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**Looking to the
Future of
Smithsonian
Libraries:
The Perspective
of Scholars**

Office of Policy and Analysis
Smithsonian Institution
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Smithsonian Institution Libraries

Office of the Director

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From: Nancy E. Gwinn, Director
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Re: Looking to the Future of the Smithsonian Institution Libraries: The Perspective of Scholars

In 2007, the Smithsonian Institution Libraries (SIL) began work toward a Master Space Plan with the assistance of the Smithsonian Office of Facilities Engineering and Operations (OFEO). The motivation for this work came from multiple sources:

- 1) Most Smithsonian museums and research centers are engaged in master planning and in renovations affecting SI libraries;
- 2) Reduced SIL staff levels, caused by constriction of the base budget, makes continuing to provide service through the numerous small library locations impossible;
- 3) Most library locations lack shelving space to house newly acquired materials;
- 4) Numerous large-scale mass digitization projects of library collections, including SIL's own Biodiversity Heritage Library project, will place millions of books, journals, and other materials online and accessible over the Internet;
- 5) Research methods of scholars and researchers are changing, and expectations of new research staff with high levels of computer skills are growing;
- 6) The Institution decided to replace the Smithsonian Institution Service Center (SISC) on North Capitol St. with a new facility, necessitating the move and review of SIL's off-Mall collection space requirements.

In developing a Master Space Plan, SIL will look at all of its existing spaces and make recommendations for improvements, will review museum and research center master plans and SIL's place within them, and will identify the characteristics of the ideal library space of the future.

SIL is a service organization, with its primary customers being the research and education staff of the Smithsonian. To inform the planning effort, SIL required the perspectives of its library users, as well as benchmarks from the academic community outside of SI. The tremendous impact of the expanding digital universe on research methodologies in many disciplines and library services in general has to be taken into account in looking at the future.

Through OFEO, SIL commissioned the Office of Policy and Analysis (OP&A) to conduct three user assessment studies that examined current research practices. The study also looked at the impact of increasingly accessible digital resources. OP&A solicited opinions and predictions of library users, administrators, and librarians concerning future research methods and library use. OP&A conducted the studies and prepared this Final Report that combined the studies and highlighted the key findings and recommendations. This report and the three separate studies are available in print form and also on SIL's Galaxy of Knowledge website (www.sil.si.edu).

OP&A's recommendations delineate some clear directions for SIL to pursue in determining the future of library spaces within the Smithsonian. They highlight the reliance of library users on SIL's staff as resources, guides, technology teachers, and able retrievers of the information and scholarly resources they need. They show how users view SIL's libraries as essential places, environments conducive to research, including interactions with resources and with their colleagues and as places equipped with adequate print and electronic tools, such as high speed scanners, located for efficiency. They point to the relationship of on-site to off-Mall collections and the delivery services—physical and digital—that are required to meet the needs and expectations of users. This will obviously be a principal concern in developing a Master Space Plan. At the same time, lack of space for housing collections has already forced SIL to move lesser used materials to collection space off the Mall; this clearly will continue, but at a different pace for different disciplines depending, in part, on what is available in digital form.

SIL is already taking action on some of the recommendations. The Pennsy Drive building, the replacement facility for North Capitol St., is planned for occupation no later than October 2008. SIL has participated actively in the planning and expects to have space for collections and staff that is well-organized and outfitted, environmentally controlled, and that provides sufficient growth for collections for the near term. SIL is upgrading equipment, such as digital copiers/scanners, in all libraries where the use supports it, as funding is available. SIL eagerly awaits the selection and contract for the architectural firm that will conduct the master space planning study and provide suggestions for improvements in current physical spaces.

Some of OP&A's recommendations propose concepts that require more in-depth review. For example, consolidation of collections may have a logic or rationale based on the similarities of subject collections or locations of users. But, to be accomplished, they require discussion and support of museum or research center directors and the research

staff most affected. SIL seeks to be included in the planning of museums' renovations to provide enhanced spaces for libraries in existing museums or in new research facilities.

