

Archival and special collections facilities: guidelines for archivists, librarians, architects, and engineers

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Abstract:

As responsible custodians of the record of our countries, libraries and archives of all types have increasingly begun to face issues of storing collections appropriately so that they last as long as possible with as little need for emergency intervention as possible. To achieve a long life expectancy, well planned storage is a must. Storage standards have become a major tool of great value when planning and renovating both analog and digital storage, whether buildings or virtual repositories. Regardless of the format, the need for managing repository storage spaces according to best practices and standards is well recognized as being crucial to achieve the longest life expectancy for collections at the lowest cost without requiring endless costly human intervention to rescue materials at high risk.

The Society of American Archivists and the Library of Congress have developed a range of useful standards which may be obtained via the SAA Standards Portal and the LC website. However, developing standards alone is not enough, they must be updated regularly to keep them valuable. SAA is currently working on the second edition of the Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers. The SAA subcommittee at work on this guideline volume would like to invite IFLA members to consider commenting on the Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers discussed in this paper, as well as to invite interested IFLA experts to consider contributing to this second edition.

The SAA subcommittee working group is hoping that experts from IFLA would be willing to add their expertise on some of the key issues to be addressed in the new update of the second edition, including sustainable design, buildings in both tropical

and very cold climates, new developments in environmental standards for archival storage, accessibility issues, building planning for disasters, and building planning for electronic records and digitization. We would welcome your assistance. Please contact Michele F. Pacifico at martinpacifico@comcast.net or Tom Wilsted at tom.wilsted@uconn.edu.



The Facilities Working Group at the Georgia State Archives on January 14-15, 2008. Front Row, left to right: Archival Facilities Consultant Michele F. Pacifico; President Ernest Conrad of Landmark Facilities Group; Thomas Wilsted, Archival Facilities Consultant; Back Row: Scott C. Teixeira, Architectural Associate, Hartman-Cox Architects; Diane Vogt-O'Connor, Chief of Conservation at the Library of Congress; Nick Artim, President, Heritage Protection Group;; and David Carmicheal, Director, Georgia Archives. Not present are Gregor Trinkaus-Randall, Preservation Specialist, Massachusetts Board of Library Commissioners and Patrick Alexander, National Archives and Records Administration (retired).

<u>Introduction</u>: In 2005, the publication of the <u>Heritage Health Index on the State of America's Collections¹ compiled by the Institute of Museum and Library Services and Heritage Preservation reinforced the link between high quality archival and library buildings and effective collections preservation. This publication found that 26% of American institutions had no environmental controls to limit light, heat, and moisture damage, while 59% lacked adequate storage space.</u>

The Society of American Archivists (SAA) had for some time been planning the development of a standard on archival facilities to encourage proper building and renovation and an online portal to bring such archival and special collections standards to the profession and the public. The Heritage Health Index survey and the resulting Connecting to Collections initiative of the Institute of Museum and Library Services helped serve as a wakeup call of the need to move forward on these activities. Within the SAA Standards Committee, the SAA formed a Task Force on Archival Facilities.

Between 2007–2009, a team of nine American architects, archivists, special collections managers, conservators, and engineers with wide experience in planning and designing archival facilities reviewed standards from all over the world for archival and special collections facilities, including standards, guidelines, and best practices.

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A Public Trust at Risk: The Heritage Health Index Report on the State of America's Collections, Washington, D.C.: Institute of Museum and Library Services: December 2005 at: http://www.heritagepreservation.org/hhi/full.html. A short summary of the report is available at: http://www.heritagepreservation.org/hHI/summary.html.

Planning the Standard: The project goal was to first develop a Society of American Archivists standard for the selection of building sites and the design and construction of archival and special collections facilities in the United States, as well as to spell out best practices for archival and special collections facility renovation. The planned standard was to be specific enough to be useful to architects and engineers, but clear enough to be helpful to archivists, librarians, and administrators. The future hope was that the SAA standard would eventually become a U.S. national standard.

Serving as a powerful tool in the negotiation process that is building planning, the standard was to help ensure that archivists and special collections staff will always have a seat at the table when planning for or renovation of archival buildings occurs. As the primary customers for archives and special collections buildings, archivists and special collections librarians must be informed and involved in all changes to the design and construction of their building during all stages of construction to avoid unfortunate surprises. The Society of American Archivists, who published the standard, the co-editors, and the seven authors, all believed that having a clear and comprehensible building standard should aid in this goal.

