Keep the Ball Rolling!
A Look into the Archiving and Preserving of Sports Films in Universities

by
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A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts
Moving Image Archiving and Preservation Program
Department of Cinema Studies
New York University
May 2014
Acknowledgements

It is with great pleasure that I extend my thanks to all those who helped and encouraged me along the way. I could not have done this without you.

To Janet Bunde in the NYU University Archive, thank you for opening your collection to me and for providing me with a plethora of materials.

To Kimberly Tarr, Benjamin Moskowitz, Carmel Curtis, and the staff at the Barbara Goldsmith Conservation and Preservation Department, thank you for welcoming and working with me, and for all your help along the way. It has been a pleasure to work alongside you through out my journey.

To Dan Streible, Mona Jimenez, and Howard Besser, who have guided my education and provided me with the knowledge and means to pursue my future in the archiving community.

To all of my classmates and professors for giving me words of encouragement and guidance through out my time in the Moving Image Archiving and Preservation Program. We have challenged and supported each other through to new beginning. It has been a pleasure.

To my family and friends for their unwavering support and love.
**Introduction** [Still working on]

Sports, media, and universities have been intertwined for decades. When American universities began creating football and other sporting teams at the beginning of the 20th century, there were cameras there to capture the events from the beginning of motion pictures sporting events were high on the list of popular attractions. Having a large foothold in cultures and societies around the world already, athletics were an easy subject for all forms of audiovisual materials to capture and share. A century later, the archiving of sports material – both professional and amateur – has been steadily gaining in importance and practice.

Most colleges and universities have collections of films and videos documenting their institution’s athletic history, but often these collections are quite large and have never been preserved or digitized, even if they have been deposited in a university archive. For my thesis I explored the current work being done on the archiving and preservation of athletic films in universities. Considering what particular problems and issues arise when dealing with college sports films and appraising their archival value.

The main focus of my thesis will be discussing the archiving and preservation of athletic films in universities through case studies that focus on the archiving work done with select collections, including an in-depth account of the project undertaken at NYU in 2013-14. For this project I worked in conjuncture with Janet Bunde (NYU’s University Archive Assistant Archivist) and the University Archive staff, and the Barbara Goldsmith Preservation and Conservation Department staff including: Kimberly Tarr (Media Preservation Unit Head), Benjamin Moskowitz (Media Preservation Lab Supervisor), and Carmel Curtis (MIAP student worker).
Accompanying this project, my thesis also includes chapters on the work that other universities are undertaking to preserve their athletic films. Two in-depth case studies focus on Northwestern University and the University of Washington, Seattle.

This project will contribute an openly available resource and information on the conservation of athletic films in universities, and will hopefully open channels of communication between schools undergoing these similar projects. This is also information that can be applied to the general work of sports archiving. This larger project also provides a look at how a collection – and specifically sports films - can be far more relevant and important beyond the scope of its identified field/genre if it is contextualized. Information provided in the project will also be applicable to general AV materials, and can act as a resource for those working with materials such as these but lack AV archiving and preservation training.

Despite the enthusiasm for athletics in US colleges and universities, there is often little record of the moving image material accumulated in those programs. Those who value the moving image records move on, and over time it is the trophies and news clippings that have been saved over the visual images that record the practices, games, plays, and competition.
Sports and Media

Sports and athletics have been ingrained in cultures around the world for centuries. Long has society valued both the social standing and prestige that comes with being the victor of any singular event, as well as celebrated the athletes who become legends as their stories get passed down from generation to generation. Athletic programs in the United States grew and developed quickly as the teams and games grew in popularity. Spectators flocked to stadiums to watch the rivalries. In New York City, tens of thousands of people would travel to the Bronx to see intercity rivalries (NYU vs. Fordham, etc.) play out.

Media has been capturing sporting events since its inception. Athletic competitions were among the first events to be broadcast live by radio stations, as well as making it onto film. It was known that there would be guaranteed audiences for events such as baseball games, boxing matches, horse racing, and more. As such an important part of our society, these activities were immediately embraced by fans and become ingrained into history, and these history-making events were—and continue to be—largely recorded.

Film

Early promotional techniques and structuring of athletics heavily linked the sporting and theatrical circles, thus matching up these mediums early on. Early Edison films were some of the first to capture sports because they provided the active content that displayed to audiences the medium’s capacity to capture motion. The recording of sports soon drew spectators towards the wonderment of the film technology, creating consumers
in both markets. “Film’s ability to capture movement...[created] opportunities for a shared culture.”

As the film technology developed the lines between legitimate and staged sporting events blurred, largely in regards to boxing fights. When film moved from Kinetoscopes to projection it opened the possibilities for viewing an entire sporting event as a shared experience amongst theater audiences. Kodak introduced 16mm film in 1923 in the nontheatrical market. A technical development, which would allow for the launch of amateur filmmaking. Once film crossed into the public market, universities and coaches could use this technology to record practices, scrimmages, games, and players. [Will be elaborated on.]