These reports and the ideas and recommendations they contain are a first step in the preparation of a master space plan. Not every solution can, or should, be included. In the digital environment, change happens quickly, and predictions of the future are hard to make. But our primary user community, the Smithsonian's research community, has provided valuable views and advice that will inform the Libraries' planning efforts. I wish to thank staff of OFEO's Facility Master Planning office, Harry Rombach and Jane Passman, for supporting these studies and Carole Neves, Whitney Watriss, Zahava Doering, and Andrew Pekarik of the Office of Policy & Analysis for conducting them. I also thank those people (more than 400) in SI's museums and research centers who participated with their views and ideas.

Table of Contents

Preface	iii
Introduction	1
Looking to the Future from the Users' Perspective.....	3
What Will the Smithsonian Institution Libraries Be, and Why?	3
Who Will Be Using the Libraries?	6
How Will People Use the Libraries?	7
<i>Means of Access</i>	
<i>Equipment, Technology, and Furniture</i>	
What Options Are There for Addressing Users' Space Needs?.....	9
<i>Planning for the SIL Library System</i>	
<i>Meeting Library Space and User Needs</i>	
Recommendations	17
Photo Credits.....	20



Preface

The Office of Policy and Analysis (OP&A) was pleased to undertake three studies of Smithsonian libraries that examined current practices and future projections of library space use. These studies were conducted for the Smithsonian Institution Libraries (SIL) and the Smithsonian Office of Facilities Engineering and Operations (OFEO). The first study looked at the National Museum of American History, Behring Center, the National Museum of Natural History, and the Smithsonian Institution Service Center. The second inquiry focused on the libraries that support the Smithsonian's art activities in the Cooper-Hewitt, National Design Museum, Hirshhorn Museum and Sculpture Garden, National Museum of African Art, Arthur M. Sackler Gallery, Freer Gallery of Art, National Portrait Gallery, and Smithsonian American Art Museum. The third study examined the nine remaining libraries: Anacostia Community Museum Library, Museum Studies and Reference Library, Museum Support Center Library, National Air and Space Museum Library, National Museum of the American Indian Library, National Postal Museum Library, National Zoological Park Library, Smithsonian Environmental Research Center Library, and Smithsonian Tropical Research Institute Library. This final report consolidates and integrates key findings and recommendations from all three studies.

The core data for the studies came from interviews, conversations, and emails from staff, fellows, and interns of the museums and research institutes, SIL and OFEO staff, individuals from external organizations, and private researchers and scholars. SIL librarians were especially helpful in reviewing and making suggestions to our descriptions of their spaces. Throughout these studies, all the users we contacted were unanimous in stressing the criticality of the libraries and their services to their work and in praising the SIL collections and staff. We appreciate users' willing participation in these studies, their patient explanations of their connections to and use of the libraries, and their constructive comments and criticisms. The time they provided is testament to their love of the libraries. We are also very grateful to contributors from external organizations who shared their views and reflected on the future of libraries.

I would like to thank OFEO and SIL for their assistance and guidance in the course of the studies. Within OP&A, Whitney Watriss, Zahava D. Doering, and Andrew Pekarik were responsible for the data collection, analysis, and report preparation. Their colleague, James Smith, who conducted interviews, and graduate student Jennifer Page, who undertook the initial literature review and synthesis, ably assisted them. Lance Costello assumed responsibility for report design and production. These studies would not have been possible without our dedicated interns – Stephanie Johnson, Bianca Yip, Marilyn Reis, and Hilary Friedman – who helped with interviewing, transcribing, contacting selected external organizations, and assisting with report preparation. I thank all of them for their hard work.

Carole M. P. Neves
Director, Office of Policy and Analysis



Introduction

The Smithsonian Institution Libraries (SIL) asked the Smithsonian Office of Facilities Engineering and Operations (OFEO) to develop a master facilities development plan for the libraries Smithsonian-wide. Although SIL appears in the master plans for several facilities, there has been no comprehensive master plan for SIL itself. As part of the planning process, OFEO asked the Office of Policy and Analysis (OP&A) to conduct studies of Smithsonian libraries from the perspective of (a) how people use them and (b) what people value and want by way of space. At the time of the first OP&A study (March 2006), comprehensive facility master planning was underway at the National Museum of American History – Behring Center (NMAH) and the National Museum of Natural History (NMNH).¹ In both instances the plans included the future disposition of SIL space within the facilities. At the same time, planning was being initiated for the relocation of the Smithsonian Institution Service Center (SISC), currently located at 1111 North Capitol Street. The study focused on these three facilities.