At the helm of the project were co-editors Tom Wilsted, who had recently retired from the Thomas J. Dodd Research Center at the University of Connecticut, and Michele F. Pacifico, an Archivist and Archival Facilities Consultant, who had previously worked on the U.S. National Archives and Records Center's Archives II building in College Park, Maryland. As Mr. Wilsted noted, "During my research for Planning New and Remodeled Archival Facilities," I first became aware that there was no common standard or guideline for archival buildings in the United States. In doing my research and writing, I depended on a variety of American standards that were sometimes in conflict as well that those developed in other countries. When I completed my work on the archival facilities book, I approached Michele Pacifico, who was the archives specialist involved in building NARA's Archives II facility, about partnering to develop U.S. archival building guidelines. We agreed to work together and this resulted in a planning committee that ultimately created Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects and Engineers."

The assembled team of seven expert authors included Architect Scott Teixeira; then Georgia State Archivist David Carmicheal (currently Director, Records and Information Management of the Atlanta Housing Authority); Archival Building Specialist Patrick Alexander; Massachusetts State Preservation Specialist Gregor Trinkaus Randall; Consultant Nick Artim; Consultant Ernest Conrad; and Archivist and Library of Congress Chief of Conservation Diane Vogt-O'Connor. The project was generously supported by the Society of American Archivists and the Spacesaver Corporation, who provided funding for the meetings including travel costs, as well as publications costs for the volume.

At the first group meeting on March 29–30, 2007, the nine task force members met at the University of Connecticut Dodd Center to review and discuss existing standards, the focus and nature of the volume, the volume layout, and the level and depth of content coverage. Sections of the proposed guidelines were assigned to each task force member.

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New and Remodeled Archival Facilities is written by Tom Wilsted and published by SAA in Chicago, Illinois, in 2007. To see details go to: http://saa.archivists.org/4DCGI/store/item.html?Action=StoreItem&Item=187&LoginPref=1.

On August 29, 2007, the task force held a working meeting and an open forum at the Society of American Archivists' annual meeting in Chicago to allow SAA members to review and comment on the project. At this working meeting, the group reviewed each section of the first draft and discussed critical issues, such as how to report measurements (metric vs. U.S. standard), term definitions, and guideline appendices.

On January 14–15, 2008, seven of the nine task force members met at the Georgia State Archives in Atlanta, where they were joined by teleconference by Gregor Trinkaus- Randall and Pat Alexander. The venue was an inspirational one, as the Georgia State Archives facility has received design awards from the American Institute of Architects at the national, state, and regional levels. With a second draft to review, the task force spent the meeting refining the format of the guidelines, reviewing each section, and beginning the process of editing the volume so it would speak with one voice. At the January 2008 meeting, the group reviewed the focus and nature of the volume, and discussed the volume layout, and level and depth of content coverage.

As the project began, members of the task force had many different visions of what the completed volume might look like. First steps involved identifying who the audiences for the volume were and what those audiences needed in the way of a useful standard. Did this volume need to be highly prescriptive, technical, and detailed or could it be kept relatively clear and simple so that even non-specialists could understand it? The level of detail necessary for these audiences and presentation format was a topic that required much discussion.



The Facilities Working Group at the Georgia State Archives on January 14–15, 2008. From left to light: Diane Vogt-O'Connor, Ernest Conrad, David Carmicheal, Tom Wilsted, Michele Pacifico, Scott Teixeira, and Nick Artim. Not shown is Gregor Trinkaus-Randall and Patrick Alexander.

For purposes of clarity, the task force determined to define all technical language, avoid jargon, and keep the level of writing accessible to the non-specialist. Authors broke all descriptions of options down into four levels of requirements and used the following terms:

- Must = required;
- Should = highly recommended;
- May = acceptable
- Not recommended

These prioritized levels of requirements would prove very useful as a way to signal the nuances of the working group's recommendations without being totally prescriptive.

The task force discussed whether the volume should provide information on how to operate the building effectively. After much discussion, the group decided that focusing on creating the building standard alone was an adequate challenge without addressing the operations of the building.

The group reviewed whether the volume needed to deal with building renovations as well as new buildings. The task force decided that the volume should serve both those repositories that were renovating their buildings and those that were building new structures.

