

It Takes A Village: An Interdisciplinary Collaboration to Explore Sustainable Preventive Conservation Strategies for Special Collections and Archives

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SAA 2018 Research Forum

Colgate University



The Planning Grant

- National Endowment for the Humanities, Division of Preservation and Access
- Sustaining Cultural Heritage Collections grant program
 - Sustainable preservation strategies
 - Interdisciplinary collaboration
- Grant project began October 2016

Project Goals

- Outline new environmental control systems for existing and proposed spaces that take advantage of the interior, windowless locations.
- Create design plans that maximize the use of space for increased storage and create optimal storage within the three existing storage spaces for the variety of material types in SCUA's collections.
- Investigate energy efficient lighting options.
- Plan for implementing security improvements for collection storage areas recommended in the 2011 consultant's report.
- Plan a receiving area for new acquisitions that would allow for the inspection and remediation of collections for infestations or contaminations before moving them to other storage areas.

Project Team

Library/
Archives



Facilities



Sustainability
Office



Faculty



Consultants



Consultants

Karen E. Kiorpes, Preservation Librarian, University at Albany

Image Permanence Institute, Rochester, NY

John P. Stopen Engineering LLP, Syracuse, NY

Right Light Energy Services LLC, Utica, NY

James Allen Smith, VP and Director of Research and Education at the
Rockefeller Archive Center

Expert Assessments

- Engineering
 - Conducted floor load tests
 - Assessed external wall of archives storage
- Preservation
 - Reviewed departmental spaces and procedures
 - Recommendations for storage, workspaces, receiving area, lighting qualities
- Lighting
 - Reviewed departmental spaces and their desired use
 - LED - in a variety of fixtures and color values

Expert Assessments - Environment

- Reviewed HVAC systems and spaces they serve
- Reviewed temperature and humidity data gathered since 2011
- Planned to gather additional data for one year to assess seasonal cycles

Theory of Operation

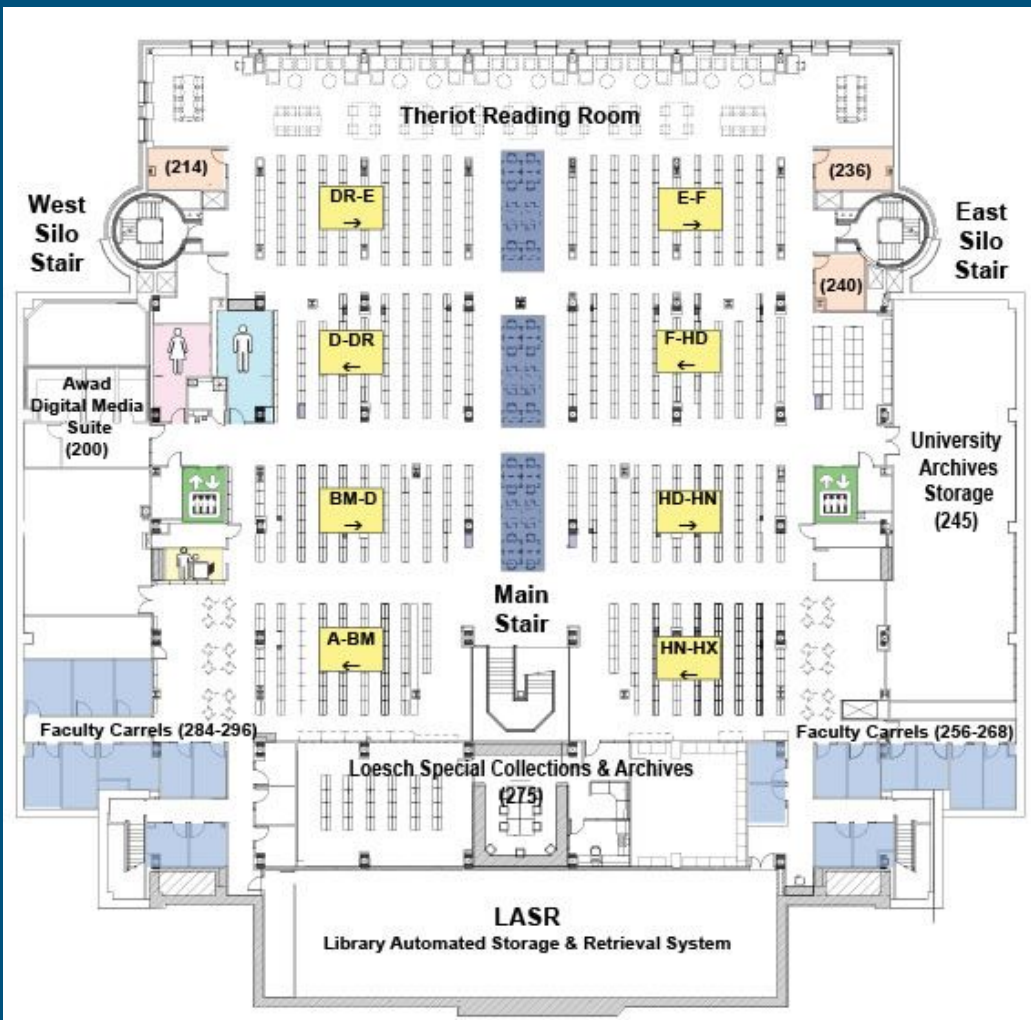
“The accepted norm—that temperatures should be steady and unwavering at human comfort levels, and that short-term fluctuations in relative humidity matter more than long-term trends—is now regarded by preservation scientists as outmoded and counter-productive. Environments are complicated. The simple notion of setting targets for an 'ideal' environment and watching for daily or weekly excursions is the wrong approach. It is much more important to manage the extremes of heat and moisture.”