The second study involved the five art museum libraries: Cooper-Hewitt, National Design Museum (CHNDM), Freer Gallery of Art/Arthur M. Sackler Gallery (FSG),

¹ Office of Policy and Analysis. www.si.edu/opanda. *Library Use at the National Museum of American History, Behring Center, National Museum of Natural History, and Smithsonian Institution Service Center*, February 2007.

Hirshhorn Museum and Sculpture Garden (HMSG), National Museum of African Art (NMAfA), and Smithsonian American Art Museum/National Portrait Gallery (AA/PG).² The third study was directed at the remaining nine libraries: Anacostia Community Museum (Anacostia), Museum Studies and Reference Library (MS&RL), Museum Support Center (MSC), National Air and Space Museum (NASM), National Museum of the American Indian (NMAI), National Postal Museum (NPM), National Zoological Park (NZP), Smithsonian Environmental Research Center (SERC), and Smithsonian Tropical Research Institute (STRI).³

In all three studies, the OP&A study team began by reviewing the literature on library space, with particular attention to research libraries. Most of the literature on research libraries dealt with academic libraries at universities and colleges and had limited application to the Smithsonian. OP&A staff also visited selected external libraries in the Washington, DC metropolitan area and in New York City. Over 400 interviews were completed with Smithsonian staff and external users of the libraries either individually or in groups, with unit and SIL management, OFEO staff involved with master planning, and staff at non-Smithsonian libraries in the United States and overseas. The interviews covered both the current situation and likely future trends and user needs 20 years out, the timeframe of the unit master plans. OP&A prepared a separate report for each study that included recommendations.⁴ The reports contain lists of the organizations contacted and bibliographies of the literature reviewed.

This report consolidates and integrates the conclusions and recommendations from the three studies, with the intent of providing a system-wide view of users and space issues at the Smithsonian Institution's libraries. What emerges from the integration of the three reports are the many commonalities of library users and use, and what is important to users about library space across all the disciplines covered by Smithsonian museums. This report, however, also notes some of the discipline-specific points that emerge. When it came to reporting the recommendations, the OP&A study team considered them from a system-wide perspective, rather than the specific cluster of libraries involved in each study.

2 Office of Policy and Analysis. www.si.edu/opanda. *The Art Library as Space, Place, and Experience*, April 2007.

3 Office of Policy and Analysis. www.si.edu/opanda. *Gateways to Research: A Study of Nine Smithsonian Institution Libraries*, September 2007.

4 See references in footnotes 1-3.



Looking to the Future from the Users' Perspective

What Will the Smithsonian Institution Libraries Be, and Why?

The libraries studied by OP&A, like their counterparts at other research institutions and museums, are far more than depositories of books. Staffed by professional librarians, the libraries are responsible for a myriad of functions and services oriented towards supporting scholarly activities. A partial list includes information and orientation, circulation, reserve, reference, acquisitions, document delivery, photocopy/scanning service, maintenance of the collection, and liaison with museum and research staff. Aside from the space housing library collections, these institutions are called on to provide space for reading and browsing, as well as functions such as copying or scanning. Today's library is a major portal to the world's growing store of complex information, requiring integrated electronic information systems that will access increasingly sophisticated electronic sources of information, coordinated with more traditional modes of access such as printed materials.

The types of materials in the collections of the different Smithsonian libraries have much in common: extensive collections of books and journals, including rare works; specialty

collections relating to the research and object collections of the units the libraries support; reference materials; materials in non-book formats, such as brochures, trade publications, and copies of articles; ephemera; microfilm/fiche; audio-visual materials available through the Smithsonian Institution Research Information System (SIRIS); and, increasingly, digital publications accessible through SIL's web pages.

