonian would plan and administer the facility. The article also compared this project with the Smithsonian's two other museums outside of Washington -- the Cooper-Hewitt and the National Museum of the American Indian. This was not my understanding of what was to be involved in this project and I would like to hear your views as to what specifically is the Smithsonian's financial obligation on this project.

Answer: The affiliation with Bethlehem Steel requires no financial obligation on the part of the Smithsonian. All expenses are the responsibility of the proposed Museum of Industrial History or Bethlehem Steel. Any advice, support and other costs incurred by the Smithsonian will be reimbursed.

The policy of the Smithsonian regarding affiliations is an extension of long-standing loan practices of the museums and research institutes. Its current manifestation has grown out of a desire of the Secretary to bring more of the treasures of the Smithsonian to people across the Nation. The care and concern traditionally associated with its responsibility as caretaker of the National Collections continues. Following a recently adopted policy statement issued by the Board of Regents, the Institution is developing detailed implementation policies and guidelines. In the interim, the Institution has produced a fact sheet which is made available to those who express an interest in a Smithsonian affiliation. The fact sheet follows:

Smithsonian Institution Collections-Based Affiliations Policy  
Fact Sheet  
(March 1997)

At their September 1996 meeting, the Board of Regents of the Smithsonian Institution formally adopted the Smithsonian Policy on Collections-based Affiliations. The Policy directed each Smithsonian unit to develop plans and procedures for the initiation, development, and consideration of potential affiliations that will allow the lending of Smithsonian collections for long-term exhibition at other institutions. In keeping with this directive, the Institution is developing detailed implementation policies and guidelines. Until final policies and guidelines are approved and adopted, requests for affiliations from outside organizations received by the Smithsonian are handled on a case by case basis. Each request is reviewed by the Office of the Provost under the broad standards set forth in the Board of Regents' Collection-based

Affiliation Policy and the Collections Management Policies of the Institution already in place that generally govern loans of objects from the National Collections. These standards include:

1. In any Collections-based affiliation arrangement, the full authority of the Board of Regents for any object in National Collections must be preserved. The Smithsonian Institution holds the National Collections in trust for the public in keeping with its mission "to increase and diffuse knowledge." The Institution's fiduciary stewardship obligations for the National Collections require prudent management and care of objects that represent our cultural heritage. Under the law, a fiduciary is not permitted to assign its responsibilities outright, but rather must maintain oversight of those to whom the duty of care is delegated temporarily, such as when collection objects are loaned to another entity.
2. Collections-based affiliations with other qualified museums or other educational institutions offer a feasible means of helping the Smithsonian Institution fulfill its goal of becoming a truly national institution by serving local audiences outside its geographic reach. Loans to other institutions around the country and abroad permit the Smithsonian to expand its boundaries through exhibition and study of the National Collections without assuming operation and maintenance of new facilities. The Smithsonian has had a very active collection lending program for many years. In 1995 alone, over 200,000 Smithsonian-owned objects and specimens were lent to over 1,300 institutions around the country and to 674 foreign museums. Collections-based affiliations, providing for loans of larger groups of objects for longer than the average 3 year term under current loan practices, will further extend these goals.
3. Collections-based affiliations will be considered with only non-profit educational organizations recognized as tax exempt under 501(c)(3) of the Internal Revenue Code or similar foreign laws. Each such affiliation must be documented by an agreement signed by both parties and approved by the Smithsonian Office of General Counsel that outlines in detail the nature and terms of the relationship. In general, the Smithsonian lends collections for educational nonprofit purposes only and the receiving museum must avoid any use for private pecuniary gain. In all cases, the affiliation must be appropriate to the Smithsonian's mission and activities in science, history, and the arts.
4. The receiving organization must demonstrate that it is a viable institution, capable of properly caring for, protecting, exhibiting collections and meeting the specific requirements for long term care and maintenance of Smithsonian collections. Each borrowing institution must submit a standard facilities report (in a format approved by the American Association of Museums) detailing the facility's environmental, safety, security, staffing, exhibition space capabilities and insurance coverage. All Smithsonian collections out on loan must be covered by "wall to wall" fine arts all risk insurance for a value set by the Smithsonian and specifically naming the Smithsonian as an additional insured in the policy.
5. Loans to receiving organizations are made for specific time periods, with renewal options, if appropriate. Needed oversight of Smithsonian collections out on loan will include, but not be limited to, periodic site visits by Smithsonian staff to examine the condition of those objects on loan, generally with the receiving institution paying for any travel costs incurred. The

receiving institution will supply the Smithsonian with periodic condition reports and allow access to its other records necessary to monitor the affiliation agreement. No conservation or other treatment of Smithsonian objects by the receiving institution may be undertaken without specific prior approval.

6. The affiliation should be capable of being self-supporting. The receiving organization should be willing to pay fees and expenses such as insurance premiums, packing, crate construction, photography, copyright clearances, framing, transportation, appraisal, conservation, on-site inspection, on-site installation, object retrieval, off-site handling, and security escort services.

7. Requests to borrow unique or especially important collections are considered in light of the nature of the collection, such as, the impact of its absence on Smithsonian programs, security and legal restrictions.

8. The names of the Smithsonian Institution and all of its units are protected trademarks. No use of these names by the affiliating organizations will be permitted without the express consent of the Smithsonian which generally will be limited to uses necessary to identify the source of the loaned collections on museum labels and exhibition signage. The Smithsonian will not allow other institutions to use Smithsonian names for fund-raising or commercial purposes.

Question 59: What control does the Smithsonian retain with respect to the care, transportation and display of the artifacts while they are on loan?

Answer: As with all loans made by the Smithsonian, the care, transportation and display conditions of the objects must meet SI requirements, outlined in each museum's loan agreement. Very large loans, such as the ones contemplated for Bethlehem, will require examination of the loan agreements to ensure they are adequate for these new circumstances.

Question 60: As I understand it, a feasibility study will examine the exhibit space requirements, staffing and funding for the proposed museum. Who will finance this study and when is that scheduled to be completed?

Answer: The feasibility study will be financed by Bethlehem, or more accurately, by the newly established Museum of Industrial History, to whom the loan will be made. It is presently scheduled for completion in December 1997. The cost of this will include reimbursement for SI staff time.

Question 61: According to the article in the *Washington Post* about this initiative, the Smithsonian plans to help with development and design. What do you anticipate being the Smithsonian's role in those aspects of this project?

Answer: The Museum of American History will help the new museum with exhibit outlines and will advise on the interpretation of the artifacts and the history, as part of the

feasibility study. The new museum will be responsible for exhibit design, but Smithsonian staff will work with them to make sure the artifacts are properly housed and the history properly presented.