Image Permanence Institute. Fundamentals. https://www.eclimatenotebook.com/fundamentals_nl.php

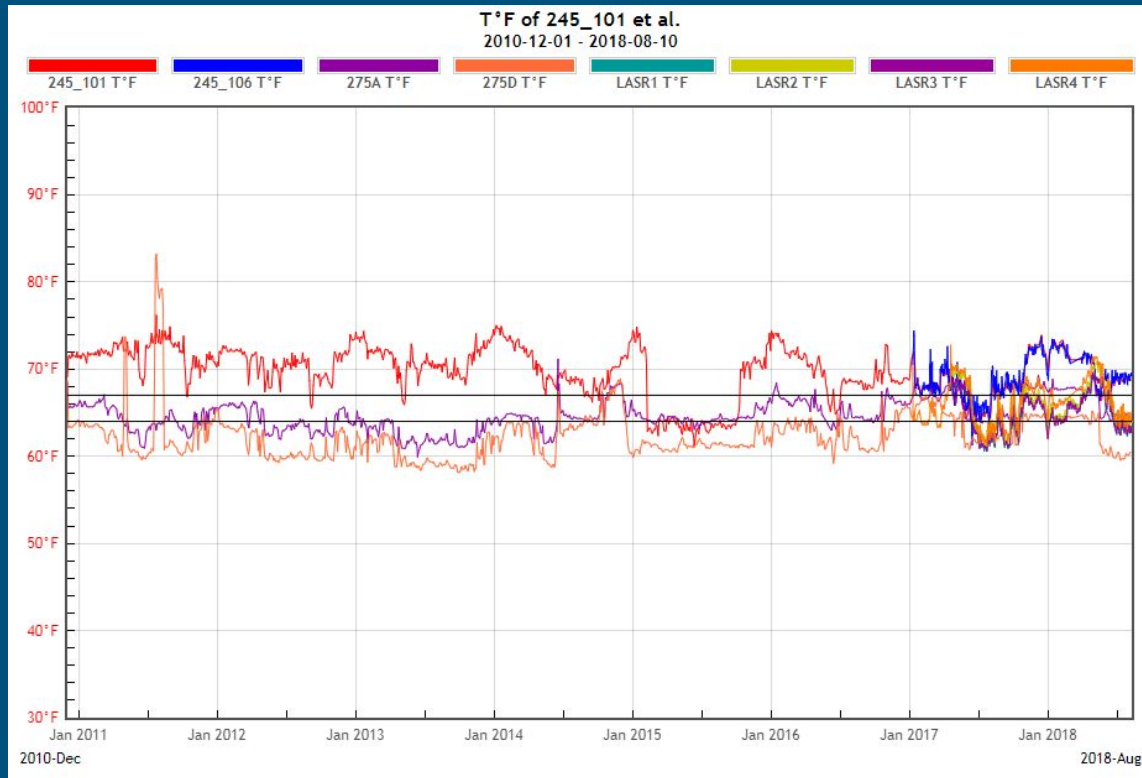
Storage Areas

- Rare book vaults - dedicated Liebert system
- Archives storage - shelled-in space retrofitted for housing archival materials; environment served by general library HVAC
- Library Automated Storage and Retrieval system (LASR) - dedicated Liebert system (and more?)

