



# Having Your Cake And Eating it Too

A 21<sup>st</sup> Century Approach to  
Preservation and Access



# An Old Saying:



“You can’t have your cake  
and eat it too”



# Library Translation:



“You can’t preserve research materials and use them too”



# A New Reality

21<sup>st</sup> 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

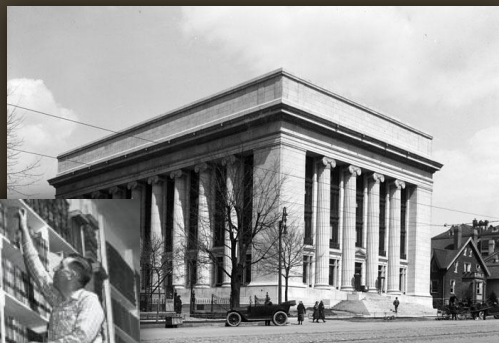




# Library Facilities



1858



1917



1972



# 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  $\pm 5\%$ .
- Control temperature - a 2% change in temperature causes a 3% change in RH.
- Every 18° reduction in temperature cuts deterioration in half

# Controlling RH and Temperature

Format Type/Storage Location	Recommendation
Paper based/open stacks	72° F ± 4° and 30% ± 5% RH
Paper based/closed stacks	60° F ± 4° and 40% ± 5% RH
Paper based, rare/closed stacks	35° F ± 2° and 40% ± 3% RH
Photographs & film (black and white)/closed stacks	35° F ± 2° and 30% ± 3% RH
Photographs & film (color), nitrate, acetate film/closed stacks	25° F ± 2° and 30% ± 3% RH
Sound & video recordings (magnetic)/closed stacks	55° F ± 4° and 35% ± 5% RH