Question 62: Has the Smithsonian made any commitment to provide funding from either trust or appropriated funds for any aspect of this endeavor?

Answer: No. Any expenses incurred by the Institution will be reimbursed.

Question 63: Along this same line, I was somewhat disturbed to read in the *Fairfax Journal* discussion of two potential new museums. As you know, Mr. Secretary, we have had discussions about the future direction of the Smithsonian and it was my understanding that you were committed to no further new initiatives beyond the ones underway which include the Indian Museum and the Air and Space Extension. According to the *Journal*, a sports museum and an Army museum were both being considered in Arlington and a Smithsonian spokesman said the Institution "welcomes the idea of expanding." What is the Institution's position on expanding given the enormous unmet repair and rehab needs as well as the ongoing commitments with respect to Air and Space and the Indian Museum? Does the Smithsonian support building any new museums at this time?

Answer: There are no plans to build any new Smithsonian museums. Any major affiliation which includes long-term loan of collections will be guided by Regents' policy (see attachment to question 67) and guidelines included in the Fact Sheet on Affiliations submitted in response to question 58.

Question 64: I read in December that you led a delegation to San Antonio to explore options for a long-term presence in that area. Another article in November said the Smithsonian was "scouting" Scottsdale, Arizona as a possible site for a new collection. Could you comment on this, and is this a further effort to spread the Smithsonian's collections beyond Washington, and, again, what would the financial commitment of the Institution be?

Answer: While on a trip to Houston for the local opening of *America's Smithsonian*, the Secretary took the opportunity to visit San Antonio to discuss potential collaborations. The discussions with Scottsdale, to date, relate mostly to potential programmatic collaborations as opposed to lending of collections. Any major affiliation which includes long-term loan of collections will be guided by Regents' policy (see attachment to Question 67) and guidelines included in the Fact Sheet on Affiliations submitted in response to Question 58.

Question 65: Last year we discussed your practices with respect to long-term loans and at that time I did not get the impression that the Smithsonian favored these practices. You testified that although on long-term loan, the museums still have a fiduciary responsibility for oversight of these collections which could entail additional costs and resources. What are the estimated additional costs with respect to these proposed new outreach efforts in Arizona and Texas, and who will bear these costs, the Smithsonian or the communities?

Answer: If these associations become more formal, they will do so under the guidelines outlined in the Smithsonian Fact Sheet on Affiliations. There will be no cost to the Smithsonian. Each community or museum that pursues a formal Regents' affiliation must be prepared to absorb any associated costs.

Question 66: You further indicated that loans require review, monitoring, record-keeping, on-site inspection, and conservation by Smithsonian staff, which would appear to further increase the cost to the Institution. However, based on the press reports I have read, these expenses do not seem to be deterring the Institution from pursuing these arrangements, and, if this is going to become a mission of the Smithsonian, should a policy be established with respect to this outreach to not only address the financial issues and safeguard the collection, but also to ensure that Smithsonian collections are displayed in ways that reflect positively on the Institution and to ensure that the Smithsonian's name is not used inappropriately? Does such an overall policy exist?

Answer: The Fact Sheet on Affiliations submitted in response to question 58 is the outline for the proposed policy on Smithsonian affiliations.

Question 67: Last year you indicated the Board of Regents was reviewing this concept of affiliations or partnerships. What emerged from that review?

Answer: The policy statement on affiliations issued by the Board of Regents is submitted for the record:

#### **THE REGENTS' POLICY ON AFFILIATIONS**

##### **BEYOND THE MALL: COLLECTIONS-BASED AFFILIATIONS**

###### *Evaluation*

Well-developed proposals for collections-based affiliations for long-term exhibition purposes are likely to require consideration on a case-by-case basis. Nonetheless, as they are brought forward, baseline criteria for weighing them must be in place. It should be standard policy that any proposal, whether generated externally or internally, must meet the following core requirements:

- The receiving museum must demonstrate that it is a viable institution, capable of properly caring for, protecting, and exhibiting Smithsonian collections on a long-term basis.
- The affiliation is capable of being self-supporting. The borrower is willing and able to pay fees and expenses such as packing, crate construction, photography, framing, transportation, appraisal, conservation, on-site inspection, on-site installation, object retrieval, off-site handling, and security escort services. In practice, the extent to

which *all* costs will be borne by the affiliating institution may vary, depending upon the circumstances of each case. For example, in evaluating a prospective affiliate's financing proposal, cost trade-offs for the Institution might be savings associated with vacating storage space occupied by large objects.

- The affiliation is appropriate to the Institution's mission and activities in science, history, and the arts.
- The authority of the Board of Regents is preserved.

Meeting these criteria will ensure that a firm foundation for a relationship exists. The inability to meet them would indicate a lack of viability for the proposed affiliation.

Subsequent to a favorable assessment of viability, attention must be directed toward resolving fundamental problems in partnership development: ambiguities, unexpressed expectations and obligations, inexplicit assumptions, conflicts of loyalty and responsibility, and operational and managerial requirements. Although specific issues also must be delineated on a case-by-case basis, two additions to the core of requirements should be that

- Smithsonian curators and other personnel must be able to visit the affiliate that has borrowed objects in order to examine the condition of those objects
- the Smithsonian must have reports and access necessary to monitor the agreement entered into by the Institution and the affiliating organization

#### *Management and Coordination*

Inseparable from the issue of collections is that of information about them. Without such information, decisions about collections and their use cannot be made, either internally or externally. Systematically providing knowledge on Smithsonian collections represents a major, but essential, commitment by Institutional management, as well as a significant public service, that will reach the museum community and others with the imagination to use those collections and information about them in thoughtful and engaging ways.

Ongoing initiatives to develop collection information systems exist at the National Museum of Natural History (NMNH), the National Museum of American History (NMAH), the National Museum of the American Indian (NMAI), and in the collaboration among the six art museums that have formed the Art Collections Information System (ARTCIS). Each of these places high priority on developing and implementing systems that preserve, document, explain, and make accessible collections and research to national and international audiences. At the same time, they provide a means for tracking information about single objects, as well as entire collections, that are on loan to other organizations.

Question 68: With respect to these endeavors, what artifacts do you anticipate loaning those that are in storage, or would you be taking things that are currently on exhibit out of the Mall Museums? Do you worry at all about diluting the Smithsonian if it moves into so many cities? How do you safeguard the Institution's reputation for excellence?

