

Hillsborough Historical Society
Manahan-Phelps-McCulloch
Photographic Collection
A Case Study - Digitization

New Hampshire Archives Group
"An Introduction to Digital Imaging"
June 28, 2006

Let's Go On

A Virtual Tour

To The Collection

We Are Located In
The Community Building
Fuller Public Library



On The Third Floor - 32 Steps to Heaven



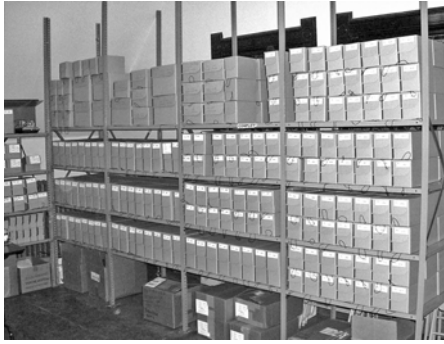
Catch Your Breath & Enter



Photo Archive Center



Negative Storage



So What Is The Manahan Collection?

- Gift to Hillsborough Historical Society in December 2002 – from a local photo studio in continuous operation since as early as 1866
- Collection – negatives stored in non-archival paper and glassine envelopes on open shelving – no environmental control
- Cataloging – variable, often incomplete and inconsistent – studio was a business, not a museum

Our Mission

- Preservation – Conservation & Proper Long-Term Storage
- Catalog - Build a Data Base
- Share - with Community

What should we do?

- We knew almost nothing
- How many negatives? Type of media? Size? Condition?
- Archival storage material? Sources?
- Long-term storage issues?
- Funding?

Manahan-PHELPS-McCulloch
Archived Negatives by Type and Size

Type/Size	Count	Est. Size (MB/Box)	Storage Needed (GB/Boxes)
Estimated Storage Total Needs			
Glass Plates			
2x4 (Common Slide)	282	2.1 *	0.6
4x5	140	3.5	0.5
6x7 (Sharpshoot)	23	4.8 *	0.1
5x7	5,656	6.1	34.5
5x6	288	6.0 *	2.0
8x10.5 (Curlhart)	30	8.8 *	0.3
8x10	1,278	13.8	17.6
11x14	17	26.6 *	0.5
14x17	14	41.1 *	0.6
16x20	3	58.7 *	0.2
18x22	24	88.3 *	1.1
Total Glass Plates	7,787		58.7
Film Negatives			
5x7	1,277	6.1	7.8
8x10	1,337	12.8	18.2
Total Negative	2,614		26.0
Acetate (& Other)			
2x3 (mm - Estimated count)	5,000	4.2 *	21.0
120 (4x4 cm) - Estimated count	5,000	1.0 *	5.0
4x5 - Estimated count	5,000	1.6 *	8.0
211 (300 process)	30,000	3.5	105.0
3x7	23,874	6.1	145.6
3x5	3,038	13.8	41.9
Total Acetate	77,912		285.6
Total Negatives (Estimated)	82,523		421.8

Assumes 300 dpi - except 600 dpi for 35 mm & 120
* Estimated file size
4x4 cm - 6 images per strip, 4x4 cm - 4 images per strip
2x3 mm - 6 images per strip

Negative Loss

Statistics on group of early film negatives.

Size	8x10	
Date range	1919 to 1932	
Negative number range	2978770	
Number of negatives	1793	100%
Actual negatives found	1205	67%
Negatives not found	588	33%
Negatives adhesions unusable	129	6%
Total deterioration negatives	696	39%
Size	5x7	
Date range	1926 to 1932	
Negative number range	7208858	
Actual number of negatives	1657	100%
Negatives found	1247	75%
Negatives not found	410	25%
Negatives adhesions unusable	185	11%
Total deterioration negatives	595	36%

The Process

First Thoughts

– it would just be a three step process

1. Transfer to archival quality storage material
2. Catalog to know what we have and find
3. Scan negatives and share images

The Process

Many Thoughts Later - It Became A Six Step Process

0. Develop a plan – using outside help and grants
1. Transfer to archival quality storage media & proper long-term storage.
2. Create a data base to enable searching
3. Scan negatives to make images available
4. Share images
5. Develop an income stream
6. Research

Step 0 - Develop a plan

- Use outside help and grants
- Needs Assessment - NEDCC
- Inventory – type, condition, materials requirements
- Training – equipment needs – work space
- Time line

We Combined Steps 1 & 2

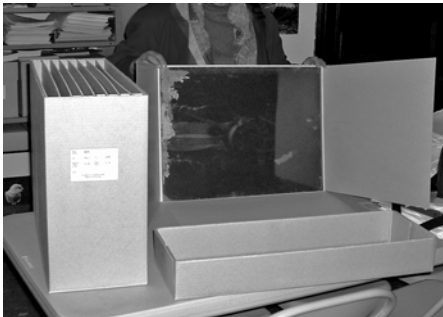
- Transfer - negatives to archival quality storage media
- Create - a data base to enable searching

Information from old envelopes becomes part of database and is used to print new envelopes or enclosure labels.

