Having Your Cake And Eating it Too

A 21st Century Approach to Preservation and Access
An Old Saying:

“You can’t have your cake and eat it too”
“You can’t preserve research materials and use them too”
A New Reality

21st Century Libraries can have their cake and eat it too by:

1. Storing unique research materials in environmentally controlled conditions

2. Digitizing materials to support online use of electronic surrogates
Case Study

Church History Library - Strategic Goals

1. Preserve research materials
2. Digitize holdings
3. Ensure preservation of digital collections
Institutional Background

• LDS Church Corporate Library
  – Salt Lake City, Utah, USA
  – Open to the public
Institutional Background

Oliver Cowdrey 1806-1850
Institutional Overview

• Holdings
  – 270,000 books
  – 150,000 manuscript collections
  – 5,000 oral histories
  – 2.5 million photographs
  – 50,000 audio/video recordings
  – 20,000 microfilm masters
Planning A New Library

Strategic Goals

1. Preserve research materials in their original formats
Preservation Guidelines

• Controlling RH is more important than controlling temperature.

• Swings RH should be controlled at $\pm5\%$.

• Control temperature - a 2% change in temperature causes a 3% change in RH.

• Every $18^\circ$ reduction in temperature cuts deterioration in half
## Controlling RH and Temperature

<table>
<thead>
<tr>
<th>Format Type/Storage Location</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper based/open stacks</td>
<td>72°F ± 4°F and 30% ± 5% RH</td>
</tr>
<tr>
<td>Paper based/closed stacks</td>
<td>60°F ± 4°F and 40% ± 5% RH</td>
</tr>
<tr>
<td>Paper based, rare/closed stacks</td>
<td>35°F ± 2°F and 40% ± 3% RH</td>
</tr>
<tr>
<td>Photographs &amp; film (black and white)/closed stacks</td>
<td>35°F ± 2°F and 30% ± 3% RH</td>
</tr>
<tr>
<td>Photographs &amp; film (color), nitrate, acetate film/closed stacks</td>
<td>25°F ± 2°F and 30% ± 3% RH</td>
</tr>
<tr>
<td>Sound &amp; video recordings (magnetic)/closed stacks</td>
<td>55°F ± 4°F and 35% ± 5% RH</td>
</tr>
</tbody>
</table>
Protection from Light

• Closed stacks – 10-30 ft. candles
  – Indirect lighting from sodium fixtures
  – 10-30 ft. candles
  – Motion activated lighting

• Open stacks, reading room, office areas
  – Indirect lighting from low-UV fluorescent tubes with screening sleeves.
  – 60-75 ft. candles
Air Borne Pollutants

• Filter pollutants that cause irreversible damage
  
  * acetic acid  
  * hydrogen sulfide  
  * nitrogen dioxide  
  * ozone  
  * sulfur dioxide  
  * PM  
  * 2.5 fine particles

• Maximum average concentration won’t be realized for 100 years
Completed Facility

• 260,000 sq. ft. building
  – 5 floors
• Two buildings in one
  – Preservation vault structure
  – Public access/office complex
• LEED Certified
Preservation Facilities

- 7 closed stack vaults
- 1 high security vault
  - 55° Fahrenheit, 35% RH
  - Sprinklers/Inergen fire suppression
  - Motion activated lighting
- 2 cold storage vaults
  - -4° Fahrenheit
Strategic Goals

1. Preserve research materials

2. Digitize holdings
Digitization Master Plan

Purposes

1. Build an Online Church History Library
2. Adopt digitization as a preservation tool
3. Respond rapidly to patron requests for copies

Audiences

1. Church officers
2. Church members
3. Researchers
Digitization Master Plan

BHAG (Big Hairy Audacious Goal)
– Digitize all material that supports the study of LDS Church History and doctrine.
Completed Facility

• Digitization work area
  – 15,000 sq. ft
  – 5 Camera bays
  – 3 Flatbed stations
  – 2 Large format stations
  – 6 Rotary stations
  – 4 Processing stations
Facilities, Equipment, Staffing

Pre-processing

Digitize-on-Request

Digitization
Digitization

Post-processing

Church History Department
Goal 2 - Progress

Church History Library digitization

Audiovisual

GMRV

2011 Production  2011 Goals  3 Year Goals

Church History Department
Strategic Goals

1. Preserve research materials
2. Digitize holdings
3. Ensure preservation of digital collections
Digital Preservation

• Department mandate
  – Preserve records of enduring value
  – Make records publicly available

• Challenges
  – Various file formats
  – Ingest Capacity
  – Scalability
Digital Preservation

• High level business requirement
  – Perpetual storage of records of enduring value
  – Access to delivery systems and staff
  – Management of digital assets
Digital Preservation

• Next steps
  – Gather business and technical requirements
  – Evaluate systems and select appropriate software partners
  – Build an interim solution
  – Test the usability and scalability of the software
  – Implement the system
Digital Preservation

- OAIS Compliant System - DRPS
Digital Preservation

• DRPS Implementation

SIP & Fixity Creation

Preservation Functions

Tape Optimization

Information Lifecycle Management

Tape Interface

DRPS Ingest Tools

ExLibris Rosetta

Storage Integration

StorageGRID

NetApp

Tivoli Storage Manager

IBM
Digital Preservation

• System
Goal 3 - Progress
Strategic Goals

1. Preserve research materials
2. Digitize holdings
3. Ensure preservation of digital collections
4. Having our cake and eating it too.
Thank you