Radio and Broadcasting

On October 28th, 1921 the radios broadcasted the first-ever cross-country broadcast of a college football game. The Princeton University Tigers defeated the University of Chicago Maroons – frequent Big Ten conference champions then – playing from Chicago’s home turf, Stagg Field. Telephone wires carried the play-by-play of the event up and down the East Coast. In 1929 when the University of Pittsburgh visited NYC to play Fordham, cameras were there to televise the basketball game from Madison Square Garden. On May 17, 1939, history was made with the first televised baseball game and sporting event of any

kind, in the United States was of a college baseball game between the Columbia Lions and Princeton Tigers. It was broadcast by NBC from Columbia’s Baker Field.\textsuperscript{5} The United States’ entrance into WWII in 1941, took many young college athletes with it.

In 1969 – at the cost of over $500,000 – NBC became the first major network to broadcast the NCAA Men’s Division 1 Basketball Championship. NBC continued to broadcast the tournament until 1981 when they lost the rights to CBS. ESPN (Entertainment and Sports Programming Network) launched at 7pm on September 7, 1979 with a debut of the first SportsCenter telecast.\textsuperscript{6} From 1982 to 1989, NBC and CBS each, respectively, broadcast separate regional games, and tournaments and conferences. By 1982 ESPN had partnered with the NBA in 1982, becoming one of the earliest broadcasting partners for the NBA.\textsuperscript{7}

In September 2013, FOX College Sports (FCS) was pleased to announce that it had acquired the rights to televise “seven Ivy League football games for the 2013 season”.\textsuperscript{8} These Ivy League football games include all eight Ivy League schools (Columbia University, Dartmouth College, Princeton University, etc.). As one of the oldest conferences in American college football history, the Ivy League plays host to three of the oldest intercollegiate teams in the United States. FOX has the rights to these current and future games, but what about those already passed.

NYU stands amongst some of these schools as having some of the oldest athletic


programs in the country. How far back do the moving image records of the Ivy League school rivalries go? What became of the decades of moving image sports material? As with NYU, Harvard, Princeton, etc. were likely filmed from the beginning of motion pictures, so where are those films now? These materials may have fallen into the same situation as many university athletic collections, with contents spread across institutions and suffering from varying stages of neglect and degradation.
The National College Athletics Association (NCAA)

The National College Athletics Association (NCAA) is a nonprofit association with over 1,200 active member schools that oversees the institutions, conferences, organizations, and individuals in the United States and Canada that organize the athletic programs for the “more than 444,000 student-athletes competing on more than 18,000 teams.” The majority of college and university teams in the United States compete in different NCAA divisions in playoffs and competitions to name a national championship.

The NCAA was formed in 1910 as an evolution of the Intercollegiate Athletic Association of the United States (IAAUS). Following the death of a Union College football player – William Moore - in a game against NYU. William Moore’s death became the 20th death that season as a result of play-related injuries. NYU Chancellor Henry Mitchell MacCracken realized that the sport needed more regulations and safety measures. He pushed the first safety movement, and called a meeting with Harvard, and 19 other universities, to discuss the state of football. This group created a strict set of regulations for college football and became IAAUS in 1905. Five years later the IAA became the National Collegiate Athletic Association (NCAA).

For several years after its creation, the NCAA stood only as a governing rule-making organization and larger discussion group. Then in 1921, the first NCAA national championship was held for track and field. Following this the NCAA began forming more championship – like the basketball championship in 1939 – as well as more rules committees. In 1952 the national headquarters for the organization was established in

Kansas City, Missouri. Starting in 1956 (continued to 1972) the NCAA introduced the NCAA University Division, which comprised of major colleges, and the College Division, made up of small colleges.\textsuperscript{12}

The current three-division setup of the NCAA was adopted August 1973 when at a special convention the Association’s membership elected to divide the college and university athletic programs into three legislative and competitive divisions. Active members decide on the division best fitting their athletic program based on the division’s criteria. The differences in division classification generally include: “sports sponsorship criteria, football and basketball scheduling requirements, academic and eligibility standards, financial aid limitations.”\textsuperscript{13} Schools competing in Division I and Division II offer scholarships to student athletes. Division I schools typically comprise of the major collegiate athletic powers with larger budgets, elaborate facilities, and more athletic scholarships. Division II schools primarily are smaller public and private institutions that offer fewer scholarships and field fewer teams in fewer sports than those in Division I. Division III institutions field teams, but do not offer any scholarships and usually have teams with smaller budgets.\textsuperscript{14}

\textsuperscript{13} NCAA. \textit{National Collegiate Athletic Association}. General Brochure.
\textsuperscript{14} NCAA. “Finances of Intercollegiate Athletics.” NCAA. Finance Reports. 2014. http://www.ncaa.org/about/resources/research/finances-intercollegiate-athletics
New York University: A Sports History and Violets

Today many students look to NYU for careers in business, arts, or sciences. To the public, it is an institution that has provided countless entertainment award winners and pioneers, groundbreaking scientists, lawyers, and businessmen.

