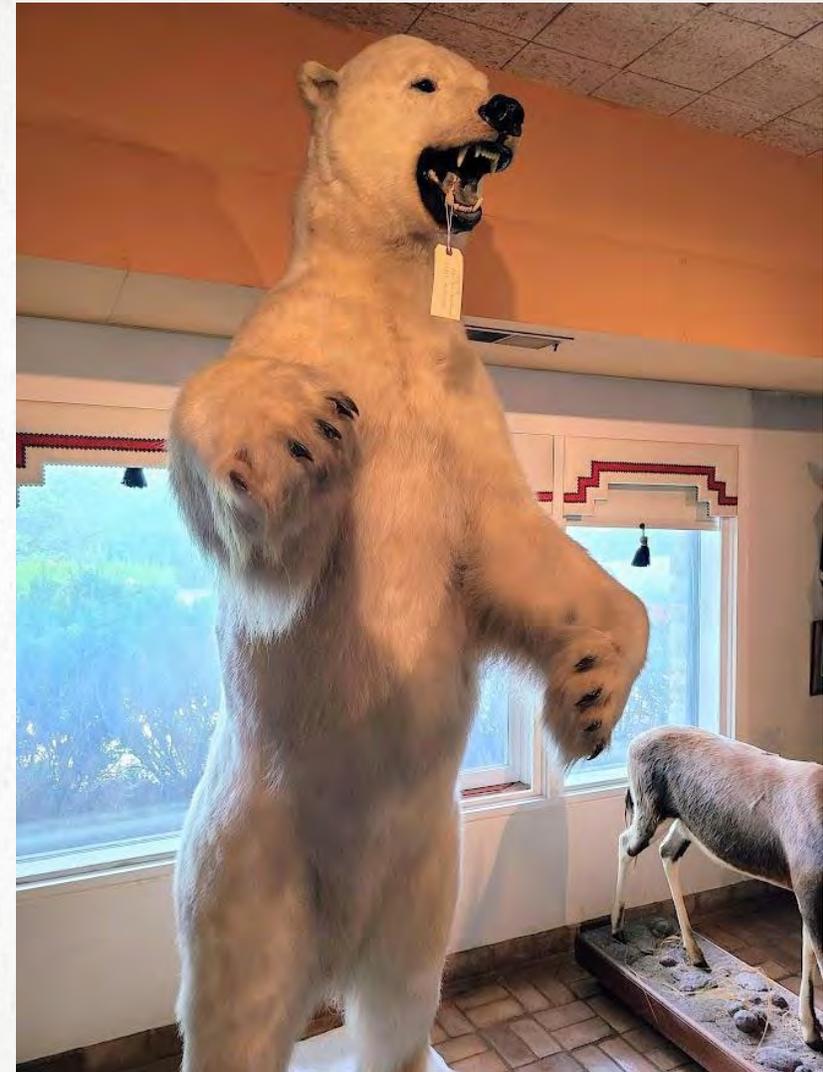




LIONS, TIGERS, AND ARSENIC- OH MY: HAZARDS IN TAXIDERM COLLECTIONS

ANNA HELMIG, DAYTON SOCIETY OF NATURAL HISTORY

THE NUTTER COLLECTION



ARSENIC USE IN TAXIDERMISTRY



Photos courtesy of Grisholm Castle,
Strängnäs, Sweden.

