



The Challenges of Storing Archival Collections in an Automated Storage and Retrieval Facility

Presenters:

Chris Saclolo

Mary Rubin

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*University of
Central Florida*

Special Collections & University Archives

- 5th floor of the John C. Hitt Library, Room 501
 - Monday – Friday
 - 9 am – 4 pm
 - Students, faculty, staff, and public
-
- Our mission is to provide support for research, teaching, and service.



Special Collections & University Archives

- Primarily responsible for:
 - Acquiring
 - Administering
 - & Preserving non-circulating items
- Rare
- Unique
- Fragile



Special Collections & University Archives

- Over 2,000 linear feet of collections
- Over 28,000 catalogued items

Collecting Areas:

- African Americana
- Artists Papers
- Book Arts & Typography
- Botany
- Caribbean West Indies
- Floridiana
- Literary Papers
- Political Papers
- Space Program
- Travel & Tourism



The ARC!



Automatic Retrieval Center (ARC)



Automatic Retrieval Center (ARC)

- 21st Century Library Project



Automatic Retrieval Center (ARC)

- 21st Century Library Project
- Construction



Automatic Retrieval Center (ARC)

- Construction
- How it works

Request

REQUEST OPTIONS: [Request](#)

[← BACK TO LOCATIONS](#)

ITEM LOCATION

UCF ARC MAIN
Available, ARC General Collection LD1772.F933 H65 2009
(2 copies, 2 available, 0 requests)

Item in Place
End of Term

Item in Place
End of Term

[UBORROW COPIES AVAILABLE TO SIGNED IN USERS >](#)

Details

Title University of Central Florida

Request

[← BACK TO LOCATIONS](#)

ITEM LOCATION

UCF ARC - University Archives
Available, University Archives records LD1772.F965443 D36 2007
(2 copies, 2 available, 0 requests)

Item in Place
No Loan

Item in Place
No Loan

Details

Title 2007 UCF Nursing Video Yearbook
Other title UCF Nursing Video Yearbook

Automatic Retrieval Center (ARC)

- How it works



Automatic Retrieval Center (ARC)

- How it works
- Impact on SCUA



Automatic Retrieval Center (ARC)

- Impact on SCUA
- Environment





Software Migration and Management

- ARC opened in July 2018
- 1st Circulation item stored: late August 2018
- 1st University Archives box stored: late April 2019

- Weekday Daily Maintenance
- Annual Maintenance (3 days)

- Aleph to Alma migration



Housed in ARC vs. Stacks

- ARC

- University Archives
 - Publications
 - Media
 - Collections
- Special Collections
 - Collections

- Stacks

- Large Format
 - Flat Boxes
 - Flat Files
- University Archives
 - Collections
 - High Use
 - Glass objects
- Special Collections
 - Publications
 - Collections
 - Fragile objects

Housed in ARC



Housed in ARC



Housed in ARC

UA02A BOX 45

UA02A BOX 46



UCF

Housed in ARC

Aisle: 1; Side: 1

Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Row/Level	35																								1	0	1	0	1
	32	2	2	2	2	2	10	2	2	X	2	9	12	2	2	3	2	2	1	9	9	X	9	9	8	9	7	2	2
	31	2	2	2	11	9	10	10	42	X	2	2	2	2	2	2	2	2	2	3	14	X	12	3	2	6	5	2	2
	30	2	2	2	2	2	2	2	2	X	4	4	5	2	2	2	2	3	2	3	2	X	2	2	2	2	2	2	2
	29	2	2	2	2	2	2	2	2	X	2	2	2	2	2	2	2	2	3	2	2	X	8	4	2	4	8	2	10

<- These bins on 35 are 15" bins

Aisle: 1; Side: 2

Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Row/Level	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	31	2	2	2	2	2	2	2	2	2	2	4	13	2	2	2	2	2	2	2	2	2	2	2	6	3	2	3	5
	30	2	6	2	2	2	2	2	2	2	2	3	2	2	3	11	17	2	2	2	2	2	2	2	2	2	2	2	12
	29	2	11	10	11	2	2	2	2	2	2	2	2	2	9	2	2	2	13	8	12	2	2	3	2	2	8	8	17

Aisle: 2; Side: 1

Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Row/Level	33	2	2	2	2	2	2	2	2	8	2	2	2	2	2	3	2	2	2	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	32	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	
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	30	2	2	11	1	9	3	2	8	21	13	2	2	2	2	2	2	2	2	2	2	8	2	1	1	1	1	1	1	1	1	1	1	1
	29	2	2	2	3	2	2	2	2	2	7	2	2	12	4	2	7	235	68	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1



Housed in ARC

Aisle: 1; Side: 1

Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Row/Level	35																								1	0	1	0	1
	32	2	2	2	2	2	10	2	2	X	2	9	12	2	2	3	2	2	1	9	9	X	9	9	8	9	7	2	2
	31	2	2	2	11	9	10	10	42	X	2	2	2	2	2	2	2	2	2	3	14	X	12	3	2	6	5	2	2
	30	2	2	2	2	2	2	2	2	X	4	4	5	2	2	2	2	3	2	3	2	X	2	2	2	2	2	2	2
	29	2	2	2	2	2	2	2	2	X	2	2	2	2	2	2	2	2	3	2	2	X	8	4	2	4	8	2	10