NYU is not now known for its athletic achievements, but in fact NYU has been home to a host of athletic successes. In the 1890s, under Chancellor Henry MacCracken, NYU acquired the University Heights Campus located in the Bronx (now Bronx Community College) in an effort to give NYU students a spacious campus away from the urban world of Manhattan. This uptown move brought extra space to the university, which allowed for the construction of more facilities – such as laboratories and athletic fields – that could not be built in the Washington Square area. The University Heights campus soon became home to NYU’s athletics following the construction of gymnasiums and fields for training. The inclusion of sport in this campus “brought students together, creating a more communal college experience.”¹⁵ When the gymnasium – known as “the Violet Hut” - opened on campus in 1894 it was an uncommon feature for a university. It was one of the earliest college gyms (following Harvard, Yale, Bowdin, Amherst, and Brown.) For football, Ohio Field also opened, named for the Ohio Society of New York, that Chancellor MacCracken had persuaded to contribute money to the purchase of the acreage for the campus. ¹⁶

Throughout the first “golden era” of American sports, the 1920s – 1930s, NYU’s athletic program also experienced its own golden years to the late 1930s and when NYU

still had its University Heights, but these successes have been largely forgotten in public memory. NYU has also been home to a number of Olympic Athletes and professional sport Hall of Famers. Unlike most colleges and universities that have longstanding histories of both academic and athletic natures, NYU chose to embrace its academic mission over its fading - but impressive - athletic history.

NYU's athletic repertoire spans different sports, including both varsity and intramural club teams; currently, NYU hosts 10 varsity women’s teams, 11 varsity men’s teams, and 26 club teams. As an NCAA member, NYU’s organized varsity teams were highly competitive and ranked amongst the other universities they played against, particularly rival schools in the city such as Manhattan College and Fordham University.

Despite its little remembered history, NYU does have its own Hall of Fame that continues to induct new members each year. Currently it includes over 200 members from over 100 years of athletic history. The current Hall of Fame was founded after NYU combined the NYU Varsity Club Hall of Fame – founded in 1970 to honor men’s teams – and the Women’ Hall of Fame – founded in 1976 to honor female student athletes. (The 2014 inductees are: James Gilhooley (Class of 1950, Men's Track and Field), Andrew Lardiere (Class of 2009, Men's Swimming), Jessica McEntee (Class of 2009, Women's Basketball), and Dr. L. Jay Oliva (New York University President Emeritus, who passed away last month). The 1993-94 NYU Men's Basketball team and the 20th anniversary of its appearance in the NCAA DIII National Championship Game will also be honored.¹⁷

While NYU's football and basketball teams that have left the biggest impressions upon the school’s history, it’s some of these athletic endeavors that have been captured on film (dating back to the 1920s) and video (some as old as 1974).

**Football**

When NYU’s football team played its first intercollegiate game in 1873, it was in the history books as the fifth university in the United States to have established an intercollegiate football team. Only teams at Princeton, Yale, Columbia, and Rutgers preceded the team - then known as the "Violet Eleven". 18 Twenty years later, first game played at NYU came about in 1894 at the newly built Ohio Field in the Bronx.

The heyday of college football began after WW1, when the nation’s young men were no longer moved into military service; instead they were joining their teams. The 1920s – 1930s marked the heyday of college football in New York City for NYU, Columbia University, Fordham University, and Manhattan College. The 1920's would be the golden years for NYU’s football team. Line-ups included future pro-football Hall of Famer Elmer “Ken” Strong. The team would have some of its best seasons under Coach John “Chick” Meehan. Coaching at NYU, Meehan would lead the Violets played to packed stadiums. This increase in attendance forced NYU’s most popular football games – mainly the intercity competitions – to be played in the newly constructed Yankee Stadium. The Violets ultimately played 116 games from in Yankee Stadium from 1923 to 1948. The intense rivalry between Fordham University and NYU became known as “the Battle of the Bronx” and would draw crowds of

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over 70,000 on Thanksgiving Day! Ken Strong led the team from 1926 to 1928, and only suffered 4 losses. Coach Meehan – inducted into NYU’s Hall of Fame in 1977 and remains NYU’s most successful and famous coach.\(^{19}\) Meehan coached the Violets for seven seasons from 1925 until 1931.\(^{20}\)

The team’s performance lessened in the 1930’s, but it continued to recruit strong players. One such player, Ed Smith, was a leading player on the 1934 football team and would forever leave his mark on college sports, as he was the model immortalized on the Heisman Trophy. (The Heisman Trophy is awarded each year to the outstanding college football player in the US.)