Writing the Standard: Each participant was assigned a chapter by the editors as well as several other roles, including that of being the "first reader" of another author's chapter. In this "first reader," role the individual would assist the other chapter author with finalizing their chapter and with the first round of edits of the chapter.

Each author was also to complete a bibliography and a glossary of terminology related to their chapter, which was submitted to the co-editors, who compiled them and published them as appendices. Co-editor Michele Pacifico compiled an appendix of prohibited materials that should never be used in a records storage area or exhibit cases or equivalent spaces (e.g., processing rooms, etc).

When working on their individual chapters, authors were responsible for reading all pertinent international and national standards, conducting additional research, talking with other working group members and specialists about potential issues, and reviewing major issues with the editors. A complete list of the standards reviewed is included in the guidelines' fifteen-page bibliography. Highlights include the standards published by the International Organization for Standardization (ISO) on storage requirements and records management, the National Information Standards Organization (NISO) on environmental conditions, building standards from other countries, the National Archives and Records Administration (NARA) standards, and specialized standards for construction, fire protection, security, lighting, materials and finishes, and storage equipment.

To make text sharing easier among the editors and authors, the entire working document was placed on Google Documents as the authors developed their chapters. Having the text in a shared online format allowed the authors to see the entire text as it developed, to query points made, suggest changes, add footnotes or allusions to interesting articles, track changes, and suggest updates. This flexibility made the work much more of a group enterprise.



After the first group meeting, the authors began sketching out the sub-categories for their topics. For example, Architect Scott Teixeira was assigned "Building Sites." Of his work on this chapter, Scott said, "Planning beautiful, durable, and efficient buildings is a common challenge, but the opportunity to create or improve an archival facility is rare. Collaborating on these Guidelines reinvigorated my firm belief in the importance and permanence of the decisions that we make during design."

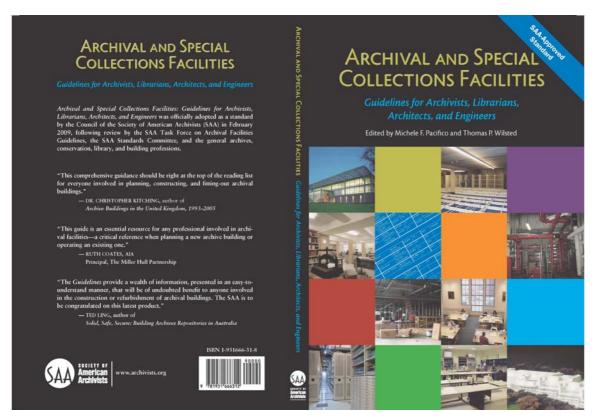
Architect Scott Teixeira Working with the other authors, Scott Teixeira focused his chapter on such topics as site selection, hazard avoidance, location selection criteria, size, floodplain requirements, site evaluations, survey, geotechnical investigation, security risk assessments, archeological assessments, site design, zoning and historic preservation considerations, leadership in energy and environmental design considerations, site security, landscaping, pools and fountains, site utilities, water supplies, sanitary sewer, storm drainage systems, electric power, telecommunication systems, emergency vehicle access, and parking and public access.

Other chapters were just as intricate. They included Building Construction, Archival Environments, Fire Protection, Security, Lighting, Materials and Finishes, Storage Equipment, Functional Spaces and several appendices, including a list of prohibited materials that should not be used in archival buildings, a glossary, a bibliography, and an in-depth index. Said State Archivist David Carmicheal, who wrote the chapter on "Functional Spaces," (e.g., reading rooms, loading docks) and who hosted the group, "Working on this volume gave me an opportunity to process and filter the immense amount of information I had collected during construction of the Georgia Archives. As a result I was able to interpret theoretical issues in light of the very practical considerations required during actual construction projects."

After each article was drafted, it was sent to a designated secondary expert for review and comment. After edits, the entire volume was read and commented upon by all other

TABLE OF CONTENTS Section 1-Building Site Section 2—Building Construction Environmental Issues: Below Ground and Cave 2.5 Roof. 25 Commissioning 30 Section 3-Archival Environments 3.1

task force members, leading to much reworking. The editors further edited the drafts and incorporated comments and suggestions, which then went out for peer review with fellow professionals in the National Association of Government Archivists and Records Administrators (NAGARA) and the Council of State Archivists (CoSA). Final reviews were conducted by the Society of American Archivists Standards Committee and the Society of American Archivists Council.