Answer: Loans are expected to be made from items in the study collections, in storage and also objects that may have been on temporary exhibit. More of the Smithsonian's currently unexhibited collections will be included in SITES traveling exhibits. Given the large number of artifacts in the National Collections, the affiliations policy will not dilute the Smithsonian but make more of its collections available to the public across the Nation.

#### Creative Artists Agency

Question 69: According to some reports I read in the fall, the Smithsonian Institution had hired a talent agency, Creative Artists Agency. According to the report I read: "The Museum complex, zealously searching for ways to increase its income and establish a presence beyond Washington, was urged to go the Hollywood route." Could you explain exactly what the talent agent is doing for the Institution and what this is estimated to raise. While I do not want to discourage these entrepreneurial efforts, I am concerned that there are safeguards to protect the Institution's reputation and integrity in these marketing efforts. I must admit a modest entrance fee would seem a lot easier.

Answer: In the fall of 1996, the Smithsonian Institution entered into a non-exclusive relationship with Creative Artists Agency for a number of reasons. Principal among them is the goal to explore new ways to reach national audiences through various media formats: television (network and cable), online partnerships to create new electronic materials, radio, film, and perhaps live events. The Smithsonian sees particular opportunity to create effective and high-level children's programming but is also interested in reaching generations of young adults who receive most of their information through popular culture.

There is the possibility but by no means the certainty that the Smithsonian will tap into significant new revenue streams through partnerships arranged by Creative Artists Agency. If some efforts result in the modern equivalent of the launch of the Smithsonian magazine over twenty five years ago, which both enhanced the mission of the Institution, extended its national reach, and brought significant new revenues, the Institution will count the CAA experiment a success. But it will take some time to determine which projects will meet our goals and standards.

#### Smithsonian's Credit Card

Question 70: You have also allowed the Smithsonian's name to be used on a credit card. What is the estimated revenue to be raised through this effort? Will this credit card be permanent or is it intended to last only long enough to pay off the debt from the traveling?

Answer: It is our intention that the Smithsonian Card is a permanent addition to our revenue generating activities. The term of the agreement with NOVUS Services, Inc. to issue the Smithsonian Card is six years.

#### Admission Charges

Question 71: You do plan to charge admission to a show opening at the Museum of Natural History in June: "Amber: Window to the Past." Why can you justify an admission charge for this show and not for others, including the traveling show?

Answer: The amber show is a traveling exhibition that is being brought to the National Museum of Natural History at a substantial cost. The modest entrance fee will help defray that cost. Precedent for such a fee was established in 1990 when *Dinamation*, an extremely popular exhibition on dinosaurs, was brought to the Museum.

Smithsonian museums usually generate their exhibitions, based on Institutional holdings, through fund-raising efforts. Charging a small fee is, in effect, a way of raising funds in order to offer to Mall visitors interesting exhibitions generated by other organizations.

America's Smithsonian is the Institution's 150th birthday gift to the Nation. Designed to take the Smithsonian to the people, it required major fund raising in the private sector. Part of the attractiveness of the funding proposal to our corporate partners was the idea of offering free admission in America's hometowns in the manner of Washington, D.C., parks and National museums.

#### America's Smithsonian Traveling Exhibition

Question 72: As I understand it, the traveling show has been stopped and will only go to cities that can finance the show which costs about \$4 million. Of the remaining cities on the original schedule, which ones do you anticipate being able to raise the necessary funds?

Answer: The traveling exhibition *America's Smithsonian* has not actually "stopped." In fact, the exhibition is currently open in Portland, Oregon. Due to funding constraints, funds are being raised in each prospective host city. Nearly enough additional funds have been raised to open the exhibit in Birmingham, Alabama, planned to open there on May 29, 1997. Fund raising efforts have been or will be initiated for San Jose, California; Columbus, Ohio; and Dallas, Texas. Varying degrees of private funds have been committed for each of these cities.

Question 73: What is the status of your plans to send the show overseas and earn a profit through the sale of tickets?

Answer: A company has recently been selected to conduct a study to assess the feasibility of an international tour of Smithsonian objects. Upon completion of the study within 120 days, the Smithsonian will be able to assess an appropriate theme for the proposed international tour, the appropriate cities and venues, and the financial feasibility of such a tour. The financial feasibility portion of the study to determine whether charging admission to such an exhibition is necessary and viable.

Question 74: Rather than cancel the show in the planned cities, have you considered asking how they felt about charging an admission fee to defray the costs?

Answer: Prospective host cities have not been asked how they would feel about charging an admission fee to defray the cost of *America's Smithsonian*. The Smithsonian Institution's goal is to provide this exhibition experience free of charge to the American people and we believe we will be able to do so with other sources of revenue.

#### Commemorative Coin Sales

Question 75: Last year when you appeared before the subcommittee, you estimated that even if you did not raise sufficient corporate funds, as has now been the case, you would have revenues from the sale of commemorative coins to draw on. How much did the coin sales raise and were these funds used to help defray the costs of the traveling show?

Answer: Unofficial estimates from the Mint (3/27/97) for sales of the Smithsonian commemorative coin are nearly 160 thousand of the Silver and 30 thousand of the Gold. Consistent with legislation establishing the terms of the coin offer, surcharges to be paid to the Smithsonian will total \$2,620,445. Fifteen percent (15%) of the Smithsonian contribution will be applied to a fund supporting the National Numismatics Collection at the National Museum of American History. The remaining 85% will be applied to Smithsonian 150th-related activities and expenses which include the *America's Smithsonian* traveling exhibit.

#### Financing America's Smithsonian

Question 76: How much was raised privately to finance the traveling exhibit and what was the shortfall?

Answer: The current budget (as of January 15, 1997) for Smithsonian 150th activities, which includes the America's Smithsonian Traveling Exhibition through its seventh venue in Portland, totals \$88.9 million. Budgeted revenues totaled \$62.1 million, leaving a deficit of \$26.8 million. However, the Institution anticipates additional revenue from current and future contracts evolving out of 150th activities that could potentially fund the deficit.

The Institution raised \$40.8 million from four corporate partners. It anticipates \$4.0 million from the issuance of a commemorative coin, \$3.8 million from fund-raising at three

*America's Smithsonian* venues and \$0.5 million in miscellaneous income. In addition, \$13 million is guaranteed from contracts evolving out of 150th activities. Funds from all sources total the \$62.1 million referenced above. It should also be noted that the funds raised from corporate partners were not fully available to fund the traveling exhibition. Costs of raising these funds and commitments to the partners also had to be covered.

#### Downsizing

Question 77: How many employees took the special buyout authority that was authorized by this Committee and as a result of that how many FTEs have you reduced?