Football was suspended in 1942 as a result of the economic pressures, and the enlistment of students in World War II. After the war the team never recovered the momentum and luster it had once had. The University Heights campus – the heart of the athletic organization at NYU – had become largely militarized during the war, and in the years following NYU’s debt began to expand.\(^{21}\) NYU was expanding at the University Heights campus, and keeping up the two campuses was taking its toll. During the war, enrollment and game attendance had dropped. Consequently the end of the 1940s also marked beginning of the drop off of college football games played at Yankee Stadium, the attendance numbers and competitive drive was falling. From the 1943 on, NYU games at Yankee stadium quickly declined to as few as one per season. In 1948 NYU played its last game at Yankee Stadium (against Rutgers, losing 40 – 0.)


In 1953 Chancellor Henry Heald discontinued the football program for financial reasons,

Intercollegiate football requires a large squad of players, a large staff to coach these players and administer the many details of the program, and a substantial amount of money to defray the cost of equipment, travel, staff, services, and playing facilities...A privately supported university cannot divert a disproportionate amount of its resources into football.\(^\text{22}\)

This was the last time that football would be an official sport of the school. In 1964 there was a brief resurgence of football as a club team run by students, but it was discontinued in 1967 due to lack of interest and money. Students would fight a few more times over the years to try and get a team started again, but despite numerous attempts, without the backing of the school and enough funding these attempts to bring a football team back to NYU fizzled out.\(^\text{23}\) The University Heights campus and its Athletic facility closed in 1973 after being bought by CUNY.

Ultimately over its life span, the Violets football team “compiled an overall record of 199 victories, 226 loses, and 31 ties over 79 seasons.”\(^\text{24}\)

**Basketball**

When football failed, however basketball kept the athletes and patrons. Yet what quickly became NYU’s golden sport also became one of the schools biggest sources of shame and scandal.


After forming in 1906, the basketball team was officially introduced in 1917 as a varsity sport, NYU’s men’s basketball team flourished over the next few years till it emerged as a powerhouse in the 1920s and 30s. The 1933 – 34 team was in fact undefeated. In 1985, Hagan Anderson – Class of 1934 – was inducted into the NYU athletics Hall of Fame for being an “invaluable member of an undefeated Violet Basketball team”. (After graduating NYU, Hagan went on to become one of the nation’s top ranked referees.)

December 23, 1934 NYU played Notre Dame in the only season college game after Madison Square Garden opened its doors to college teams for regular season. As a product of a city school with no space in Manhattan to build a new arena, NYU played many of its games at Madison Square Garden, “fittingly dubbed The Mecca of Basketball.”

In 1941 NYU joined a small group of local city colleges, known as the Metropolitan Intercollegiate Basketball Committee (then Association in 1948) - Fordham University, Manhattan College, St. John’s University, and Wagner College – in taking over administration of the National Invitation Tournament (NIT), which was started one year prior to the NCAA tournament by the Metropolitan Basketball Writers Association. The NIT was superior over the NCAA tournament for nearly 40 years after its launch (then in 1975 the NCAA surpassed it.) The NCAA bought the NIT in 2005 and disbanded the New York schools as administrators. The NIT grew from its initial 6 teams to 32 teams in 2007. [NIT will be elaborated on.]

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In 1951 NYU basketball players were among those was charged in what would be its first of two “point-shaving” scandals. Thirty-two players across seven colleges were implicated in the scandal that alleged the tampering with the point spread “of eighty-six games in twenty-three cities and seventeen states.”28 In 1961, NYU students once again found their school and their basketball team embroiled in a point-shaving scandal. This time the scandal involved “thirty-seven players from twenty-two universities.”29 NYU’s team would never fully recover, and was disbanded in 1971 following a disastrous season. The team was reinstated in 1983 as a Division III sport under the new Division system, NYU was not willing to contribute the financial resources necessary to become a Division I school. NYU teams continue to play under the NCAA Division III affiliation in the University Athletic Association (UAA) conference.30

28 Hollander, Zander, ed. Madison Square Garden, 80
29 Hollander, Zander, ed. Madison Square Garden, 85
NYU University Archive – The Collection

In 1977, the University Archives (UA), located in the Elmer Holmes Bobst Library, became the official repository for historical records of New York University. Since then the overall mission of the archive has been to “document the history of the University and to provide source material for...persons who seek to evaluate the impact of the University’s activities on the history of American social, cultural, and intellectual development.”31 This mission has effectively resulted in the collection and continuing access to thousands of paper, audio, and visual materials all related to the history of the University including the focus of this assessment: the sports films in the Audiovisual Collection.

For this assessment I examined six boxes from the Audiovisual Collection containing sports films related to record group (RG) 41 from the Department of Athletics, along with a box of previously uncataloged sports films.

In order to reach these goals, data was gathered by: examining the films and their containers, reading the current database entries, looking through the records from the Department of Athletics, consulting with Janet Bunde (the Brademas Congressional and Assistant University Archivist) and other employees of the University Archive, working with and talking to Ben Moskowitz, Kimberly Tarr and other staff in the Barbara Goldsmith Preservation Department, and conducting outside research.

