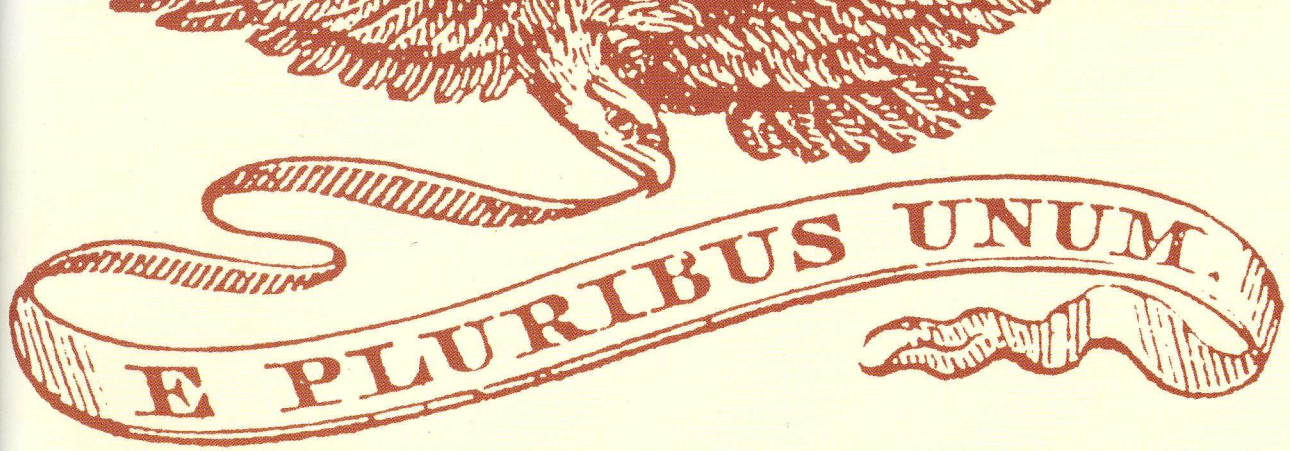
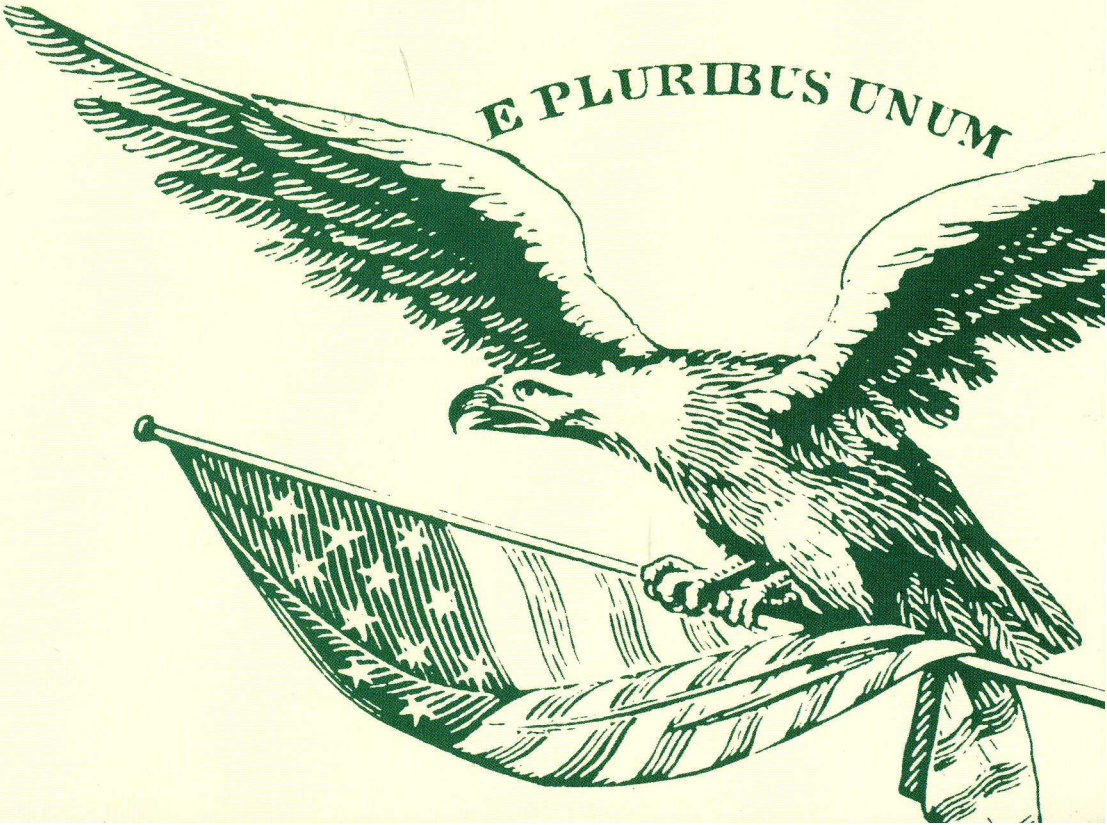
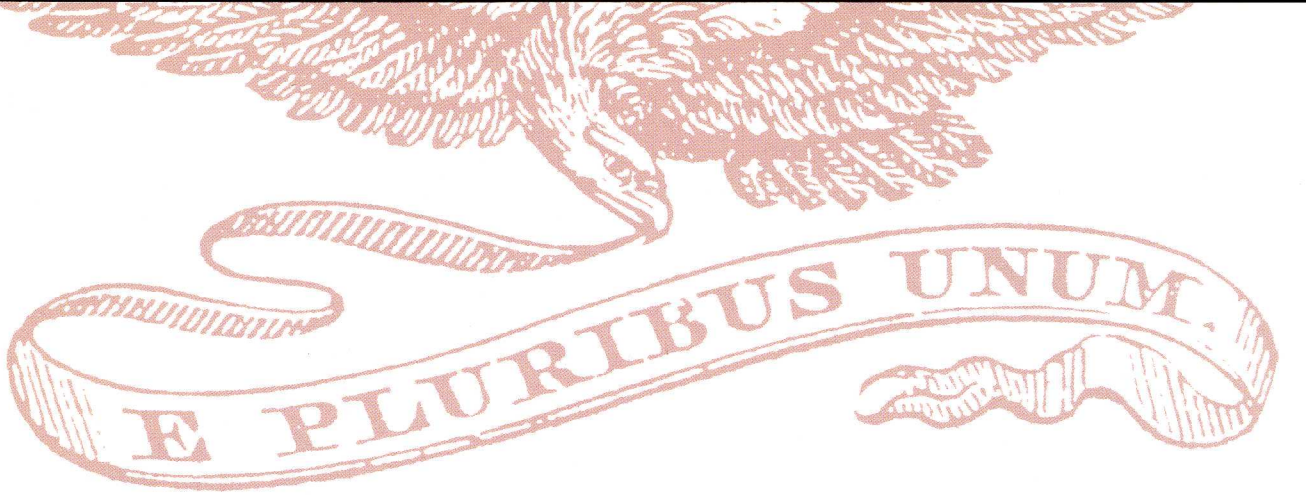


E Pluribus Unum: This Divine Paradox

REPORT OF THE COMMISSION ON THE FUTURE
OF THE SMITHSONIAN INSTITUTION





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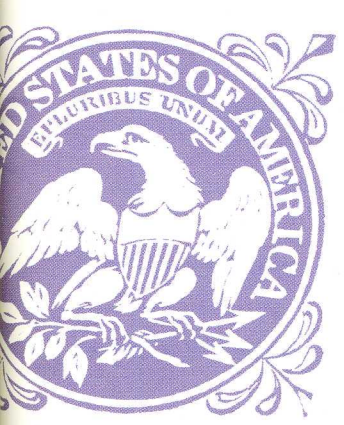

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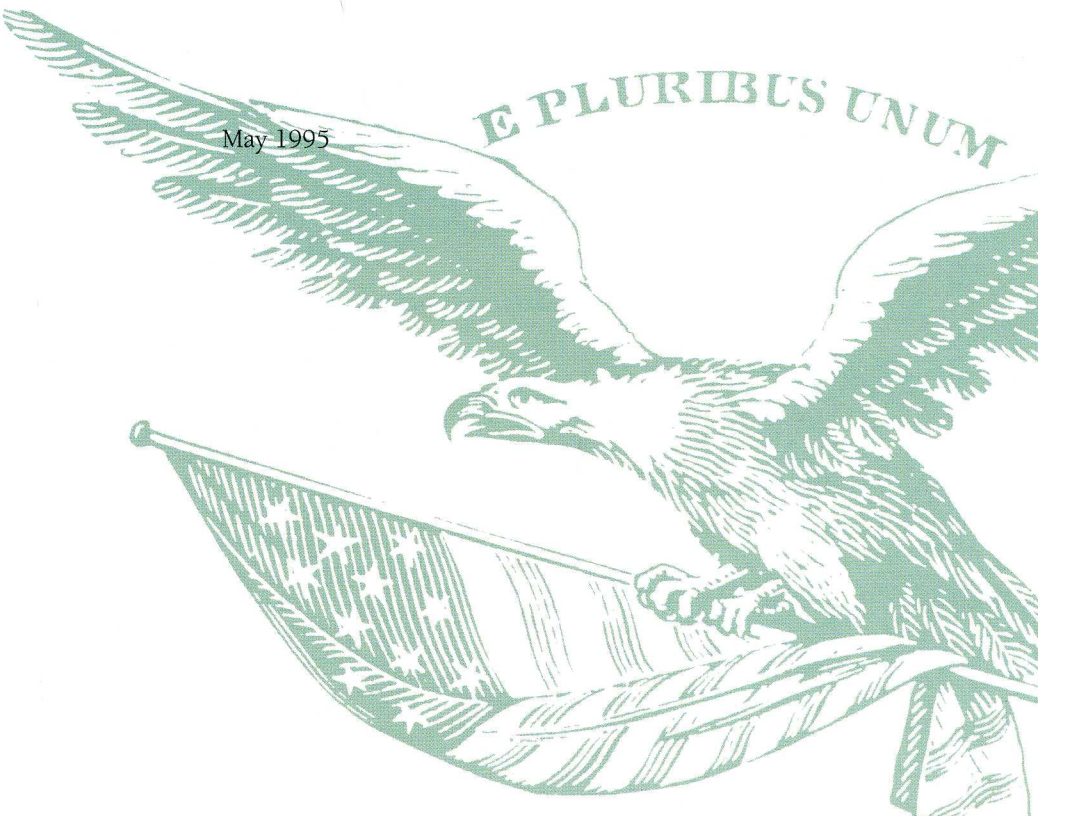

James Smithson

(1765-1829)

The Commission

On three occasions in its 150 year history, the Board of Regents, the governing body of the Smithsonian, has commissioned a group of citizens to ponder the future of the Institution. The present Commission, established in September of 1993, was charged with: "...an examination of the Smithsonian, its mandate and its roles, and an examination of the cultural, societal, and technological factors that influence its capacity to act."

The last such commission was appointed in 1946. The men who served on it were all distinguished scholars reflecting the Smithsonian's emphasis at that time on research rather than education: in the words of James Smithson's legacy, the increase rather than the diffusion of knowledge.

Our study has been a broad one, and our focus has been on the future rather than the issues that currently engage the Smithsonian. Yet, we have no reliable crystal ball. Our thoughts are constrained by past and contemporary experience and perceptions of the world. We are, however, certain that change will continue at ever increasing rates and in unexpected, no doubt surprising, ways. Still, as the Regents recognize, much can be gained by considering how the Smithsonian might evolve in the coming decades. So it is that we present to the Regents, in common interest with our fellow Americans, our thoughts on the future of the Smithsonian Institution.

Maxine F. Singer

Maxine F. Singer, Chairman

Members of the Commission on the Future of the Smithsonian Institution

Barber B. Conable, Jr.
Paul DiMaggio
Sandra M. Faber
Henry Louis Gates, Jr.
Stephen Jay Gould
Robert E. Grady
Najeeb Halaby
Neil Harris
Irene Hirano
Ruth S. Holmberg
Roy M. Huhndorf
Jorge Klor de Alva
William H. Luers
Michael A. Mares
John S. Mayo
Frank Press
Wilbur Ross
John C. Sawhill
Lloyd G. Schermer
Maxine F. Singer
Harold K. Skramstad, Jr.
R. James Woolsey

Summary

The Smithsonian is unique among our cultural organizations because it belongs to the nation itself. Its essential purpose remains that of educating Americans for their roles as citizens of our country and people of our planet. To that end the Institution must reaffirm its commitment to James Smithson's vision: "the increase and diffusion of knowledge among men." The Smithsonian's ability to fulfill its purpose in the coming decades presents difficult new challenges because of the ongoing changes in our society and the limits, both intellectual and financial, to what a single institution can accomplish. The future also holds opportunities that the Smithsonian should embrace if it is to reach out in new ways to more people, as it must.

To achieve the nation's expectations, the Smithsonian will require the sympathetic understanding and full support of the American people and the Congress.

The Smithsonian cannot achieve the nation's expectations by itself. It will require the sympathetic understanding and full support of the American people and the Congress. Full support does not, however, mean unrealistic growth in the Institution's resources. Thus, the Smithsonian must husband its resources and make tough decisions about its priorities. It will not be able to do everything we all want it to do. In the coming century, it must choose between established, even cherished, activities and new programs. It must use its resources as efficiently and effectively as possible.

To prepare for the future, the following questions will require resolution in the near term. How can the gap between current activity levels and the financial support that can be expected in the next few years be resolved? What is an appropriate size for the Institution in program and facilities in the next decade or two? How can resources be found for investing in the technologies that are essential if new opportunities for expanded outreach to the American people are to be realized?

To assist the Smithsonian in responding to these challenges, the Commission emphasizes the following initiatives.

TO EDUCATE MORE OF THE NATION'S PEOPLE

- Emphasize education both on the Mall and across the country through electronic means, traveling and collaborative exhibitions, and public programs.
- Seize the opportunities provided by electronic communication and information technology and make them a priority throughout the Institution.
- Build collaborative partnerships with other museums, research centers, and educational institutions throughout the nation.
- Develop approaches to collections, research, education, and exhibitions that will be inclusive of the diversity of the American people.
- Apply the Smithsonian's unique resources to enhance K-12 and adult education.