The completed standard.

<u>The Completed Standard:</u> The completed 191-page volume was published and endorsed by the Society of American Archivists in 2009 as an official SAA-approved standard. While it is never a good idea to read one's own reviews too closely, the reviews for the completed standard were very positive. "This comprehensive guidance should be right at the top of the reading list for everyone involved in planning, constructing, and fitting-out archival buildings," wrote Dr. Christopher Kitching, author of Archive Buildings in the United Kingdom, 1993–2005.

Ted Ling, author of Solid, Safe, Secure: Building Archives Repositories in Australia, wrote, "The Guidelines provide a wealth of information, presented in an easy-to-understand manner, that will be of undoubted benefit to anyone involved in the construction or refurbishment of archival buildings. The SAA is to be congratulated on this latest product."

Rick Blondo of the U.S. National Archives and Records Administration wrote, "Not only are best practices presented here, but also acknowledgment that certain situations cannot incorporate best practices. For those situations, mitigation strategies are presented that will improve current circumstances until such time as best practice can be implemented."³

Brenda Banks of Banks Archives Consultants wrote of the volume that it "...brings together much of the information that has been used in planning new archives and special collections facilities in recent years in an organized and easy-to-use format. It reflects current best practices and gives archivists and construction

³ Review of the book in *The American Archivist*, Fall Winter 2010, by Rick Blondo, NARA.

professionals common ground for discussion and a clearer understanding of the specific desired outcomes of the planning process."⁴

At the 2010 annual meeting of the Society of American Archivists (SAA), the Guidelines were awarded the SAA Preservation Publication Award for "writing of superior excellence and usefulness that advances the theory or practice of preservation in archival institutions." The volume is sold via the SAA online bookstore at:

http://saa.archivists.org/4DCGI/store/item.html?Action=StoreItem&Item=1355&LoginPref=1.

Next Steps—Updating the Standard: The standard was issued three years ago. Since then some changes have taken place in the world of archival storage. To reflect these changes and to broaden the standard's coverage, the Guidelines are being reviewed and updated. As a first step, SAA created the Standards Committee's Technical Subcommittee on Archival Facilities Guidelines (TS-AFG) and charged the group with overseeing the development, ongoing maintenance, and expansion of the guideline, including greater international involvement in both development and distribution. The subcommittee is beginning to work on the second edition of this standard.

This new subcommittee includes original co-editors Tom Wilsted and Michele F. Pacifico, as well as Architect Scott Teixeira, State Preservation Specialist Gregor Trinkaus-Randall, and Archivist and Library of Congress Chief of Conservation Diane Vogt-O'Connor. The other original authors have agreed to serve as informal consultants for the revised guidelines. The project continues to be generously supported by the Society of American Archivists and outside funding for travel costs and publication costs are now being pursued.

The TS-AFG hopes to be joined by one or two representatives from Canada. Recent Canadian governmental cut-backs have delayed this participation, but the subcommittee hopes to have full representation from Canada soon. The subcommittee further hopes that the next iteration of the standard will be published in English, French, and Spanish as well as being available in both print and electronic editions.

Project reviewers including engineers, environmental specialists, and individuals with experience in sustainable design, buildings in both tropical and very cold climates, new developments in environmental standards for archival storage, accessibility, building planning for disasters, and building planning for electronic records and digitization are being sought to assist the committee or offer comments on the work of the committee. Interested reviewers or consultants may contact: Michele Pacifico at martinpacifico@comcats.net or Tom Wilsted at tom.wilsted@uconn.edu.

As a task force member and current president of the Society of American Archivists Gregor TrinkausRandall said, "... producing a set of guidelines is always a moving target... There will always be new things that arise or that were not considered in the published version... We need to consider the Guidelines in the broadest possible

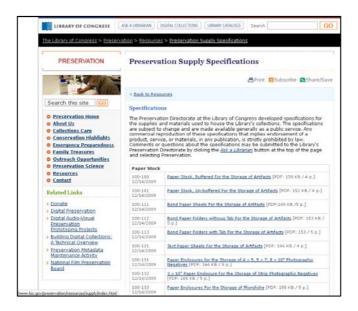
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⁴ Review of the book in *The American Archivist*, Fall//Winter 2010 by Brenda Banks, Banks Archives Consultants.