The libraries are viewed as a critical pillar of scholarly research, and there was universal agreement that their collections will continue to grow, probably at close to current rates. That growth will continue to involve physical materials, particularly in the social sciences and humanities, where the trend toward digital publications, for example, e-journals, is less pronounced than with the sciences. Moreover, some libraries may be developing collections to support new research areas, and some may be the recipients of donations of significant amounts of print/hard copy material such as books and archives (for example, the personal libraries of NMNH scientists when they retire and documentation that the National Aeronautics and Space Administration is likely to give to NASM). Although the archival materials will not fall under the libraries, researchers will continue to want them housed near the libraries, as both are important resources in scholarship. At several museums, e.g., NASM, NMAI, and NPM, separately administered archives are already housed adjacent to the libraries for the convenience of researchers, and interviewees emphasized the need to maintain that co-location. The OP&A study team saw merit to this point. One implication of the continued growth of print materials is the importance of providing proper environmental conditions for their long-term preservation.

Library collections will also grow through an expansion of electronic materials. Particularly, as noted, in the natural sciences, journals are increasingly available in electronic format – sometimes they only come in that format – and that trend is likely to increase. The user-friendliness of electronic materials is continually improving, so that they will become more acceptable to users. Advances include easy-to-use finding aids and other tools to maximize usefulness, and new technologies such as software that enables interactive data analysis and configuration. Researchers value the 24/7 access to electronic materials; ability to access materials from multiple libraries; opportunity to engage in new kinds of research; capability to handle multimedia formats, such as film clips, 3D, music, and increased interactivity; features such as on-screen magnification and Internet links; and enhanced ability to share and exchange.

Other factors that could significantly affect the rate of growth of electronic versus print collections are: the rate at which print materials, including those published after 1922 and still under copyright protection, can and will be digitized; reductions in the cost of digitization; and the extent to which libraries engage in collaborative acquisitions and shared repositories that enable them to reduce duplication of holdings across libraries.

In the case of digitized materials, for library users to fully embrace them, the products must meet certain criteria:

- » A very low error rate;
- » Very high resolution, particularly of images, and true colors (although variability in color seems to have more to do with the user's monitor than with the digitized original);
- » A complete scan of every part of the printed item, e.g., including the inside cover and annotations by previous readers;
- » A complete scan of the different versions/editions of the same item;
- » Full text searchability;
- » Ease of electronic access;
- » Assurance that the electronic materials can and will be preserved over the long term.

An important point about digitization of print materials needs to be made: it will not, in the foreseeable future, reduce the quantity of print materials that libraries must manage. There is continued uncertainty about the reliability of long-term maintenance and preservation, especially given rapid changes in technology platforms and the short lifetime of current media for storing electronic materials, and the print versions must be maintained as back-ups. Some fields of research specifically require the original print materials for research, for example, where seeing the true colors of the original image is important. In addition, print materials are themselves becoming objects of research. There is a continued preference for hard copy because of ease of reading, transportability, avoidance of unpredictable crashes of computers and networks, and ability to mark

up copies made from an original (researchers typically print hard copies of electronic materials to work with and keep on file in their offices). Where the research involves use of images, continued issues with quality and ease of access to electronic versions make the print version desirable or essential. The size of high quality electronic images makes them difficult to download, their functionality is often dependent on the quality of the computer equipment used to access them, and the colors can vary significantly depending on the printer/monitor at hand. In the case of art research, electronic images can be hard to locate because they are often inaccessible to search engine “web crawlers,” and there is a diversity of controlled vocabularies and metadata schemes.

Who Will Be Using the Libraries?

Across all units, the primary users are Smithsonian scholars, such as scientists, curators, and historians, many of whom had at least one person working with them, e.g., research assistants, fellows, volunteers, and interns, who also used the libraries. The library staff themselves use the collections to answer reference requests. Less frequent Smithsonian users include educators, conservators, and exhibition developers. The libraries are also an invaluable resource to external researchers, and some libraries serve specialized audiences. For example, students in the Parsons School of Design’s graduate program in the History of Decorative Arts & Design are major users of the Cooper Hewitt library. Similarly, all of the university museum studies programs in Washington, DC use MS&RL. Use



by outside users, including the general public, is limited relative to internal users, but is higher than that at other specialized libraries.⁵ Interviewees at a couple of libraries, e.g., Anacostia and NMAfA, thought access by the general public should be expanded.

How Will People Use the Libraries?