ARSENIC USE IN TAXIDERMISTRY

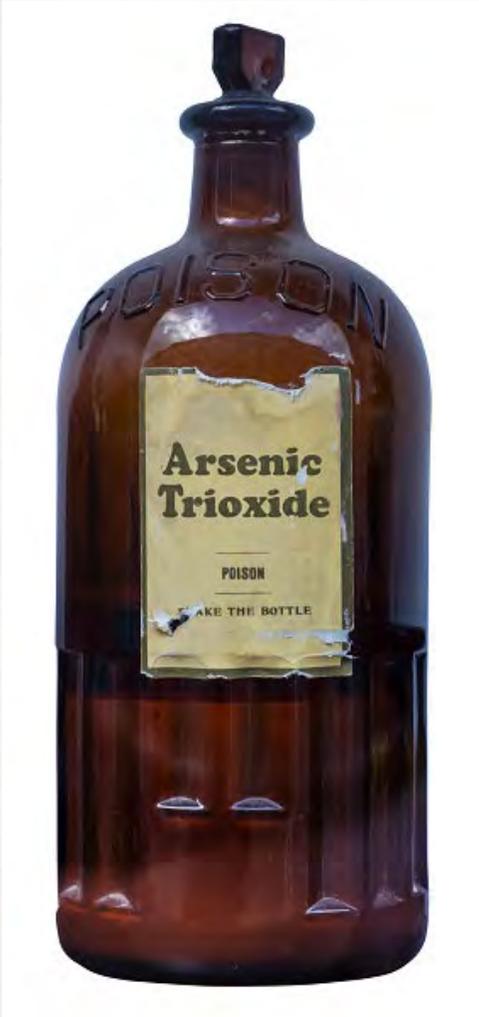
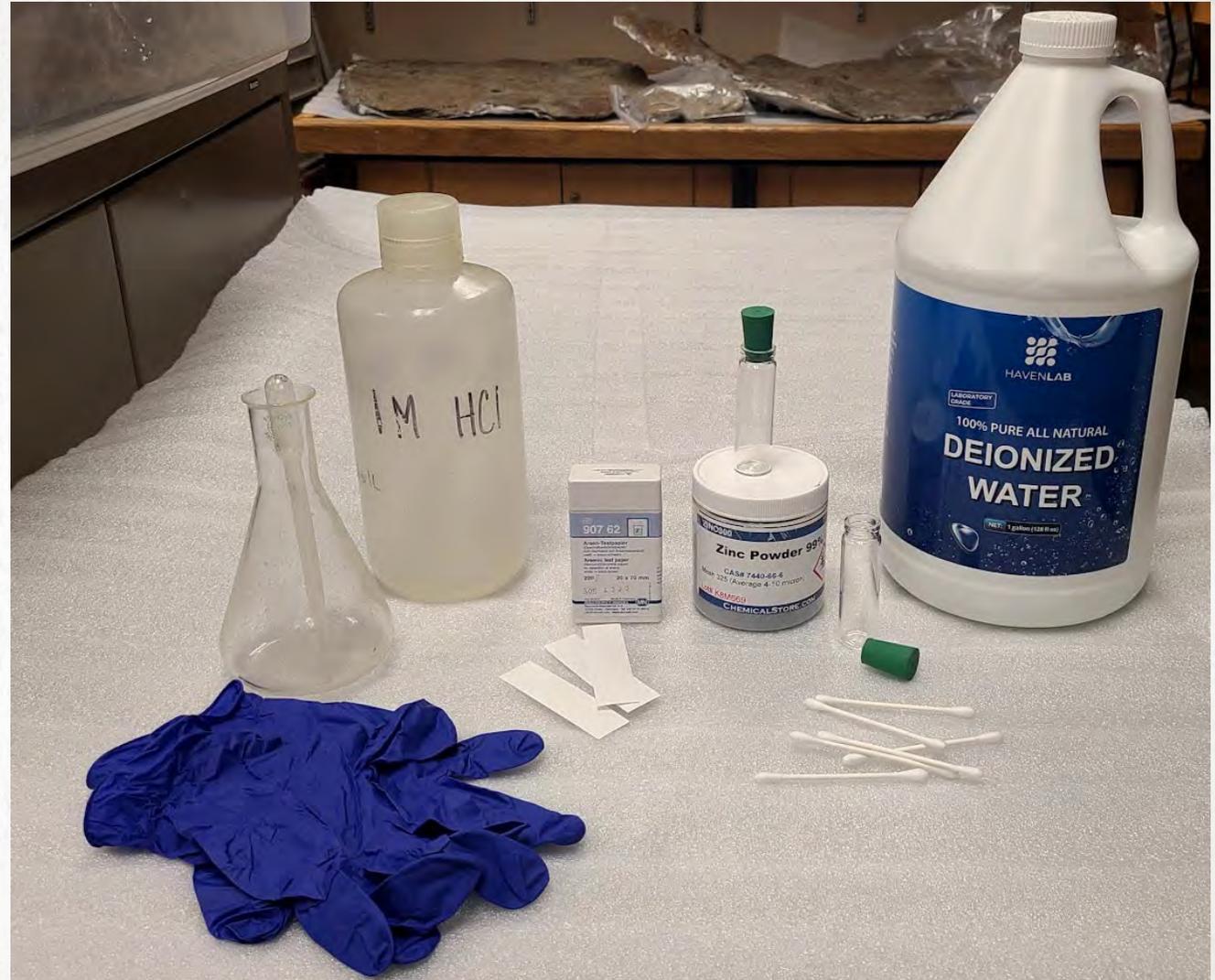