<- These bins on 35 are 15" bins

Aisle: 1; Side: 2

Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Row/Level	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	31	2	2	2	2	2	2	2	2	2	4	13	2	2	2	2	2	2	2	2	2	2	2	2	6	3	2	3	5
	30	2	6	2	2	2	2	2	2	2	3	2	2	3	11	17	2	2	2	2	2	2	2	2	2	2	2	2	12
	29	2	11	10	11	2	2	2	2	2	2	2	2	9	2	2	2	13	8	12	2	2	3	2	2	8	8	17	

Aisle: 2; Side: 1

Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Row/Level	33	2	2	2	2	2	2	2	2	8	2	2	2	2	2	3	2	2	2	0	0	0	0	1	1	1	1	1	1	1	1	1	1	
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	29	2	2	2	3	2	2	2	2	2	7	2	2	12	4	2	7	235	68	2	2	2	2	1	1	1	1	1	1	1	1	1	1	



Housed in ARC

Aisle: 1; Side: 1

Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Row/Level	35																								1	0	1	0	1
	32	2	2	2	2	2	10	2	2	X	2	9	12	2	2	3	2	2	1	9	9	X	9	9	8	9	7	2	2
	31	2	2	2	11	9	10	10	42	X	2	2	2	2	2	2	2	2	2	3	14	X	12	3	2	6	5	2	2
	30	2	2	2	2	2	2	2	2	X	4	4	5	2	2	2	2	3	2	3	2	X	2	2	2	2	2	2	2
	29	2	2	2	2	2	2	2	2	X	2	2	2	2	2	2	2	2	3	2	2	X	8	4	2	4	8	2	10

<- These bins on 35 are 15" bins


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Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Row/Level	32	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	31	2	2	2	2	2	2	2	2	2	4	13	2	2	2	2	2	2	2	2	2	2	2	2	6	3	2	3	5
	30	2	6	2	2	2	2	2	2	2	3	2	2	3	11	17	2	2	2	2	2	2	2	2	2	2	2	2	12
	29	2	11	10	11	2	2	2	2	2	2	2	2	9	2	2	2	13	8	12	2	2	3	2	2	8	8	17	

Aisle: 2; Side: 1

Column/Bay		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
Row/Level	33	2	2	2	2	2	2	2	8	2	2	2	2	2	3	2	2	2	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	
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	31	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	
	30	2	2	11	1	9	3	2	8	21	13	2	2	2	2	2	2	2	2	2	8	2	1	1	1	1	1	1	1	1	1	1	1	
	29	2	2	2	3	2	2	2	2	2	7	2	2	12	4	2	7	235	68	2	2	2	2	1	1	1	1	1	1	1	1	1	1	





Housed in ARC

- ARC
 - University Archives
 - Publications
 - Media





Housed in ARC

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 - Publications
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Housed in ARC

- ARC
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 - Publications
 - Media