Answer: A total of 204 staff took the buy-out and FTEs have been reduced by 111.

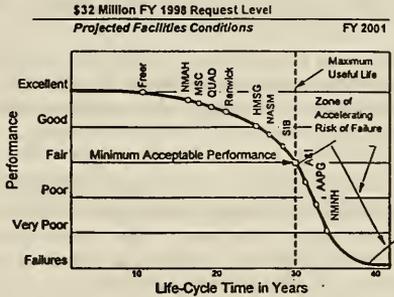
#### Repair and Restoration of Facilities

Question 78: Last year you presented the Committee with what I found to be a compelling case for an annual appropriation of \$50 million over 10 years to address a very serious problem with respect to the physical condition of the Smithsonian infrastructure. This Committee in fact added to your budget request for that purpose, although not able to fully fund the required \$50 million. This year your budget request proposes only \$32 million which will only further exacerbate an already serious problem. What is the impact of continuing to defer critical repair and restoration?

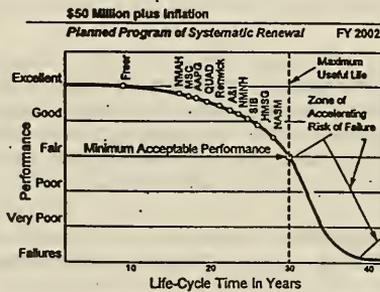
Answer: The Institution seriously considered this very question before presenting the FY 1998 budget to the Congress, and determined that a year's delay in achieving the necessary higher funding level would be manageable, given the resources we have this year to correct a number of the most urgent problems. The \$32 million is essentially a "hold the line" budget, and will allow the Smithsonian to proceed with necessary planning and design of the major capital renewal work at three of the four buildings in the most serious condition, as well as begin actual construction at the National Museum of Natural History. This funding level will also permit the ongoing correction of critical deficiencies in other buildings. The Institution plans to request annual funding at the \$50 million level beginning in FY 1999, and this will give us the necessary resources to pursue an aggressive program to improve the physical condition of Smithsonian facilities.

Question 79: Last year for the record you provided a chart which showed what would happen to the condition of Smithsonian facilities by the year 2001 at the \$38 million funding level, last year's budget request. Despite the fact that showed three of your buildings (Arts and Industries, American Art and Portrait Gallery and the National Museum of Natural History) at or below minimally acceptable performance levels, you have asked for even less for this critical need. For the record please provide a projected facility conditions in the year 2001 at this year's request level.

Answer: The following chart illustrates the projected overall conditions of Smithsonian facilities if funding were to remain at the \$32 million level through FY 2001.



However, if funding were to be increased to \$50 million beginning in FY 1999, according to the Institution's long range plan, the overall conditions projected for FY 2001 in last year's request would be achieved in FY 2002, shown again below.



Question 80: What has been accomplished with the \$39 million provided by the Committee for repair and restoration last year?

Answer: As of March 1997, design of over \$51 million worth of R&R work has been completed, and is in some phase of the procurement process. These projects are funded with the \$39 million appropriated in FY 1997, with the addition of funds provided in previous years. The most significant projects involved include \$7 million to renovate the East Wing HVAC and prepare "swing space" at the National Museum of Natural History; \$6.5 million for roof replacement and entrance accessibility improvements at the American Art and Portrait Gallery Building; \$3 million to replace switchgear and upgrade electrical panels at the National Museum of American History; \$22 million to replace the skylights and window walls at the Air and Space Museum; and \$3.4 million to design the major capital renewal work at the Smithsonian Institution (Castle) and Arts and Industries buildings.

Question 81: As I look at the charts provided last year which reflected Smithsonian facilities conditions in 1996 and those that are provided in this year's budget, American Art

and Portrait Gallery and the National Museum of Natural History remain below the minimum acceptable performance level. In short, what progress has been made and at the budget request level will either of these facilities move into an acceptable performance condition?

Answer: At the American Art and Portrait Gallery, designs are complete for the replacement of the entire roof and for accessibility modifications to the southwest entrance. Construction work should begin this summer. The major rehabilitation of the building is under design and proceeding on schedule.

At the National Museum of Natural History, from a program originally estimated at approximately \$138 million, \$28 million has already been expended on the new chiller plant and the replacement of windows in the east and west wings. The contract for the first phase of the heating, ventilation and air conditioning (HVAC) replacement will be awarded for about \$7 million in April 1997 and construction work will begin within several months. The design for the next phase of HVAC replacement, valued at \$20 million, is 95% complete. At the budget request level, only a portion of this can proceed in the next fiscal year. Upon completion in Spring 1998 of the East Court Infill Building, which will provide "swing space" during HVAC renovation, the Institution will contract for the remainder of this work as funds became available.

If funding remains at the FY 1998 request level of \$32 million through the next five years, the Smithsonian will make little progress in these two buildings. At the \$50 million level reflected in the Institution's five-year plan, however, the condition of both buildings can be brought into the acceptable range by FY 2002. The major capital renewal work at the American Art and Portrait Gallery will be complete, and more than one-half of the work required at the National Museum of Natural History will be finished.

Question 82: Does your budget ensure that the American Art and Portrait Gallery and the National Museum of Natural History, which are already in seriously deteriorated condition, be fully restored?

Answer: The Institution's long range budget projection, which calls for \$32 million in FY 1998 and \$50 million annually thereafter, could allow the American Art and Portrait Gallery to be fully restored within five to seven years. The restoration of the National Museum of Natural History will be approximately one-half complete in the same time frame. If annual funding were to remain at \$32 million throughout this period, the Smithsonian could not expect to complete the work within the most expedient time frame.

Question 83: At the proposed funding level how many more of your museums will fall below the "fair" condition as described in Chart 2 on page 85 of your budget justification?

Answer: If the Institution were to receive no more than \$32 million each year for the next five years, the Arts and Industries Building would fall below "fair" condition by FY 2001, and the Smithsonian Institution (Castle) and the National Air and Space Museum would both be approaching that state.

Question 84: Your budget includes no funding for minor construction, alterations and modifications. Could this further exacerbate the maintenance problem if minor repairs go unmet? Have you ever proposed a budget with no money for these minor routine maintenance items, and if a problem occurs during the year how would it be addressed?

Answer: Funds for the minor construction, alterations and modifications account allow the Institution to make building modifications needed to provide adequate and appropriate space in which its programs can operate. These funds may also provide for small structures costing under \$1 million that are needed to meet programmatic objectives. These needs will be addressed in the FY 1999 budget request. Minor routine maintenance and emergency repairs are funded from the Repair and Restoration of Buildings account.