Means of Access

Nowadays, users typically begin their interaction with the Smithsonian libraries electronically—they access the catalogue of Smithsonian library collections or the search tools SIL makes available. If the material is not available for downloading or the user wants the physical item, they physically visit the library and the stacks to retrieve the material. Once there, they may browse the stacks to uncover new sources for ideas and information; some interviewees spoke eloquently of the importance of this random searching opportunity, which they viewed as a serious limitation of electronic searches. Staff may use the material in the library, make copies, check materials out for protracted use, or take them to their office for a brief period and then return them. Some staff regularly visit the libraries to review new acquisitions and the most recent issues of journals. Other uses of the library include printing online materials on library printers, scanning text or images, and applying for and picking up interlibrary loans. Particularly in the case of external scholars who do not have offices at the units, the libraries are also their work spaces.

User interaction also includes a lot of consultation with SIL library staff, for whom praise was widespread. Interviewees regard the library staff as an invaluable and essential resource for identifying and accessing library materials at the Smithsonian and elsewhere and for assisting in the use of electronic search tools and other technologies. As libraries witness a shift in the ways that patrons access and use materials, and as new library and research technologies emerge, the role of librarians will shift from the current emphasis on knowledge of the library collections' subject matter to expertise with the tools required to access that information and to training for users.

⁵ Librarians at non-Smithsonian museums in New York and Washington, DC, who were familiar with SIL made this point.

The frequency with which users visit the libraries and the duration of their visits vary considerably, depending on the stage of a project and whether the user has a nearby office. One point that came out clearly is the importance that researchers attach to 24/7 physical access to the libraries, and the OP&A study team believes this is an important consideration in library master planning. It also thought there was merit to the suggestion that this access be extended to external researchers. Regardless of whether the user is Smithsonian or external, the study team acknowledges the point made by the librarians that better systems of accountability need to be in place to protect the collections, such as self-service check-out of materials at all times.⁶

Equipment, Technology, and Furniture

The libraries provide users with a range of equipment and technology for use during their physical visits. Interviewees thought that the following, in particular, should be part of any library space planning:

- » Computers with which to access catalogues and email accounts, hookups for laptops, and WiFi. Some researchers want access to multiple screen computers;



⁶ Automatic identification and data capture (AIDC) systems for libraries permit automatic (i.e., without the involvement of library staff) identification of objects, collection of data about them, and input of data directly into computer systems. A common AIDC technology is bar coding.

- » Photocopiers (color, black & white, and ones with a scanning and PDF creation capability). Photocopiers are used heavily, and additional ones would benefit patrons in some libraries, where there is often a wait time;
- » Scanners, including those that can safely handle bound volumes, that produce PDF and photo files, and that can be handheld;
- » Microfilm/microfiche readers, which, although they are not in heavy demand, are essential for access to certain collections;
- » Equipment for viewing/listening to video and audio materials;
- » Users of art libraries raised a number of particular needs, including adequate space in which to view non-circulating materials, appropriate technology such as computer screens that provide for high resolution digital images, high resolution scanners, viewing and listening stations for accessing the supplemental DVDs and CDs that come with many art books, and ultra-violet lamps.

Based on interviewees' comments, three furniture needs stood out:

- » Better seating, particularly chairs in the stacks and more comfortable seating in reading areas;
- » Pull-out shelves in the stacks on which to place materials being reviewed;
- » Long tables for use as workspaces, particularly in the art libraries, which house many large and heavy books, along with a limited number of carrels.

What Options Are There for Addressing Users' Space Needs?

Planning for the SIL Library System

OP&A believes that physical libraries will continue to be a critical resource for research by both internal and external users, and that SIL is a necessary partner in the Smithsonian's pursuit of excellence in scholarship. As such, libraries need to be fully

integrated into any master planning of their host units. In that connection, OP&A observes a lack of clarity around four points that are essential to effective master planning and determination of the amount and nature of library space over the next 20 years:

- 1) What will be the balance between research and public programming and other functions at the museums and Zoo?
- 2) In what directions will Smithsonian research move, and what will be the predominant role of curators/scientists—public programs or academic research?
- 3) What should library holdings look like 20 years out in order to support research?
- 4) What importance should the Smithsonian attach to the role of libraries in supporting excellence in research?