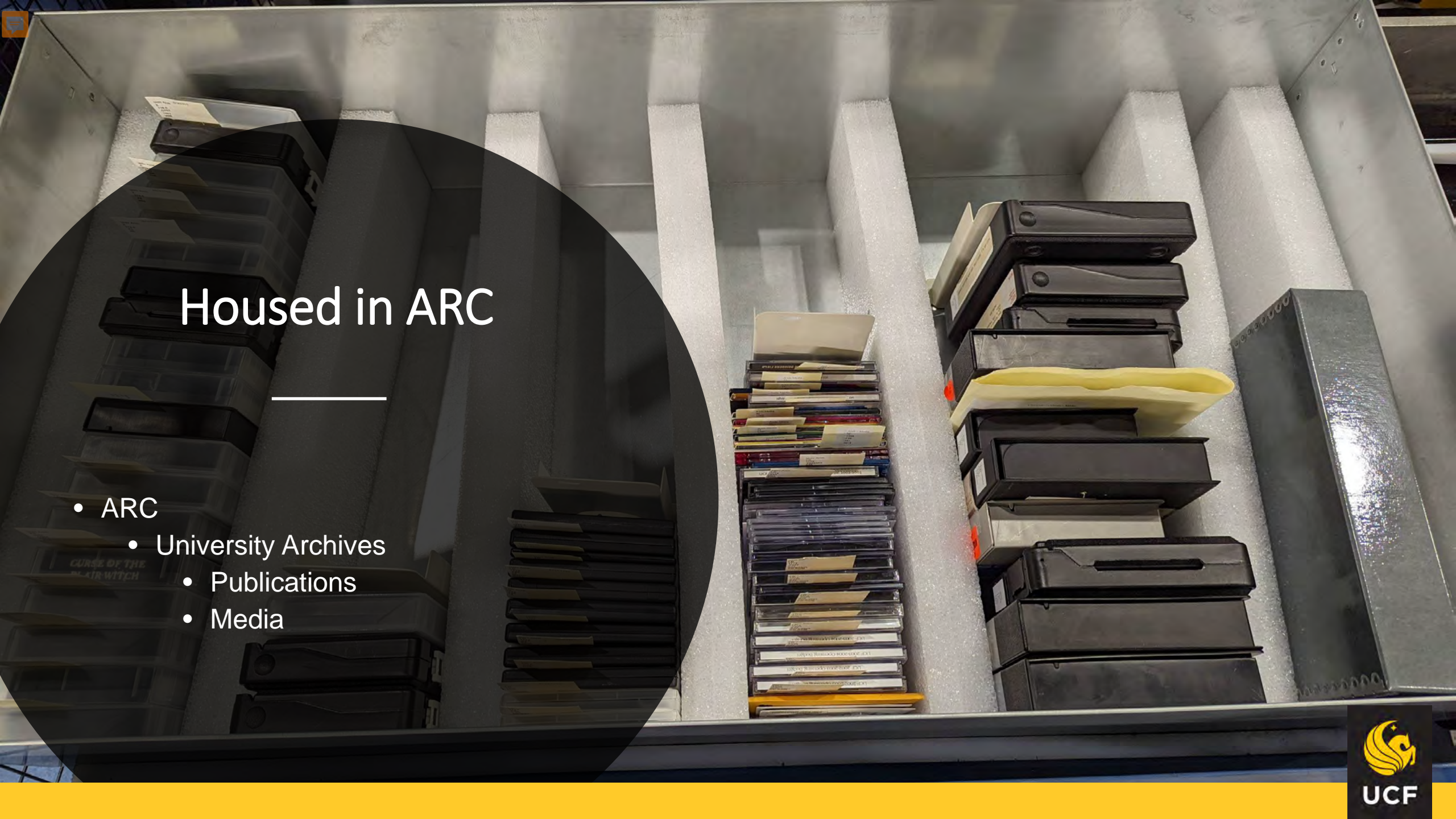
Housed in ARC

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Housed in ARC

- ARC
 - University Archives
 - Publications
 - Media

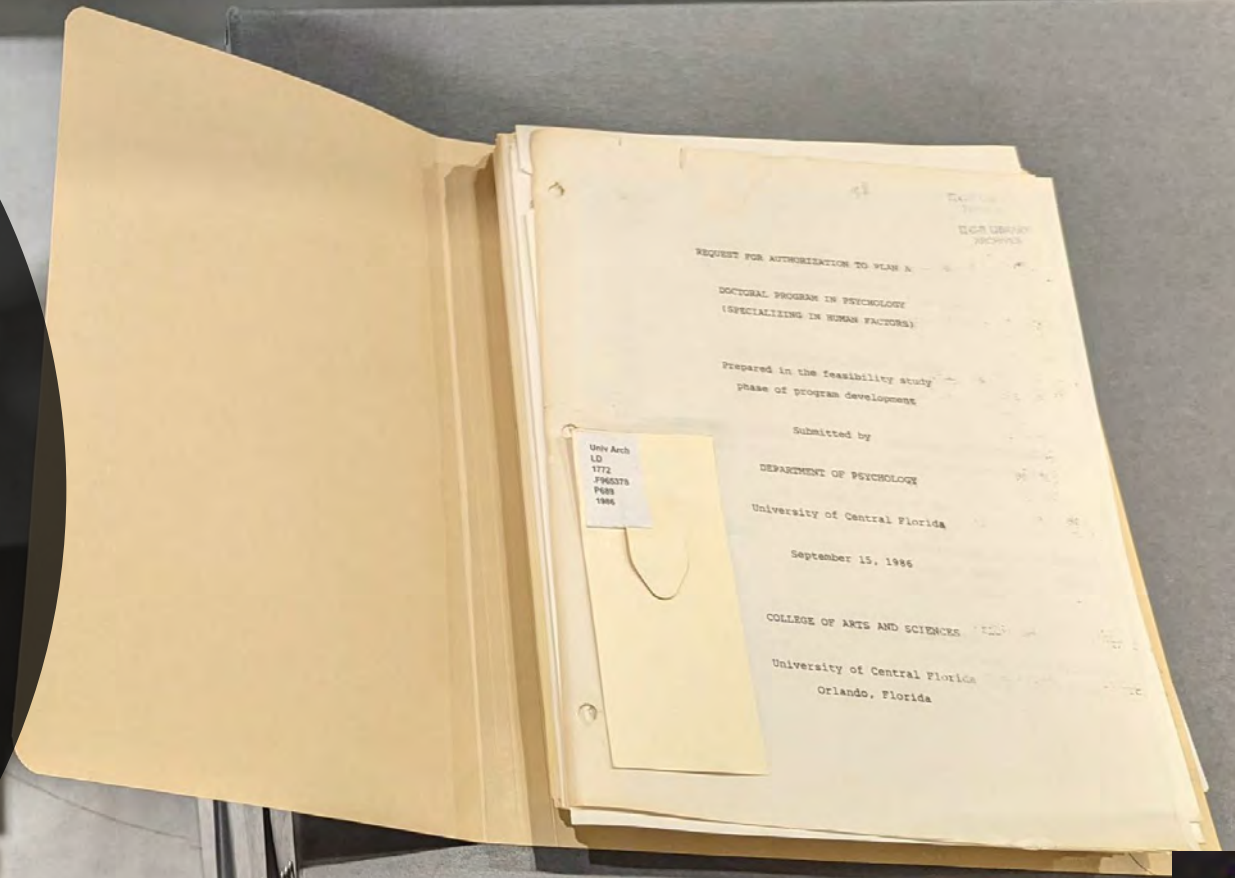


Housed in ARC

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 - Media





Workflows of Ingesting and Retrieving Materials

- Ingesting
 - Everything needs a barcode and to be added to the catalog
 - Box #, Barcode, Box Size
 - We need to know which bin an item is going to live in
 - Only the first item in a bin needs a manual entry
- Retrieving
 - Need the barcode and which aisle it lives on
 - Need to remember to avoid the noon hour



Thesis & Dissertations without Ethafoam



Thesis & Dissertations with Ethafoam supports