# 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



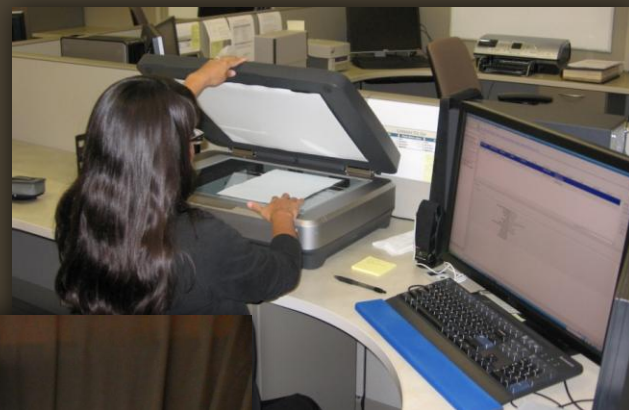


# Facilities, Equipment, Staffing

Pre-processing



Digitization



Digitize-on-Request



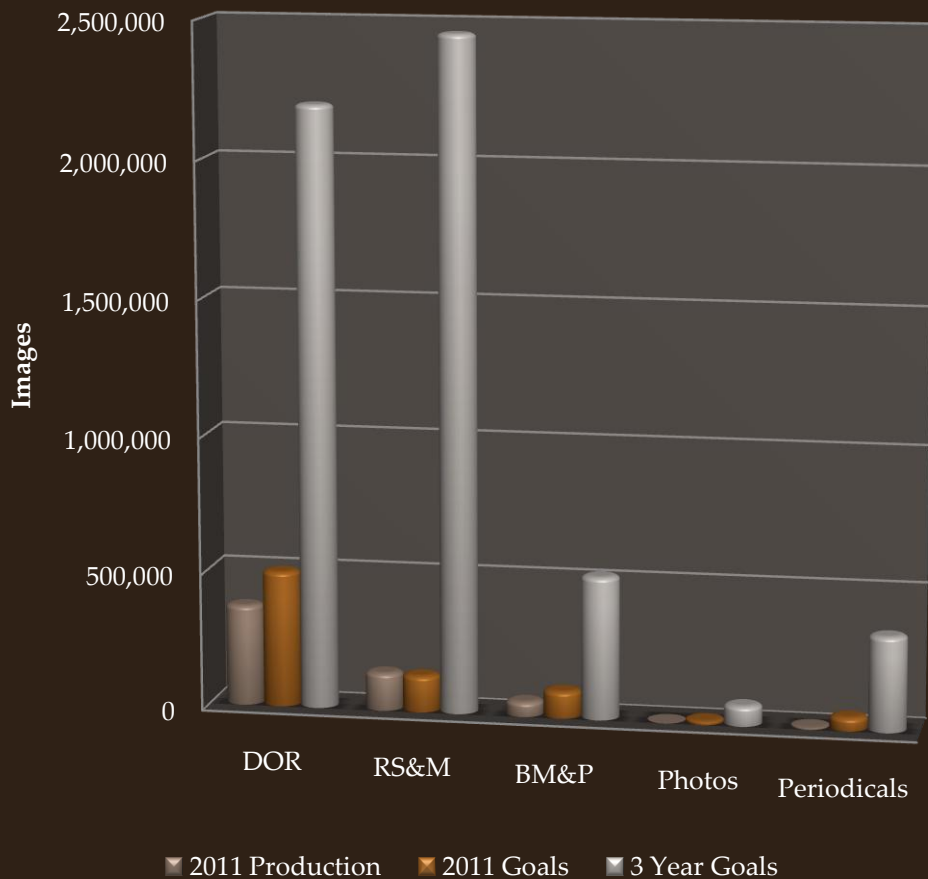
# Digitization

## Post-processing



# Goal 2 - Progress

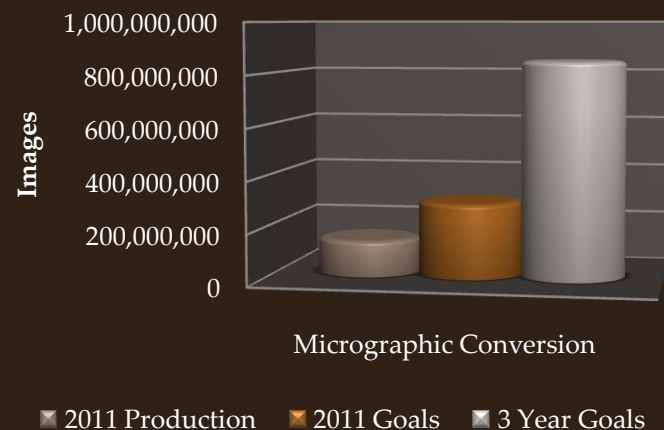
## Church History Library digitization



## Audiovisual



## GMRV



# 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

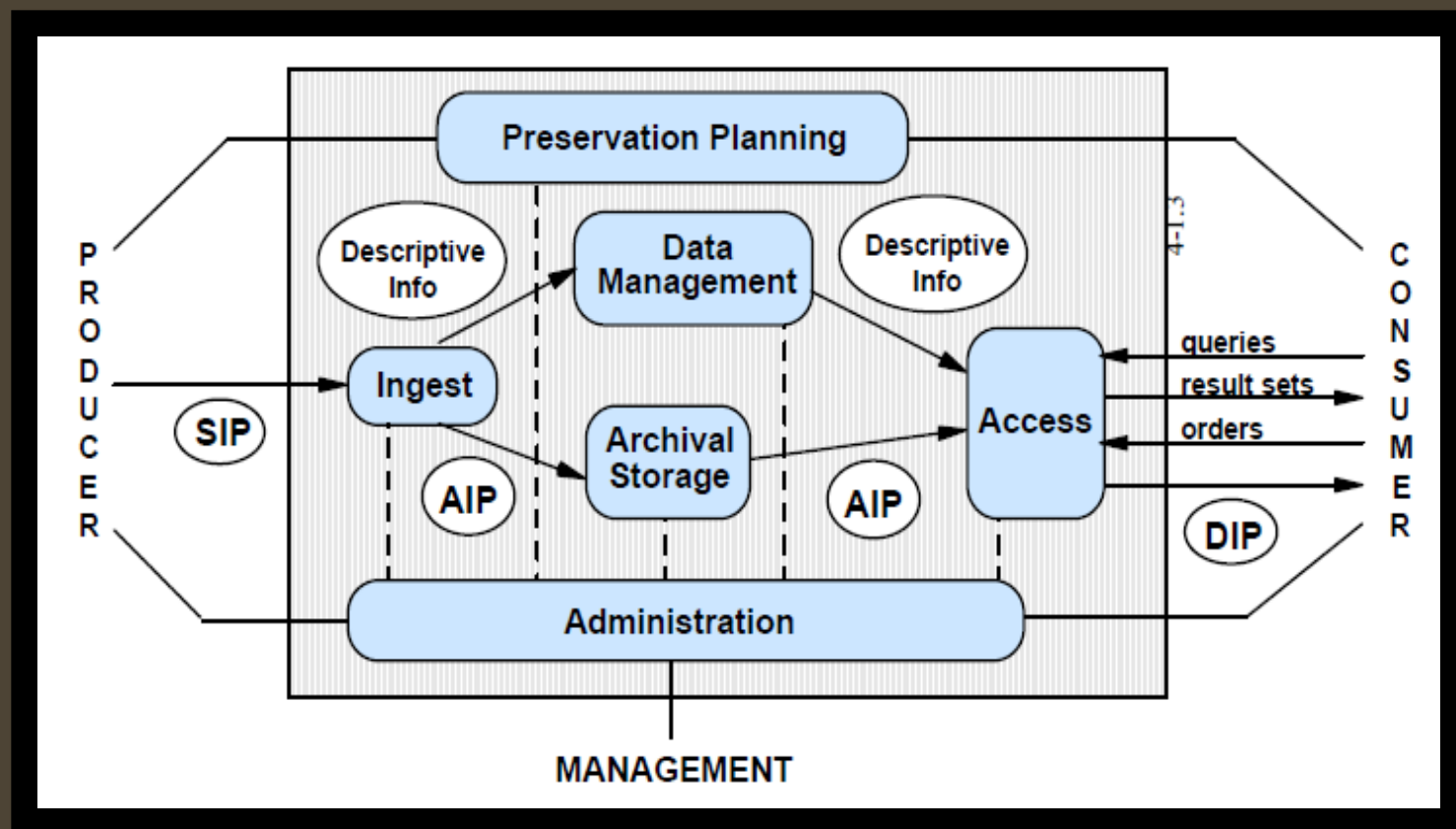
- High level business requirement
  - Perpetual storage of records of enduring value
  - Access to delivery systems and staff
  - Management of digital assets

# 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

- OAI compliant System - DRPS



# Digital Preservation

- DRPS Implementation

SIP & Fixity  
Creation

DRPS Ingest Tools

Preservation  
Functions

ExLibris Rosetta

Tape  
Optimization

Storage Integration

Information  
Lifecycle  
Management



StorageGRID

Tape  
Interface



Tivoli Storage  
Manager