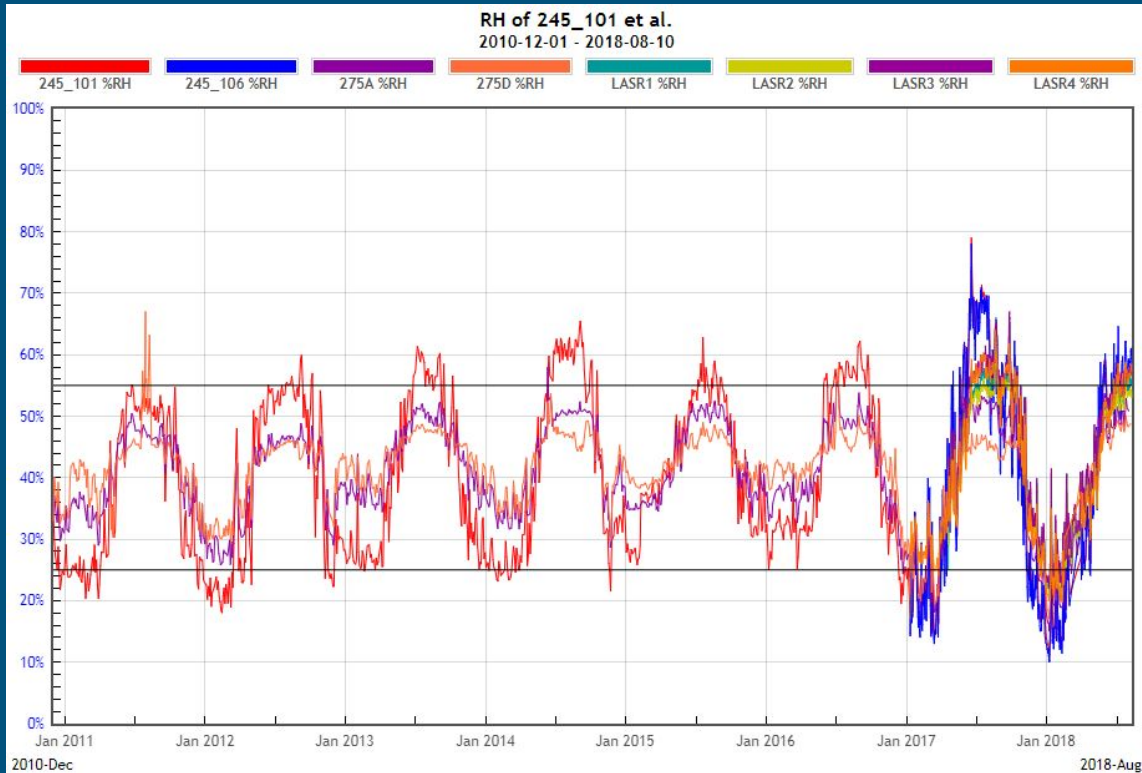




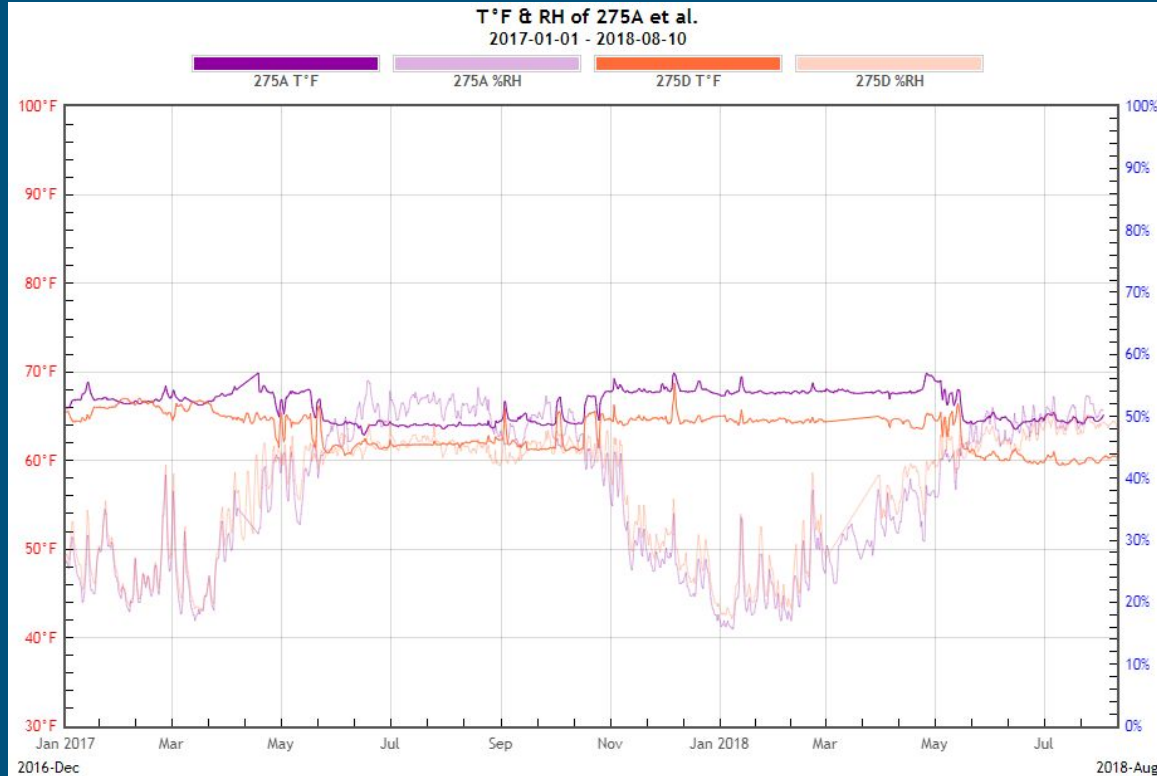
Temperature Data (2011-2018)