Materials in ARC

Prepping Materials for ARC



University Blueprints

- Over 200 individual blueprints sets
- Various sizes & weights
- Graphite and inkjet formats



University Blueprints Preservation

Step ONE

- Identifying blueprints
- Wrapping blueprints with tissue and 3mm mylar
- Attach labels

Step TWO

- Sort rolled blueprints by weight and size

Step THREE

- Assign blueprints with bin number
- Barcode/box label

University Blueprints Preservation



University Blueprints Preservation

Completed wrapping blueprints with tissue and mylar



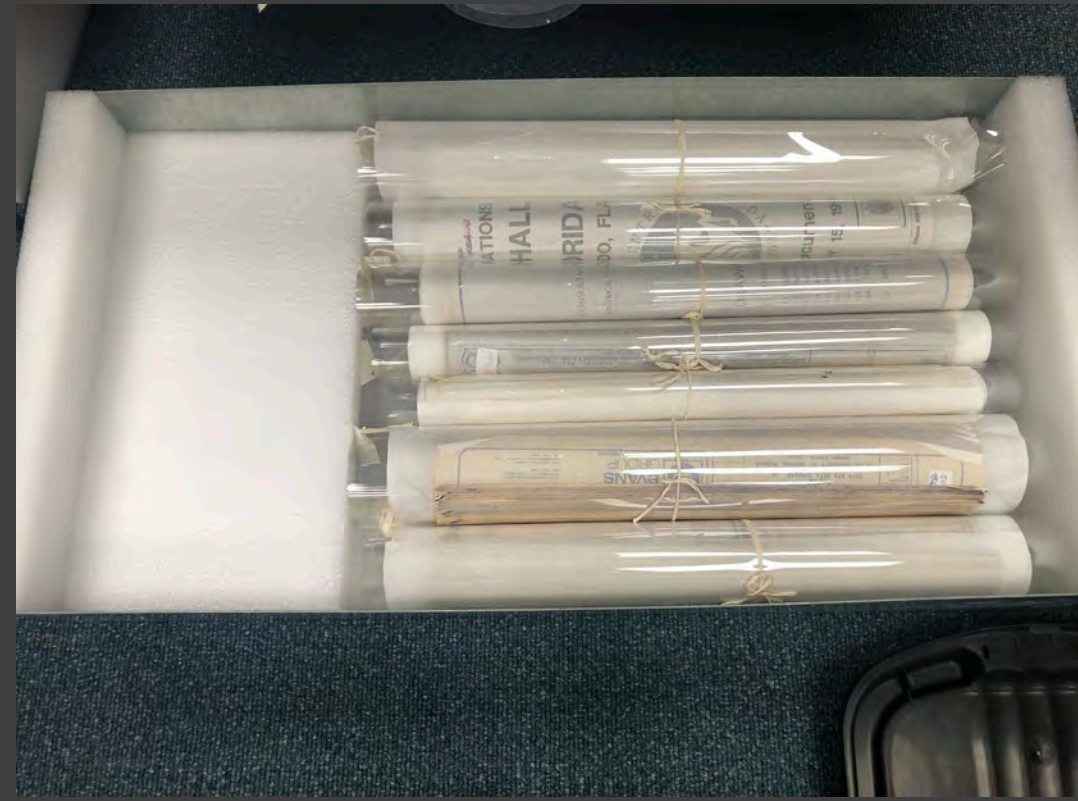
Trial and Error

- Weight distribution in bins
- Arranging blueprints with ethafoam
- Accessibility when retrieving