GOVERNANCE

- Rebalance the relationships between the central administration and the various Smithsonian components.
- Establish operating principles for the Institution as a whole and then, with those principles, encourage the autonomy of the individual museums and other Smithsonian components.
- Establish a framework for setting Institutional priorities, including regular meetings with the assembled leaders of the museums and other Smithsonian components.
- Reinvigorate the advisory boards to the museums and other Smithsonian components to engage citizens from throughout the nation in Smithsonian activities.
- Encourage greater participation by the Board of Regents in all Institutional affairs.

COLLECTIONS, RESEARCH, AND EXHIBITIONS

- Shape a master plan for maintenance of the priceless collections, including the sharing of collections through long-term or permanent loans to partner institutions.
- Develop policies for future acquisitions.
- Increase public exhibition space by moving many collections to modern storage facilities.
- Concentrate future research on collections, areas of excellence, and long-term global projects.
- Develop procedures for rigorous review and advice on plans for major new exhibitions to help ensure the quality and balance of the exhibitions as well as the integrity of staff scholarship.
- Establish priorities for renewing aging exhibitions.

TO ASSURE THE FUTURE

- Declare a moratorium on new museum construction unless the incremental funds needed for construction and operations are assured.
- Devote attention and resources to the rehabilitation and maintenance of existing facilities.
- Improve quality and productivity by seeking relief from federal personnel and procurement practices, by independent assessments of performance of senior professional personnel, and by clarification of inter-relationships among the top echelon managerial positions.

Introduction

The Smithsonian Institution is the principal repository of our nation's collective memory and the nation's largest public cultural space. It is dedicated to preserving, understanding, and displaying the land we inhabit and the diversity and depth of American civilization in all of its timbres and color. It holds in common for all Americans that set of beliefs —in the form of artifacts—about our past that, taken together, comprise our collective history and symbolize the ideals to which we aspire as a polity. The Smithsonian—with its 140 million objects, 16 museums and galleries, the National Zoo, and 29 million annual visits—has been, for a century and a half, a place of wonder, a magical place where Americans are reminded how much we have in common.

The story of America is the story of a plural nation. As epitomized by our nation's motto, America is a composite of peoples. Our vast country was inhabited by various cultures long before the Pilgrims arrived. Slaves and immigrants built a new nation from "sea to shining sea," across mountains, plains, deserts and great rivers, all rich in diverse climates, animals, and plants. One of the Smithsonian's essential tasks is to make the history of our country come alive for each new generation of American children.

We cannot even imagine an "American" culture that is not multiple in its roots and in its branches. In a world fissured

by differences of ethnicity and religion, we must all learn to live without the age-old dream of purity—whether of bloodlines or cultural inheritance—and learn to find comfort, solace, and even fulfillment in the rough magic of the cultural mix. And it is to the challenge to preserve and embody that marvelous mix—the multi-various mosaic that is our history, culture, land, and the people who have made it—that the Smithsonian Institution, on the eve of the twenty-first century, must rededicate itself. It is uniquely poised to do so because it is the **nation's** place. The nation's motto, *e pluribus unum*, should also be the Smithsonian's.

The Institution lines the sweeping green Mall that is, if not the geographical center of our nation, surely the physical manifestation of our national pride and majesty. At one end is the massive Capitol Building which houses the U.S. Congress. At the other, Abraham Lincoln's sadly benevolent visage looks on. In between are the Washington Monument, the White House, the National Gallery of Art, and many of the Smithsonian's museums. Because of the museums, the Mall is rarely empty. Thousands of American and foreign visitors come to visit daily, to learn, to enjoy, and to deepen their ties to our culture and to the institutions housed in the Capitol and the White House. For those working in these official institutions, the crowds on the Mall are an insistent daily reminder of the sources of power and the diversity of the people.

THE SETTING

A Nation in Constant Flux.

Today, the nation is, at its core, a different nation than it was in 1846, when Congress, having accepted a $500,000 bequest from the English scientist, James Smithson, established the Smithsonian as an institution "for the increase and diffusion of knowledge among men." It is also enormously different from the post-World War II nation considered by the Smithsonian's Committee on Future Policies in 1946. That Committee had few intimations of the changes that would revolutionize our society.

There are now fifty states, as well as the territories and the District of Columbia. The population of the United States has grown to more than 262 million.

Enormous scientific advances, including new understandings in biology, astronomy, and the earth sciences, have vastly expanded the world of knowledge in the Institution's domain. All over the planet, the natural environment is under extreme pressure, resulting in the extinction of numerous plant and animal species and even in doubt about the ability of the human species to survive and flourish.

Technology has permanently altered the nation and the world. In the last fifty years, we have seen the development of fast and cheap transportation by auto and air, the advent of television, computers, and rapid communications, and the birth of the information highway. Services and high technology industries now predominate over the previously prevailing manufacturing sector of our economy. Change has been so rapid that it is still impossible to judge the depths of the influence of these developments on people and on the natural environment.

Concomitant with technological changes, and interacting with them, have been enormous social and political changes. More of the nation's people are educated through high school and college. World-wide movement of people in search of freedom and greater personal opportunity has brought ever greater ethnic and racial diversity to our shores. The principles won by the civil rights movement are, as a matter of justice and human rights, applicable to all. The nation is now more conscious of its component racial and ethnic groups. The women's movement for equality is bringing with it alterations in traditional patterns of family life and labor-force participation. These and other changes are accompanied by vigorous public debate. Increasing public participation by those with conservative religious traditions in various faiths has generated more intensive discourse about values and public morality. Increasing economic differences between the wealthier and the poorer segments of American society are reflected in different views of national priorities. For an educational institution like the Smithsonian, such elements enrich the cultural environment and offer new opportunities.

Interactions between nations and their peoples have also changed dramatically, to a large extent as a result of technology. Our perspectives are necessarily informed by international considerations. Not only are people all over the world affected by American culture through modern communications, especially

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(Left) Giant sea turtle found in Kansas lived more than 75,000,000 years ago, and is now in the "Life in the Ancient Seas" exhibition at the Smithsonian's National Museum of Natural History.

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television, but many foreign tourists visit our country and the Smithsonian. The revolutions in communication and transportation have forever invalidated thoughts of isolatio from the rest of the world.

The Smithsonian

The vitality of our nation is greatly enhanced by thousands of public and private museums and other institutions whose common function is the increase and diffusion of knowledge. Some of these are small institutions, perhaps little known outside of a local area, often specializing in one aspect of society. Some are large and internationally famous. But the Smithsonian is distinctive as **the nation's** cultural institution, with the word "culture" broadly defined to include history, art, science, technology, and the natural world. In a nation whose people arrived over centuries and still do from every place on our planet, bringing countless experiences and viewpoints, the Smithsonian must be concerned not only with our own unique history, civilization, and natural history, but also with that of many other places. At the same time, the Smithsonian must reflect our aspirations as a nation and even help shape and define a common interest. No matter how complex and paradoxical, *e pluribus unum* is our national vision. In the current political context, which tends to define American life as a collection of special interests, this is a formidable challenge but a more important imperative than ever before.

The Smithsonian, along with other museums and scientific institutions, has responded to the changes in our nation and world. The 29 million annual visits by Americans and foreign tourists—an estimated 6 million children are among them—compare with just 4.5 million when the Committee on Future Policies met in 1946. And these visitors find an extraordinarily broad array of exhibitions and experiences compared to what was available in 1946. The number of Smithsonian museums and research programs has grown, and some have spilled out beyond the Mall to other sites in Washington, D.C., to other cities, and even to other countries. (Throughout this report we use the term "museums" to indicate exhibition facilities; the National Zoo is always meant to be included.) More than 300 buildings belong to the Institution. The Smithsonian employs more than 6,700 people in hundreds of jobs: for example, scientists, carpenters, cleaners, art restorers, curators, gardeners, astronomers, shop clerks, computer specialists, historians, and jazz musicians. In addition, more than 5,200 knowledgeable and dedicated volunteers welcome visitors, lead tours, conserve objects, and support research among a myriad of other tasks.

The core activities. Museums have become important educational institutions and play an important role in stimulating interest in history, science, music, and art. The scholarly research conducted in museums is expected to inform and enhance the museums' roles as public educators. Underlying all that visitors can see and

(Above) Face mask of the Yaure Peoples, Cote d'Ivoire, used in theatrical performances during community celebrations. The delicate features and highly polished surface are characteristics of Yaure art. National Museum of African Art, Smithsonian Institution.

learn at the Smithsonian are its vast collections and extensive research activities. These are the basis for all of the Institution's educational programs, regardless of whether the diffusion of knowledge is by traditional means or electronic communication. Collection items have grown from 18 million in the mid-1940s to more than 140 million today. With this wealth of material and knowledge, along with the importance of the United States on the world scene, the Institution has transcended its role as a national center to become a cultural and scientific institution for the world.

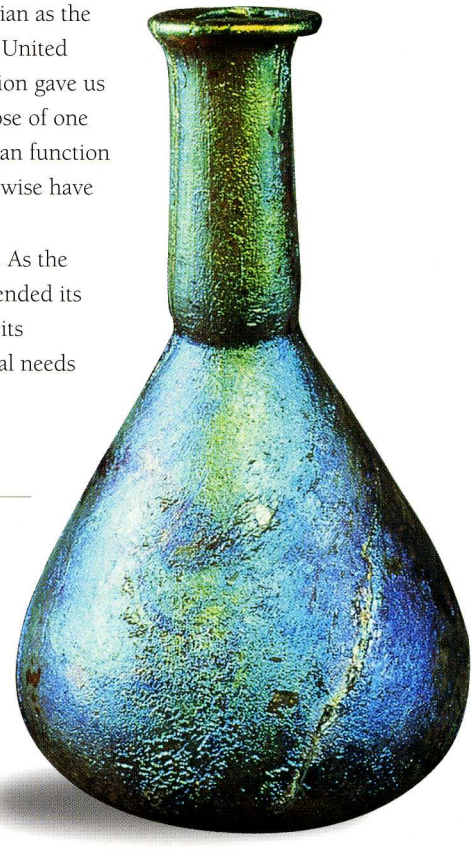
The Institution also reaches out to those who might not readily come on their own—with programs for thousands of school children, with the monthly *Smithsonian* magazine that reaches 2.1 million readers, with the traveling exhibition program that brings the Institution's exhibitions to museums throughout the nation and around the world, with the Smithsonian Jazz Masterworks Orchestra that tours nationally and internationally, with the National Science Resources Center which works to improve science education in the nation's schools—and this scarcely begins to illustrate the extent of the Institution's outreach efforts.

A local institution. Naturally, an institution of this size has an important impact on the cultural, educational, and economic fabric of the city in which it resides. A large proportion of the Smithsonian's visitors are from Washington, D.C. and the surrounding metropolitan area. The Institution serves the local population, especially its youth, through a number of exciting educational programs organized by the Smithsonian Associates. Nevertheless, neither the large African American nor the growing Latino communities residing in the city are as well represented among the visitors as they might be. The Smithsonian's staff is well aware of this, and steps have been and are being taken to make the museums inviting, interesting, and relevant to those communities. In 1993 the Institution's local economic impact was estimated to be $6.7 billion, the aggregate of the salaries of its employees, contracts with local businesses, and money spent by tourists, which comprises 91 percent of the total.

An international institution. As an international institution the Smithsonian welcomes scholars from around the world to use its collections which are, in many fields, among the best anywhere. Young researchers, museum professionals, and conservation biologists from scores of countries are trained in modern methods in Smithsonian programs. For these foreign visitors, as well as the millions of foreign tourists, the Smithsonian provides a prodigious view of the complexity, creativity, and grandeur of American culture and natural history that contrasts with the "Hollywood" image that so many of them acquire from movies and television.

The Smithsonian is part of a vast international network of cultural and scientific institutions. To understand better the relationship of the Smithsonian to those institutions, several Commission members visited Canada, the United Kingdom, and France, and we drew on the familiarity of other members—as visitors or working scholars—with museums all over the world. Our nation can be proud of the Smithsonian's outstanding reputation abroad for its collections and exhibits, the quality of its research, its collaborative efforts with scholars in many countries, and its exemplary training programs for young scholars and museum professionals. When cultural issues arise internationally, other countries engage the Smithsonian as the representative of the United States. This observation gave us an unexpected glimpse of one important Smithsonian function that would not otherwise have been apparent.

The resources. As the Smithsonian has extended its reach and expanded its programs, its financial needs have increased. The Institution depends



(Right) Iridescent Phoenician glass bottle of the Roman period (100 B.C.- 300 A.D.) is on display in the "Origins of Western Culture" exhibition at the National Museum of Natural History, Smithsonian Institution.

on Congressional appropriations and its trust funds, including James Smithson's original bequest, for the bulk of its operating and capital budgets. But it has also turned increasingly to the private sector through fund-raising, the Associates program, retailing, product licensing, and the magazine. In this way, worthy and necessary initiatives, as well as ongoing programs, have been sustained. Nevertheless, financial resources are a limiting factor. New undertakings—from museums to exhibitions to caring for new collections or improving the condition of old collections—demand their share of resources. Maintenance and modernization of facilities is increasingly expensive. The Institution has already recognized that difficult choices must be made.

A glimpse of the future. Just as our nation today is vastly different from the way it was in 1846 or 1946, so it will be different ten, thirty, and fifty decades from now. America is and always has been a nation at the forefront of change. Our history has been shaped by people who sought and created change. The diversity of our population, the pace of our technological development, and the energy generated by the opportunities available to our people, are unrivaled.

The nation not only remains in flux; the pace of change is accelerating. The population is aging. The proportion of our citizens who are members of racial or ethnic minority groups will increase in the decades ahead. As recently as 1990, they represented one in five

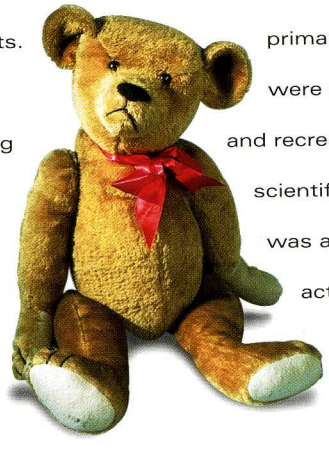
What was the Smithsonian like in 1945?