University Archive Audiovisual Collection

When audiovisual materials – including but not limited to: film, videotapes, and audiotapes – are accessioned into the University Archive’s holdings, they automatically become part of the Audiovisual Collection. From this larger collection they are associated with their related documentation and other materials through RG numbers and Manuscript Collection (MC) numbers, as well as controlled vocabulary selected from the Library of Congress Subject Headings and The Getty Vocabularies.

**Department of Athletics Collection**

In the 1990s Jeffery Bernstein (Assistant Athletic Director for Sports Information) worked with Nancy Cricco (University Archivist) to have a large collection of film, photographs, videotapes, news clippings, and more sports ephemera accessioned into the University Archive. These materials combined with the records of the Athletic Program held at the University Archives, dating from [1889 – 1990s], are held in multiple boxes, and document the activities of the Athletics Program, and reflect the teams, coaches, games, and events of athletics at NYU.

The records of the Department of Athletics are housed in 45 boxes, containing 22.75 linear feet of paper documentation: News clippings, press releases, statistics, programs, tickets, etc. For example there are 10 to 12 boxes of documentation relating to the basketball team. These boxes are separated by years, and within each box are 15 or so folders containing originals and copies of related documentation. These records are useful for research of NYU’s athletic history, as well as contextualizing the audiovisual materials’ content and other associated information.
In terms of moving image material there are approximately 6 boxes, holding 107 films with athletic content. These films are both 16mm (102 films) and 8mm (5 films) (boxes #77 – 82). In other boxes there are 26 videotapes of athletic material comprised of 20 ¾” U-matic tape, 3 VHS tapes, and 3 Digital Betacam tapes. There is an additional unknown amount of Betacam SP tapes currently residing in Jeffery Bernstein’s office in Coles Gym, soon to be accessioned into the University Archive. These 133 audiovisual materials make up a very small portion of the over 5,100 audiovisual items in the University Archive.

Unfortunately for these films they have spent the decades since their production poorly stored in metal cans in the Gym where they were subject to poor environmental conditions and exposure to contaminants. Content of these films is generally described by the UA as either containing football or basketball and often noting what school NYU was playing against. However not even this minimal amount of information is always noted. Initial research into the collection revealed that these films are most likely “game films” shot for the purpose of being reviewed and studied by the coaches and players.32 There are no recordings of the intermural teams, nor the football team from when it became a club sport.

Since the acquisition of these materials two decades ago little has happened with the films. Archivists and MIAP students have looked at the collection, suggested doing some preservation work, and completing sporadic inspection reports of some films. Unfortunately nothing ever came out of this work. Today they sit in archival boxes, but still

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in their same metal cans, poorly rolled, suffering from projection damage, and slowly decaying.

As a recommendation moving forward, once all of the recordings are identified as best as possible through inspection, the University Archive should consider using their own document records to fill out detailed information about the films including: team roster, coach, captain, statistics, final scores, etc. Currently the films are only indicated as being related to the athletic records.

**Content of the Collection**

My inspection verified that the sports films contain items that document the practice and competition of athletic teams at New York University. In this project the films were inspected and examined for further content and descriptive information – not included on the container – that can be useful to researchers and future preservation work. This up close inspection allowed for the determination of what generation of materials these are. Nearly all of these items are original versions and in some cases unique print copies of the original edition.

Content of the films includes footage of football and basketball games, but also wrestling matches, films related to swimming, NYU athletes at the 1936 Olympics, and a handful of reels that are related to NYU but not to athletics. Specific content includes basketball games at Madison Square Garden, football games at Yankee Stadium, football practice, basketball tournaments and final games, wrestling, Olympics (track and gymnastics & the film that went to Orphan Film Symposium), campus footage, and a US
Navy swimming training film. The majority of the films are basketball played at Madison Square Garden and football games played at Yankee Stadium. (This was confirmed by Brian Richards at The Yankee Museum.) There are films that began simply labeled “Athletics”, but are now sorted as either football or basketball games. Some of these films feature competitions between two schools where neither school is NYU. To date, we have identified 21 football, 27 basketball, 2 wrestling, 2 swimming, 1 is too decayed to look at, and 4 are not related to sports.

Approximately 30 of them were produced by third party production companies. Winik Films produced 25 and Tucker Sport Films produced 5. Winik Films was a New York based production company run by Richard and Leslie Winik that produced both professional and amateur films. Tucker Sport Films is a Philadelphia based production company that started in 1958. Most of the original films they shot were shot for the coaches and the original print were given to the coaches. All footage is NYU original material and no other known copies exist.

Film

Number of items: 107 films

Format: 16mm and 8mm

Dates: 1920s – 1960s

Length: 300 ft. - 1,000+ ft. The majority of films tend towards 400 ft.

The reels were originally found housed in labeled metal cans and on metal reels. While some appear to be in good condition, most are experiencing vinegar syndrome.