#### Patent Office Building Renovation

Question 85: Last year you indicated you did not plan to close the American Art and Portrait Gallery during the renovation, but I read earlier this year that was the plan in 2000 to close the building for two years. Is that accurate, and why, if this is one of your top priorities, will the work not get underway until 2000? What will happen to the collection while the building is closed?

Answer: As the planning for the renovation of the Patent Office Building advanced, it became readily apparent to the directors of the National Portrait Gallery (NPG), the National Museum of American Art (NMAA), and the Archives of American Art (AAA), which is also located in this building, that extensive renovation would occur in each and every room of the building. The size and scope of the project made the directors realize that a move from the building would expedite the time table needed to complete the renovation and thus shorten the time that the public had no access to the building and the collections it contained. The safety of the collections and the staff is also enhanced by the decision to vacate the building during the renovation. The interior renovation of the building will not get underway until the year 2000 because the next 2 ½ years are necessary to complete the plans for the renovations, undertake the bid process, find a site for the staff of the two museums and the Archives of American Art, and move the collections.

During the renovation, the National Portrait Gallery would like to find a Washington site for a selection of major works from its collection, and undertake several traveling exhibitions. Of necessity, some works will be placed in storage. In the years prior to the renovation and during the renovation, the museum intends to expand its electronic presence on the Web to enable the public to have this kind of access to its collection.

If the building is closed, the National Museum of American Art collection is expected to be stored off-site in a secure, climate-controlled facility. The one exception is that some of the sculpture may be stored on-site in a specially-constructed storage room located within one of the larger spaces in the building. The collection may or may not be stored in the same building where the staff will be relocated. NMAA staff will monitor the collection and take

responsibility for its safety regardless of where it is stored during the renovation process. The graphic arts collection may be kept with the staff, as it is more efficiently stored and could more easily be accessed for cataloguing, photography or conservation purposes, than the painting and sculpture collection. Further, to reduce storage needs and to continue to provide public accessibility to some of the greatest works in the collection, several exhibitions of works from the permanent collection will tour museums throughout the country during the period that the museum is closed. Long-term loans of individual works to museums that would display them throughout the renovation period are also being considered.

Currently, most of the collections of the Archives of American Art are stored in two locations: (1) 1111 N. Capitol Street in Washington, in a building leased by the Smithsonian Institution (the Smithsonian Institution Service Center), and (2) in the National Underground Storage facility in Boyers, Pennsylvania. Additionally, collections "in progress"--either those that have recently been collected and are in preliminary processing or those that are undergoing complete processing, including microfilming--may be either in the Washington office in the Patent Office Building or in one of our regional collecting centers: New York, Boston, or San Marino, California. If the Patent Office Building closes for renovation most of the collections will be unaffected. Furthermore, operations in general will continue without interruption during the renovation. The Archives will be moving to an as-yet-unknown location, either temporarily for the duration of the renovation or as a permanent relocation. In either case, researchers will still be served and collections processing will continue.

#### National Museum of American Indian Mall Museum

Question 86: What would be the impact of providing no funding for the proposed National Museum of the American Indian on the Mall in fiscal year 1998? Could this funding be deferred with little negative effect?

Answer: Any delay in funding the Mall Museum will have serious implications for fund raising. The legislation establishing the National Museum of the American Indian required that no less than one-third of the cost of the Museum on the Mall be raised privately. That money has been raised. Despite this success, the fund raising framework is very fragile and depends very much on continued evidence of forward movement in meeting NMAI's major targets as well as demonstrated proof of fair dealing by the federal government. If these two elements are not kept in place, the fund raising mechanism may break apart and jeopardize NMAI's future as well as have serious implications for other joint federal/private endeavors at the Smithsonian.

The NMAI constituency has seen that the Congressional cap on the Cultural Resources Center construction has required NMAI to raise over \$7 million to complete that facility. Its supporters are very concerned over the prospect of any further departures from previously announced commitments to schedule and budget for the Mall building. Most importantly NMAI has committed to raising endowments of \$25 million to support operating requirements for its future program at all locations, recognizing that fiscal realities will require continued

joint federal/private support. Delay in funding the Mall project is likely to have severe negative impact on that effort.

The inherent potential of increased project cost because of inflation is also of great concern. A mere six month delay would likely add \$1.5 million to the cost, based on the current low level of inflation, a rate which may in fact increase. To lessen the possibility of inflation-based cost increases it is imperative that the construction schedule be honored and that construction begin in fiscal year 1998.

Question 87: What is the status of the planning for the Indian Museum?

Answer: The planning and programming for the National Museum of the American Indian was completed in September 1993. The design is progressing on schedule to allow award of the construction contract in FY 1998.

Question 88: What effort, if any, has been made to respond to the Congress's directive to scale back the Museum? Has any effort been made to increase the private contributions for the construction?

Answer: Regarding the size of the building, the original plan for the three mandated facilities for the Museum of the American Indian proposed a 350,000 gross square foot building on the Mall. As planning progressed, it became clear that the cost of a building this size would be far in excess of the amount included in early budget projections presented to Congress. The Institution recognized the need to keep the cost of constructing the Mall Museum within the agreed upon \$110 million budget. As the schedule for construction has changed, the Smithsonian has downsized the building to keep it within budget. It has responded to the Congress's recommendation to downsize the building by eliminating some of the non-public and non-exhibit space. An entire floor (the mezzanine) has been removed, and the fourth floor, which houses administrative and support functions, was reduced by 25 percent in the most recent plan.

The building now planned, at approximately 250,000 square feet, is the minimum size required to fulfill the Institution's commitment to present this important collection to the public. Based on projected visitor levels, we have retained the maximum amount of public exhibition and education space in the building. Even so, the amount of public space is very small in proportion to expected visitor levels, especially when compared with the experience of other museums on the Mall. The building now planned is adequate to sustain the Museum's programs. However, further reductions would compromise the Museum's ability to accomplish its mission.

The Smithsonian has always recognized that any building constructed on the National Mall must preserve the architectural integrity of the Mall. The building currently planned will only occupy about 25 percent of the usable building site and is substantially smaller than the National Gallery's 340,000 square foot East Wing directly opposite. A smaller building would not fit in with the overall scale of other buildings on the Mall. The National Capital Planning

Commission and the Commission of Fine Arts have both approved the conceptual and schematic design of the building.