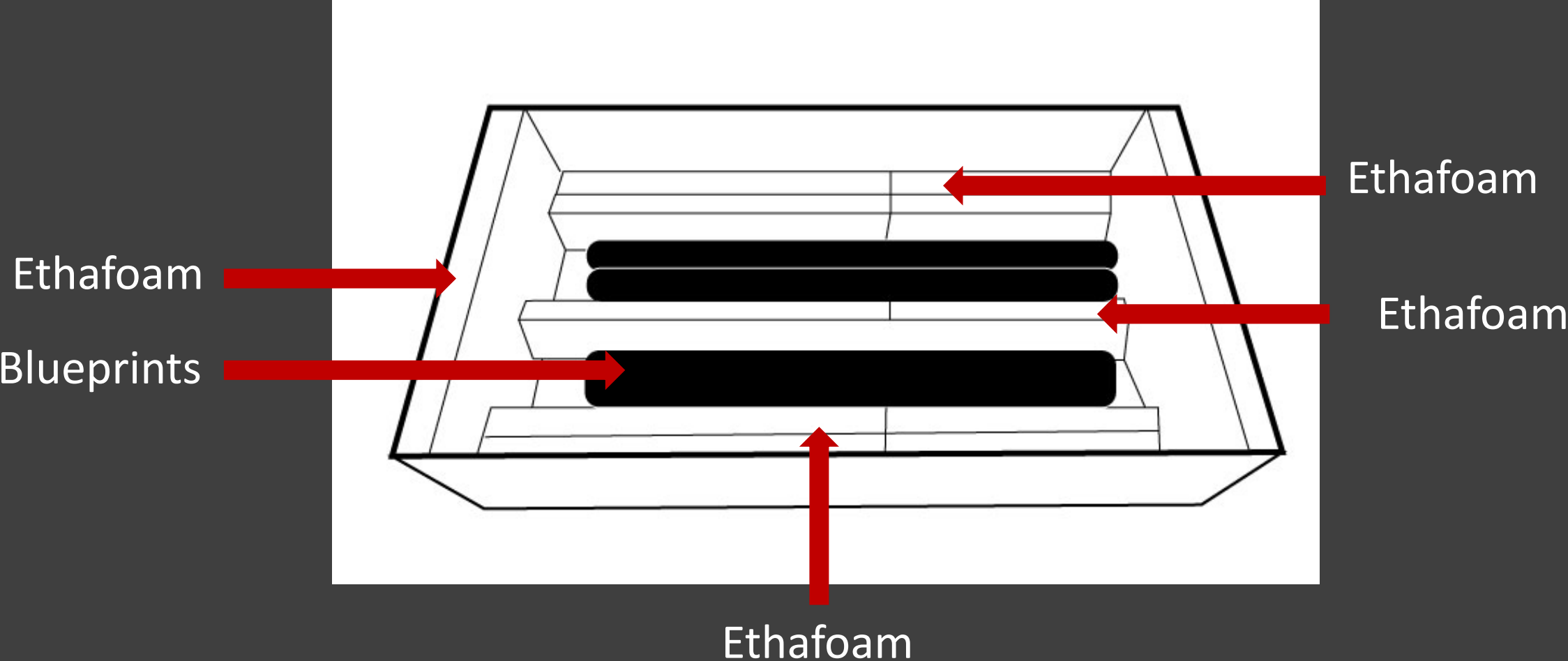


University Blueprints Preservation

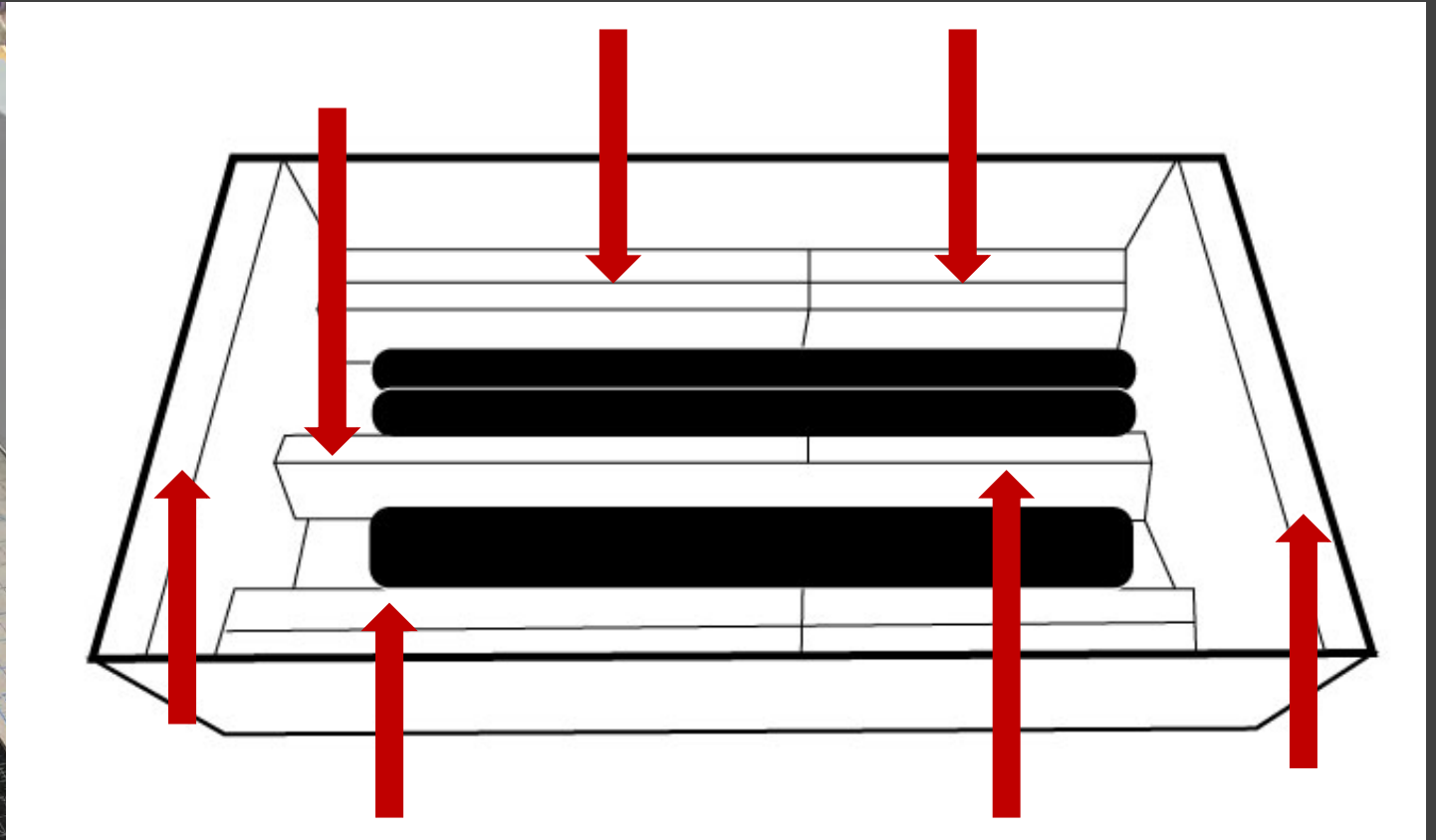
Experimenting with blueprint arrangement in bin