In master planning, OP&A believes it is important to view each library as part of the larger SIL system, of the Institution as a whole, and of the research library community outside the Smithsonian, and to take a long-term view of what is required. In focusing narrowly on immediate needs and on individual units, decision makers may ignore potential opportunities for long-term economies of scale, leveraging of resources, and effective operation of the entire library system. For example, do other units, such as Smithsonian Archives, have needs that could also be met with a high-density, environmentally controlled offsite shelving facility? Is a digitization or conservation facility that serves multiple units at the Smithsonian better than many unit-specific ones, and might it best be located in the offsite shelving facility? Are there opportunities for partnerships among Smithsonian units and with external libraries that permit a leveraging of scarce resources? For example, the U.S. Department of Agriculture Library is exploring the development of a new facility in Beltsville, MD. That might present an opportunity for collaboration that would build on the existing partnership between USDA and NMNH scientists.

Along with systematic and coordinated master planning, OP&A believes there is a need to strengthen communication among the key players in library master planning—SIL, unit managers, and OFEO project executives/managers.

Meeting Library Space and User Needs

It is clear that most of the libraries already face, or will soon face, inadequate shelving and cramped workspaces. For example, at NMAH and HMSG, the shelves are completely full and cannot accommodate any new volumes unless existing ones are removed. Shelving sometimes extends to the ceiling (the case in the NMNH Anthropology Library), which is contrary to best practices for accessibility and to safety codes. Replacement of traditional with compact shelving is often not an option because of floor load-bearing limitations. In some cases, e.g., NZP, the shortage of space is particularly severe and seriously limits users' access to the collections. It is also clear that it will not be possible, with a few exceptions, to shelve all of the libraries' collections onsite. Many libraries are out of compliance with both safety and Americans with Disabilities Act (ADA) codes. At NMNH, for example, the main library space is on two floors with no elevator, and many of the aisles in the stacks of the sub-libraries are too tight to permit a wheelchair. At SERC, there is no access to the library for anyone using walkers or wheelchairs.

For the most part, the patterns of library use and related requirements for space, including shelving and stacks, equipment, and reading and work areas, are not likely



to change significantly over the next 20 years. Even with increased access to digital materials, users will still want a physical library, access to stacks, the services of librarians, certain equipment such as computers, computer hook-ups, and copiers, and reading and work areas in the libraries. One challenge that could influence library spaces is ensuring the flexibility to accommodate new technologies, such as multiple screen computers that permit simultaneous viewing of multiple books and articles. Libraries may also need space for training patrons on the use of search tools and technologies.

The OP&A study team visited all the Smithsonian main and sub-libraries. Based on those visits, the comments of interviewees, and best practices and standards at external libraries, the conclusion is that the physical facilities are in many cases substandard and inconsistent with the importance of the libraries to excellence in research at the Smithsonian. What follows are the OP&A study team's thoughts on key options for meeting the need for user-friendly library space and addressing space shortages 20 years out.

Library Design

Any renovation or new construction of library space should make flexibility to adapt to new technologies and user needs the foremost design criterion.

Offsite Shelving

While the OP&A study team is sensitive to the desire of researchers to have the libraries near their offices, it believes that offsite shelving will need to be a core element of any plan to address the shortage of space. Based on the literature review and interviews with staff at non-Smithsonian libraries, there are many examples of offsite solutions that have proven satisfactory to initially very skeptical researchers.

From the library patron's perspective, an offsite shelving facility must offer a user-friendly, efficient, convenient process for requesting and accessing materials in a timely manner. This can be achieved in three ways:

- » Access to the materials at the offsite facility. For this option to be feasible, ideally the travel time to the facility likely would not exceed 30 minutes, a

shuttle service and/or convenient public transportation would be available, and the facility would offer a suitable workspace similar to what a scholar would find at the onsite library;

- » Next business day delivery of physical items to the SIL libraries;
- » Rapid delivery of digital versions of print materials—within one or two hours of a request—which presumes a scanning and electronic delivery system from the offsite shelving facility.