As reported to you previously, the Institution has been successful in reaching its goal of raising \$36.7 million to construct the NMAI Mall Museum. This amount represents the original commitment we made to Congress to participate in funding the Museum. The national campaign undertaken by the Institution achieved a significant response from individuals, foundations, corporations and Native American tribes throughout the country. Current museum membership is approximately 70,000, and the Museum has been successful in retaining members at a high rate. The vision presented to potential donors was based on an understanding that Congress would provide the remaining two-thirds of the funding required to proceed with the project. Donors such as the Pequots, who pledged \$10 million, made their gifts explicitly contingent upon this premise. The Smithsonian risks losing these pledges if the Federal/Trust funding mix is changed. Moreover, such a significant change in the basis upon which support for this project was sought from donors would seriously impact the whole notion of public/private partnerships which is at the core of the Institution's ongoing fundraising efforts.

Question 89: Assuming that construction could be phased, what would an appropriate phasing schedule be?

Answer: The NMAI Mall Museum is designed as a single structure. It would be possible to fund the construction contract in phases, assuming language is included in the appropriation to allow the Smithsonian to award the contract for the full amount pending appropriation of the remaining amount the following year. The Institution would require a minimum appropriation of \$29 million, or one-half of the construction request, in FY 1998 in order to award the construction contract.

Question 90: Your budget indicates funds to equip the building will be requested in FY 2000. How much is that estimated to be?

Answer: The Federal component of the equipping requirement is estimated at \$6 million, and the Trust share is \$4 million. Equipping includes furnishings, signage, building security systems, and data/ telecommunications systems.

#### National Zoological Park Grasslands Exhibit

Question 91: Your budget includes no funding to continue the Grasslands project at the zoo, although I understand funding for this was requested by the Institution and rejected by OMB. What would be the impact, if any, on the proposed new farm exhibit at the zoo if the Grasslands project does not proceed this year?

Answer: Because the farm exhibit is to be funded with private funds, there would be no impact on the proposed farm exhibit if the Grasslands project does not proceed.

## National Air and Space Museum Dulles Center

Question 92: The Air and Space Extension will depend on the Smithsonian raising the construction funds. Has fund raising begun for this project and if so what is the status of this effort?

Answer: The National Air and Space Museum is in the process of launching its Capital Campaign fund raising effort in support of the construction of the new Dulles Center. This fund raising effort will target individual major donor prospects, the general public, corporations, and foundations.

With regard to fund raising from the public, the National Air and Space Museum has implemented a contributing membership program that solicits individual donations in support of the Dulles Center and the Museum's artifact restoration and preservation program. This membership program has generated over \$730,000 and has recruited more than 10,000 members in the last 17 months. It will grow appreciably in the months ahead.

In addition to the broad-based membership program, the Museum has recruited a Capital Campaign Director and is establishing focus groups of key individuals and corporate leaders in major cities across the nation. The capital campaign team is crafting the campaign "case statement," a communications and marketing plan, and other fund raising and promotional materials needed to solicit major gifts.

In addition, the Museum is pursuing traditional and non-traditional opportunities that can help service planned construction debt. These include: fees for parking, specialty shops, restaurants, and theater operations, as well as other unique business opportunities.

## Admission Charges

Question 93: Last year the Regents rejected the notion of entrance fees. Could you summarize briefly why entrance fees were rejected by the Regents?

Answer: The following presents the position adopted by the Board of Regents at its May 6, 1996, meeting:

The Senate Appropriations Subcommittee on the Department of the Interior and Related Agencies requested that the Board of Regents of the Smithsonian Institution report on the feasibility and cost effectiveness of admission fees by June 1, 1996. The Subcommittee indicated that, as part of that effort, the Institution should consider (1) the feasibility of a program that involves weekly and annual passes and (2) pricing strategies that would be reasonable, yet responsive, to the variety of Smithsonian visitors.

In response to this request, the Institution has conducted a comprehensive study of the relevant facts and considerations necessary to make an informed assessment of the feasibility of

implementing an entry fee at its facilities in the Washington, D.C. metropolitan area. A brief description of the issues examined and the rationale for their study follows.

Despite what to some may seem a simple matter, charging admission is one of the most difficult decisions that the Smithsonian, or indeed any museum, will make. The decision is controversial by its very nature and complicated by the need to consider the impact that charging admission would have on the Institution's mission, culture, visitors, and commercial activities. After 150 years of free access to Smithsonian facilities in the Washington, D.C. metropolitan area, a veritable sea change would occur if admission charges were imposed.

The definition of the term *feasible*, i.e., capable of being accomplished or brought about, is insufficient in the context of admission fees. While museums the world over have implemented admission fees with varying degrees of success, an assessment of feasibility for Smithsonian museums entails considerations beyond practicality. Invariably, it must include analysis of other notions such as suitability, desirability, timeliness, and necessity. An important question to ask, for example, is whether an entry fee is a suitable target as a source of funds, given the identity of the organization (what it represents or seeks to portray), the environment in which it is situated, and the audiences that it serves or seeks to serve. Another question is whether a fee is either necessary or appropriate, and a further one is whether there are other avenues of funding to explore more fully in lieu of a fee.

Definitive trends from the field are difficult to decipher. Both proponents and opponents provide valid, logical arguments for their positions, which in turn are supplemented and supported by descriptions of actual experience with either implementing or rescinding admission fees. However, the preponderance of the literature and testimony from interviews suggests that in most circumstances the imposition of a fee results in a decrease in visitation and/or spending on activities such as shops and restaurants. Yet, at the same time, there are those in the museum community who indicate that the phenomenon of loss of visitation is a manifestation of a strongly held belief that is unsubstantiated by scientific or statistical evidence. This divergence of opinion and experience indicates that the decision to charge or not to charge entry fees is one that each organization individually must come to grips with, based on its own unique circumstances and values.

In communicating the accompanying study to the Congress, the Board of Regents concludes that a fee should not be imposed at this time because

- the Smithsonian occupies an essential part of a unique historical and cultural landscape in the Nation's Capital that includes national monuments, shrines, repositories, and related institutions that are places of pilgrimage for Americans and free of charge to the public;
- the Institution is perceived as the embodiment of the Nation and its history and as *the* place where people can experience their history and culture, and it ought to be as accessible as possible to everyone; and

•the Smithsonian is only just beginning to explore other avenues of untapped sources of philanthropic and commercial funding, therefore it is premature to consider the imposition of admission fees.

The Smithsonian differs from museum organizations in other parts of the country because it occupies a special niche in American society and culture as a place of national heritage. The Institution is taking further steps to sustain and build on the mutuality of interest and affection that exists between the Smithsonian and the public it serves; these steps may result in creating significant sources of additional revenues more desirable than one that would be inconsistent with practice elsewhere in the Nation's Capital and would breach an Institutional tradition extending over a century and a half.