1945

Research was the primary activity. It centered on the approximately 18 million items in the collections and was carried out by the staff, colleagues in the academic community, and students.

Two million people visited the Smithsonian on the Mall. Its structures included the original red sandstone "Castle," the Freer Gallery of Art, and the Arts and Industries building with its displays of history, industry, and the applied arts. Behind the Castle, a 19th century wooden building housed the Smithsonian Astrophysical Observatory. Nearby a temporary metal building from World War I displayed aviation artifacts. Across the Mall in the National Museum building was the largest portion of the Institution's collections, together with laboratories and exhibitions on anthropology, biology, geology, and the fine arts.

Another two-and-a-half million people visited the National Zoological Park in Rock Creek Park. Here, primary purposes were education and recreation while scientific research was a minor activity.



(Right) Teddy bear that belonged to President Theodore Roosevelt is one of the originals made by the Ideal Toy Company in 1903 and named for him. Gift of Kermit Roosevelt. National Museum of American History, Smithsonian Institution.

Americans. According to Census Bureau projections, by 2050 about half the population will have origins in those groups.

Popular sensibilities and interests are evolving daily. Scientific understanding is deepening. Important new artifacts accumulate. And the enhanced ability to communicate speeds the awareness of these and other changes, as well as the response to them.

The Smithsonian's principal future challenge is to reflect a rapidly changing society, to change itself, and, indeed, to be a strong contributor to the richness of that society while, at the same time, being the treasury of its past.

Flexibility will be one requirement for dealing with changing challenges and opportunities: flexibility in programs, outlook, finance, administration, and governance. A sense of limits also will be required. Resources and facilities will not continually expand, nor is it necessarily desirable that they should. New, alternative ways to expand the reach of the Institution and reflect new developments can be exploited. The Smithsonian will be stronger and serve the nation most effectively if it strives continuously to collect, research, exhibit, teach, and bring to the nation the most significant elements of our culture, history, and science. The potential for excellence, too, must be a criterion in deciding what to do and what not to do.

To reach people outside of Washington, the Smithsonian considered re-establishing its weekly national radio program, "The World is Yours," which had been curtailed by World War II, but that plan was not adopted.

As the Board of Regents and the Committee on Future Policies pondered the Smithsonian's future, their main concerns were protecting opportunities for basic research and providing for the maintenance of the growing collections. For them, the public education and exhibition functions of the Institution were secondary to its research, collecting, and reference functions.

(Above) Douglas SBD-6 Dauntless, the last of its type on active service with the Navy. Considered the most effective Navy dive bomber of World War II, SBDs were crucial in the Battle of Midway, the turning point of the war in the Pacific. National Air and Space Museum, Smithsonian Institution.

The Core Activities: Challenges and Opportunities

The relationships among a great cultural institution's collections, research programs, exhibitions, and educational activities are, like everything else, in a state of rapid change. Among the challenges is understanding how to address the opportunity offered by each element of these core programs. Another is to devise a strategy for unifying activities among them so that their impact can be magnified. A third is to assure the public of the excellence of the Institution's efforts by thorough and unbiased assessment procedures.

The Collections

The Commission believes that the wondrous collections that have been amassed over the last 150 years are central to all of the core activities and to the vitality and significance of the Smithsonian as perhaps the world's premier organization of its type. Among the vast collections are irreplaceable icons of this nation and materials vital to the study of the world's natural and cultural history. The scope, significance, uniqueness, and unparalleled quality of these holdings make it imperative to ensure that they be maintained in excellent condition at the highest level of preservation. They must also be readily accessible for future generations to use, enjoy, and study, as past generations have done. It will require significant effort and cost to achieve such goals.

The collections are not static. They will continue to grow as time goes on, as the great events and discoveries of the future expand our nation's history and accomplishments. In 1846, when the Smithsonian was founded, few even imagined air and space flight, let alone a whole museum devoted to airplanes and the exploration of space. Nor would many have imagined the extraordinary diversity of origins and cultures of Americans. In 1995 we cannot imagine what kinds of objects and cultures may become integral to our future. The "nation's attic" was once expected to contain almost everything, bringing national and world history and the natural world together. Some collections were created systematically and self-consciously, while others were gathered in a less organized fashion. Mall space is now limited, and the present facilities require extensive renovation if they are to continue to be safe places for both existing and new collections, as well as for visitors and staff.

A number of questions about collections arise from these considerations. Where should the Smithsonian keep them? What should the Institution collect in the future? Should storage facilities be separated from exhibition halls? Can collections be moved to other institutions outside Washington? Will such removal have an impact on the expectations of tourists, the planning of educational programs, the character of scholarly research, and the duties of curators? Will changes in physical facilities and their locations suggest definitional changes in what some Smithsonian staff do and where they work? Must greater attention be given to new kinds of collections, ones that document the current state of American society? How can the Smithsonian best preserve the diversity and integrity of the irreplaceable sites that are

The wondrous collections that have been amassed over the last 150 years are central to all of the core activities and to the vitality and significance of the Smithsonian.

(Left) Acquired in 1986, the Herbert Waide Hemphill, Jr. Folk Art Collection of more than 425 objects has stimulated a lively program of collection, exhibition, and publication in this field at the National Museum of American Art, Smithsonian Institution.

part of its charge? And regardless of where and how they are maintained, where will the financial resources be found to keep the collections in good condition?

One approach to these questions is to continue to construct new Smithsonian facilities in Washington or elsewhere. The Commission believes that this strategy is

not feasible. There are alternative approaches. Since the Smithsonian's founding in 1846, the number of museums, research centers, libraries, and archives throughout the country has grown by the thousands. The Institution already has and can expand its role with respect to these and future institutions as resource, collaborator, and catalyst. Its vast resources can be shared with a larger number of citizens if the Institution forms partnerships with selected institutions. This approach can help resolve some of the practical problems posed by growing collections, limited space for expansion, and the geographically constrained impact of the Mall location. The Commission's concept of partnerships is described more fully later in this report.

A master plan for future collections management is essential. In establishing such a plan and setting the essential priorities, the following issues and strategies should be considered.

- Collections management, including storage, conservation, and cataloging could be functionally separated from research; this implies a division of responsibility between people concerned with collections care and those doing research and planning exhibitions.

- The present Mall buildings, even if renovated, cannot provide sufficient, high quality storage. The current plan to leave portions of the collections on the Mall while moving others to existing and planned off-site facilities is one approach. A disadvantage of this plan is that the curators would be scattered among different collection areas, which is not conducive to cooperative research. Moreover, by keeping extensive collections on the Mall, an opportunity to expand space for public programs is lost. An alternative would be to move all collections, curators, and research staff to expanded facilities at Suitland, Maryland, or similar locations where state-of-the-art storage and conservation is possible. This would permit the remodeling of the Mall buildings to house new and expanded exhibits and public programs. Computer links would provide visitors with information about the objects stored at Suitland and allow them to communicate with the research staff. While such a strategy would require an investment in new storage facilities, it would also ensure effective preservation of America's greatest natural and cultural treasures and is likely to be cost-effective.

- Criteria and timetables that are flexible with respect to intellectual and financial considerations will be needed to guide selection of collections for growth, de-emphasis, or sharing with partner institutions by means of long-term or permanent loans. An important consideration is that the Smithsonian collections themselves should be inclusive, reflecting the changing diversity of the population.

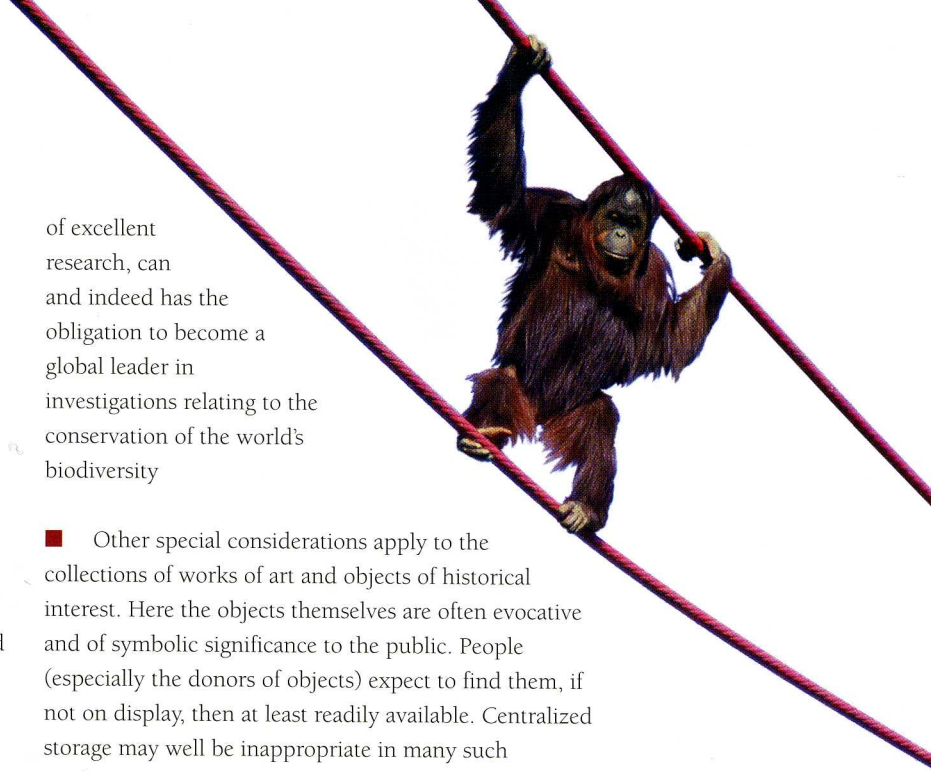
(Above) A scientist at the Smithsonian Tropical Research Institute in Panama measures gas exchange between biosphere and geosphere from a 140 foot tower emerging from the forest canopy on Barro Colorado Island. Data from the tropics are essential to refining models of global climate change.

■ The Smithsonian should be a national and international leader in enhancing research on new methods for high quality collections care and conservation.

■ The long-term quality of collections maintenance can be assured only by institution-wide processes for ongoing, independent assessment by outside experts, including scientists, collection conservators, collection managers, and museum educators.

■ Collections catalogues, information related to the objects, and even images of the objects should be placed in computerized databases. This will make the vast amount of material in the national collections accessible to people at museums throughout th country and the world. The Institution should be the leader in establishing such a world-wide computer linkage. This may provide an opportunity to receive income in return for the availability and use of such databases. Ownership and marketing plans will have to be developed, issues that are largely uncharted and untested.

■ Special considerations apply to the National Museum of Natural History collections and the living animals and plants at the National Zoo. The value of these collections is impossible to overestimate; they represent the largest available amount of information on past and present distributions of our country's flora and fauna. It is impossible to predict the many ways in which they will be used in the future. As an example, the collections are now an invaluable source of DNA for characterizing many threatened and endangered species. Yet it was only in the mid-twentieth century, 100 years after the founding of the Smithsonian, that we came to understand that DNA is the fundamental genetic material of life. Now and for the future, the collections provide unparalleled resources for understanding and perhaps ameliorating the mass extinction of species and the possibly deleterious consequences for humanity. The Smithsonian, by virtue of its collections and long record of excellent research, can and indeed has the obligation to become a global leader in investigations relating to the conservation of the world's biodiversity



■ Other special considerations apply to the collections of works of art and objects of historical interest. Here the objects themselves are often evocative and of symbolic significance to the public. People (especially the donors of objects) expect to find them, if not on display, then at least readily available. Centralized storage may well be inappropriate in many such instances.

Research

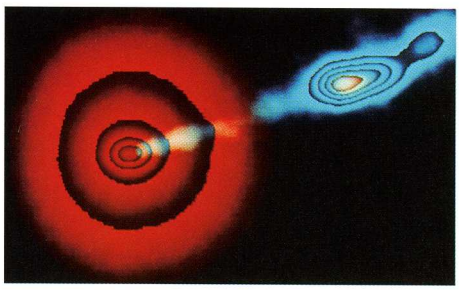
Without research, objects and specimens are of little educational, cultural, or scientific significance. This does not mean, however, that the way research is organized and carried out must remain as it has been in the past. America now has many excellent research organizations. The Smithsonian should pursue certain distinct, even unique, research objectives by stressing three pertinent themes: (1) a focus on its unparalleled collections, (2) building on existing strengths such as centers of excellence that have the capacity to play leadership roles, and (3) projects that are global and long-term in scope.

The elucidation of the objects in the collections must be a primary responsibility and purpose of the Smithsonian. The profound connection between the Institution's collections and the scholarly research centered upon them is fundamental to the planning and development of exhibitions and educational materials (including those on electronic databases), be they about paintings, masks, airplanes, astronomy, or insects. As proven by both the internal logic of this case and the sad

(Above) Bonny, a female orang, scampers along cables high above the Smithsonian's National Zoological Park. She is the first to use the new Orang Transit System, also known as the O Line.

An enormous boost to research at the Smithsonian would be provided if scholars were freed from current restrictions and permitted to compete with their peers at universities and other institutions for funding from federal agencies such as the National Science Foundation.

experiences of others, institutions lose vitality and wither when collections are unused by excellent and zealous researchers. Unfortunately, this linkage is unappreciated by much of the public, including frequent and enthusiastic visitors; the very fact that the Smithsonian carries out a great deal of important research is unrecognized by many.



In the natural sciences, collections-based research at its best is not (as in the stereotype) a restrictive application of arcane names to rocks or dead and partial biological specimens. Rather, such research is expansive, moving out from specimens to their functions, adaptations, ecological and environmental interactions, and human impacts. Collections, moreover, often provide the best opportunities for partnerships with other institutions throughout the world and with other scientists who may be able to study objects intensely and on site, but who do not have the temporal range or taxonomic scope that good collections can supply. Modern telecommunications facilitate such collaborative research. While universities and medical centers are pre-eminent in experimental science, museums are appropriate central sites for systematic and taxonomic research, including publishing and training. The Smithsonian should be the world's premier center for such research.