sense – sustainability, security of the collections, preservation issues, functionality, and the ability of archivists and other staff to be able to 'make it work.'... Every country has different issues regarding construction. Everyone should examine the Guidelines to determine whether or not their issues are included. If not, they should notify us either that there is something that is missing or that the way something is presented will not work under their circumstances. It is definitely possible that we have not considered all angles of some issues, and fresh pairs of eyes will bring those things to the fore." The subcommittee would greatly appreciate the input of members of IFLA on the guidelines, which should be sent to the subcommittee co-chairs: Michele Pacifico at martinpacifico@comcats.net and Tom Wilsted at tom.wilsted@uconn.edu

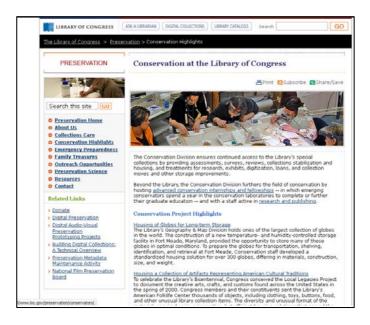
<u>SAA Standards Portal:</u> Information on the volume is currently available via the <u>Society of American Archivists Standards Portal</u>, a project under development by SAA with the support of the Gladys Krieble Delmas Foundation. The Portal, on the SAA Website at: http://www2.archivists.org/standards, is a free online resource with information about standards, best practices, and guidelines either maintained or co-owned by SAA and overseen by the Standards Committee. Currently the portal provides information on 14 SAA standards created since 1994 and categorized by topic including administration and management; arrangement and description; digitization; education; ethics, values and legal affairs; and reference and access. Other portal contents of interest to those studying storage standards include:

- Guidelines for College and University Archives,
- Guidelines for Evaluation of Archival Institutions,
- Museum Archives Guidelines,
- Best Practices for Working with Archives Employees with Physical Disabilities, and
- Best Practices for Working with Archives Researchers with Physical Disabilities.



<u>Library of Congress Storage Standards:</u> It seems fitting to end this paper by briefly describing several storage guidelines, best practices, or standards on the Library of Congress (LC) website that may be of interest to an audience focused on storage

standards. First is the *Library of Congress Storage Supply Specifications* on the LC Website at: http://www.loc.gov/preservation/resources/supply/specific.html, where searchers will find the specifications Library staff has developed for the supplies and materials used to house the Library's collections, which are rigorously tested in the LC laboratories. The LC storage supply specifications are subject to change over time and are made available as a public service. These specifications may not be used to endorse any particular product or provider of products, but are useful when selecting supplies for housing and storing library, archival, special collection, and museum collections.



<u>Library of Congress Guidance on Storage:</u> Additional guidance on how to store specific types of materials such as oversized materials and globes may be found on the LC website at:

- http://www.loc.gov/preservation/care/ (for books, leather, Asian bindings, works on paper, newspapers, preservation photocopying, photographs, scrapbooks and albums, motion picture film, and cylinder, discs, and tapes).
- http://www.loc.gov/preservation/conservators/ (for globes, three-dimensional objects, patches and similar items).



Beyond these recently released standards, the Library of Congress has placed a series of related guidelines on the Library Website that include:

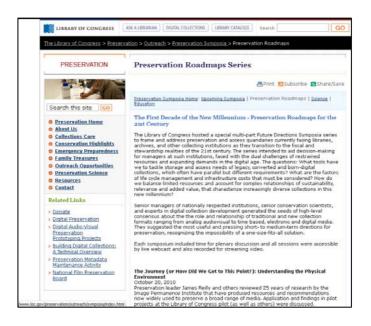
- **guidelines on lighting of library materials** at: http://www.loc.gov/preservation/care/light.html
- **dealing with water damage** at: http://www.loc.gov/preservation/emergprep/flood.html
- **reducing risk from pollutants** at: http://www.loc.gov/preservation/care/pollutants.html
- **digitizing library materials** at http://www.loc.gov/preservation/care/scan.html
- guidelines on new test methods for storage materials at: http://www.loc.gov/preservation/scientists/projects/storage_materials_eval.ht ml
- **matting and framing library materials** at: http://www.loc.gov/preservation/care/mat.html
- emergency preparedness, response and recovery during specific events such as earthquakes at: http://www.loc.gov/preservation/emergprep/earthquake.html
- hurricanes at: http://www.loc.gov/preservation/emergprep/hurricane.html.5

⁵ Among the other emergencies covered on these pages are fire, flood/water, mudslide, tornado, tsunami, volcano, and winter storm, as well as planning for emergencies, additional resources, insurance and risk management, and response and recovery.