### Fundraising

Question 94: Have the Regents had to approve the recent fund raising enterprises including the hiring of a talent agency and a Smithsonian Credit Card and why are these approaches more acceptable than fees?

Answer: The Regents have approved these undertakings primarily because they are part of the Institution's effort to reach wide audiences through new media. Happily, they will also generate cost-effective revenue streams so that free access to its museums on the Mall can be sustained. Believing that the Smithsonian occupies a special niche in American culture, the Regents are eager that it remain available to all citizens.

For additional information on the Regents' position with respect to admission fees, please see question 93.

Question 95: Do you have any concern that too many fund raising efforts are underway simultaneously and that this may negatively affect the Institution's fund raising abilities?

Answer: The fact that the Institution has many fund raising efforts underway at any given time is the normal mode of operation at the Smithsonian. It is critical, now more than ever, to carefully coordinate the work of all fund raising professionals so that donors and prospective donors do not feel overburdened by multiple requests. With the help of an Institution-wide constituency computer system as well as the procedures in place and priorities set by the Secretary and the Provost, the highest level of successful fund raising can be achieved.

Question 96: I read a recent article that the Smithsonian planned to issue tax exempt bonds to fund redevelopment of the west court of the National Museum of Natural History. Has the Smithsonian used this financing mechanism before and do you need special authority to issue tax exempt bonds?

Answer: This is the first time that the Smithsonian will issue tax exempt bonds to fund a project. The Smithsonian already has the authority to borrow and since it is an Internal Revenue Code section 501(c)(3) institution, it can issue up to \$150 million in tax exempt bonds (as can other such organizations). The Smithsonian has obtained a private letter ruling from the Internal Revenue Service confirming this position.

Question 97: Why is this project a priority and why was this unusual financing method chosen for this project?

Answer: This project will have a large format IMAX theater and a discovery room. Currently, the Museum allows visitors to view specimens at rest in a museum setting. The IMAX theater will provide the opportunity to show visitors nature in its living context. The discovery room will provide an interactive learning experience for visitors. These capabilities are essential to educating an increasingly sophisticated audience that visits the National Museum of Natural History.

Congress authorized the project (P.L. 103-151, Nov. 24, 1993) but it was understood that appropriated funds were not to be used for it. To obtain funding for the project, the Institution elected to use tax exempt bonds because they were the least expensive source of funding and because the project is expected to generate the income required to service this debt.

Question 98: What happens if the revenue generated from the project is insufficient to pay debt service?

Answer: If the incremental income from the project is insufficient to pay debt service, the Smithsonian will have to supplement it with income from other auxiliary activities to service the debt.

#### Uncontrollable Costs

Question 99: The budget proposes to fully fund mandatory pay increases and other uncontrollable costs including inflation adjustments and annualization of the FY 1997 pay raises and the required contribution to the Federal retirement system. Few other agencies funded in this bill have received such favorable treatment. How does this subcommittee justify providing these funds for the Smithsonian and not for agencies such as the U.S. Geological Survey or the Minerals Management Service, etc.?

Answer: The Smithsonian is relatively small in budgetary terms. Approximately 70% of its operating budget is dedicated to the salaries and benefits of more than 4,300 employees. The remaining 30% of its funding sustains the daily activities of the Institution and the facilities in which they are housed. Without the requested funding, the Institution would have to curtail direct public services in order to meet costs that must be paid.

QUESTIONS SUBMITTED BY REPRESENTATIVE SIDNEY R. YATES

America's Smithsonian

Question 100: Why do you think the "America's Smithsonian" traveling exhibition failed?

Answer: American's Smithsonian has not "failed." In 1996 the exhibit traveled to six venues: Los Angeles, Kansas City, New York, Providence, St. Paul and Houston. During the year, two million Americans took the opportunity to view the exhibit. It has now opened in Portland where crowds similar in size to Los Angeles and St. Paul are attending. The Institution is in the planning stages for traveling the show to Birmingham, San Jose and Columbus, Ohio.

The most serious problems encountered are with financing the show. It was projected that the Institution would enter into agreements with 10 corporate sponsors who would contribute \$10 million each. In fact only four partners were found. Additionally, the venues proved more expensive than had been anticipated.

In order to reduce the cost of the tour, the Institution is contracting with a production/management company that will travel the exhibition domestically for the balance of 1997. They will also conduct a feasibility study to determine the viability of taking the show on an international tour during 1998 and 1999. In addition, the remainder of the domestic tour will be funded through fund-raising in the cities to which it will travel.

There is no question that the exhibition was worth the effort and expense if only for the opportunity to share the treasures of the Institution with millions of Americans who might otherwise not ever have the opportunity to see them.

Question 101: It seemed very popular in some cities, but not in others. Do you know why?

Answer: The following visitor statistics indicate that *America's Smithsonian* has in fact been popular in every city it has toured with the exception of New York City. Statistics for six sites follow:

Los Angeles	300,972
Kansas City	375,723
New York City	187,764
Providence	271,065
Minnesota	454,558
Houston	314,754

Total	1,904,836
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There are several reasons fewer people attended in New York. First, the Institution did not have the advertising funds that are required to penetrate the New York market. There are a multiplicity of activities competing for the attention of residents of the New York metropolitan area. Large sums are needed to purchase sufficient advertising to make one's presence known. Second, the exhibition site was the New York Coliseum. Many New Yorkers believed that venue was closed and was not hosting any activities. Finally, the exhibition visited New York in the summer when school was out. In other venues, school groups accounted for a significant portion of the attendance figures.

Question 102: Have you learned lessons about what to do and what not to do in the future about raising large sums from the private sector in order to mount a large exhibit?

Answer: We learned several important lessons. The Institution offered only one level of sponsorship for the exhibition and that level was \$10 million. The fundraising effort would have been successful if several levels of sponsorship were offered. For example, many companies would have been more inclined to contribute \$5 million. A second important lesson was that more lead time is needed when setting out to raise such funds and that timing must coincide more precisely with corporate funding cycles.

Question 103: Do you know if visitors were put off by the presence of corporate sponsors?

Answer: Visitors were not surveyed about their reactions to corporate sponsorship. However, some interviewing took place just outside the *American Voices* exhibition, sponsored by Discover Card. There an occasional visitor remarked on the presence of corporate identification, but by and large the visitors commented on the content of the exhibit.

In addition, of the letters and telephone calls received from "America's Smithsonian" visitors, virtually none were critical of the corporate sponsorship program or the corporate exhibits. The same is true of news media coverage. The overwhelming media comments about the corporate relationship have been neutral or positive.