Similarly, current collections and likely future acquisitions can provide a leadership role for the Smithsonian in studies of American culture, including popular culture. As one example of how existing strength in collections can stimulate research and education, consider American popular music and jazz. Here research leads to performance, recordings, and nation-wide tours by the Smithsonian Jazz Masterworks Orchestra reproducing the sounds of the past. As another example of links between collections, research, and education, catalogues associated with specific exhibits are now a principal instrument for scholarly communication in several fields and also build highly significant bridges between the world of specialized scholarship and the general public.

Assuring an excellent research staff. The originality, enthusiasm, and excellence of the research staff are the critical elements for the quality of research. How can excellence in research be best identified and rewarded? How can procedures for assessment, promotion, and termination, if necessary, be made more fair, systematic, inclusive, non-intrusive, and non-terrifying? Can ways be found to make the recruitment and retention or dismissal of research staff more responsive to excellence and change? Can the current rigidities of federal personnel practices be replaced by a more flexible system that better balances the interests of the Institution and the individual researchers, for example, by facilitating temporary appointments of scholars interested in particular collections? Closely tied to these personnel issues is the problem of how to initiate and pursue novel forms of research, including entirely new directions. We must also squarely face the obverse and often painful issue of how programs and people that have already realized their potential or failed in their tasks can be redirected or released.

An enormous boost to research at the Smithsonian would be provided if scholars were freed from current restrictions and permitted to compete with their peers at universities and other institutions for funding from federal agencies such as the National Science Foundation. An important advantage of such a change is access to the independent evaluation of quality inherent in peer review processes.

Setting priorities. Two classes of problems relating to collections and research should be faced head on: (1)

(Above) This electronic image of the elliptical galaxy M-87, computer-enhanced to emphasize the jet of high-energy particles ejected by violent processes in the galaxy's core, was taken with a telescope at the Smithsonian's Whipple Observatory near Tucson, Arizona.

the contingent, sometimes haphazard accretion and growth of the Smithsonian's collections and research directions and (2) the bureaucratic strictures and often counter-productive, antiquated rules that are incompatible with research enterprises and affect all large, and in particular federal, institutions. Ultimately, difficult choices must be made about which collections to study, which research to do. What do visitors to the Smithsonian want to understand better? What do scholars at the Institution regard as the best projects? Which collections are most in need of the kind of study that will rationalize their existence? What is the proper balance between poles of excellence that might be described as coordinated-global and curmudgeonly-idiosyncratic, for both have made great contributions to human knowledge? How shall these decisions be made?

The Commission believes that decision-making must be an inclusive process that allows for consideration of the insights of the scholars who will carry out the research, external expert advisors, and those with broader views of the Institution's responsibilities to the public. We offer several general principles that could help in achieving the desired balance without compromising the originality and excellence of the researchers.

- Focus on the unparalleled collections.

- Continue to support existing programs of acknowledged and active excellence.

- Take advantage of the Institution's unparalleled opportunities for linkage across disciplines among its own branches and for ties with other research institutions throughout the world.

- Pursue large, often global projects involving hundreds of participants, large geographic areas, and long temporal durations. Much of what we need to know about the environment and ecology can be learned in no other way, and few other institutions are in a position to undertake such a global approach. The Smithsonian Tropical Research Institute is an outstanding example of such an effort. Broad strategies are also relevant in other Smithsonian areas such as, for example, the National Museum of American Art's program to catalogue all of the outdoor sculpture in the United States.

- Foster growing awareness of the interdependence of the human population in all its size and diversity and the natural world, which, in turn, profoundly affects human behavior and aspirations.

- Recognize that excellent scholars are rare individuals who value their independence, and that the excellence of Smithsonian research ultimately depends on recruitment and retention of such people. Remember the lesson of history: inspired individuals, free to pursue unorthodox, personal hunches, often make the greatest discoveries and attain the deepest insights.

- Consider the Institution's role in public education and how research can address the needs and interests of the broader public.

- Provide abundant opportunities for training the scholars of the future.

Exhibitions

There are many difficult issues that must be considered in planning, setting priorities, and assessing the impact of exhibitions. The Smithsonian's unparalleled collections place it in a unique position to provide focused experiences of authentic objects in

(Right) Blue and white porcelain bottle from China's Ming dynasty. The prosperity of the early 15th century allowed access to the imported cobalt that distinguished these forms created at Jingdezhen for court use. Freer Gallery of Art, Smithsonian Institution.

exhibitions that engage, challenge, and educate audiences. Besides being authentic, the exhibitions must be accurate, current, and of the highest quality. In an era of limited resources, careful planning for exhibitions is critical. We consider here some of the issues which present the greatest challenges for curators, exhibition teams, and the Smithsonian staff in general.

■ The need for restoration, renewal, and expansion of exhibitions is acute. Investments in these activities and facilities should have high priority. Greater internal collaboration can link exhibitions in the humanities, sciences, and the arts. Innovative approaches to exhibition design and interpretive strategy should be encouraged and advanced technology incorporated to enhance the participation and experience of diverse audiences.

...a museum's role in education is different from that of a school or university. Museums stress the education of the public at large...

■ With an increasing number of museums across the country, the Smithsonian should strive to use its resources to produce unique exhibitions that are not possible in other settings. Few other institutions can mount "block-buster" exhibitions that provide in-depth exploration of a particular topic, integrate knowledge and objects in history, art, and science, and consider cross-cultural issues.

■ There is a need to bring Smithsonian exhibitions to a larger, nation-wide audience. The Smithsonian Traveling Exhibition Services (SITES) already makes Smithsonian exhibitions, as well as exhibitions developed by other museums, available to audiences outside of Washington, enabling the resources and collections of the Institution to reach millions more people annually than will visit the Mall. Through fees collected from the institutions hosting SITES exhibitions and grants raised to support those exhibitions, the cost to the Smithsonian can be minimized. Expansion of the SITES program is a way to increase the reach of the Institution.

■ Exhibitions that travel internationally also should be encouraged. The 1994 exhibition developed by the National Museum of American History and the National Air and Space Museum for presentation in Tokyo, for example, provided information about the United States to a large audience. Such exhibitions counter the limited and often warped view of our country depicted through television, movies, and other commercial enterprises. Moreover, the Tokyo exhibition was fully funded by international sponsors and generated significant revenue through the sale of Smithsonian products.

■ Museums in general, and the Smithsonian in particular, are increasingly flash points in the debates that characterize our nation's transition from a society that depends for coherence on a single accepted set of values and practices to one that derives its strength and unity from a deep tolerance of diversity. This happens because museums, to fulfill their missions, must prepare exhibitions that record and illuminate this transition. Museums have responded by providing a broad range of interpretive approaches to exhibitions and encouraging deeper examination and debate of issues. This

(Above) On the surface of the Moon during the mission of Apollo 17 in 1973, Astronaut Harrison Schmitt, whose image is reflected in the gold visor, photographed Astronaut Eugene A. Cernan, the mission Commander.

sometimes results in acrimonious and contentious debate on controversial subjects. The Smithsonian has hardly been immune. Its position is especially challenging because it is a national institution with large and complex collections and missions. These challenges can be better understood by recognizing that the Smithsonian is an educational forum rather than a cultural or scientific authority or even a home for congratulations.

The Commission suggests several ideas that may forge a more tranquil path, yet allow for a full and fair debate. A mechanism for broader and independent review of proposed exhibitions could be established. Such review would need to strive for balance between constructive judgments and criticisms of an exhibition's content, and the desirable independence of the curators and scholars responsible for the exhibit. It is important in such a process to distinguish between the need to protect the intellectual freedom of those individuals in their own scholarly work and publication, and the public responsibilities of the Smithsonian in its exhibitions. Review groups should be constituted to assure the inclusion of various viewpoints. The advisory boards of the museums could be consulted; so, too, could a group of senior staff members recruited from throughout the Smithsonian. Smaller temporary exhibitions also provide more overall flexibility than do larger, permanent ones.

■ Like many museums nation-wide, the Smithsonian has been experimenting with exhibitions in which authentic objects play a minimal role. Rather, the exhibitions are designed to create an environment that provides a particular kind of experience for the visitor: a Native American village, an early 20th century house in Harlem, or the surface of Mars, for example. Such experiential exhibitions are often popular, presumably at least in part because of the way films and television have changed the way people expect to learn about realities other than their own. They are also the source of another debate in the museum world, this one concerning the relative values of object-based and experiential exhibitions. The vast, unique Smithsonian collections suggest that the Smithsonian should continue to emphasize exhibits based on original materials, that is, to give its audiences the "real thing," enhanced by modern educational tools.

■ Exhibitions are themselves one kind of product of scholarly research. This is illustrated by the fact that museum exhibitions are now routinely reviewed in scholarly journals.

Education

Teaching, that is, making knowledge available, is a modern expression of James Smithson's concept of "diffusion of knowledge." Ultimately, the purpose of the collections, research, and exhibitions, is to educate. Without that purpose, the other core activities of the Smithsonian would be empty endeavors. But a museum's role in education is different from that of a school or university. Museums stress the informal education of the public at large, while universities primarily educate students who have committed themselves to formal

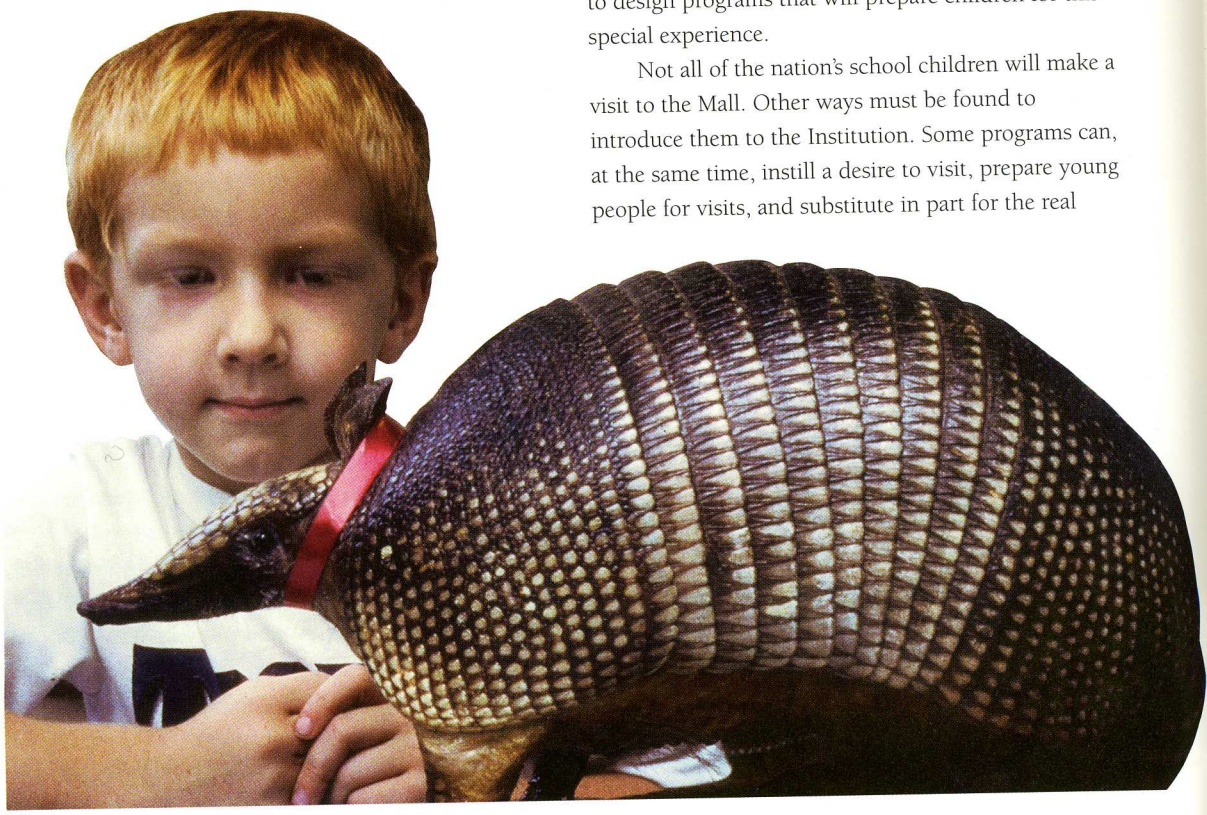
(Above) Interpretive presentation at the southern tenant farmer's shack in the exhibition "Field to Factory: Afro-American Migration 1915-1940" at the Smithsonian's National Museum of American History.

study. To inform their educational endeavors, both universities and museums must engage in research to increase knowledge and understanding.

The Smithsonian must maintain education as a major priority and explore ways to expand its educational programs. The Commission believes that in the coming decades educational outreach to diverse elements in U.S. society must be a primary purpose for the Institution. This conclusion stems, in part, from the broad national recognition of severe deficiencies in the U.S. educational system, especially in grades K-12. A major threat to the country's stability lies in the growing division between those who know and those who don't know; it is at least as serious as the gap between the haves and the have nots. This is associated with an increasing separation between popular understanding and the advancement of specialized research. Our nation's future depends on major improvements in education and every institution in the nation must give the highest priority to this problem. Museums have unique potential for contributing to education.

The potential is apparent in the magic of spring on the Mall. Daily, school buses are parked bumper to bumper, disgorging hundreds of children from the surrounding area. The airports, too, are full of classes arriving from all over the country, many to stay a whole week. Museum staffs and facilities are taxed to the limit. Other children visit year-round, accompanied by one or more parents. The Smithsonian experience that a child enjoys and remembers will last into adulthood. Some of these young people are better prepared for their visit by teachers or parents than are others and consequently benefit more from their encounters with national treasures and history. A challenge for the Institution is to design programs that will prepare children for this special experience.

Not all of the nation's school children will make a visit to the Mall. Other ways must be found to introduce them to the Institution. Some programs can, at the same time, instill a desire to visit, prepare young people for visits, and substitute in part for the real



(Above) A young man considers an armadillo in the Discovery Room at the National Museum of Natural History, Smithsonian Institution.