Photo courtesy of Mike Cadogan and Kathryn Scott; Emergency Medicine.

RECOGNIZING HAZARDOUS TAXIDERMISTRY



TESTING FOR ARSENIC



TESTING FOR ARSENIC



Arsenic Test Results & Color Reference

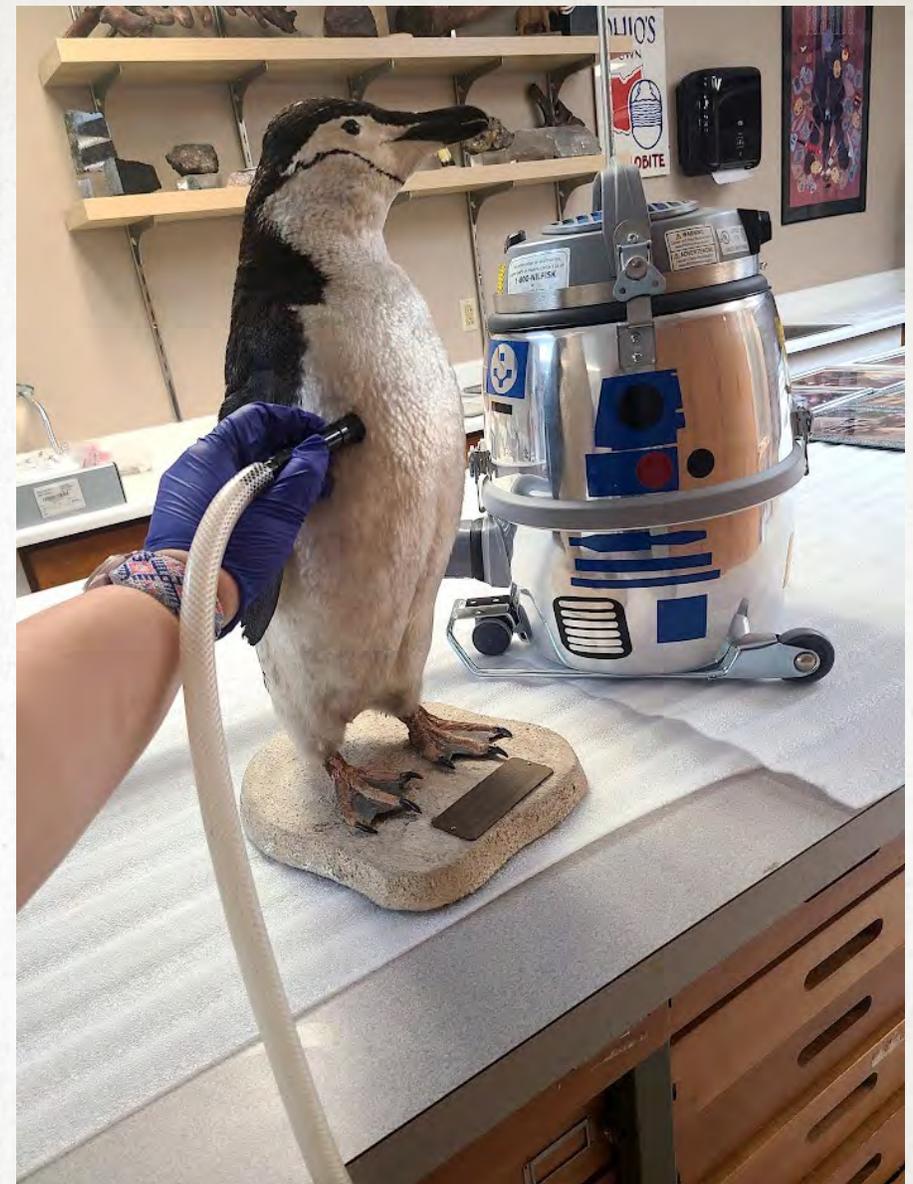


**No
Arsenic
Present**

**Low
Arsenic
Levels**

**High
Arsenic
Levels**

MITIGATING HAZARDS



STORAGE AND EXHIBITION



DEACCESSIONING





THANK YOU

Jill Krieg, DSNH Curator of Anthropology & Exhibits

Ray Vodden, DSNH Collections Technician

Jack Bowser, DSNH Collections Technician

Clayton Wolf, DSNH Exhibits Manager

MASSILLON MUSEUM FILM COLLECTION

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History of the Collection

- Dates back to 1934 when Paul Brown was head coach of the Massillon Tigers high school football team
 - Began filming his teams for a more in-depth look at how his teams were doing, and what he could do to improve
- Saved and collected by Massillon Tiger Football Museum (committee of the Massillon Tiger Football Booster Club) starting in the 1970s
- Over 2000 reels of 16mm and 8mm acetate and polyester film (one nitrate film)
 - Football, basketball, marching band, and various other sports
 - Much has been transferred multiple times to S-VHS and DVD; some have been digitally converted from DVD

The Collection — storage over the years

- Originally housed and stored at the high school in the athletic department
- Moved to the basement of the old Massillon Chamber of Commerce in c. 1993 when the old high school closed
- Moved to the basement of the old Post Office (currently the Stock Market Museum) in c. 2014 when the Chamber moved to a new building
- Moved to the Massillon Museum from fall 2019 through summer 2021 after signing contracts transferring the collection from the Booster Club to the Massillon Museum

At the Post Office...











State of the Collection

- Much of the film is now stored in a brand new, state-of-the-art collection storage at the Massillon Museum (built in 2018–2019)
- Inventory process is on-going; over 1800 reels of the film have been assessed and put into excel files
 - Includes the date, content of film, original transfer number(s), length, condition, location, and date it was brought on site



State of the Collection

01 Master List of Football Films.xlsx - Excel

Table Tools

File Home Insert Page Layout Formulas Data Review View Help Design Tell me what you want to do

