

Sustainable Preservation Practices for Archives

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How can archives practice sustainable preservation?

Sustainability is central to the archival mission:

- Sustainability means “meeting the **economic, environmental, social,** and **cultural** needs of the present without compromising the same needs of future generations” (Abbey, 91).
- Archivists are charged with preserving materials “**for the benefit of the future** more than for the concerns of the past” (SAA Core Values).

Preservation practices must take into account the economic and environmental costs of high energy consumption as well as the social and cultural needs served by archival collections:

- Opportunities for action exists at every level of archival practice, from building design to appraisal to pest management.
- Traditional building and records management practices from cultures around the world should inform our approach.

Hugo Stehkämper

Four Principles for Natural Air Conditioning:

- (1) Wall Design & (2) Building Material – Work together to prevent infiltration of moisture, and mediate reactions to outdoor temperature changes.

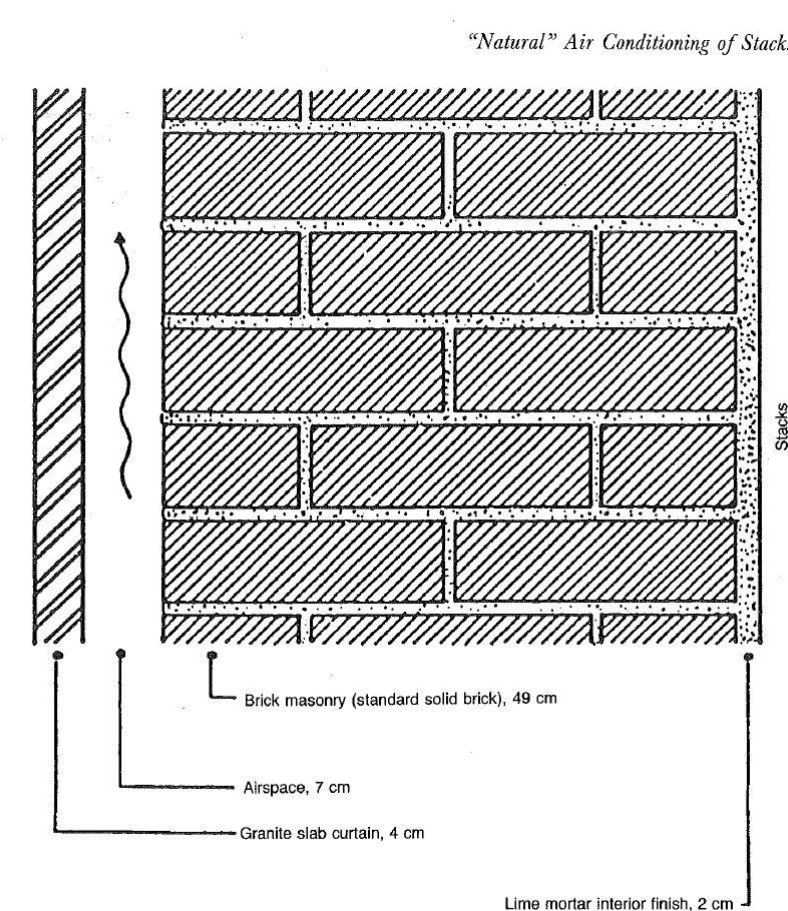


Fig. 1. Cross-section of the outer wall of the Cologne City Historical Archives. Source: Stehkämper, H. (1988). *Natural Air Conditioning of Stacks*. Stehkämper, (1988), p. 167

- (3) Window Arrangement & (4) Shelving Design – Promote ventilation, control light exposure thereby inhibiting mold growth, temperature spikes, and accumulations of moisture.

Successful Applications:

- Archives throughout Northern Europe including Germany, Switzerland, the Netherlands, Austria, France
- Modified for climates in Israel and South Africa

Learning from Traditional Practices



Pipistrelle Bat, Source: www.warrenphotographic.co.uk

- In traditional South African architecture, overhanging eaves keep indoor temperatures cool.
- In Japan, the practice of Mushiboshi (“drying bugs”) includes a yearly airing out of scrolls, reducing humidity and ridding the documents of insects.
- Since the 1700’s two libraries in Portugal have controlled insect infestations by becoming homes to bat colonies who fly and feast every evening.
- In Korea the Haeinsa Temple housing 80,000 woodblocks from the 1200’s was designed for passive ventilation allowing air to circulate in one end and out the other. Wood pillars were set on stone platforms to protect against infiltration of water.

“Archivists and librarians should not need to be told that the cultural assets they guard have kept splendidly for many centuries even without technology . . .” - Hugo Stehkämper

Opportunities for Action – Archive as Ecosystem

Rethink Practices & Processes

- Reconsider acquisitions policies with an eye towards limiting growth
- Manage the system, not the just the outputs
- Engage with post-custodialism
- Practice minimal processing
- Limit instances of digital record migration
- Keep archival boxes full
- Assess energy consumption in your institution

Collaborate with the Community

- Partner with your facilities manager
- Connect with local green professionals and organizations
- Buy archival materials from local vendors

Reuse & Reduce

- Replace disposable gloves with reusable ones
- Replace CFL with LED lightbulbs
- Install sound or motion activated lighting

Make the Most of What You Have

- Cover east and west facing windows
- Allow breezes in through screened south and north facing windows
- Open vents close to the ceiling to promote circulation
- Use ceiling fans
- Allow 30cms of air circulation between the ceiling and the tops of shelving
- Install automatic climate monitors

Rebuild, Renovate, Redesign

- Use reflective colors on roof surfaces
- Use local materials for building
- Pursue LEED Certification



The James Bartleman Archives & Library in Ottawa, designed with both passive and mechanical systems: <http://www.sabmagazine.com/blog/2014/03/24/james-bartleman-archives-library-materials-centre/>

Benefits



<https://worldhelp.net/tag/hurricane-maria/>

- Initial investment limits long term costs
- Saving energy saves money – good for the archive, good for the community, good for the Earth
- Passive systems are more reliable than mechanical interventions, requiring less long term maintenance
- In unexpected crises, passive systems continue to function when the power goes out
- As the climate changes, passive systems will adapt more readily than new technologies

Conclusions

- Sustainability is a benefit to archives and the communities we serve.
- Sustainability and preservation go hand in hand.
- Small changes can have a big impact.
- Next step: an examination of the factors that create barriers to sustainable practices.

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