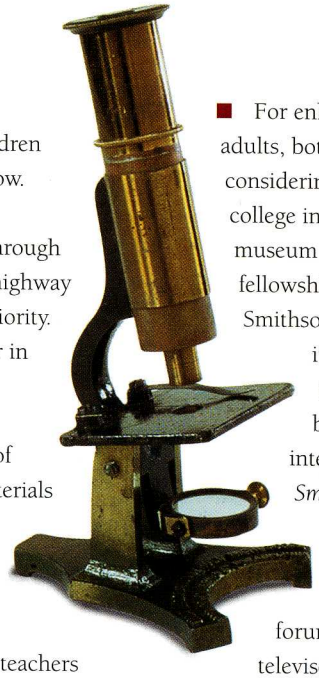
thing. More specific suggestions for enhancing educational outreach for children and adults, including professionals, follow.

■ Electronic outreach to the public through television, videos, and the information highway should be promoted with the highest priority. These ideas are explored more fully later in this report.

■ To contribute to the improvement of K-12 education, the development of materials and programs such as CD-ROMs and videos that utilize object-based and inquiry-oriented approaches for experiential/hands-on learning and address teaching problems identified by teachers should be encouraged. Such programs will foster independent inquiry, critical thinking, and analytical skills among students and can be carried out through linkages with other museums and educational institutions. Materials that can be used in conjunction with curricular reforms being made with the establishment of national standards in such fields as mathematics, science, and history are especially important. The National Science Resources Center is an ongoing example of such an approach and could be extended to other areas, such as American history.

■ Systematically planned and expanded informal education through museum-based or museological collections and object-based learning in exhibitions must be established in all museums. The Institution should take full advantage of studies in museum education to provide maximum learning opportunities through exhibition visits.

■ The Smithsonian should continue to encourage research scientists, curators, and other professional staff to work in Smithsonian-sponsored in-school education programs.



■ For enhancing educational programs targeted at adults, both lay people and professionals, we suggest considering: (1) museological programs, including college internships, designed for the education of museum professionals; (2) college and university fellowships and grants for independent research on Smithsonian collections and in collaboration with its research staff; (3) continued commitment to adult programs, including membership-based metropolitan, national, and international study programs, as well as *Smithsonian* magazine, the Smithsonian Press, electronic media, and interactive communications technologies; and (4) sponsorship of national and international forums such as conferences, seminars, and televised programs for discussion, debate, and validation of ideas and issues.

■ There is another very special educational role that the Smithsonian could play. Public discussions reveal that outside of the community of scholars and curators, many people do not understand how we come to know things about history, about other cultures, about objects, about the Earth, and about the Universe. Consequently, they question the substantial resources that museums devote to research. Both for practical reasons of popular support and the educational goal of helping people to understand the nature of knowledge and to distinguish between fact, interpretation, conjecture, and hyperbole, the Institution should seek to teach about the linkage between research and education. Many increasingly overt and palpable paths to making this linkage suggest themselves, including exhibitions on the research of Smithsonian staff and an increased commitment by researchers to explain publicly and with clarity the importance and excitement of their work.

(Above) The Universal Household Microscope, manufactured about 1880 by J.W. Queen & Co. of Philadelphia, allowed the "scientific" householder to identify adulterated food products. It is displayed in the "Science in American Life" exhibition at the Smithsonian's National Museum of American History.

Reaching Across the Nation

One way to address the changing face of America would be to build in Washington new museums dedicated to particular cultures, ethnic groups, or scientific and technical innovations. An imminent example is the National Museum of the American Indian. A National African American Museum has been proposed. We understand the desires of other communities to follow the same example. However, we believe that the Smithsonian must help build a common community rather than contribute to our nation's fragmentation. Such a goal requires that the existing museums, all of them, be inclusive in their collections, education, research, and exhibition programs.

In spite of the many competing ways in which people can spend their leisure time, museums will continue to attract large numbers. The authenticity of the collections and the grand and unique buildings all give museum visiting a ritualistic quality, affirming for people their own place in the great national and world communities. Still, the numbers and kinds of people visiting museums are likely to continue to change in the coming decades. And most people in America will never visit the Smithsonian buildings. To accomplish its national educational and scientific roles, the Smithsonian will have to reach beyond Washington, D.C. and make its presence felt throughout the country if it is to fulfill its role as a **national** institution. It will have to accomplish this goal within the limits of its financial resources, present and future.

The Commission emphasizes two different ways by which this vision might be achieved and urges their serious consideration. One depends on new opportunities for electronic communication and the other depends on building a network of partnerships with institutions throughout the nation.

The New Electronic Environment

To build and sustain a relevance to a truly representative population of museum users, the Institution must seize the opportunities offered by new technologies to bring museums to those who cannot come to them.

The information highway is perhaps the greatest tool for reaching out to the nation and represents a dramatic challenge to museums and to the research and education communities. Presently, we see through the Internet a glimmer of how this powerful and revolutionary tool will influence our culture, particularly through those who are now children. Yet it will be years before anyone can hope to understand where it is leading us. Nonetheless, the Smithsonian cannot wait; it cannot ignore the potential. Its people and programs must embrace the opportunities and, indeed, become leaders in their application to education and research. Although the Commission does not believe the information highway will be the panacea for the enormous educational needs of this country, it does believe that information technology will change the way people think about instruction, enlightenment, and leisure, as well as their experience and use of museums.

To build and sustain a relevance to a truly representative population of museum users, the Institution must seize the opportunities offered by new technologies to bring museums to those who cannot come to them.

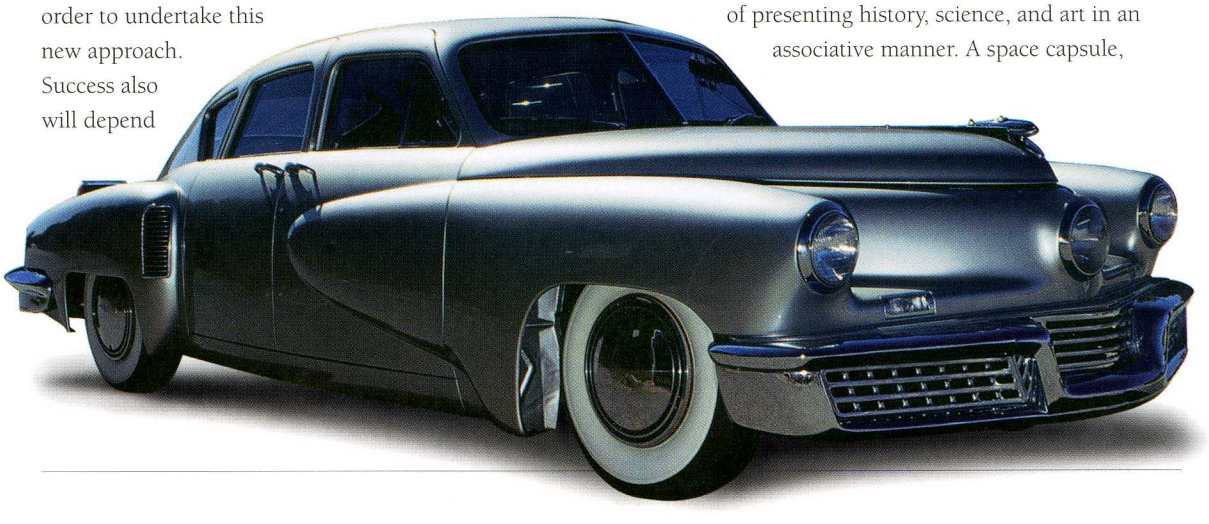
(Left) Portrait of Willem de Kooning *(1904-) by Red Grooms (1937-). Color lithograph on sculpted paper on lucite in plexiglass box. 119.4 x 83.8 x 22.2 cm. 1987. National Portrait Gallery, Smithsonian Institution.*

Reaching millions. Over the next decade electronic linkages will be made to schools, homes, and even pocket size mobile units; the price of service and equipment will decrease dramatically. Farsighted institutions will have the potential to provide millions of Americans and world-wide users with direct access to the images and research of the great museums. The educational tools that could and should flow from this revolutionary change will permit people, over their entire lifetimes, to explore multiple paths to learning and discovery in ways that were previously inaccessible even to the small, scholarly elite that traditionally employed museums' objects and knowledge. The establishment of a TV network would facilitate the Institution's presence on the information highway.

Communicating a new way. Electronic imaging, the new communications, and education are linked in a highly promising but expensive future for the Smithsonian. Some entities within the Institution have already begun to computerize images and information and make them available on emerging elements of the information highway including, for example, America Online. The potential for future development will depend a great deal on financial assistance and encouragement from top organizational structures within the Smithsonian, as well as the now unpredictable shape that the highway will take. Assessment by Smithsonian leadership will be needed to determine which programs can be eliminated in order to undertake this new approach. Success also will depend on the ability of individual museum teams to assess and act on the high degree of variability in employee computer expertise, on how to organize the expertise and keep it current, and on how to find partners and resources outside the Smithsonian, in government agencies or in the private sector. Such connections will be necessary to design the programs, to digitize images, to prepare television programs and video tapes or CD-ROMs, and to recruit the most talented individuals for these enterprises.

Experience throughout the nation and, indeed, in Canada and the U.K., as we learned, indicates that partnerships will be essential to engaging the necessary talent. Such partnerships should be based on cost-benefit tradeoffs with the Smithsonian having a fair share of the profits. This is a way to secure top talent which is generally disinclined to working in bureaucratic organizations and cannot be recruited to the regular Smithsonian staff. Nor would such recruiting be desirable, even if possible, because each of the enterprises will require different and evolving talents and expertise and for different periods of time.

Object-based learning. In the last four decades people have become ever more accustomed to images, both moving and static. The opportunity now exists to begin programs based on images of objects as paths for learning and experience. Interactive media, combining multiple paths into an image with information about the image and its contexts, provides a completely new way of presenting history, science, and art in an associative manner. A space capsule,



(Above) The 1948 Tucker automobile promised advanced engineering, safety features, and avant-garde styling that appears futuristic even today. Fifty-one prototypes were manufactured; the 39th is on display in the hall of Road Transportation at the Smithsonian's National Museum of American History.

a Benin sculpture, or the body of a bald eagle can be explored as design, history, materials, and environment, allowing the viewer to select individualized paths to instruction. Institutions that have objects of great historical, scientific, or cultural significance will be best positioned to design and create these new forms of education, thereby enormously enhancing the value of their images, knowledge, and creativity.

In an increasingly visual media environment, there is really no more exciting possibility than that offered to the great museums. The Commission experienced some of this potential first-hand when visiting the Micro Gallery at the National Gallery of Art in London. Images of its collection of 8,000 works of art and a great deal of readily accessible background information are available on computers at the museum and for purchase on CD-ROM.

Financial Considerations. The costs of developing the capacity and infrastructure required by the new tools are now almost prohibitive for institutions without either enormous resources or a strong profit motive. At present, commercial considerations are dictating much of what is being placed on the information highway. Items are often selected to ensure recovery of the very high production costs of television, video, and interactive CD-ROMs. Not-for-profit institutions like the Smithsonian will find it almost impossible to do what is needed unless they make deals with large commercial actors. The National Gallery of Art in London, for example, achieved its wonderful electronic capabilities with the participation of Microsoft, Inc. and American Express. Such approaches can get the job started, but raise questions of equity for an Institution that belongs to the nation. Timing is another issue; rights to electronic images should be sold, but neither too early nor too late to get good value.

Competing or augmenting? Many museum professionals hold that one of their major tasks is to understand and present to the public authentic objects in accurate and informative contexts. Some, especially younger staff, are at home on the information highway and consider it a powerful adjunct to traditional scholarly methods that will whet appetites for the real thing. Others are concerned that digitized images will reduce the desire to see and experience the authentic object in a museum. Yet another challenge is presented by many present day teachers; they are uncomfortable providing non-linear learning experiences for their students, preferring often to project in one direction.

All of these views will need to be considered in evolving Smithsonian policy. It is not clear that the new type of teamwork necessary to produce this innovative programming will come easily. Can scientists, art scholars, historians, and systems experts find ways to work together efficiently to produce stimulating and educational material for viewers?

Intellectual property rights. Other thorny questions with respect to electronic media have to do with ownership of objects and knowledge. Among the issues at hand are traditional scholarly practices, museum policies, and serious legal matters. These issues are now unclear, although exploiters and advanced travelers in this rapidly expanding new industry are seeking to lock up future rights to images. The Smithsonian will need to be careful.

Other tough choices. In making worthwhile investments in information technology, the Smithsonian must move thoughtfully and slowly although it is

(Above) Ruby slippers worn by Judy Garland in "The Wizard of Oz." One of the most popular films of all time, this 1939 movie also was one of the first to use technicolor. National Museum of American History, Smithsonian Institution.

already behind. Efforts must be centralized sufficiently to avoid chaos, but decentralized enough to be nimble and take advantage of initiatives within the museums. There will be much to be gained if the Institution works cooperatively to set common technology standards with other museums and libraries in the federal system.

Drawing upon the Smithsonian's phenomenal symbolic capital and cooperation could help local institutions raise funds. At the same time, such an arrangement would help make the Smithsonian a full-fledged national institution.

Partnerships

To create a cultural community as well as to celebrate, display, and study diversity, we believe that partnerships with institutions outside Washington should be established. The development of a few museum or research partnerships—for categories such as ethnic groups or disciplines such as art, science, or natural history—which would depend on local funding for virtually all programming and capital projects could demonstrate the feasibility, appropriateness, and effectiveness of this concept.

This is a very different concept from that of building essentially Smithsonian outposts in different parts of the country, an idea that the Institution's Board of Regents previously rejected. Our partnership proposal is consistent with an effort to make the Smithsonian less dependent on federal support.