University Blueprints Preservation



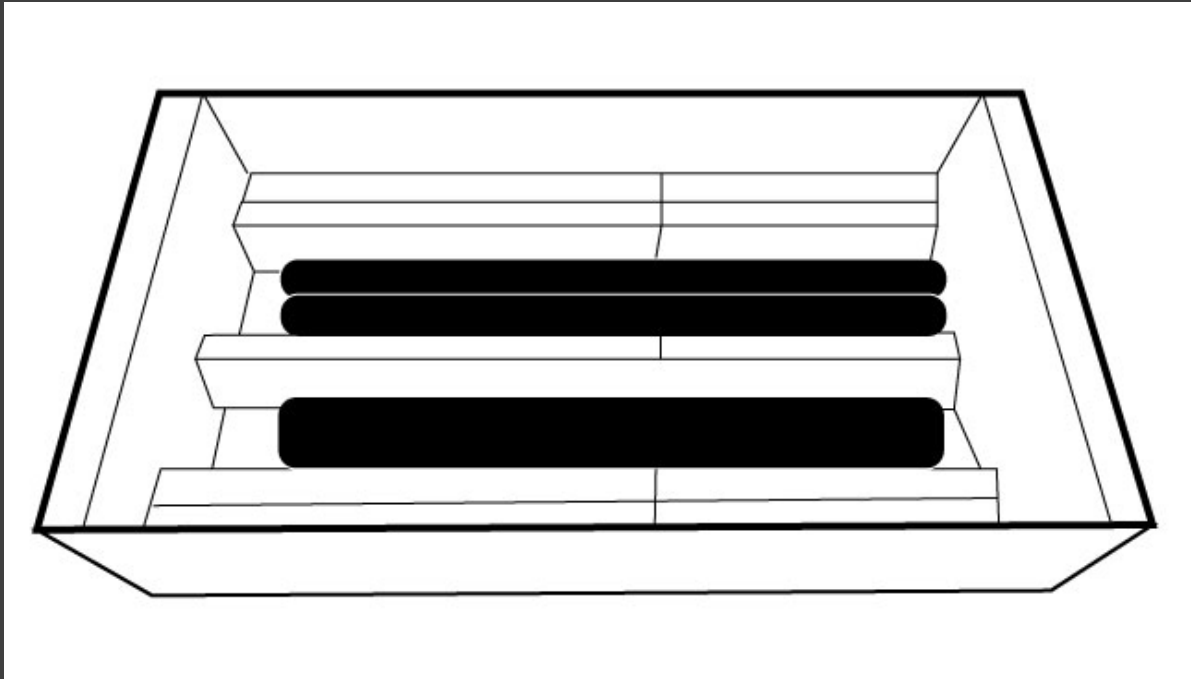
University Blueprints Preservation



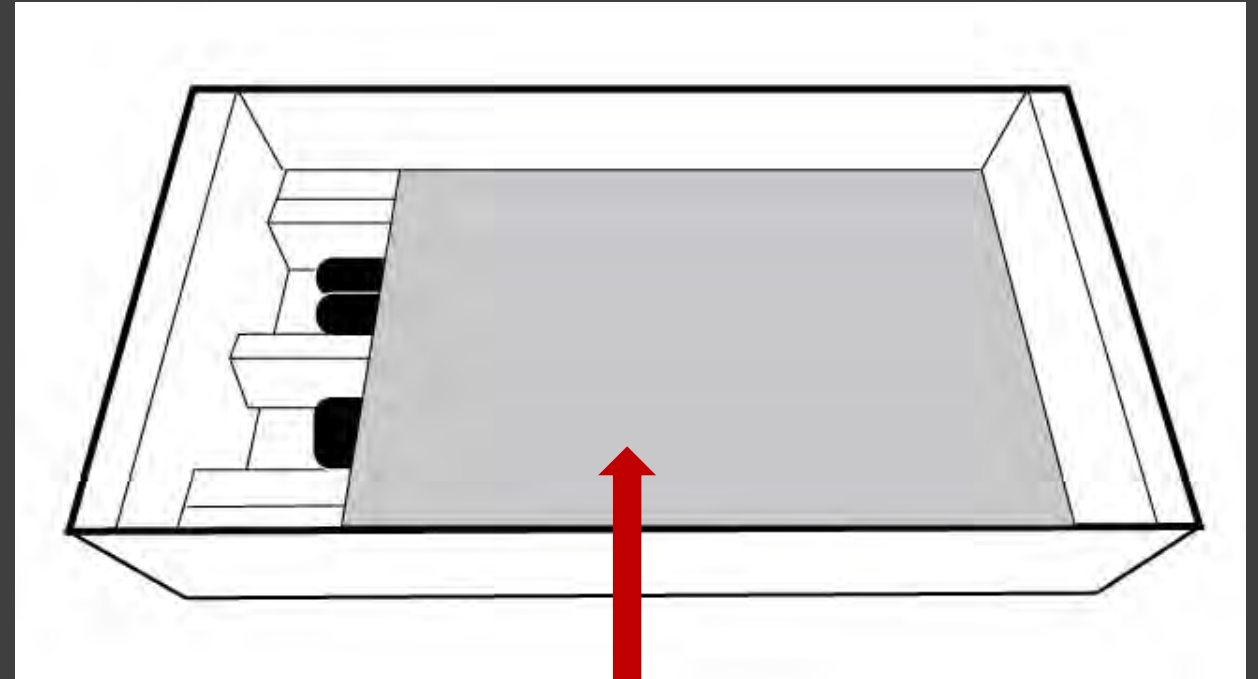
Ethafoam

University Blueprints Preservation

Layer 1 - Bottom



Layer 2 - Top



Coroplast

University Blueprints Preservation

Fabricating custom boxes with archival corrugated board



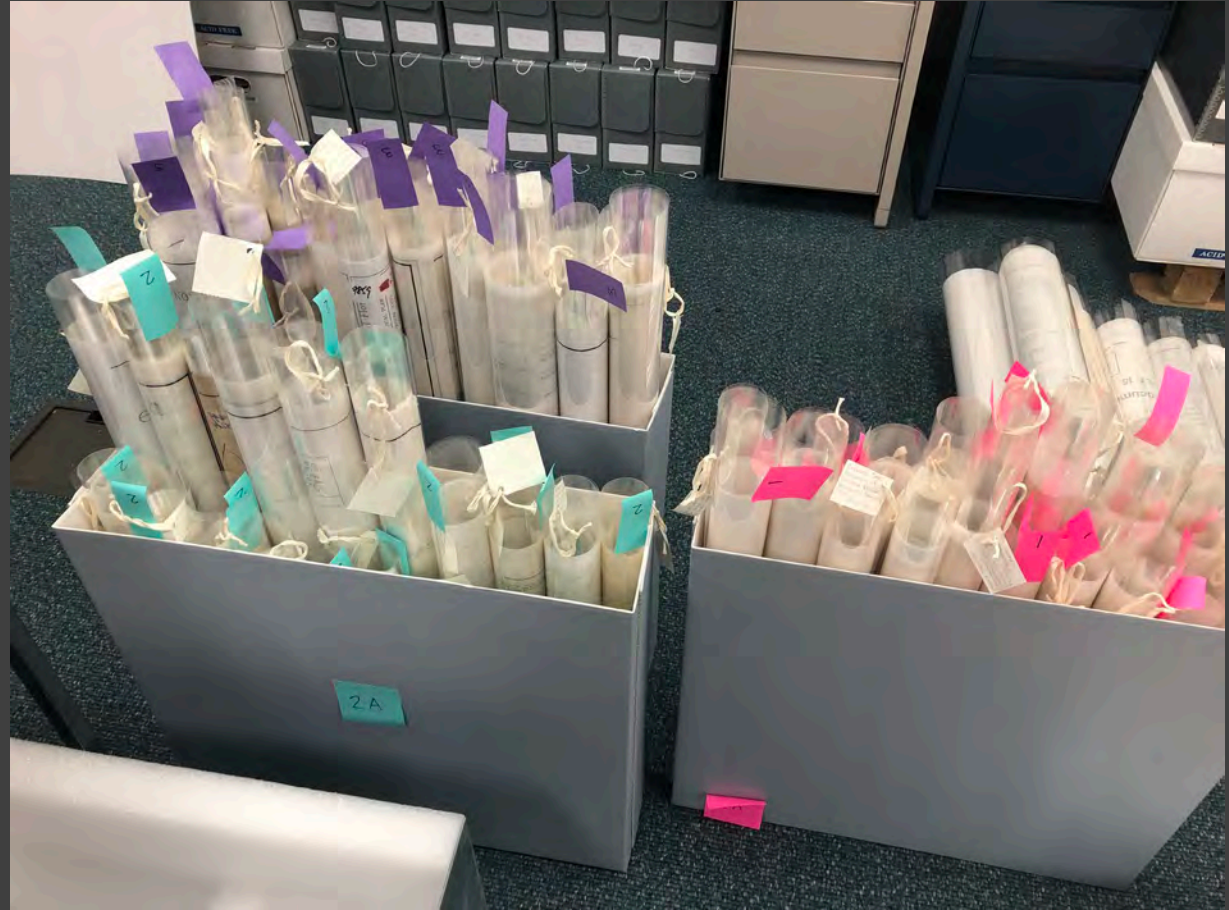
University Blueprints Preservation

- Custom boxes for light and heavy weight blueprints
- Easy to pull out from bin
- Prevents blueprints from rolling around and potentially falling off the bin when retrieved