Clipboard Font Alignment Number Styles Cells Editing

Calibri 11

Normal Bad Good Neutral Calculation Check Call

B628 Barberton run 1

SEASON	FILM	FT #	FT # (other)	LENGTH	CONDITION (pH color)	LOCATION	BAGGED	DATE ONSITE
31	1942 Weirton, WV reel 2	005-03	193-06	350ft	green 1	PB Collection Storage		Fall/Winter 2019
32	1940 Weirton, WV reel 2	005-04	185-06	150ft	green 2/YELLOW	Freezer	Y	Fall/Winter 2019
33	1942 Toledo Waite reel 1	005-05		?	green 1	PB Collection Storage		Fall/Winter 2019
34	1942 Toledo Waite reel 2	005-06		?	blue/green 1	PB Collection Storage		Fall/Winter 2019
35	1936 Canton McKinley reel 1	005-07	134-07	350ft	green 1/2	PB Collection Storage	*check for fur	Sept 9 2020
36	1942 Lincoln (Nebraska) reel 1	005-08			YELLOW	Freezer	Y	Fall/Winter 2019
37	1942 Lincoln (Nebraska) reel 2	005-09			YELLOW	Freezer	Y	Fall/Winter 2019
38	1942 Canton McKinley reel 2; COLOR	005-10	189-08	340ft	green 1	PB Collection Storage		Fall/Winter 2019
39	1943 Canton McKinley reel 1 WILL NOT PLAY	006-01		375ft	blue/green 1	PB Collection Storage		Sept 9 2020
40	1944 Canton McKinley reel 1	006-02	198-01	350ft	blue	PB Collection Storage		Fall/Winter 2019
41	1944 Canton McKinley reel 2	006-03	198-02	380ft	blue	PB Collection Storage		Fall/Winter 2019
42	1944 Canton McKinley reel 3	006-04	198-03	280ft	blue	PB Collection Storage		Fall/Winter 2019
43	? looks like @ Barberton, halftime 6-6	007-01			blue; clear plastic can	PB Collection Storage		Fall/Winter 2019
44	? 1954 Paramount News (one reel, multiple numbers); FT# 139-01 thru 07, 010-02 thru 03, 007-03	007-03		75/100ft		PB Collection Storage		Fall/Winter 2019
45	1951 Lorin Andrews vs Longfellow @ stadium	007-05			YELLOW	Freezer	Y	Fall/Winter 2019
46	? pre-season intersquad scrimmage	007-06		?		PB Collection Storage		Fall/Winter 2019
47	? late 50s/early 60s unknown teams; could be Strang team (leaping Tiger and white shoes)	007-07		?	green 1	PB Collection Storage		Fall/Winter 2019
48	? MP796-11 York Phys Ed	007-08		350ft	green 1	PB Collection Storage		Sept 9 2020
49	? late 50s/early 60s Cleveland Benedictine?	007-09		?	green 1	PB Collection Storage		Fall/Winter 2019
50	1948? Lorin Andrews vs Jones @ Agathon field	007-10		?	green 1	PB Collection Storage		Fall/Winter 2019
51	1944 Akron West reel 1	007-11	133-01	225ft	YELLOW	Freezer	Y	Fall/Winter 2019
52	1944 Akron West reel 2	007-12	133-02	250ft	green 2	Freezer	Y	Fall/Winter 2019
53	1944 Akron West reel 3	007-13	133-03	250ft	green 1	PB Collection Storage		Fall/Winter 2019
54	1944 Canton Timken reel 1	008-01		~350ft	green 1	PB Collection Storage		Fall/Winter 2019
55	1944 Canton Timken reel 2	008-02			blue	PB Collection Storage		Fall/Winter 2019
56	1944 Warren reel 1	008-03		330ft	green 1	PB Collection Storage		Fall/Winter 2019
57	1944 Warren reel 2	008-04		330ft	green 1	PB Collection Storage		Fall/Winter 2019
58	1944 Steubenville reel 1 (19-6 Mass)	008-05		295ft	blue	PB Collection Storage		Fall/Winter 2019
59	1944 Steubenville reel 2 (19-6 Mass)	008-06		295ft	blue	PB Collection Storage		Fall/Winter 2019
60	1944 Canton Lincoln reel 1 (12-0 Mass)	008-07	133-06	360ft	blue; can bent	PB Collection Storage		Fall/Winter 2019
61	1944 Cleveland Cathedral Latin reel 1	008-08	133-04	375ft	green 1	PB Collection Storage		Fall/Winter 2019
62	1944 Cleveland Cathedral Latin reel 2	008-09	133-05	360ft	YELLOW; can hard to open	Freezer	Y	Fall/Winter 2019
63	1942 Steubenville reel 1	009-01		?	green 2	PB Collection Storage		Fall/Winter 2019
64	1942 Steubenville reel 2	009-02			YELLOW	Freezer	Y	Fall/Winter 2019
65	1943 Canton Timken reel 1	009-03		?	green 2/YELLOW	Freezer	Y	Fall/Winter 2019

Sheet1

Ready 82%

Things to Look for...