From SIL's perspective, the OP&A study team believes that a very strong business case can be made for investing in a new design-built, high-density, environmentally controlled, offsite shelving facility. Consideration should be given to the use of robotics to retrieve the boxes of materials from the shelves. Investment in such a facility makes the most sense over the long term for reasons of cost, functionality, preservation of collections, and maximum flexibility to accommodate growth in collections and changes in library technology and user needs. Construction of a high-density facility can be completed in two years or less at a reasonable cost per square foot. The Smithsonian's experience with the alternative of leasing and retrofitting an existing building has not been entirely satisfactory: typically, functionality has been compromised, the costs per square foot are high over the long term, and at the end of the lease there is no tangible asset to show for the expenditures. A new facility would likely offer opportunities to leverage financial resources through partnerships with other organizations needing offsite shelving.

Given the commonality of shelving needs across libraries, it would seem logical that the facility would serve the library system as a whole. In addition, it might also provide space for archival materials and perhaps conservation and digitization laboratories.

An additional reason to invest in offsite shelving at this point is the potential for moving considerable materials offsite as the availability of digital versions of library materials grows. The Biodiversity Heritage Library (BHL) project at NMNH, for example, will result in digitization of a large part of the NMNH biodiversity collections, and external projects to digitize library collections in public and university libraries may offer electronic access to materials that appear in other SIL collections.

Consolidation of Libraries

The OP&A study team believes there is merit to some type of consolidation of Smithsonian libraries, despite the reservations expressed by some scholars. Consolidation may offer the only possibility of modernizing existing library spaces and developing the flexibility needed to accommodate advances in library technology. Upgrading some of the current library locations at NMNH and NMAH is, for example, not possible from either an engineering or cost perspective. Consolidation is consistent with the increasing availability of electronic materials and the growth in interdisciplinary research. It would permit SIL to staff its libraries more fully by eliminating the need to rotate personnel among multiple sites. Further, SIL would be able to exercise better control over the collections and to provide better environmental conditions. Consolidation would also seem to offer opportunities to acquire more up-to-date technology through economies of scale. That said, OP&A cannot say exactly what the consolidation should look like, as there is not enough information on the costs and benefits of alternatives or a clear business case for one alternative over another.

In the case of the *art libraries* specifically, possible scenarios include:

- » The HMSG and AA/PG Libraries. One means of addressing the acute shortage of library space at HMSG is to retain a reading room at the Hirshhorn while moving the bulk of the collections into shared space with another art museum. The HMSG reading room could include a core



of books relating to the artists in HMSG's collections, books published within the past year, vertical files, and recent periodicals, together with a comfortable reading area and work spaces for accessing digital data, picking up and returning books, and other essential functions. In terms of shared space, one option is to shelve HMSG's collections with the AA/PG library, as there is some overlap in their collections in the areas of contemporary and modern American art. OP&A would argue for retention of the close proximity between the AA/PG library and the Archives of American Art. The collections of the HMSG and AA/PG facilities are highly complementary, and scholars regularly go back and forth between their holdings in conducting their research. This would entail a close look at the capacity of the AA/PG library.

- » The FSG and NMAfA Libraries. Given the proximity of FSG and NMAfA, their libraries could be combined somewhere in their adjacent buildings, perhaps in space now identified as the International Gallery.
- » The CHNDM Library. The current plan to move the CHNDM from the main museum spaces to the Fox-Miller building next door, together with plans for offsite shelving, should take care of its more pressing needs for improved shelving and work spaces well beyond the period that will be covered by the SIL master plan.

For the *science libraries*, there are two possible routes:

- » The NMNH Library. It would be useful to conduct systematic studies of the costs and benefits of alternative library consolidation schemes that have been proposed, e.g., a single consolidated library consisting of a main, central branch and an east and west wing sub-branch related to the departments located in each wing. (The OP&A study team assumes the Cullman Library will remain as is.)
- » The NZP Library. Research at NZP's Rock Creek campus would benefit from the establishment of a larger library at a location more convenient to scholars there, and from the development of a better library service at the Conservation and Research Center in Front Royal, VA.