University Blueprints Preservation

- Organizing by weight and size
- Determining assigned boxes



University Blueprints Preservation

- Label with Title and assigned box number/letter
- Top = Box "A" or "AA"
- Bottom = Oversize "B"



University Blueprints Preservation

- 11 Bins used for blueprints
- 2 Layers inside bin
 - Top = Custom boxes
 - Bottom = Loose oversize



Loading Blueprints in the ARC Bins

Cleaning Bins before loading

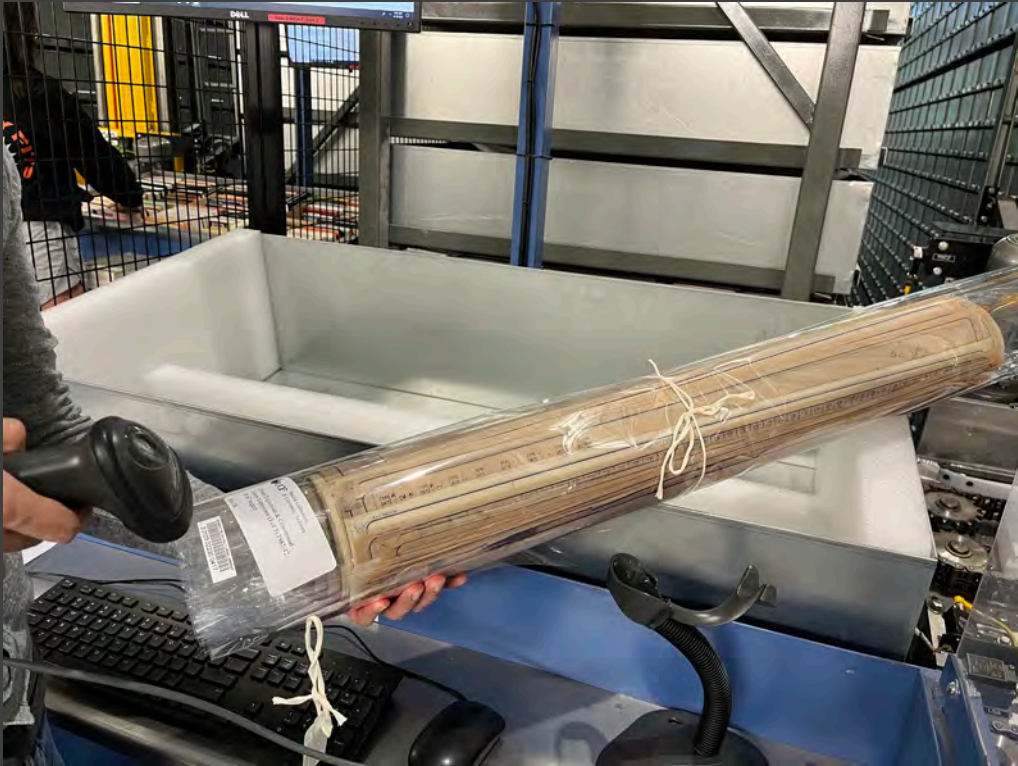


Lining bins with ethafoam



Loading Blueprints in the ARC Bins

Scanning barcode to accept blueprint



Arranging blueprints



Loading Blueprints in the ARC Bins

Adding coroplast board for top layer



Scanning remaining blueprints



Loading Blueprints in the ARC Bins

Loading remaining box onto bin



Ready to return bin





Sending Bin back to Aisle

Acknowledgments and Q&A

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Lego Raiders of the Lost Ark image: "[Raiders of the Lost Ark](#)" image by [Profound Whatever](#) is marked with [CC BY-NC-SA 2.0](#).

Library exterior panorama and ARC building – Chad Baumer for Steinberg Hart, 2022