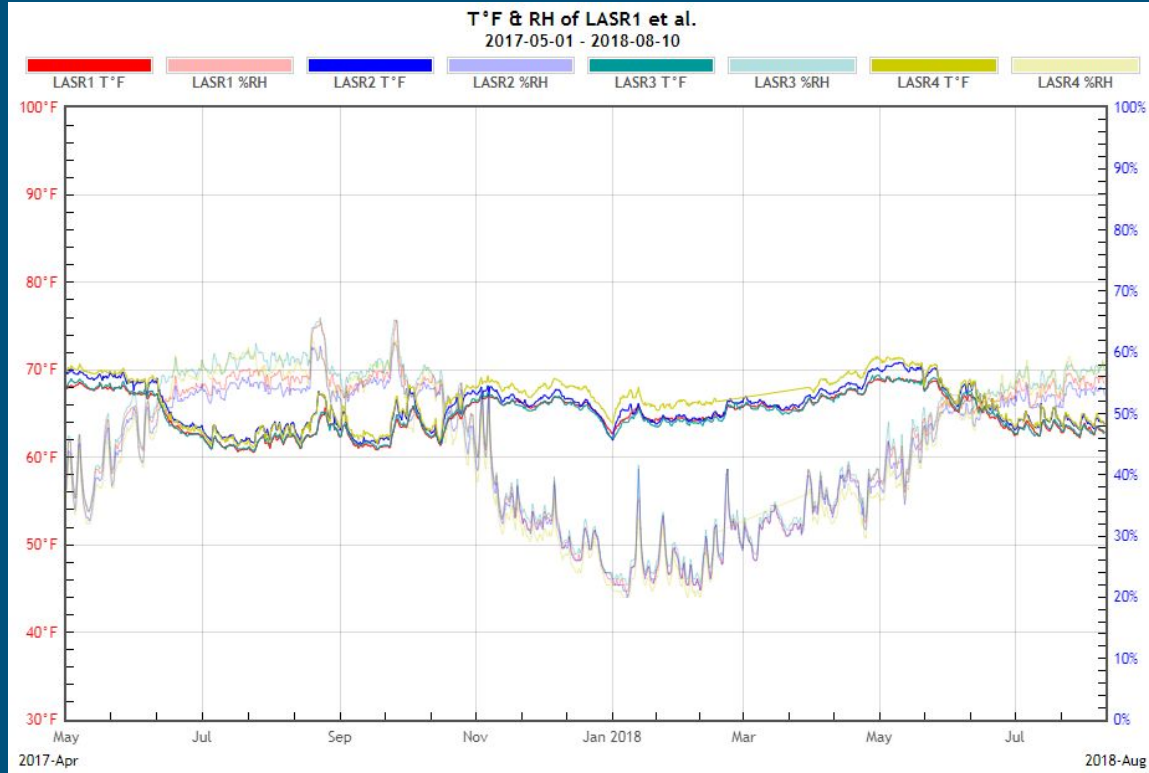
Humidity Data (2011-2018)