Partnership institutions would be truly local. Yet they could be profoundly assisted by obtaining from the Smithsonian expert advice, scholarly collaborations, and long-term or even permanent loans of relevant collections. Use of the Smithsonian name in exchange for a guarantee of standards of excellence—in exhibitions, scholarship, and conservation and storage of objects—established and agreed to by the Smithsonian and the local institution could be considered. Drawing upon the Smithsonian's phenomenal symbolic capital and cooperation could help local institutions raise funds. At the same time, such an arrangement would help make the Smithsonian a full-fledged national institution and help develop a nation-wide base of support for programs and facilities in Washington, D.C. With such a partnership mechanism in place, the Smithsonian could responsibly resolve the paradox which exists due to the need for ethnic-based museums and the lack of space and audiences for these on the Mall.

Partnerships could also address other challenges that will face the Institution in the coming decades. They would be especially attractive if some federal funds were made available up front to cover transfer costs to local institutions and even provide some endowment for future operations; in the long term, the Smithsonian's financial requirements would be significantly diminished. A Smithsonian team could work with the Smithsonian National Board and the advisory boards of the museums to identify potential partners who could absorb local costs and sustain the programs.

The Commission has discussed three types of partnerships.

With museums. The formation of partnerships with existing or emerging museums throughout the country could make the Institution more reflective of our nation. It would also address the problem of storing, curating, studying, and exhibiting the constantly growing collections. By dispersing these in a responsible manner, public access and opportunities for their study

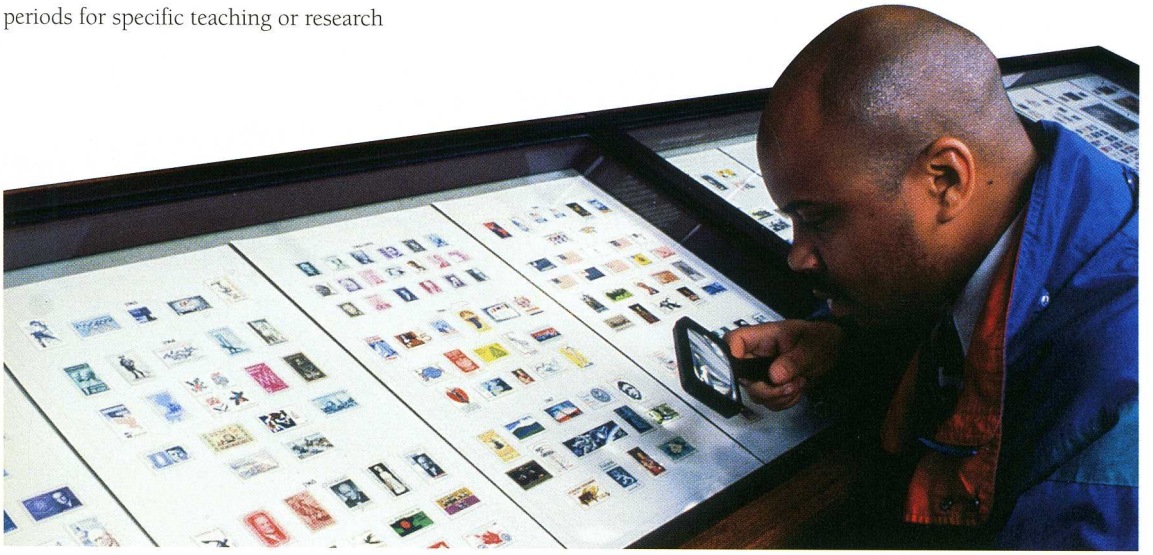
(Above) In the Hands on History Room at the Smithsonian's National Museum of American History, students learn to pound rice, a task common to many cultures.

could be enhanced. Such partnerships also would help to ameliorate the lack of space and funds to build new museums on the Mall. Innovative partnerships can address these various issues in a manner that is fiscally responsible in an era of restricted financial resources.

With research institutions. A second model for institutional partnerships is to be found in the enormously successful joint venture between the Smithsonian Astrophysical Observatory and the Harvard College Observatory—the Center for Astrophysics in Cambridge, Massachusetts. Not only is the Center for Astrophysics one of the most important and successful institutions for astrophysical research and training in the world, but it also has developed innovative and far-reaching programs and materials for education of secondary school children. Over time, the costs of the programs have been shared in a variety of ways by the Smithsonian and Harvard.

The Smithsonian should seriously consider the development of similar partnerships with other research institutions in other fields. Here again, collections that are redundant or incapable of being appropriately stored or studied because of financial, personnel, or space limitations might be advantageously loaned to the partner institution permanently or for limited time periods for specific teaching or research functions. We also envision exchanges of professional personnel and access by students from the partner institutions to Smithsonian collections.

With K-12 educational endeavors. A third partnership mode would extend the reach of the Smithsonian to nation-wide efforts to improve education in the schools. As curricula are revised in keeping with the voluntary national standards that are being presented in various areas such as mathematics, science, and history, the Smithsonian has an opportunity to share its knowledge and collections in support of curricular changes. An excellent model is provided by the very successful National Science Resources Center, jointly operated for almost a decade by the Smithsonian and the National Academy of Sciences. Materials of all kinds are collected into kits that give teachers interesting, well-conceived, and tested bases for particular educational aims. With the use of electronic communications, particularly images of Smithsonian objects, it is easy to see how the concept could be extended to the study of, for example, American history. The program should include training for teachers and the involvement of community leaders and parents. Such partnerships hold enormous potential for the Smithsonian and could pay for themselves.



(Above) A visitor to the Smithsonian's National Postal Museum, adjacent to Union Station in Washington, D.C., examinines some of the more than 16 milion postage stamps in its collection.

Meeting the Financial Challenges

Over the past several decades, the growth of the Smithsonian in size and complexity has outpaced the resources available to sustain the high quality of its many and varied programs. Even with the best imaginable outcomes, improvement in revenues and operating efficiencies will not resolve the financial issues facing the Smithsonian. Moreover, continued expansion of facilities and programs, even were the funds available, is not necessarily the best way to assure the Institution's critical role in our nation's life. There is a point in the growth of institutions when the gains measured in increased scope are outweighed by increased administrative complexity. The Smithsonian simply cannot continue to grow physically, maintain its aging buildings, undertake new programs, reinstall old and outdated permanent exhibitions, and satisfy an increasingly diverse public, not to mention enter the information highway. Choices will have to be made.

A significant reshaping of some programs, including a decrease in size, is necessary if resources are to be found for new initiatives that are responsive to the changing environment. Difficult decisions will be required concerning the balance between facilities and programs for education, collections, and research. In spite of our strong hope for change, the Institution may have to find ways to deal with severe governmental restrictions on personnel management and organizational frameworks. These realities are likely to have profound implications for future plans already on the books, for existing programs, and for the organization of the Smithsonian itself.

The Daunting Facts

Operating budgets. In spite of modestly increasing federal appropriations in recent years, the Institution's revenues have fallen short of actual and reasonable needs. This is because of inflation, federally-mandated expenditures such as pay increases, and a decrease in revenues from Smithsonian activities that depend on a healthy national economy, such as *Smithsonian* magazine. The Institution has responded by significantly decreasing staff size and postponing needed improvements to facilities. The gap needs to be corrected; it is already threatening the vitality of the Smithsonian.

Careful institutional analyses predict that requirements for operations at the current level will rise from $417 million in 1995 to $509 million by the year 2000. If the increased operating costs implied by new construction projects already in execution or planned are taken into account, the figure rises to $541 million by 2000. When, in addition, reasonable and modest estimates are made for introducing new programs and adapting to the changing environment, the figure for the year 2000 rises to $650 million. These scenarios do not, however, include sufficient funds for new outreach programs such as venturing out on the information highway.

Correcting the gap will solve only part of the problem. The Institution will be unable to lead the nation's cultural and educational development without a real increase in available funds. These can be generated in only a few ways: increased revenues; substantially improved efficiency; and the elimination

A significant reshaping of some programs, including a decrease in size, is necessary if resources are to be found for new initiatives that are responsive to the changing environment.

(Left) On October 27, 1994, the American Indian Dance Theatre performed at a benefit to celebrate the opening of the George Gustav Heye Center of the National Museum of the American Indian in New York.

of programs or facilities. All of these approaches will be necessary. An invigorated commitment, in the name of the American people, by the Congress and the private sector to the role of the Institution in our national life, can enhance revenues. Operating efficiencies and changes in some aspects of current operating procedures to allow more flexibility can provide an additional margin of available funds for new projects while at the same time improving the management and programs of the Institution; some of these changes may require legislative action. Finally, the Regents, together with the Secretary, the Directors, and the advisory boards will need to make difficult decisions about priorities.

Renovation and restoration. The magnificent vista along the Mall hides major needs for renovation and restoration of the Smithsonian's historic buildings. The same is true of many of the buildings the Smithsonian now owns and operates throughout the United States and abroad. Some of these facilities were built early in this century. The costs of maintaining them, let alone upgrading them to meet modern technical, safety, and electronic requirements and the increased numbers of visitors, are growing at an impressive rate as the buildings age. The deferred maintenance problem is large and growing. Without prompt attention to these needs, the Institution risks becoming a monument to the past, and an aging, dilapidated monument at that. Galleries, perhaps whole museums, may have to be closed. The precious collections will deteriorate from lack of care and safe storage. The country displayed to international visitors at our national cultural center will be old-fashioned, seedy, and spiritless.

The costs of maintaining the Institution's many buildings will increase as they become more antiquated.

A Vision of the Smithsonian in 2010

2010

The most exciting development is the new National Museum of the American People. The Museum is a "place" in electronic space, a place that is visited daily by people across the country and around the world. Here visitors find objects, information, exhibits, and varying interpretations derived from Smithsonian collections and research. Regardless of age or interests, there is something here for everyone: history, art, music, folklore, science, technology, natural history, space. Millions of images from Smithsonian collections are displayed. Each visitor can find an unique pathway to understanding the significance and context of an object. Interactive elements permit asking questions of Smithsonian staff and discussion with experts at the Institution and elsewhere.

The new Museum was established through collaborative efforts with the Library of Congress, the National Gallery of Art, and the National Archives, as well as leading communications companies. For the Smithsonian it has meant a renewed and enthusiastic national commitment to the Institution and its vitality. The ease with which the new Museum can fulfill diverse interests has recruited new visitors, including groups of people who previously found the Institution of little relevance. The new Museum also has made a significant contribution to the improvement of education through special programs designed to complement school curricula. And the new Museum is continually introducing people to new aspects of American life through the Smithsonian Channel on TV.

Visits to the nation's Mall have increased dramatically since the establishment of the new Museum. People are eager to see and experience the real objects that they have viewed through electronic images. Most importantly, people from ethnic and racial groups who were previously poorly represented among visitors are now frequent visitors because the new Museum emphasizes their inclusion in the fabric of America. When they arrive on the Mall, all are inspired by the marvelous old buildings that are beautifully maintained and everyone visits the Mall's latest addition, the National Museum of the American Indian.

Scholarship and research at

A continuing, long-term plan for needed renovations and restorations must begin immediately if the costs are to be contained in the future. The Institution has done a thorough job of identifying needs and estimating costs. A total of $50 million dollars each year for the next decade would assure that present facilities are restored to the point of being safe and appropriate for people and for collections. In contrast, the current annual federal appropriation of $24 million for repair and restoration assures that buildings will deteriorate further. It is easy to say that private fund raising should supply the $26 million difference. However, the experience of people who solicit philanthropic donations for other institutions attests that private donors are not generous when it comes to maintenance, renovation, and repair. The American people must ask their representatives in Congress to become dedicated supporters of the renovation and restoration of our nation's cultural institution. Otherwise, the Smithsonian will no longer convey to our citizens, or to the world, the image of a nation rich in cultural experience, in natural resources, and in its vision for the future.

Capital budget for new construction. Only one new museum building, the National Museum of the American Indian, is now planned for the Mall. It is to be built with a combination of Federal and private funds, and fund-raising is well under way.

The Museum's Cultural Resources Center and the other facilities at Suitland are designed to provide modern storage facilities for collections and to assure that the buildings on the Mall are, to the greatest extent possible, used for public purposes. The Institution has other thoughtfully designed plans to extend this principle to other facilities. The Commission believes

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the Smithsonian also have been dramatically changed by electronic data storage and communications, as well as by partnerships with research centers elsewhere. The excellence of its scientists, the unique natural history collections at their disposal, and the increased collaboration with scholars all over the world that is facilitated by electronic means have contributed to the emergence of the Institution as the preeminent research facility on questions of biodiversity and systematic biology. In other areas, too, such as music, history, and art, the new techniques have fostered scholarly exchanges and new ways of understanding. In all areas, the participation of the Smithsonian in the training of young scholars is increasing, and there is ready access to the now well-preserved and cared-for collections.

All over the country, new museums are being planned and built with the assistance of Smithsonian expertise. Electronic communications helps these developments. Even more important is the long-term or permanent loan of collections of significance to local institutions.

The entire outreach to the nation is enhanced by active advisory boards to the traditional museums, galleries, research centers, and the Zoo. Board members bring a broad range of geographical, ethnic, and professional perspectives. Altogether, the Smithsonian is much more the nation's institution than it ever was before. The American people and their representatives in Congress have recognized this change in concrete terms. Together, they provide the needed resources through private donations and tax revenues so that the Smithsonian can continue to lead the nation in making real its motto: e *pluribus unum,* out of many, one.

The Smithsonian's Home Page (@www.si.edu)

The Smithsonian should essentially assume a moratorium on new museums, other than what has already been approved. Over the next decade at least, capital expenditures should be for improving existing facilities and providing for collections storage and research space off the Mall.

that this is an intelligent and cost-effective approach to some of the substantive issues we have already raised.

Currently authorized plans for capital projects through the end of the century include, in addition to the National Museum of the American Indian, work on the West Court of the National Museum of Natural History, and design of an extension to the National Air and Space Museum. The annual budgets for these projects are projected to rise from $60 million in 1995 to $89 million by 1998, declining to $35 million by the year 2000 when the current ambitious building program nears completion. But if the actual capital needs for building maintenance are added in, along with provisions for consolidating administrative space and additional collections facilities at Suitland, the 1998 capital budget should be twice the current estimate or about $190 million. Finally, if the $50 million we have recommended for renovations and restorations annually is included and all the aforementioned capital projects are approved for construction, the estimate for 1998 would be $237 million. These numbers are rough estimates, but they give some sense of the scale and scope of the problem that needs to be faced.