Steps 1 & 2 - Transfer to archival storage media

- Old storage media – problems, examples - problem negatives – nitrate, acetate
- New storage media – for plates, for negatives
- Handling – gloves, cleaning
- Storage boxes – sizes
- Disposal of old storage media

Large Format Plate Enclosure & Storage Box

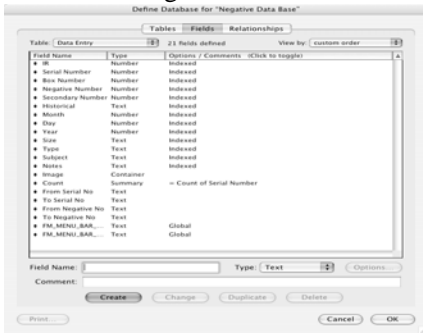


Steps 1 & 2 - Data Entry

Building Data Base

- Available data, meta-data
- Using old negative numbers, or other identification
- Serial numbers, secondary on old negative number
 - when more than one negative in envelope

Defining The Data Base



Steps1 & 2 - Data Entry

Equipment

- Computer - out of the box plus memory
- Storage – internal - external
- Printer – archival quality ink

Steps1 & 2 - Data Entry

- Software
FileMaker, Past Perfect, others
Data base engine v. User interface

Steps 1 & 2 - Data Entry

- Transferring Negatives to archival storage media

Tom & Ennio Processing Negatives



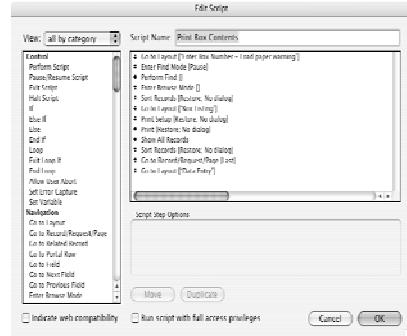
John & Theresa Processing Negatives



Script Menu



Print Box Contents Script



Steps 1 & 2 - Data Entry

Back up - files

Working file - small current part of data base file

Media

Hard copy - box lists

Off-site

Step 3 - At The Scanning Station



Step 3 - Scanning

- Selection – priorities – on demand
- Equipment
 - Scanner - ability to scan negatives effectively
 - Computer – memory and storage requirements
 - Storage – capacity issues
- Software
 - Scanning
 - Image manipulation
- Scanning specifications
 - Dpi – 300 – exceptions - Daguerreotypes
 - Dmax – best possible – information in old negatives
 - Size – nominal size of negative
 - Raw scan – no image manipulation
- Step by step – need for training, uniformity
- **Back up - files**

Monahan/Phelps/McClouth
Activated Negatives by Type and Size

Type/Size	Count	Estimated Storage Total Needs	
		In Size Megabytes	Minimum Number of Disks
Glass Plates			
2x4 (Square Slide)	280	2.11 *	0.8
4x5	140	3.5	0.5
4x7 (Daguerreotype)	24	4.8 *	0.1
5x7	5,056	6.1	34.5
6x6	286	6.3 *	2.6
8x10.5 (Cathart)	53	9.5 *	0.5
8x10	1,278	13.8	17.6
11x14	17	26.6 *	0.5
14x17	14	41.1 *	0.5
17x23	3	66.7 *	0.2
18x22	24	69.3 *	1.6
Total Glass Plates	7,787		58.7
Print Negatives			
Negative			
5x7	1,277	6.1	7.9
8x10	1,232	13.8	18.2
Total Prints	2,509		26.5
Acetate (6 Other)			
25 mm - Estimated count	5,000	6.2 *	31.0
120 (4x4 cm) - Estimated count	5,000	1.0 *	5.0
4x5 - Estimated count	5,000	1.6 *	8.0
21-300 (processed)	20,000	3.5	160.0
5x7	23,814	6.1	145.6
8x10	3,038	13.8	43.6
Total Acetate	73,812		358.6
Total Negatives (Estimated)	80,333		421.8

* Assumes 300 dpi - except 600 dpi for 35 mm & 120

* Estimated file size

6.4x cm - 6 images per strip, 4x6 cm - 4 images per strip

25 mm - 6 images per strip

Step 4 - Sharing - Prints

- Equipment
Printer – size, black ink, continuous feed systems
Computer – already discussed
- Software – more demanding than scanning
Adobe PhotoShop CS2
- Print material – standardize sizes, quality
- Price list (search & scan fees)
- Matting and framing issues

Step 4 - Sharing - Other

Not Just Prints

- Postcards
- Calendars
- Appointment Books
- Publications

On-Line

- In House - with terminals
- Web Site

Step 5 - Income

- **Generating a Revenue Stream**
Do In-House, Out-Source - Mixture?
The Collection is a Valuable Asset
- **Need to Balance Sharing with Costs**
What Has Been the Cost to Get Where We Are?
What is the Cost to Maintain the Collection?
- **Need Realistic Budgets**
Realistic Expectations for Projects

Step 6 - Research

- **In House**
The Big Ball of String - So Many Loose Ends
How to Balance with Priorities
- **Outside**
To Be Encouraged
The Collection Is A Visual Social History
Uses for Other Purposes

Wrap Up

- **What We Have Accomplished**
Transferred large part of collection to proper archival storage material (62,000 of 80,000+ negatives)
Built data bases for searching - working well
Scanned limited number of negatives (2,200+)
Images are available
- **To Do**
Long-Term Storage - Low temperature - Low humidity
Scan negatives 20,000+ - Others on demand
Make collection more widely available
Encourage research

Look Back

- The Needs Assessment (2003) from NEDCC was our guide to create an action plan.
- The NEDCC Workshop (2006) served several purposes
Broaden our knowledge
Confirm our action plan and work

Hillsborough Historical Society

Jane Waters, President

**Manahan-Phelps-McCulloch
Photographic Collection**

Edwina Czajkowski - Chair

Gilman Shattuck - Curator

Virginia Leiby - Trainer & Grants

Archivists

Jean Eaton, David Feather, Ennio Gerini,

Art Jillette, Bea Jillette, John Szehi,

Tom Talpey, Theresa Zeludancz

© Hillsborough Historical Society, Inc. 2006