

# The Preservation of Magnetic Tape Collections – Another Perspective

“Developing Principles and Methodologies for Moving Image  
and Audio Preservation in Research Libraries”

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## “Developing Principles and Methodologies for Moving Image and Audio Preservation in Research Libraries”

- Three-year project beginning in July 2006
- Project funded by the Andrew W. Mellon Foundation
- Project goal: Conduct research to develop new surveying methodologies for archival audio and video magnetic media collections.

# Magnetic media items from NYU's Elmer Holmes Bobst Library's three special collections will be surveyed

- The Fales Library & Special Collections

audiovisual holdings document New York's downtown art scene from 1975 - present

- The Tamiment Library & Robert F. Wagner Labor Archives

holdings document the history of radical politics, and the American Labor and Leftist movements

- New York University Archives

holdings document the history of the University

# **Andrew W. Mellon Foundation grants awarded to New York University to support audiovisual preservation efforts**

## **First Mellon Foundation grant (Mellon1)**

- Awarded in 2001
- Enabled founding of Moving Image Archiving and Preservation (MIAP) program in NYU's Tisch School of the Arts
- Funded development of film, video and eventual audio preservation labs at NYU Libraries

## **Second Mellon Foundation grant (Mellon2)**

- Awarded in 2005
- Supports the "Developing Principles and Methodologies for Moving Image and Audio Preservation in Research Libraries" project
- Funds MIAP Research Fellow position

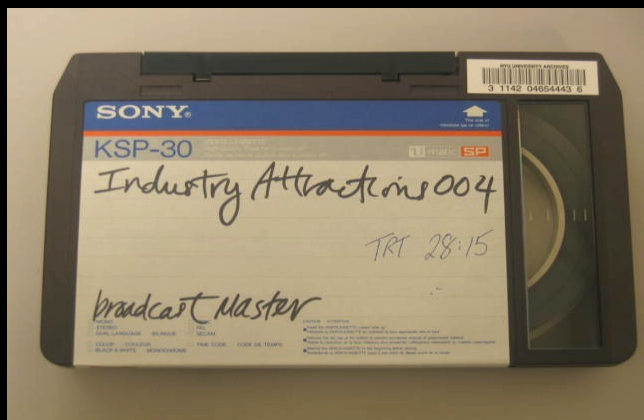
## **First project undertaken at NYU Libraries to assess its magnetic media holdings**

- 2005 survey of approximately 14,000 VHS holdings in Avery Fisher Center for Music and Media
- Access collection only, not archival
- Conducted random sampling of materials
- Assessing potential uniqueness of holdings
- Avery Fisher Center's VHS holdings are homogenous
- Survey motivated interest in developing surveying methodologies for analyzing archival, heterogeneous audiovisual collections

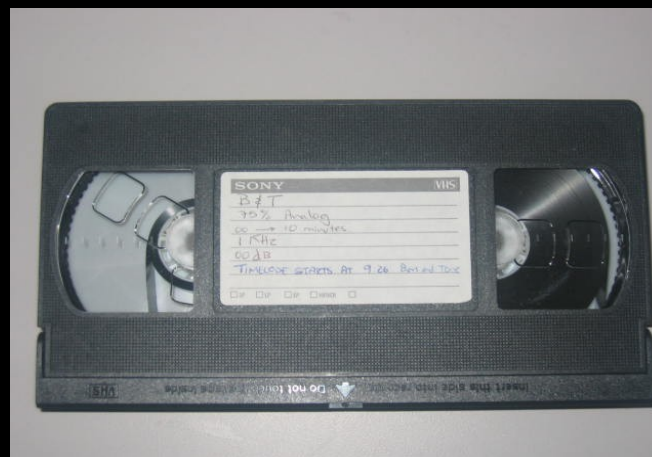
# The Mellon2 survey is focusing on four magnetic media formats

Two video formats:

$\frac{3}{4}$ " U-matic



VHS

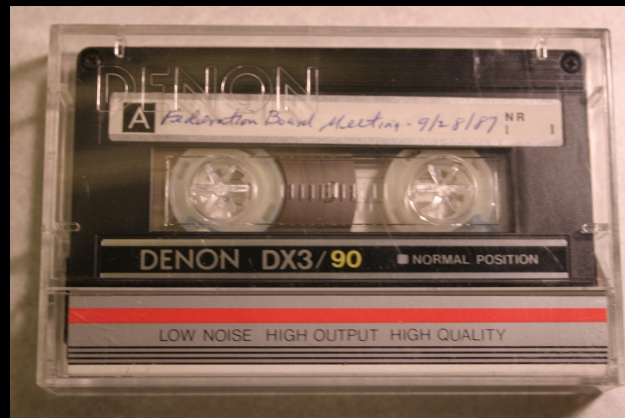


Two audio formats:

$\frac{1}{4}$ " open reel



Compact cassette



# An estimated count of video and audio holdings in NYU Libraries's special collections (as of 5/2007)

## Total of video holdings

<u>Archives</u>	<u>Number of video items</u>
Fales	5,705
Tamiment/Wagner	1,278
University Archives	3,573
<b>TOTAL</b>	<b>10,556</b>

## Total of audio holdings

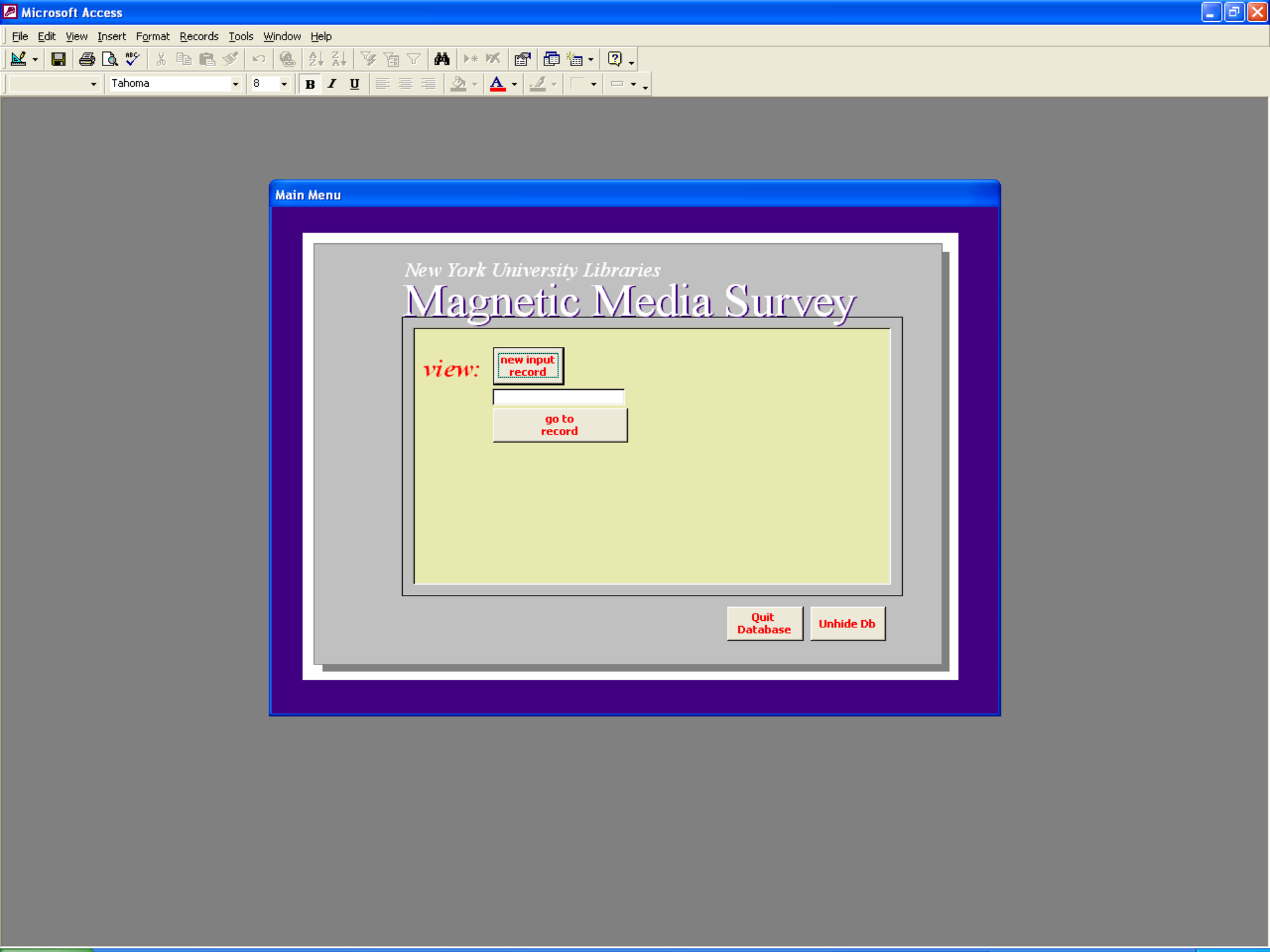
<u>Archives</u>	<u>Number of video items</u>
Fales	7,224
Tamiment/Wagner	22,661
University Archives	4,239
<b>TOTAL</b>	<b>34,124</b>