Question 104: In light of the Institution's shrinking federal appropriation, have you been able to increase private contributions?

Answer: Overall funds raised by the Institution have been, generally, on an upward trend for the last six years. Although charitable contributions were down last fiscal year, the drop was more than offset by over \$20 million in sponsorship dollars raised.

Charitable gifts have always been an important part of the Institution's operating funds and it is our intention to continue, and to increase, that trend, in response to an overall shrinking federal budget.

Question 105: Mr. Heyman, you say in your statement that based upon the "enthusiasm generated by the America's Smithsonian" tour, you plan to make your collections more available to other museums. How long will these items be on loan?

Answer: Each loan agreement has its own terms, which are made for specific time periods with renewal options dependent on the Smithsonian's needs for the objects at the time. Oversight of collections on long-term loan will be maintained by periodic site visits by Smithsonian staff.

Question 106: How will you ensure that your artifacts will be properly handled and displayed at these other facilities?

Answer: The receiving organization must demonstrate that it is a viable institution, capable of properly caring for, protecting and exhibiting collections, and meeting the specific requirements for long-term care and maintenance of Smithsonian collections. Each borrowing institution must submit a standard facilities report detailing the facility's environmental, safety, security, staffing, exhibition space capabilities and insurance coverage. Oversight of long-term loans will include, but not be limited to, periodic site visits by Smithsonian staff to examine the condition of those objects on loan.

Question 107: How much is the insurance for these loans and who is paying for it?

Answer: All Smithsonian collections out on loan must be covered by "wall to wall" fine arts all-risk insurance for a value set by the Smithsonian and specifically naming the Smithsonian as an additional insured in the policy. The cost will depend on the object(s) loaned. The borrower pays all costs associated with the loan.

Question 108: Does the Smithsonian receive compensation for loaning these items?

Answer: The Smithsonian is provided an opportunity to show more of its collections to the public by increasing its loan activity, and in many cases the borrower will be responsible for providing preservation and conservation treatment to objects that would otherwise not be possible. In each case, the Institution accounts for any direct expenses incurred as a result of any of these affiliations, to ensure that costs are reimbursed either by the borrower or a third party, such as a local corporation or foundation.

#### National Air and Space Museum Dulles Center

Question 109: Mr. Heyman, you say in your statement the Air and Space Museum Extension at Dulles Airport remains a "major priority of both the Museum and the Institution." I notice, however, that you are not requesting any construction funding for this project. How can this be a top priority if you don't ask for the money to build it?

Answer: Public Law 104-57 authorized the Smithsonian Institution to plan and design an Air and Space Museum at Washington Dulles Airport with an authorized appropriation of \$8 million. Public Law 104-222, signed October 1, 1996, authorized the Smithsonian to construct the National Air and Space Museum Dulles Center at Dulles International Airport with privately raised funds. The National Air and Space Museum has embarked on a capital campaign to raise those construction funds.

Of the \$8 million authorized for planning and design, \$4 million has been appropriated and obligated. Planning and design have been accelerated during FY 1997 to ensure completion in a cost effective manner. The remaining authorized \$4 million for design completion is needed soon in order to remain on the very tight design timeline that leads to the required infrastructure delivery and building construction.

Question 110: What will the State of Virginia, a major partner in this project, do if there is no federal funding this year?

Answer: If the needed \$4 million is not received by October 1997, we believe that the Commonwealth of Virginia will feel obligated to likewise slow down the appropriation of state funds for the infrastructure. Any federal funding slow-down would have a detrimental ripple effect on the Dulles Center. Construction delays would increase the cost of the building and jeopardize completion.

#### Repair and Restoration of Facilities

Question 111: Why are you requesting only \$32 million for Repair and Restoration of Buildings -- a cut of \$7 million from last year's appropriation of \$39 million?

Answer: Included in the Smithsonian's request to the Office of Management and Budget (OMB) was \$50 million for the repair and restoration of buildings. However, as was stated earlier, the OMB passback allowed \$32 million for Repair and Restoration, given the policy regarding fully-funding the construction request for the National Museum of the American Indian.

Question 112: In your hearing before us last year, we were lead to believe that your existing buildings were in desperate need of repair and that \$50 million a year for the next 10 years would be needed to restore these crumbling structures. Why the change?

Answer: The needs that we have outlined to the Committee have not changed. Appropriations of \$50 million a year for the next decade will be central to the Institution's ability to catch up with its backlog of maintenance and repairs and preserve the landmark structures with which it has been entrusted. The request before you reflects the Office of Management and Budget policy of fully funding major construction projects in a single year. In the year in which the National Museum of the American Indian Mall Museum funding is

being requested, there were not sufficient projected resources to cover \$58 million for NMAI and \$50 million for R&R.

Question 113: Are the buildings no longer in need of repair?

Answer: Repair of the historic buildings with which the Institution has been entrusted, as well as the others that house Smithsonian activities, remains a high priority of the Institution. However, in a time when base funding does not keep pace with inflation and the mandatory costs of Smithsonian operations, choices have to be made about how allowances will be allocated. The request before you reflects the Office of Management and Budget policy of fully funding major construction projects in a single year. In the year in which the National Museum of the American Indian Mall Museum funding is being requested, there were not sufficient projected resources to cover \$58 million for NMAI and \$50 million for R&R.

#### Smithsonian Astrophysical Observatory Submillimeter Array

Question 114: Why do you need an increase of \$1,225,000 for your Submillimeter Array in Hawaii?

Answer: Construction of the Submillimeter Array of Telescopes is currently underway on Mauna Kea in Hawaii. Salaries for the thirty-four scientific, technical, and administrative staff who will conduct array operations are already included in the SAO base. Funds sought in FY 1998 are for the non-salary monies needed to complete the support for the operations of the array. The \$1.225 million request to support operations including communications, utilities, equipment, maintenance, supplies, materials, travel, and shipping will bring the total non-salary funding for array support to the level of \$2.205 million. Except for inflationary increases, this funding represents the final step needed to achieve operational status. Annual operations of the array, including salaries, will total approximately 8 percent of the capital costs - a smaller percentage than customary for a world-class astronomical research facility.

#### Smithsonian's Internet Designation

Question 115: Why does your internet address end in "edu" instead of "gov"?

Answer: The Smithsonian joined BITNET, the academic and research store-and-forward international computer network, in the early 1980's as an educational institution. Our scientists were some of the first users of this international network, facilitating the exchange of research information around the world. When the Smithsonian joined the Internet, it was given a Class B license and the ".EDU" designation because it is an education and research institution.





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