Library Consortia

Consortia are one approach that has been tried by some libraries to address space limitations and the cost of acquisitions. By sharing materials, libraries can reduce their space requirements and the expense of adding to and maintaining their collections. A particular type of consortium, a shared library repository, might allow SIL to dispose of some holdings that duplicate those held in the repository. The OP&A study team believes that SIL—and library users—might benefit from the consortia approach and that it is a concept worth pursuing.





Recommendations

The recommendations that follow are made to SIL from the perspective of a system-wide view of users and space issues at the Smithsonian Institution's libraries, rather than emphasizing the needs of a specific discipline, museum, or library.

- » Prepare a master plan for all the Smithsonian libraries that addresses them as an entire system and explores in detail the potential opportunities for long-term economies of scale, leveraging of resources, and effective operation of the entire library system, and that looks at the needs that other collections, such as archival, film, and photography, have in common with library collections. Master planning should include:
 - Careful consideration of the results of the three studies of use of Smithsonian libraries and related space implications;
 - An assessment of possible collaborative arrangements that might improve the efficiency and reduce the space requirements of libraries, such as shared digitization facilities and conservation laboratories, collaborative acquisitions, joint library repositories, and off-site shelving (see below). The assessment would include potential relationships within the

Smithsonian and the regional and global library communities, both public and private;

- Development of a clear baseline for library use and space needs 20 years out as the starting point for planning library space. The baseline should include the balance between research and public programming and other museum functions; future directions for those functions; library holdings needed to support those functions; the current and likely future state of library technology; and modern technologies that affect the retrieval of information, digital content, and pedagogical concepts.
- » Ensure that each library is fully integrated into the master planning for its museum, research center, or unit that it serves.
- » Strengthen communication among the key players in library master planning—SIL, museum management, and OFEO project executives/managers.
- » Establish a state-of-the-art offsite shelving location for all SIL libraries.
- Develop a system-wide plan that addresses the offsite shelving needs of libraries throughout the Smithsonian to take advantage of opportunities to leverage costs and enhance the efficiency of retrieval and shelving. The plan should also address the potential to incorporate other functions that have similar facility needs, such as archives, and that multiple libraries use regularly, such as digitization and conservation units;
- Ensure that the offsite shelving solution provides users with rapid, easy access to materials, including electronically, and develop a performance standard against which to plan for and measure user access;
- Conduct systematic feasibility studies of alternative ways to provide offsite shelving. The studies should include life-cycle costs and user requirements, and address at least the following offsite shelving options: construction of a new, high density, environmentally controlled facility, a shared new or existing facility with one or more other organizations, renovation of an existing building, and leasing of an existing building or facility that is retrofitted to order.

- » In designing/redesigning library spaces, SIL should emphasize functionality and flexibility for all workspaces, and review the services provided to both internal and external users with special attention to standardizing regulations, especially with respect to stack access.
- » Design libraries that provide:
 - 24/7 access to circulating materials to permit browsing and accommodate irregular work hours, with seating and shelves on which to rest materials being reviewed;
 - Space for displaying new acquisitions, with nearby seating;
 - An adequate number of copiers, including color and scan/email;
 - Adequate space for high quality reproduction and scanning systems in both the libraries and the offsite facility;
 - Infrastructure to support both library and personal computers, including WiFi;
 - Adjacent shelving for unit-administered archival materials;
 - Flexibility in design to accommodate new technologies and different patterns of use.
- » While the primary role of the Smithsonian libraries is to support and enhance Smithsonian research, a space planning principle should be to explore the possibilities of increased use of the physical libraries by the general public and specialized interest groups, resources permitting.
- » Ensure that all libraries are fully accessible to users with physical disabilities.
- » Establish guidelines and make possible optimal user space that encourages scholarly activity. Such guidelines may mean removal of offices in space previously allocated to the libraries or relocation of libraries.



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Page 3: Anacostia Community Museum Library, reading area

Page 6: National Postal Museum Library, reading area

Page 8: Vine Deloria, Jr. Library, National Museum of the American Indian; photo by Robert Kearns, courtesy of Smithsonian Institution Libraries

Page 11: Textiles Divisional Library, National Museum of American History Library

Page 14: Smithsonian American Art Museum/National Portrait Gallery Library, reference area

Page 16: National Air and Space Museum Library reading area

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Page 20: National Museum of American History Library, main reading room



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