# Digital Preservation

## • System

**ExLibris Rosetta Management** User: Chad Barker | Help | Logout

Home | Producers | Submissions | Data Management | Preservation

Welcome Barker Chad  
1/4/2008 [Update Me!](#)  
11/5/2008 [Use Homepage Bulletin Mapping Table](#)

**Producers**  
Manage Producers, Producer Agents and their Deposit settings (Producer Profiles, Material Files)  
[Producers](#)

**Submissions**  
Handle technical issues, assess, arrange or approve sampled SIPs  
[Submissions](#)

**Data Management**  
Perform your day to day work  
[Data Management](#)

**Preservation**  
Manage and schedule Preservation activities  
[Preservation](#)

**Quick Links**

- [Technical Issues - Loading](#)
- [Arranger Work Area](#)
- [User List](#)
- [Technical Issues - Validation](#)
- [Technical Issues - Deposit](#)
- [Assessor Work Area](#)

DRPS TOOLS  
DIGITAL RECORDS PRESERVATION SYSTEM

LOGS ACCOUNT USERNAME

PASSWORD

[Sign In](#)

Having problems signing in?  
Register for an LDS Account

CHURCH HISTORY  
LIBRARY

DRPS TOOLS | Submissions | **Submission Search** | Admin | Fixity | BarkerCS (Logout)