## Extent of 3/4" U-matic and VHS holdings

<u>Archives</u>	<u>U-matic</u>	<u>VHS</u>
Fales	122	1,598
Tamiment/Wagner	141	868
University Archives	860	705
<b>TOTAL</b>	<b>1,123</b>	<b>3,171</b>
<b>% of format in total video holdings</b>	<b>11%</b>	<b>30%</b>

## Extent of 1/4" open reel and compact cassette holdings

<u>Archives</u>	<u>1/4"</u>	<u>Cassette</u>
Tamiment/Wagner	7,134	11,201
University Archives	3,610	610
<b>TOTAL</b>	<b>10,744</b>	<b>11,811</b>
<b>% of format in total audio holdings</b>	<b>31%</b>	<b>35%</b>



Main Menu

New York University Libraries

# Magnetic Media Survey

*view:*

new input  
record

go to  
record

Quit  
Database

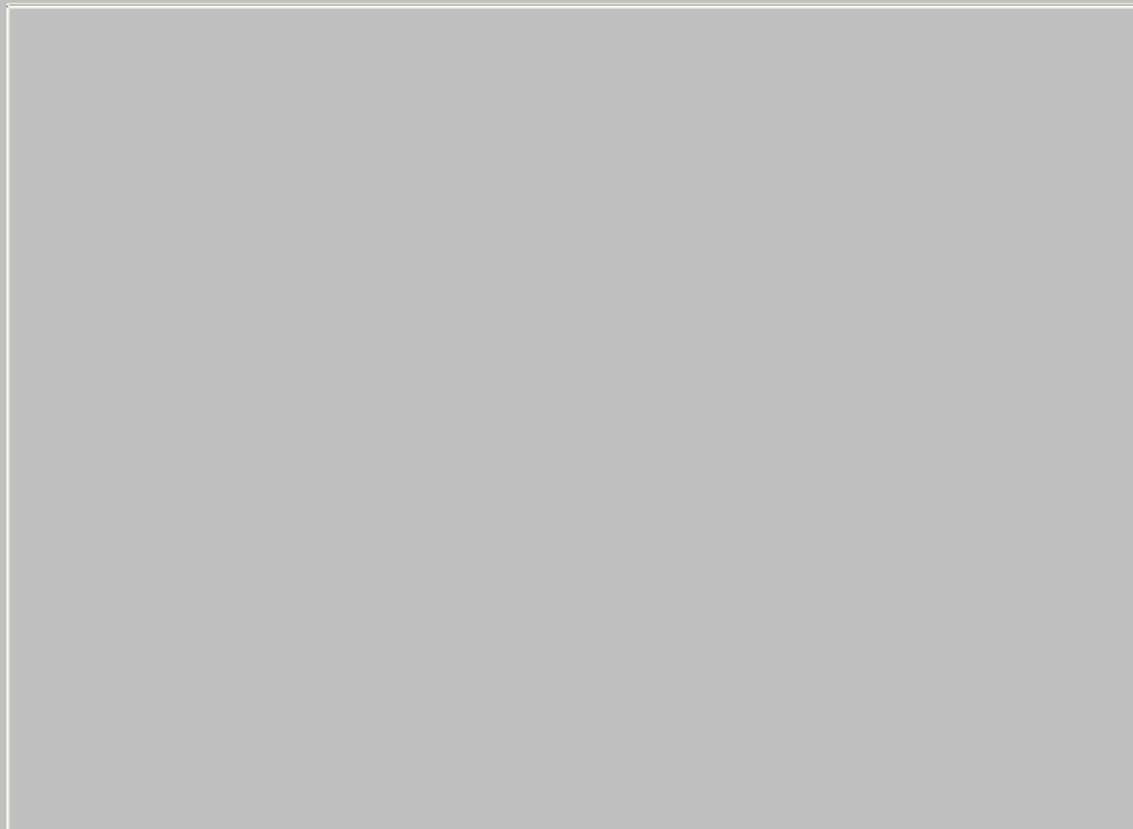
Unhide Db





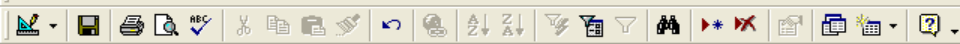
### Survey Input Form

compact cassette      archive   
 open reel              location   
 video cassette          barcode



visual surveyor name    
visual survey date   
visual survey duration  minutes



### Survey Input Form

compact cassette      archive: Univ. Archives  
 open reel              location: 10th Floor  
 video cassette          barcode: 31142046544402

Reel Visual Inspection     Reel Playback Inspection

biological contamination:  fungal  pest  other  
 "waxy" or "dirty socks" odor:  yes  no  
 container:  archival quality  needs replacement  
 manufacturer: 3M  
 stock brand: Scotch  
 stock number:  
 record date: 12/18/1979  
 running time: minutes  