- Acetate degradation
- Mold
- Water damage
- Breakage



Acetate Degradation

- Acetate degradation—or vinegar syndrome—happens when acetate film is stored in a warm, humid room. These conditions cause the film to decompose. As the film starts to rot, it gives off acetic acid, the same ingredient in household vinegar that gives its distinctive smell and taste.
- Use A-D (Acid Detection) test strips to determine severity of decomposition that you cannot see—or smell.
 - Blue: no acid detected
 - Green 1: some acid decomposition detected; monitor for degradation
 - Green 2: high levels of acid decomposition; consider methods of preservation
 - Yellow: sever levels of acid degradation; immediate intervention necessary



Acetate Degradation—Intervention

- If the film is in the Green 2 or Yellow stage, action is necessary to mitigate further decomposition
 - Film should be placed in an tight fitting (preferably air-tight) polyethylene bag and placed in freezer storage
 - Freezer should be clean and not used for any other storage purposes; **should not mix** acetate and nitrate film as they off-gas differently
 - Freezer should also be frost free with auto defrost
- When handling old film, always be sure to wear gloves and a mask to protect the film from fingerprints and the handler from effects of off-gasing
- Vinegar syndrome is irreversible

Acetate Degradation examples

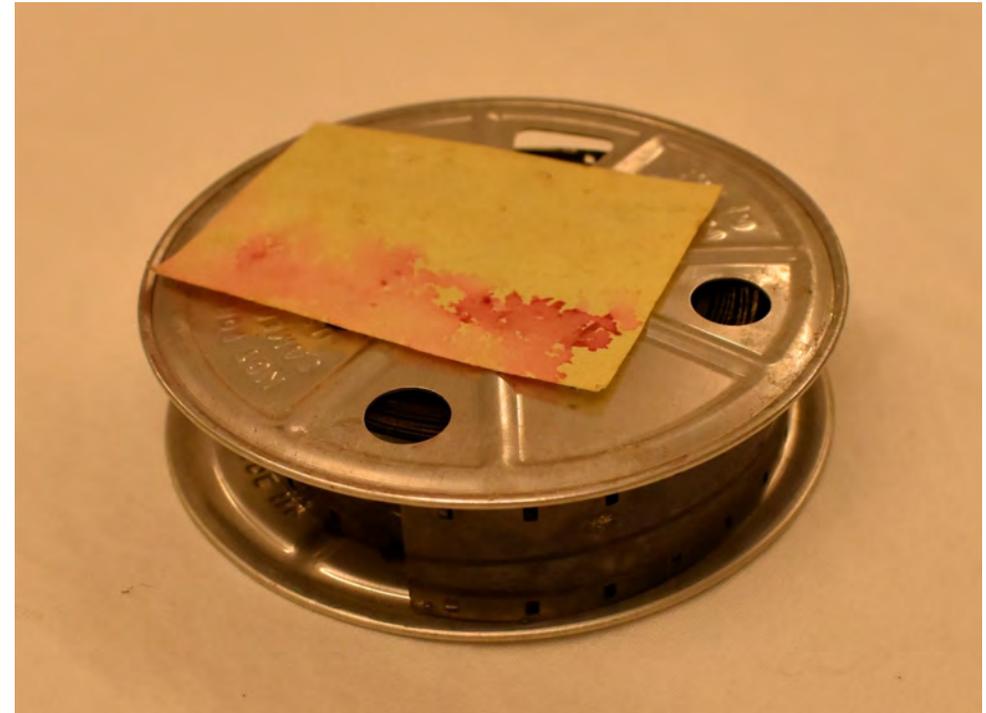


Acetate Degradation storage examples

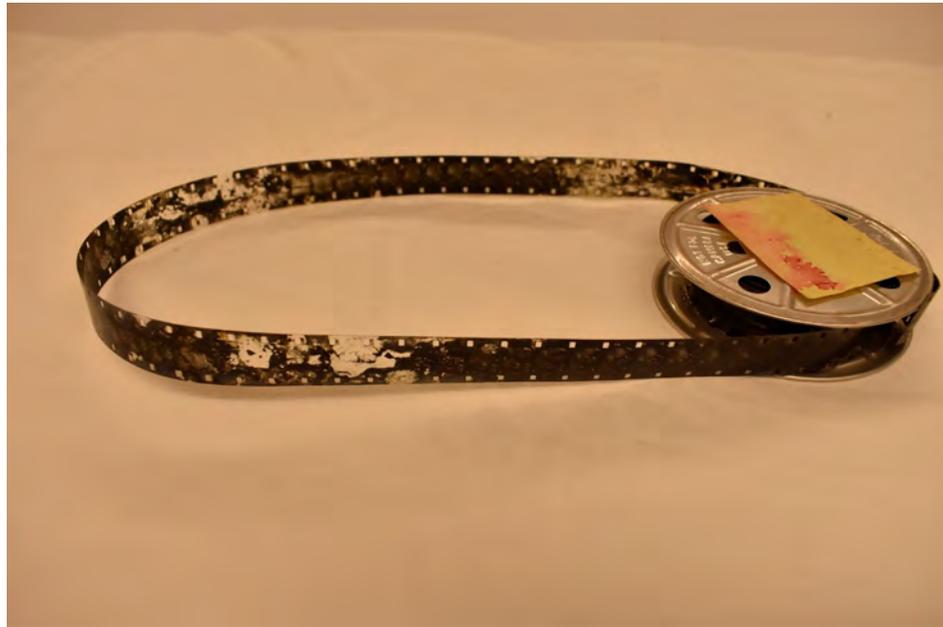


Water Damage and Mold

- Water damage from floods while stored in basements caused the emulsion to disintegrate
 - This can also cause the film to become brittle and susceptible to breakage
- Damp storage conditions also caused mold growth which can also eat away at the emulsion