33 Susan Tucker, Owner of Tucker Sport Films. e-mail message with author, April 28, 2014.
Others are seen to be extremely warped and pinched with one or two unable to be unwound. Per best housing practices, all films will be moved onto inert plastic cores and placed in plastic cans following inspection. Judging by the age and gauge of the films, it appears as though most – of not all – of the films are acetate. 16mm film is synonymous with being “safety film”. All of the films are affected by mechanical (tears, scratches, or abrasions) damage from being mishandled, or acetate decay (vinegar syndrome) which has resulted in films smelling like vinegar, shrinking, curling and warping, and/or becoming brittle. While this damage and decay cannot be reversed, proper storage of the films will help to slow the process.

From the films’ current state of mechanical damage and acetate decay, they are only going to get worse. For some, it may already be past the reasonable point in helping them. At this point it is best to point out that this is not the first time that these films have undergone preservation assessment and review. From the paperwork, varying stages of preservation work, database entries, and previous inspection reports from the lab. In the University Archive’s database it shows that some of these films were inspected as recent as 2012 and as early as 1990s. So why has it taken this long to make something happen?

The sports films at NYU face a predicament that is not that uncommon in academic institutions. Universities care deeply about their athletics, but they seldom care for their films. NYU is no longer remembered for hosting legendary athletes or historically impacting sports. So why would workers invest time and money into a collection that is not a priority?

Collections Care
The University Archives at New York University finds itself in the not-so-unusual situation of being housed in a building that does not have its own environmental control system, and was never intended to. As the Elmer Bobst Library was built as a library and not an archival housing facility, staff is forced to make do with the space, and adapt to the situation as best they can.

The films were found stored on metal reels, which are harmful to the films because they: rust over time, can stretch the film, and can cause stress on the film which in turn speeds the process of warping and curling. The films will be moved to inert 3” cores. Films wound onto smaller cores can get deformed over the long-term and can result in curling. Deformations of the film can be caused by poor wind tension, dust, outside contaminants, improper storage materials. Dust and other similar contaminants can cause scratches to the emulsion on the photographic image.

The overall care and handling of this collection is adequate, in that the films have remained in boxes as they were first accessioned, and they are only handled minimally. When the films are handled they are handled properly, they were found to be stored in metal cans within archival quality boxes, both of which limit the ventilation needed by film. When the films are handled, gloves should be worn at all times, not simply to protect the film from fingerprints and contaminant, but also to protect the staff member or researcher from anything in the film that may be harmful.

In the event that audiovisual materials are in need of care or rehousing, the materials will be sent down to the Barbara Golfsmith Preservation Department’s Preservation Laboratory for inspection, re-housing, and repair.
Intellectual Care and Metadata

The films – and some other athletic related ephemera – were accessioned into the UA from the Sports Information Office under the Department of Athletics the 1990s. The only information available for the films is paper documentation created upon accession, a finding aid (not yet published), information input into the Access database and any information that can be provided by Janet and the other archivists.

Currently the UA uses both an Access Database and Archivists’ Toolkit to catalog their films. Archivists’ Toolkit is an open source archival data management system designed to provide broad, integrated support for the management of archives, and is mainly used by archivists for digital record management.34 The Archivists’ Toolkit records are what they use to export and publish for their online finding aid. Archivists’ Toolkit records hold minimum information as Access holds more detailed information that can be supplied upon request.

Catalog records in Access include the following fields:

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Catalog records in Archivists’ Toolkit include the following information:

- Unique ID#
- Title
- Date
- Instance Type
- Container Summary
- Subject specifications (LOC, Getty, etc.)
- Notes

**Rights Status**

The rights of the audiovisual sports material in NYU is not as of now specifically defined as to which department holds the rights. NYU holds copyright to all material created for its use. The University Archive and the Department of Athletics keep open a good line of communication and discussion about the materials, that foresee no problems in the future should a copyright question arise. All parties wish to keep copyright of the material within NYU so as to maintain future licensing options.

At this time it is unknown whether NYU ever registered copyright on these materials, though it is doubtful. [To be expanded]
NYU University Archive: The Sports Films Project

For this project, I worked to identify content, rehouse films, note films in need of urgent care, and work to help the UA to understand how to archive and preserve films. With work spanning over both the University Archive and the Barbara Goldsmith Preservation and Conservation Department, work for the project was separated into two phases. Phase 1 of the project involves a brief collection assessment, and cataloging of the materials. During phase 2, the films will be transferred to the Preservation Lab where they will be inspected, repaired, identified (if possible), and re-housed.

For Phase 1, work was completed under Janet Bunde, the Assistant University Archivist, to: perform an initial visual inspection of the films to identify any films in need of immediate action, enter information into the Access and Archivists’ Toolkit databases, suggest new fields of information for the databases, and prep the films for conservation work. Prior to my start on the project, Bunde transferred some of the “worst-case” films in the collection to the Preservation Laboratory to be stored onsite in the cold storage vault. As some of the films are in conditions beyond any help from the onsite lab, they will need to be sent to an outside vendor to be assessed and reformatted.