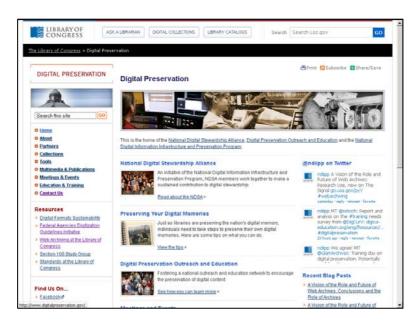


There are also broad arrays of useful downloadable LC lectures and webinars, and upcoming events that may be useful to those with an interest on the topic of storage such as:

 Preservation Roadmaps Series, which address deterioration mechanisms in a wide variety of media and environmental remediation techniques as modeled and tested by IPI as well as the costs, benefits, and risks of preserving large collections via environmentally controlled remote cold storage; mass deacidification bulk treatments; and digitization at: http://www.loc.gov/preservation/outreach/symposia/roadmaps.html

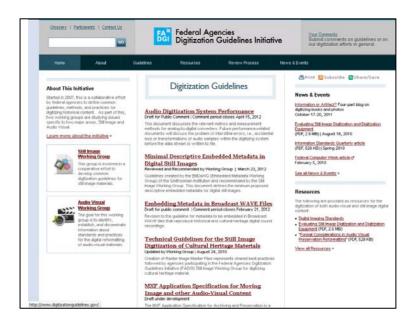


 the Topics in Preservation Lecture Series, at: http://www.loc.gov/preservation/outreach/tops/index.html The Library has been undertaking major initiatives during the last several years to provide unified access to digital preservation standards, tools, and storage systems via the LC Website. Some of the useful features that may be found there include:



- National Digital Information Infrastructure and Preservation Program (NDIIPP), including the following:
 - NDIIPP Tools and Services Inventory at: http://www.digitalpreservation.gov/tools/
 - O National Digital Stewardship Alliance, which is an initiative of the Library of Congress National Digital Information Infrastructure and Preservation Program INDIIPP), NDSA members including universities, consortia, professional societies, commercial businesses, professional associations, and government agencies at all levels work together to make a sustained contribution to digital stewardship through five committees focusing on Digital stewardship: Content; Standards and Practices; Infrastructure; Innovation; and Outreach. Go to: http://www.digitalpreservation.gov/ndsa/ for more information.
 - Digital Formats Sustainability, which provides information on digital content formats at: http://www.digitalpreservation.gov/formats/index.shtml
 - Personal Digital Archiving, which provides guidance on how to preserve your digital photographs, emails, Websites, digital audio, digital video, and personal digital records at: http://www.digitalpreservation.gov/personalarchiving/
 - Digital Preservation Education Outreach and Education, including a baseline digital preservation curriculum at:
 http://www.digitalpreservation.gov/education/curriculum.html
 - Digital Preservation Podcasts, Videos, and Publications at: http://www.digitalpreservation.gov/multimedia/

 Digital Preservation Meetings and Events at: http://www.digitalpreservation.gov/meetings/



Summary: As responsible custodians of the record of our countries, libraries and archives of all types have increasingly begun to face issues of storing collections appropriately so that they last as long as possible with as little need for emergency intervention as possible. To achieve a long life expectancy, well planned storage is a must. Storage standards have become a valuable tool when planning and renovating both analog and digital storage. Regardless of the format, the need to manage repository storage spaces according to standards is crucial to achieve the longest collections life expectancy at the lowest cost without requiring frequent human intervention to rescue high risk materials.

The Society of American Archivists and the Library of Congress have developed a range of useful standards which may be identified via the SAA Standards Portal and the LC website. However, developing standards alone is not enough, they must be updated regularly to keep them valuable. The Library of Congress Preservation Website would welcome comments and suggestions at moogy@loc.gov. SAA is currently working on the second edition of the *Archival and Special Collections*

Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers. The SAA subcommittee at work on this guideline volume would like to invite IFLA members to consider commenting on the Archival and Special Collections Facilities: Guidelines for Archivists, Librarians, Architects, and Engineers discussed in this paper, as well as to invite interested IFLA experts to consider contributing to this second edition.

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