On the basis of the programmatic issues we have already described, as well as the financial realities, continued capital expansion in the early decades of the next century at the rate experienced over the past three decades is out of the question. The Smithsonian should essentially assume a moratorium on new museums, other than what has already been approved. Over the next decade at least, capital expenditures should be for improving existing facilities and providing for collections storage and research space off the Mall, thereby freeing up space for public programs in existing structures. New construction should be undertaken only if the funds are assured for capital and operating costs. Every effort should be made to transfer certain facilities outside of the Washington D.C. area to local public or private organizations; this approach can be one aspect of the building of partnerships with local institutions that has been described.

Sources of Revenue

The federal budget. Although we recognize the constraints, we nevertheless urge that the U.S. Government enhance its support of the Institution. Very large increases in operating or capital funds are unlikely, at least through the coming decade. Nevertheless, some enhancement is necessary to assure a vibrant, inclusive Institution, to preserve the objects and facilities, and to constantly improve understanding of our heritage through research. Moreover, the amount of money required to attain these objectives is a very small proportion of the federal budget, especially if no new Smithsonian buildings are constructed except for those already approved and new storage facilities.

Taxpayers now contribute through direct annual appropriations about $370 million which corresponds to less than $1.50 for each of the 262 million people in the country. The Commission found in its study of foreign institutions analogous to the Smithsonian—in Canada, the United Kingdom, and France—very substantial central government support for museums compared to the sums provided to the Smithsonian Institution by the federal government. In those countries, which are far less wealthy than ours, museums are considered treasured parts of the national heritage. For example, in the United Kingdom, a nation of 60 million inhabitants, the government provides about £200 million ($312 million) a year to the national museums compared to the approximately $400 million the Smithsonian and associated museums on the Mall receive from the government of our nation of 262 million people. Important financial differences between the U.S. and foreign countries, including the encouragement of private donations by the tax laws in our country, make international comparisons difficult. Nevertheless, in the context of the federal budget, the additional $125 million annually that would assure a great future for our national cultural institution does not seem excessive.

We suspect that in our country, deep-seated and long-standing skepticism about federal government authority in connection with political, cultural, scientific, or intellectual enterprises, as well as the detailed attention by the Congress to the programs and management of the Institution, all contribute to the relatively modest federal financial support of the Smithsonian. As a Commission, we neither support nor criticize these aspects of contemporary American society; the members of the Commission have different views, reflecting the diversity of our society. We believe, however, that it is important to understand and confront these currents if any consideration of the Smithsonian's future is to be realistic.

Private philanthropy. Private sector funding

neither can nor should substitute for large government support of a major institution with a national purpose. Nevertheless, supplements to the federal monies from private support are and will be essential. We urge increased efforts to attract private funds to enhance the programs and quality of the staff and exhibitions. Several of our recommendations, such as those involving the advisory boards, decentralization, and partnerships should expand the Institution's connections, build a larger base for support, and increase the motivation of the staff for fund-raising activities. The Smithsonian National Board's Fund for the Future hopes to raise $100 to $150 million over the next few years for the Smithsonian endowment. The impact of a successful campaign on budget projections will be only marginal, but the long-term advantages of this fund are substantial and the campaign should get full energy. It would be highly desirable to raise privately as much as $40 to $50 million annually beyond what is already raised. This is a formidable task but one worth attempting. The Institution should consider restructuring its present fund-raising approach to optimize its efficiency by increasing incentives to the museum staff and to the fund-raising professionals.

Fee or free? Almost without exception, the Smithsonian's museums are free to visitors. In other countries, national museums that are supported by more generous tax revenues often also charge admission fees, thereby providing added revenue. Would this be a good idea for the Smithsonian? Arguments can be made on both sides of the issue.

We want many more Americans to see the Smithsonian as belonging to them, as serving their needs. Some of the carbon atoms in the Hope diamond belong to each of us. *The Spirit of St. Louis* is ours. Admission charges would diminish this sense of real ownership and perhaps, in the long run, of commitment. Besides wanting to foster a sense of public ownership, the fact is that the museums do belong to the people; should they have to pay to visit what they own? Experience in other countries suggests that some people stay away when museums charge admission. These are likely to be people of limited means and limited access to cultural and educational institutions, people who should be especially welcomed. Foreign visitors, who do not support the museums through taxes, would probably pay admission fees willingly. Indeed, many are now surprised at the free entry. They are also impressed. Free access is a symbol to foreigners of many of the fundamental aspects of American society.

It is not easy to predict potential net profits from admission fees. Among the considerations needed for making an estimate are: the loss in numbers of visitors, the cost of collecting the entrance fees, decreased spending in shops and restaurants by those who visit as well as those who no longer visit, and the possibility that incremental federal appropriations would be jeopardized.

Some museums in the United States and abroad collect voluntary donations from visitors. Collection techniques vary from a passive box at the entrance to aggressive kiosks, much like those used to collect mandatory fees, stating a suggested donation amount. Average donations seem to be about half the suggested amount. The Smithsonian has made only very tentative, almost half-hearted experiments with these passive techniques. Perhaps more effort can be made. The amount of money collected will likely be small, but it might provide for some special programs at a particular museum and help build a sense of participation. Imagine, for example, collection boxes at the Zoo that say "Buy the Pandas Breakfast", or one at the National Portrait Gallery that says "Help us purchase portraits of the Astronauts."

The Commission studied these issues carefully, and we expect that the Regents will want to analyze them. Overall, the Commission does not support mandatory entrance fees.

Commercial activities. Both administrative flexibility, improved efficiency, and financial advantages might be attained by separating certain commercial functions into independent or quasi-independent organizations. Museums in the U.K. are having significant success with this approach. Such functions as computer services, fund-raising, publishing, shops, and restaurants might be considered for separation into independent organizations. The idea would be for such organizations to be staffed by highly competent professionals and cover all their own costs, including personnel costs. The Under Secretary could provide oversight by service on the boards of these organizations. In this way, the entrepreneurial spirit might enhance the financial return to the Institution and still be accountable to the public.

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GOVERNANCE

The Smithsonian's governing structure has supported the Institution and provided policy guidance for almost 150 years. It has enabled the Institution to grow and change as our country has grown and changed. The organization must continue to adapt if it is to keep pace with the increasing complexity of its mission in the coming decades.

The Regents

The Board of Regents is responsible for general oversight of the entire Institution and provides advice and support for the Secretary as chief executive officer. The Regents must thus understand the mission, importance, complexity, and needs of the Institution that they oversee on behalf of the American people. The Board's seventeen members, distinguished citizens from government and the private sector throughout the country, currently meet relatively briefly three times a year: pressure on the time of the *ex officio* members is intense because of their public duties, and their time as Regents must be wisely husbanded. Nonetheless, the need for their guidance on policy issues, priorities, and funding strategies requires their participation to the fullest possible extent.

In view of the increasing complexity and extent of Smithsonian activities, we urge creation of standing committees of available Regents to consider programmatic, policy, and fiscal concerns. Such committees could meet for extended hours at the time of regular Regents meetings, which should be scheduled no less than four times a year. We also urge that individual Regents interface with one or more of the advisory boards to the various Smithsonian components in order to exchange information and familiarize themselves with the personnel, programs, and expectations of those boards.

The Regents have been supporters of the Institution in public arenas as advocates for the national interest in the Smithsonian. They should continue these activities as they will be especially needed to assure adequate financial support and to deal effectively with the pressures engendered by the increasing cultural and social diversity of the nation.

The Advisory Boards

Some of the museums and other components of the Smithsonian have voluntary advisory boards appointed by the Regents. In very few cases have the Regents given these Boards much responsibility or authority. As the Institution has grown, each of the components has taken a different approach regarding the role of its advisory board. We believe that all the major Smithsonian components should have advisory boards, and that the membership and authority of these boards should be changed to enhance their involvement and contribution. As a consequence, a renewed sense of responsibility to the nation's Institution among citizens from all over the country is likely to emerge. For example, the Smithsonian National Board, which serves the entire complex, has been reinvigorated to provide a more broadly consultative role in many areas, including programs, development, and marketing.

By strengthening all the advisory boards, the Institution would gain several important advantages: enhanced external expert advice, especially for the establishment of policies and assessment of programs; increased contacts with similar institutions nation-wide, thereby facilitating the formation of partnerships; and

We believe that all the major Smithsonian components should have advisory boards, and that the membership and authority of these boards should be changed to enhance their involvement and contribution.

(Left) The Castle, the original Smithsonian Institution building, was designed by James Renwick, Jr. (1818-1895) and constructed on the National Mall in Washington, D.C., between 1847 and 1855.

attraction of outstanding citizens from all over the nation to nurture the Institution at the grassroots, including through private fund-raising.

To ensure an important role in governance by the advisory boards, we recommend that the Board of Regents adopt a statement of their roles and responsibilities. These should include substantive tasks such as reviewing and monitoring program priorities, annual budgets and strategic plans; participating in the selection and evaluation of directors; recommending proposed new board members to the Regents; fund-raising for the unit; participating in outreach and representational activities as appropriate; participating in and reviewing the results of external evaluations; and reporting to the Regents on a regular basis.

We strongly endorse the Institution's policy of orderly decentralization with accountability of administrative functions and urge that it be accelerated.

We recognize that we are adding an additional layer of complexity to an already complicated management structure. However, the suggestion is consistent with our recommendation that follows for strategic decentralization of the massive Institution. Unless the advisory boards feel that they have an important and useful role in shaping performance, it will be impossible to attract highly talented leaders to serve on them. It is just such individuals who are needed to build a constituency and raise the private funds necessary to sustain Smithsonian components as world-class institutions. Strong boards also will enable the Smithsonian to attract outstanding people to directorships and will encourage a creative, entrepreneurial spirit throughout the museum and research organizations.

The Secretary and the Organization

The Secretary has overall responsibility for the programs, management, and finances of what is a remarkably complex entity. In its governance the Smithsonian faces many of the pressures of a government agency, including dependence on Congress for most of its budget, and those of a non-profit enterprise. It needs to establish priorities among many valued and competing objectives. It needs to respond to and manage such commercial opportunities as product licensing and book and magazine publishing. It needs to pursue private contributions aggressively in competition with all the other outstanding non-profit organizations that contribute so much to American society.

Most museums in our country and abroad stand as independent institutions, not as conglomerates like the Smithsonian. Each of the Smithsonian's major museums is of the size and complexity of an independent institution. Thus, like a large public university, the Smithsonian has multiple departments and functions, a dependence on both public appropriations and private fund-raising, and the need to strike a balance between research on the one hand and public contact activities on the other. If anything, the job of managing the Smithsonian is even more complex than that of running a public university because of the immense diversity of Smithsonian units, their missions, and their relationships to the central administration.

Built into any system this complex is a constant tension between central control and unit autonomy, between central priorities and local opportunities and agendas. When times are good and an institution can solve problems by rapid expansion as the Smithsonian did during the 1960s and 1970s, many of these tensions can be overlooked. When money is tight and numerous tradeoffs are required, such tensions are exacerbated.

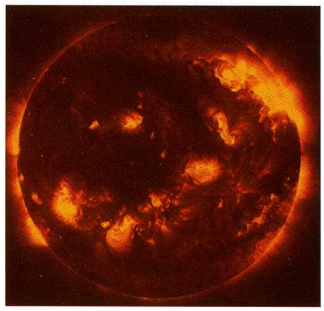
The Commission examined internal organizational structures and considered whether they were optimal for the coming decades. In particular, we were concerned with the appropriate balance of responsibility between the Secretary and the central administrative staff and the directors of individual components, and with the special considerations arising from the Institution's unique situation in deriving funds from both private and federal sources.

Centralization and Decentralization

There is broad agreement that decentralization of decision-making authority is desirable in the relationship between the Smithsonian's central administration and the units. As is the case in any organization where diverse departments are headed and staffed by men and women with professional training in different fields, the more autonomous the local decision-makers, the better the resulting decisions, at least if one can assume shared values and overall goals. These ideas have actually been the policy of the Smithsonian administration for several years. We strongly endorse the Institution's policy of orderly decentralization with accountability of administrative functions and urge that it be accelerated.

Aspects of decentralization. Several considerations are essential in determining the nature and extent of decentralization. The most important of these concerns the effect of excessive centralization on the attractiveness of directorships. Nothing is more important to the success of the Smithsonian's core programs than the excellence of the

directors. These people should have outstanding leadership qualities, both in administration and in the relevant substantive field. They must be visionary, strong, and independent. To build great institutions they must be seen to be, and indeed be in charge. If too much of the decision-making authority for policies and day-to-day functions resides centrally, it will always be difficult to attract men and women with such qualities to undertake directorships. Another important element in determining the nature and extent of decentralization is a weighing of the costs and benefits of standardization against the potential payoffs from local initiatives, recognizing that these may be qualitatively different and thus difficult to compare. It is also essential to understand that units will vary in their capacity and inclination to take on additional administrative functions.



Effective decentralized management requires readily available information and modern computerized financial systems. Thus, a key task of the central administration is to provide detailed, high-quality financial information to the directors on a timely basis. The units need, for example, adequate financial information for making difficult decisions about what they should accomplish with in-house staff or procure from outside organizations and facilities. Economic pressures should place a premium on realistic pricing of centrally-supplied services. We strongly endorse the administration's policy to make greater use of charge-backs for centrally-provided services. However, the benefits of this policy will only accrue when the units are free to secure services through contract providers if they deem advantageous the quality of the product and the cost-effectiveness of so doing; we strongly recommend adoption of such a policy. In the long run these policies may lead to the abandonment of some traditionally in-house services, an outcome that is not necessarily bad. In other instances, technical expertise lodged in a particular unit could be made available to other components on a contractual basis.