 substrate: polyester  
 thickness:  0.5 mil  1.0 mil  1.5 mil  2.0 mil  unknown  other  
 equalization:  NAB  unknown  other  
 track configuration:  full track  2 track  unknown  other  
 tape speed:  1 7/8 ips  3 3/4 ips  7 1/2 ips  15 ips  unknown  other

particulate contamination:  dust  dirt  foreign objects  other  
 liquid contamination:  stains  other  
 reel size: 7 in.  
 reel quality:  archival quality  needs rehousing  
 wind:  archival quality  needs archival wind  
 capacity percentage: 75%  
 splices:  yes  no  
 vinegar odor:  mild  strong  no  
 general chemical breakdown:  white powder  brittleness  crystalline residue  
 tape deformation:  breakage  cinching (or folds)  cupping  edge damage  gapping (or "windowing")  curling  spoking  stretching  
 oxide flaking:  yes  no  
 adhesion:  yes  no

visual survey notes

2

3

visual surveyor name: Tanisha Jones  
 visual survey date: 6/6/2007  
 visual survey duration: 12 minutes

# MELLON2 SURVEY TOOL RATINGS

## VISUAL INSPECTION CONDITION RATING:

*Condition rating is automatically calculated by the database but may be overwritten by the user if needed.*

- 4 = Excellent/no risk: Eligible for playback inspection.
- 3 = Good/small risk: Eligible for playback inspection.
- 2 = Fair/some risk: Eligible for playback inspection.
- 1 = Poor/severe risk: Ineligible for playback inspection.
- 0 = Failed/extreme risk: Ineligible for playback inspection.