The goals of Phase 1 were to:

- Physically examine the items to assess their condition
- Check any preservation actions already undertaken
- Gather metadata information from the materials and input it into the Archivists’ Toolkit and Access databases
- Evaluate the existent descriptive information and current workflows for audiovisual materials
• Recommend and propose preservation actions that will help to extend longevity for the items in the collection and to guarantee access in the long term.

For Phase 2 of the project I worked alongside Carmel Curtis (1st year MIAP student), Kimberly Tarr (Media Preservation Unit Head), and Benjamin Moskowitz (Media Preservation Lab Supervisor). Carmel and I, completed inspections and re-housings of the films. After Carmel had inspected a film I would wind through again to look for any identification or other information (edge code, game scores, teams, content, intertitles, etc.) to gather. Inspection of the films included measuring the shrinkage and vinegar syndrome level of the films.

**Pre-Project**

Prior to beginning work on the Athletic Department film collection, I met with Bunde to learn about the status of the collection, and what work I could do with it. She informed me that the first step in this project would have to be ensuring that all of the films were cataloged in both their Microsoft Access database and their Archivists’ Toolkit (AT) database. She could tell by looking at the records in the Access database that there were not detailed records of the films, and then in comparison to the AT, that much of the films’ metadata had not been transferred to the AT. She also knew there was at least one box of materials that were not cataloged in either database.

When accessioning audiovisual (AV) materials into the University Archive they are placed into archival Paige boxes that receive unique numbers. When the time comes for the collection to be entered into the Access database, each item is assigned a Unique Identifier.
Once entered into Access, the items are then either re-shelved for continued storage and preservation, or they are entered into the Archivists’ Toolkit.

I will deliver to Janet and the UA, my collections assessment, recommendations, an estimated Vendor cost, a short guide to Audiovisual archiving for use by the University Archive staff.

This was not to be a simple collections assessment and cataloging project. Rather, about the prospect of taking these films through the basic preservation process in the Preservation Laboratory in order to both encourage the archiving and preserving of these films, and to uncover previously unknown information about the materials.

Moving ahead with this hands on work of the project became dependent on two things: 1) the preservation staff having the space to hold the films while I worked on them, and 2) their willingness and availability for me to actually proceed with this work.

An outlined contract (see Appendix I) was drawn up; and proposed the goals of the project:

- Inspection
- Rehousing
- Content Examination
- Build description information
- Recommendations

Throughout the project the films were held in the cold storage vault in the Barbara Goldsmith Preservation Laboratory. (The vault is maintained at 65 degrees Fahrenheit with
a 35% relative humidity.) After the project has been completed, only films with an IPI score of 2 or higher will be kept there.

The Image Permanence Institute defines IPI level as the scale of 0 - 3 that they use to monitor the level of vinegar (and thus vinegar syndrome) in a film. The Image Permanence Institute distributes acid detection strips that when placed into cans of film change color and indicate the increasing levels of acid, this measuring film detection. The scale ranges 0 – 3 with 3 indicating critical condition.

**Preservation Procedure/Workflow**

Prior to any materials going down to the Barbara Goldsmith Conservation Laboratory (aka Preservation Lab) they must follow the proper procedures in an effort prevent the loss of any items. In the event that an item, box, or collection, is sent to the Preservation Lab, the workflow the materials follow is thus:

[University Archive Workflow will be inserted]

Each item must be individually entered into the databases so that they will each receive unique identifiers from their specific archive and from the AT system. It is only through the AT system that the Preservation Department is allowed access.

**Project Phase 1**
Phase 1 of this project consisted of the cataloging and assessment of the films. Coming into this collection, I was not the first person to look at this collection from an archiving and preservation perspective. All but one of the boxes of films had been catalogued in the Access Database, and some of the films had undergone preservation work as demonstrated by their rehousing, inspection reports, and detailed Access records.

When materials come into the University Archive at NYU, they will be catalogued into two unique databases. Per the workflow of the library, each individual item is cataloged into the databases. The first database the materials are entered into is the Microsoft Access database, and the second is Archivists’ Toolkit.

**Access Database**

The Access database serves as the larger “behind the scenes” database that holds very detailed information: regarding the items’ physical characteristics, content, preservation information and other general notes on the item. It is designed to garner this more specific and detailed information not made public, but is open to being edited by the UA staff to hold any information that researchers may inquire about.

Fields are:

- Box #
- Speaker
- Provenance
- Subject
- Base
- Physical Condition
- Title
- Tape # (Unique ID)
- Topic
- Accession #
- Element Generation
- Length
- Shrinkage
- Format
- Location
- Date
- Record Group
- Color/B&W
- Stock Duration
- Barcodes
- Silent/Sound
Since all audiovisual materials are filed under the Audiovisual Collection, the Access Database records were specifically designed by AV archivists to contain fields of information that specifically pertain to film, video, and audio materials. When individual items are entered into the Access Database they are randomly assigned a new unique identifier. In the AV collection, an AV precedes that number (ex. AV2918).