Many of the most difficult administrative decisions regarding revenue-generating commercial opportunities pit the legitimate interests of the central administration against the equally legitimate interests of unit directors. Central administration wants to guide the development of product licensing and other commercial opportunities to control the quality of products bearing the Smithsonian imprint and to use the revenues generated for high priority ends across the Institution. The museum directors want to control the use of their collections according to their own professional standards and expertise and to gain a share of the financial benefits from such commercial ventures. Clearly, the Smithsonian needs to balance these interests. Policies that motivate museum staff to develop products based on the collections about which they are uniquely knowledgeable, while still permitting central administration to carry out its legitimate oversight and stewardship obligations are required. The center's goal should be to provide product development services of such high quality that the units will see them as in their own interest to use.

In general, we recommend that the Institution adopt a philosophy that activities be decentralized unless there is a strong and compelling reason to have them centralized. The burden of proof should be on those who favor centralization.

Role of the central administration. Certain responsibilities must remain with the central administration. Of great importance is the articulation of a broad vision for the Institution, the effective communication of that vision to the Smithsonian's various constituencies, and the development of strategies and priorities to guide the museums in developing their plans. Equally important is the central administration's responsibility to attract and select the very best people to direct the museums and research institutes.

The center must also make decisions about the allocation of human and financial resources among the components, and provide quality control through the setting of standards, oversight of independent review processes, and consultation with the advisory boards.

(Above) The turbulent, seething corona, or hot upper atmosphere far above the Sun's surface, is revealed in this extremely high-resolution x-ray image from a Smithsonian/IBM camera aboard a rocket launched in 1991 from the White Sands Missile Range in New Mexico.

Other important central functions include maintaining relations with Congress and the Executive Branch, ensuring compliance with laws and regulations, and coordinating major fund-raising activities in the private sector.

The federal connection. U.S. Government-imposed limitations on the Smithsonian's ability to manage itself, to reduce or expand programs, units, or personnel, or to decentralize organizationally are a major factor in limiting institutional flexibility in a changing society. The problem cannot be underestimated.

Many current federal rules regarding personnel and procurement practices inhibit otherwise sensible and desirable moves toward decentralization and efficiency. Fortunately, the federal government is currently engaged in a program to "reinvent government." Many of the recommendations of the National Performance Review report on this subject would, if adopted, help to resolve some of the difficult issues facing the Smithsonian. Nevertheless, with or without progress elsewhere in the government, we cannot emphasize strongly enough how important administrative reform—in particular, personnel reform—is to the future ability of the Institution to administer its operations rationally and cost-effectively. Because of the small size of the Smithsonian compared to many federal agencies, its public-private nature, and its unique function within the federal system, it is a good testing ground for the new ideas. We strongly urge the Regents to engage relevant federal officials with the intent of obtaining permission for the Institution to experiment with some of the proposals in this area in order to make its administration more responsive to the Smithsonian's complexity and the changing nation it serves. Thus, a major role of the central administration should be to institute human resources management systems that serve the need to attract the highest calibre of professional staff in competition with private sector organizations. Developing a system that meets these needs is already, and should be, an extremely high priority. The Commission strongly endorses the Smithsonian's ongoing effort to gain the needed administrative flexibility.

Assuring Quality

Assessment. The Smithsonian has extended and varied procedures for assessing the excellence of its own activities. In the decades to come, because of the expected rate of change in the social, cultural, and scientific lives of the nation, such assessments should continue, be expanded, and occur at regular intervals. The complexity of the various Smithsonian activities makes this a formidable challenge, and one that cannot be met by a single approach. Different mechanisms are appropriate for assessing management at various levels and in varying functions such as research, collections management, exhibitions, educational programs, fund-raising activities, and commercial ventures. Some evaluations will need to be carried out on short time scales as, for example, with exhibitions that are planned to start on certain dates. A decentralized approach will have to be adopted. Nevertheless, there are a few elements that should be basic to all assessments. All evaluations of the Institution's activities will be more useful if the evaluating groups are composed primarily of people from outside the unit being examined; the evaluators could be from other Smithsonian divisions or from outside the Institution, depending on particular situations. The purpose of the assessments is to inform those responsible for the particular activity and should, to be most effective, be confidential.

Review. There is need for another kind of accountability that arises from the Smithsonian's position as the nation's museum complex within the federal system. The tension existing within the institution regarding how it responds to the public, the Congress, and the media regarding controversial exhibits encourages conservatism and a low tolerance for risk. Too often the Institution finds itself caught between the conflicting views, and even demands, of diverse population groups, scholars, and politicians. As the nation's cultural institution in a diverse society, the Smithsonian inevitably finds itself at the center of national debates and political disputes. Modern communications bring the consequent tensions to the fore, often to a high pitch. Together, the staff, the Secretary, the Regents, and the Congress should find ways to foster a sense of national purpose at the Smithsonian that would include the display of a diversity of views, without reducing the Institution either to portraying a bland view of our lively, questioning national scene or encouraging dispute rather than dialogue.

In this connection, it would be helpful to have clear, consistent institutional procedures for rigorous review and advice on major new exhibits. Such advice and review could help ensure the quality and balance of exhibits and programs likely to be controversial, as well as the independence of the staff responsible for the activities.

Conclusion

Knowledge and culture are inherently diverse. As it has in the past, so in the future will the Smithsonian make its contribution to our nation by recognition of its remarkable diversity. It is a happenstance of history that the nation's capital is the site of this unique Institution which exists because of a lucky and glorious accident—James Smithson's gift. Parts of the Smithsonian are the result of other generous gifts—the Freer and Sackler Galleries, the Hirshhorn Museum. We expect that other magnificent gifts will be made in future, but the core of support for the Smithsonian's efforts must be from the nation's people—by appropriations and contributions.

Our nation is now settled from the Atlantic to the Pacific and beyond to Hawaii, from Alaska to the Gulf of Mexico, from the Canadian to the Mexican borders. The nation's future growth and vitality, therefore, will come from our resources—human and natural—not from expansion of our land. So, too, the Smithsonian's future expansion should be in novel programs rather than in new real estate. Our modern world offers ways to do this that past generations could not imagine. By using them the Smithsonian will assure its vital role as teacher, recorder, and shaper of a vibrant national outlook.

The Smithsonian at a Glance

The Smithsonian is America's preeminent cultural institution. Its museums preserve, study, and present our cultural and scientific heritage through the vast collections that they hold in trust for the nation. The Smithsonian is also a leading research center for the arts, history, and science, with facilities in the District of Columbia, eight states, and the Republic of Panama.

Smithsonian Exhibitions

attract millions of people each year.

- 16 museums, galleries, and the National Zoo.
- 29 million visits each year.
- Free admission to all exhibitions.

Smithsonian Education and Outreach Programs

serve millions more in and beyond Washington, D.C.

- Smithsonian Associates: 2.1 million members benefit from study tours, seminars, courses, and *Smithsonian* magazine.
- Museum membership programs: National Air & Space Museum; Cooper-Hewitt; National Museum of the American Indian; National Museum of American Art; and the National Zoo.
- Performances, lectures, seminars, courses, workshops, films, concerts, and tours for members and the public.
- Traveling Exhibition Service (SITES): more than 100 exhibitions reach 10 million viewers each year across America and overseas.
- Electronic media technologies include television and radio programming; online services and digital consumer products have been initiated.
- 120 books and recordings produced each year by Smithsonian Institution Press, Smithsonian Recordings, and Folkways Records.
- Smithsonian Archives and the Smithsonian Libraries respond to more than 70,000 reference requests each year.
- 18 elementary science curriculum kits developed and distributed in 62 school districts in 35 states, the District of Columbia, Canada, and Mexico.

Smithsonian Collections

preserve unique records of art, history, and plant and animal life.

- Total number of objects is estimated at more than 140 million.
- 120 million objects and specimens are in the National Museum of Natural History.
- More than 16 million postage stamps and related objects are at the National Postal Museum.

Smithsonian Research

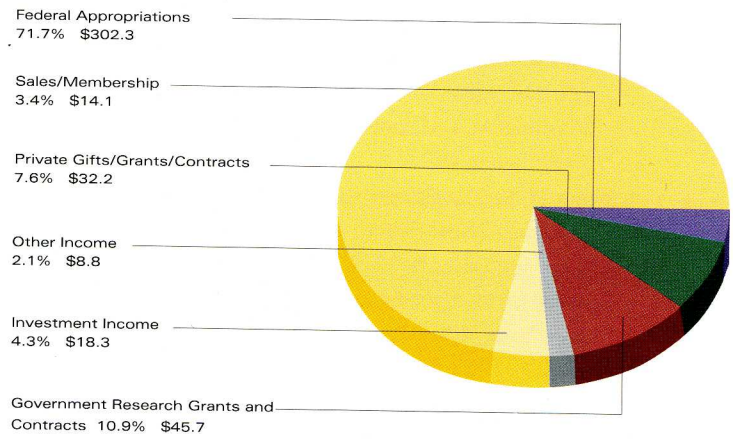
utilizes the Institution's collections and extends to scholarly work in many fields.

- Tropical and marine stations in Panama, Florida, and on Chesapeake Bay.
- Conservation of endangered species at the National Zoological Park.
- Astrophysics and the origin of the Universe at the Smithsonian Astrophysical Observatory.
- Basis of museum exhibitions in art, history, music, technology, and science.
- Results reflected in more than 1,000 books and articles each year.
- Fellowships for 77 visiting students and scholars in 1994.

Smithsonian Facts and Figures

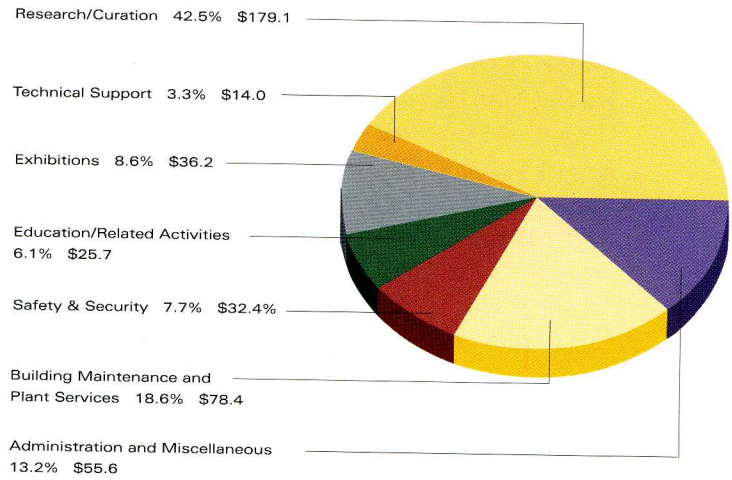
- Established in 1846 through the generosity of James Smithson, the English scientist who had bequeathed to the United States his fortune "for the increase and diffusion of knowledge among men."
- Governance: Board of Regents consisting of 17 members, including the Chief Justice, the Vice President, 3 Members of the Senate, 3 Members of the House of Representatives, and 9 private citizens.
- 6,700 employees and 5,200 volunteers.
- Economic impact on the Washington, D.C. metropolitan area estimated at $6.7 billion annually.
- Endowment of $378 million as of September 30, 1994.
- FY 1994 net operating budget: $421.4 million.

Sources of Operating Funds FY 1994 ($ in millions)



Total = $421.4

Uses of Operating Funds by Function FY 1994 ($ in millions)



Total = $421.4

Components of the Smithsonian Institution

MUSEUMS AND GALLERIES:

Anacostia Museum
(African American history and culture of Washington, D.C. and the Upper South), Washington, D.C.
Arthur M. Sackler Gallery
(Asian and Near Eastern art), Washington, D.C.
Arts and Industries Building, Washington, D.C.
Cooper-Hewitt, National Design Museum, New York, N.Y.
Freer Gallery of Art (Asian art), Washington, D.C.
Hirshhorn Museum and Sculpture Garden
(Modern art), Washington, D.C.
National Air & Space Museum, Washington, D.C.
National Museum of African Art, Washington, D.C.
National Museum of American Art, Washington, D.C.
National Museum of American History, Washington, D.C.
National Museum of the American Indian, New York, N.Y.
National Museum of Natural History, Washington, D.C.
National Portrait Gallery, Washington, D.C.
National Postal Museum, Washington, D.C.
National Zoological Park, Washington, D.C.
Renwick Gallery of Art, Washington, D.C.
Smithsonian Institution Building
("The Castle"), Washington, D.C.

RESEARCH FACILITIES:

Archives of American Art
(American art documents and memorabilia); regional centers in Boston, Detroit, Los Angeles, New York, and Washington, D.C.
Conservation Analytical Laboratory
(Conservation and study of museum objects), Suitland, Md.
National Zoological Park Conservation and Research Center (Rare animal breeding, conservation ecology), Front Royal, Va.
Smithsonian Astrophysical Observatory
(Astronomy and astrophysics), Cambridge, Mass.
— Fred Lawrence Whipple Observatory and Multiple Mirror Telescope, Mt. Hopkins, Ariz.
— Submillimeter Telescope Array at Westford, Mass. and Mauna Kea, Hawaii
Smithsonian Environmental Research Center
(Ecology of the Chesapeake Bay), Edgewater, Md.
Smithsonian Institution Marine Station at Link Port
(Estuarine and marine environments)
Fort Pierce, Fla.
Smithsonian Tropical Research Institute
(Tropical forest preserve and research center), Republic of Panama.

Credits

The work of the Commission was made possible by grants from the John D. and Catherine T. MacArthur Foundation and the Andrew W. Mellon Foundation. The Commission is grateful to the foundations for their generosity and their commitment to the future of this venerable Institution.

E Pluribus Unum: This Divine Paradox, was inspired by Twyla Tharp, the dancer and choreographer whose 1994 summer residency at the John F. Kennedy Center for the Performing Arts led to a new work of the same name that she introduced there on September 24, 1994. Ms. Tharp has graciously granted permission to use that phrase, which the Commission believes embraces so well the nature, challenges, and richness of the Smithsonian, as the title of this report.

DESIGN AND PRODUCTION

Linda S. Sherman Design, Inc.
Gaithersburg, Maryland

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ADDITIONAL INFORMATION

For additional copies of this report or for information about the Smithsonian Institution, please contact the Office of Public Affairs, Smithsonian Institution, Washington, D.C. 20560. The report is also available on the Smithsonian's World Wide Web site (@www.si.edu).

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