### Survey Input Form

compact cassette      archive: Univ. Archives  
 open reel                    location: 10th Floor  
 video cassette                barcode: 31142046544402

     **new record**  
      **close form**      **find record**

**start playback survey**

Reel Visual Inspection    Reel Playback Inspection

**tape transport**

smooth  
 some difficulty  
 will not advance/rewind

**tape distortion**

**first segment**

variations in speed     crosstalk and print-through  
 variations in volume     channel shifting

**second segment**

variations in speed     crosstalk and print-through  
 variations in volume     channel shifting

**playback survey notes**

**stop playback survey**

**Set Playback Rating** 4

**Set Overall Rating** 3

playback surveyor name: Tanisha Jones  
 playback survey date: 6/20/2007  
 playback survey duration: 14 minutes

[edit](#)

**lock**

# MELLON2 SURVEY TOOL RATINGS

## PLAYBACK INSPECTION CONDITION RATING:

*Condition rating is automatically calculated by the database but may be overwritten by the user if needed.*

4 = Excellent/no risk

3 = Good/small risk

2 = Fair/some risk

1 = Poor/severe risk

0 = Failed/extreme risk

# MELLON2 SURVEY TOOL RATINGS

## OVERALL CONDITION RATING:

*Reflects calculated ratings from visual and playback inspection or visual inspection rating alone when playback inspection has not been completed. Automatically calculated by the database but may be overwritten by the user if needed.*

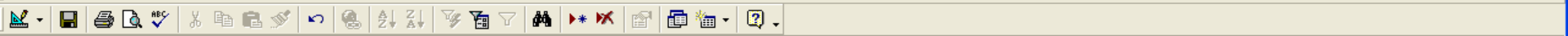
4 = Excellent/no risk. This item does not require attention at this time.

3 = Good/small risk. This item may require moderate collection care in order to safeguard its viability.

2 = Fair/some risk. This item may require significant collection care in order to safeguard its viability.

1 = Poor/severe risk. This item requires prompt attention from a conservation professional in order to safeguard its viability.

0 = Failed/extreme risk. This item requires immediate action from a conservation professional if it is to be saved.



### Survey Input Form

- compact cassette
- open reel
- video cassette

archive

location

barcode

**Cassette Visual Inspection** | **Cassette Playback Inspection**

biological contamination

- fungal
- pest
- other

"waxy" or "dirty socks" odor

- yes
- no

container

- archival quality
- needs replacement

manufacturer

stock brand

stock length

record date

running time:  minutes

tape speed

- 1 7/8 ips
- 3 3/4 ips
- 7 1/2 ips
- 15 ips
- unknown
- other

particulate contamination

- dust
- dirt
- foreign objects
- other

liquid contamination

- stains
- other

shell damage

- yes
- no

general chemical breakdown

- white powder
- brittleness
- crystalline residue

tape deformation

- breakage
- cinching (or folds)
- cupping
- edge damage
- gapping (or "windowing")
- stretching

oxide flaking

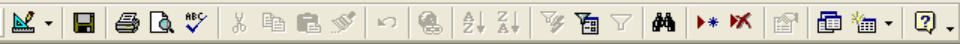
- yes
- no

visual survey notes

visual surveyor name

visual survey date

visual survey duration  minutes



### Survey Input Form

- compact cassette
- open reel
- video cassette

archive

location

barcode

**new record**

**close form** **find record**

**start visual survey**

<b>Video Visual Inspection</b>	<b>Video Playback Inspection</b>
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**biological contamination**

fungal  pest

other

**"waxy" or "dirty socks" odor**

yes  no

**container**

archival quality  needs replacement

**tape format**

**manufacturer**

**stock type**

**batch number**

**record date**

**running time**  minutes

**stock length**  minutes

**recording standard**

**tape speed**

**particulate contamination**

dust  dirt  foreign objects

other

**liquid contamination**

stains

other

**shell damage**  yes  no

**general chemical breakdown**

white powder  brittleness

crystalline residue  post buildup

**tape deformation**

breakage  cinching (or folds)

cupping  edge damage

gapping (or "windowing")