Water Damage and Mold examples



Water Damage and Mold examples

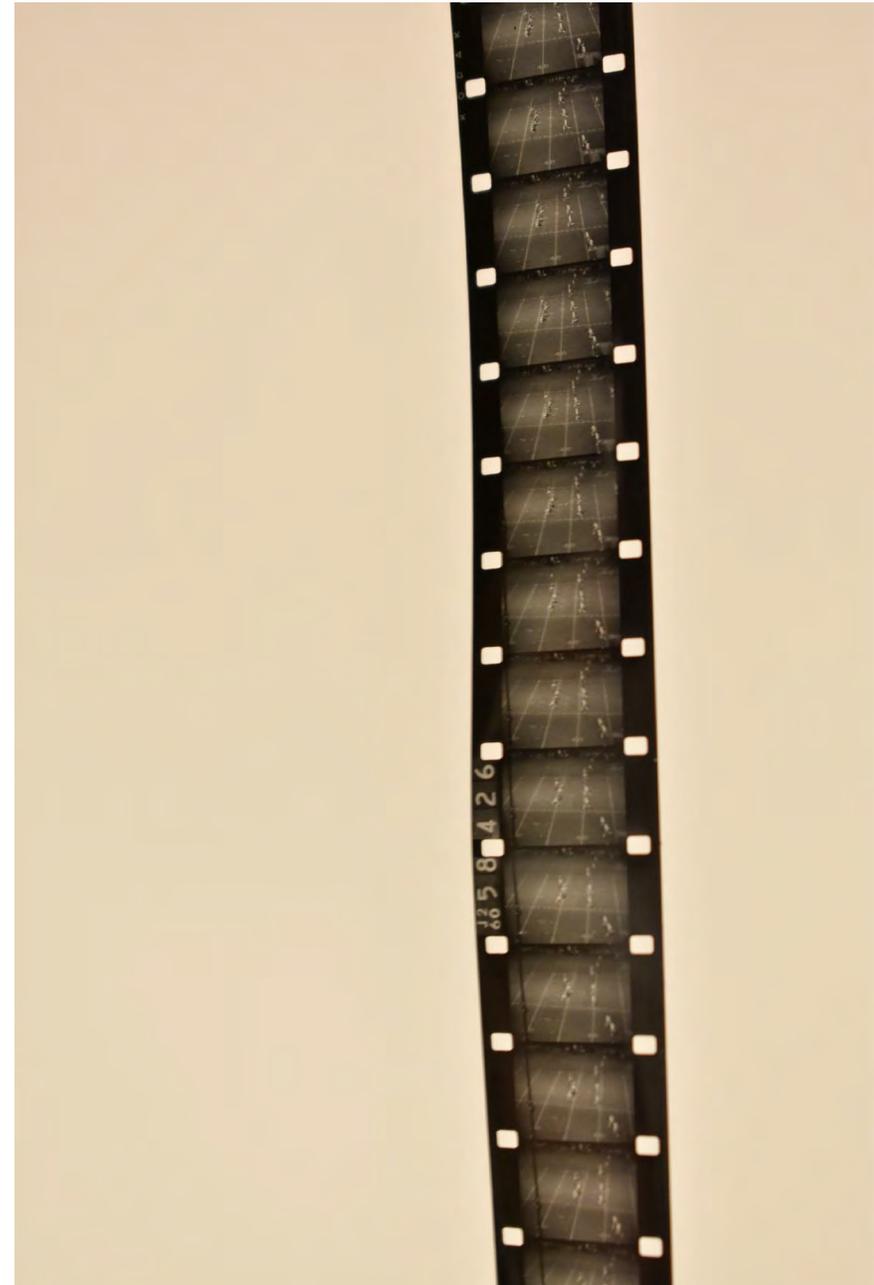


Water Damage and Mold examples



It's Not All Bad!

- Most of the film is in great condition!
- Out of over 2000 reels, only about 250 have some degree of degradation that require intensive mediation



Hazards in Military Collections

Melissa Shaw

OLHA 2nd Vice President

Introduction

I work for the Air Force. The Air Force has many regulations that do not apply to private organizations. We are not going to talk about Air Force policy today. Instead, we are going to talk about:

- Types of hazards in military collections
- Protection
 - Know your collection
 - Know your personal protective equipment

Types of Hazards

- Hazards from production
- Hazards in use
- Hazards from decay
- Hazards from storage

Hazards From Production

- Medication
- Radioactive Items
- Asbestos containing items
- Matches
- Mercury containing items

Risk: Exposure could cause a mild reaction to anaphylaxis, cancer, fire, etc. . .

Hazards In Use

- Weapons
 - Firearms
 - Swords
 - Darts
 - Explosives - 'Training' does not equal 'Inert'
- Asbestos containing items
- Heavy Items
- Sharp Items - If it can go through fabric, it can go through skin
- Medical items

Risk: Exposure could cause a mild reaction skin reaction or shooting, cutting, exploding, crushing, cancer, puncture

Hazards from Decay

- Food
- Medication
- Plastics
- Radioactive items

Risk: Exposure could cause a mild reaction to anaphylaxis, cancer, etc.

• •

Hazards from Storage

- Pesticides
 - Moth balls
 - Rat poison
- Other artifact treatments

Risk: Exposure can cause skin rashes, breathing difficulties, dizziness, nausea, etc. . .

Be Safe

- Know your collection
- Wear protective equipment when applicable
- Encapsulate, encapsulate, encapsulate!
- Consider contamination of storage containers

Object Disposal

- 99.9% of the time whatever you have will be in such low quantities that it can be disposed of through your normal waste disposal method
- There are 88 counties in Ohio. What you have and how much of it there is will determine the disposal action. If the object is a hazard contact your county's hazardous disposal department by whatever name they use. If the object is possibly explosive you should contact your county sheriff.