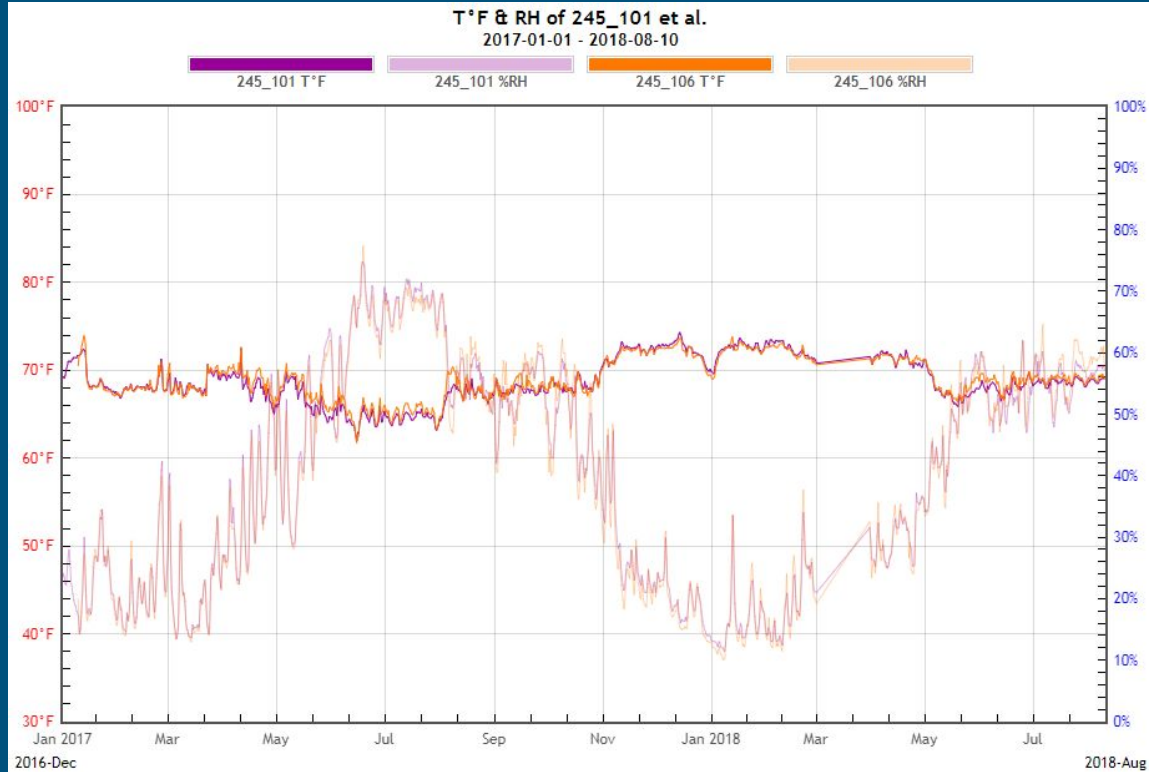
Project Data - Rare Book Vaults



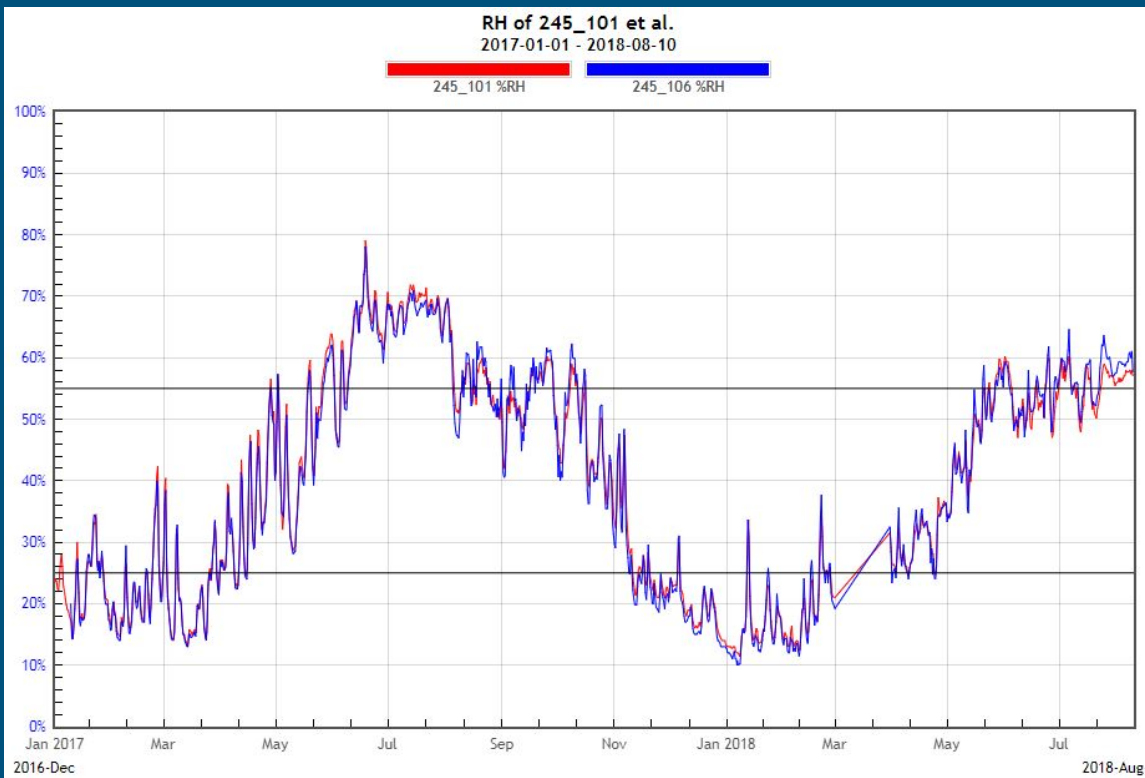
Project Data - LASR



Project Data - Archives Storage



Humidity Data - Archives Storage



Next Steps

- Continue to monitor space conditions and control high humidity in Archives
- Conduct shutdown test in rare book vaults during winter
- Continue to advocate for improved spaces