stretching

**oxide flaking**  yes  no

**visual survey notes**

**stop visual survey**

**Set Visual Rating**

**Set Overall Rating**

**visual surveyor name**

**visual survey date**

**visual survey duration**  minutes

**edit**

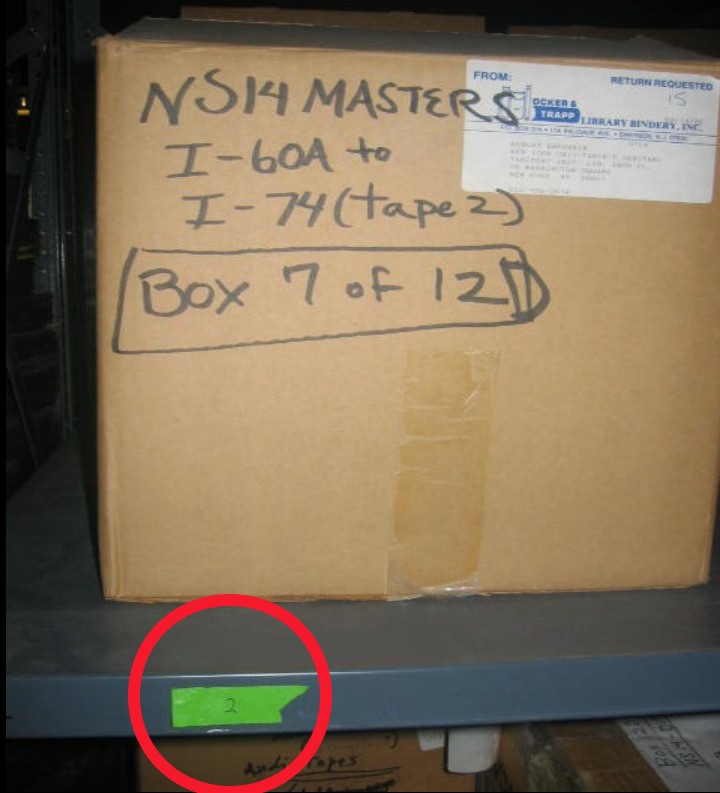
**lock**



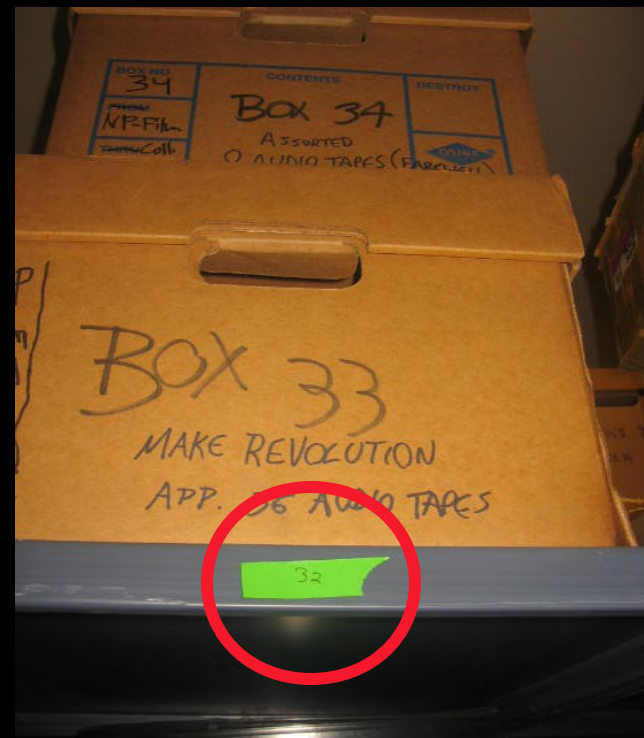


# Labeling of media storage shelf locations for Mellon2 survey

There are 173 media storage shelf locations identified for the survey and spread throughout storage spaces located in Bobst Library's 3 special collections and NYU Libraries's offsite campus storage facility.



Shelf location #2



Shelf location #32

## Mellon2 survey sample size

- Confidence level = 95%
- Tolerance interval =  $\pm 5$

Total U-matic items accessible for survey = **1,123** / Sample size = **286**

Total VHS items accessible for survey = **3,171** / Sample size = **343**

Total 1/4" open reel items accessible for survey = **10,744** / Sample size = **371**

Total compact cassette items accessible for survey = **11,811** / Sample size = **372**

**Total sample size for survey = 1,372**

# Thank you!

For additional information on the Mellon2 project please contact:

2006-2007 MIAP Research Fellow, Tanisha Jones, [trj214@nyu.edu](mailto:trj214@nyu.edu) (until 7/10/2007)

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