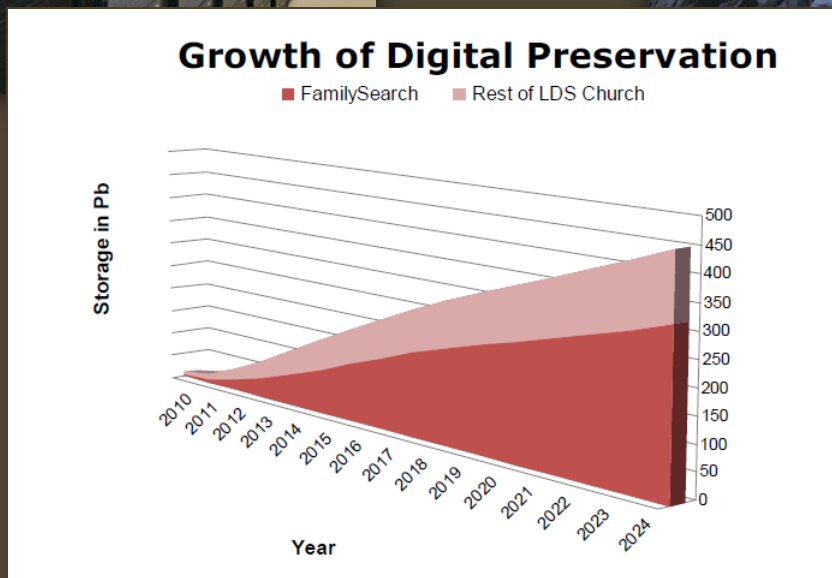
1-26 of 4,424 | 25

Refresh | SIP ID | REPO STATUS | CURRENT STATE | DC IDENTIFIER | UPDATED | UPDATED BY | CREATED | CREATED BY

ID	SIP ID	REPO STATUS	CURRENT STATE	DC IDENTIFIER	UPDATED	UPDATED BY	CREATED	CREATED BY
5425	4216	finished	SUBMITTED	917.9242 M297sb 1890/b0000/f0001	2011-08-03 12:57	anonymous	2011-08-03 11:23	anonymous
5424	4217	finished	SUBMITTED	071.9225 U89i v. 1-3 1908-1911/b0000/f0003	2011-08-03 13:02	anonymous	2011-08-03 11:18	anonymous
5423	4218	finished	SUBMITTED	071.9225 U89i v. 1-3 1908-1911/b0000/f0002	2011-08-03 13:07	anonymous	2011-08-03 11:18	anonymous
5422	4219	finished	SUBMITTED	071.9225 U89i v. 1-3 1908-1911/b0000/f0001	2011-08-03 13:12	anonymous	2011-08-03 11:18	anonymous
5421	4215	finished	SUBMITTED	917.9242 B368ru 1910/b0000/f0001	2011-08-03 12:52	anonymous	2011-08-03 11:18	anonymous
5420	4214	finished	SUBMITTED	912.7 M297oam 1871/b0000/f0001	2011-08-03 12:52	anonymous	2011-08-03 11:18	anonymous
5419	4213	finished	SUBMITTED	MS 629 1/b0000/f0001	2011-08-03 10:52	anonymous	2011-08-03 09:19	anonymous
5418			ERROR	OH 4293	2011-08-03 07:39	anonymous	2011-08-03 07:39	anonymous
5417			ERROR	MS 629 1/b0000/f0001	2011-08-03 07:36	anonymous	2011-08-03 07:36	anonymous
5416	4207	finished	SUBMITTED	OH 4405	2011-08-03 08:12	anonymous	2011-08-02 16:21	anonymous
5415	4203	finished	SUBMITTED	OH 4385	2011-08-02 18:27	anonymous	2011-08-02 16:21	anonymous
5414	4202	finished	SUBMITTED	OH 4383	2011-08-02 18:27	anonymous	2011-08-02 16:21	anonymous
5413	4211	finished	SUBMITTED	OH 4382	2011-08-03 08:17	anonymous	2011-08-02 16:21	anonymous
5412	4206	validation	SUBMITTED	OH 4381	2011-08-03 22:17	anonymous	2011-08-02 16:21	anonymous
5411	4199	finished	SUBMITTED	OH 4373	2011-08-02 18:22	anonymous	2011-08-02 16:21	anonymous



# 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