Archivists’ Toolkit

In Archivists’ Toolkit (AT), each user enters records under their own username, so supervising archivists can check the changes and track them over time. Archivists’ Toolkit records can either be very simple or increasingly detailed. For the purposes of the UA and this project, we found a middle ground.

To create new records in the AT, the specified collection is opened – in this case the Audiovisual Collection – and then a ‘sibling’ is added. Opening up a window to input the relevant information, and adding the new item as simply the next one in line.

‘Subject’ was a field that I chose on my own to fill in. It is important to make these materials – and records - as searchable and accessible as possible. Currently the UA’s AT utilizes the Library of Congress and Getty subject headings. From this I could mark the films as: Football, Basketball, Wrestling, or NYU Athletics. I recommend these be expanded to include such other information, such as geographic location. Many of the films at NYU
are footage of when NYU played at Yankee Stadium and Madison Square Garden, both of which are subjects that are likely to draw many interested parties.

The key pieces of important information to include in the AT, and thus the finding aid, are: level (collection, item, etc.), title, date, unique ID, box number, instance (moving image, manuscript, book, audio, etc.), original format, and related materials.

The AT records serve as the platform from which the online published finding aids are generated. Therefore archivists in Bobst are careful about the amount of information that they include in these records. When the records are published appear online as a long – unsearchable – list of items, and having very detailed records would clutter the screen.

[Screenshot of UA Archivists’ Toolkit entry]
and make it difficult to decipher between item records. The published AV records are generally only updated with the materials that are accessible, as they are digitized or transferred. And as with the Access database, there remains information input into the AT that is not revealed on the published version.

While the records in the AT could have gone much more in depth, Janet specifically requested that I attempt to make the finding aid as slim as possible. Thick blocks of text and long lists of items can be off-putting to sort through, thus potentially limiting the number of inquiries about material in the collection.

**Revising the AT**

While working on this project, Janet asked me to also take a look into possible changes that could be made to the AT to make it more “AV friendly” in a way that is useful to patrons and archivists. The strategy for this was based on reading through a blog post by Josh Ranger on the Audiovisual Preservation Solutions site, Megan McShea’s (Audiovisual Archivist at the Archives of American Art) response, and Megan’s resulting draft of AAA AV Description Guide. In Josh’s post, he questions whether finding aids (as currently used) inhibit archival activities because the primary goal of a finding aid is describing and locating an item, not processing the item to move it towards a goal of preservation. He postulates that there is “the potential for the finding aid to become the endpoint rather than a stepping stone to further collection management.”

NYU’s own EAD finding aids demonstrate the problem that they are not online searchable, thus not discoverable, and

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this creates an inefficient use of resources by cataloging materials into a system that is by design an endpoint.

Megan McShea’s response agrees that EAD’s run the risk of getting poorly described media that is inaccessible, but she raises new points by suggesting that EADs can be faster and more efficient to getting items moved through the archiving queue, though it does not guarantee access. As is also seen in the NYU system, detailed inventories can be created for the media items that contain information withheld from patrons simply because it is of little use to them. (Information such as collection relation, physical details, etc.) As Megan points out, the real problem with EAD’s is that they don’t provide guidance on how to describe audiovisual media, which leads to inaccurate descriptions.36 This lead the Archives of American Art to create processing guidelines for their own collections described using Archivists’ Toolkit. This guide is available as a draft online, and it is this guide that Janet Bunde and I have for ideas on how to describe the audiovisual materials in the University Archive. The guide provides information on how to provide basic and detailed descriptions for collections, while also separate collection descriptions from management information.37

Paper Records

Outside of the two databases, the UA also has a file folder containing documents regarding the contents of the Department of Athletics collections, film, video, paper, and otherwise. There are 4 inventory lists relating specifically to the films: Inventory A, B, C.

and the Coles Inventory. Inventories A & C are spreadsheets detailing the: Tape number, Title, Date, Accession Number, Format, and Subject of each film. These inventories list nearly the same list films.

My first task as part of Phase 1 was to catalog the single box of previously cataloged films. While the majority of the collection is NYU films already in the Access database and Archivists’ Toolkit, there were 12 films that were not yet residing in either. The films were housed in a cardboard Banker’s Box that was large enough to house reels of over 1,000 ft. Notes indicated that this box came from the Athletic Department in Coles Gym during September of 1996. It was identified as being part of accession #96-029. Within this box were 9 16 mm reels, and 3 of 8mm.

Just by opening the box I was overwhelmed with the smell of vinegar and it became apparent that these films –or at least some – were far down the road of decay. Janet chose to start me off with entering these films into Access as this would both give me a feel/look into what kind of materials I will be looking at and the general condition that they are in; highly odorous and warped. This starting also provided me with the chance to look at the Access and AT systems, ask questions about workflows and information entry, and to gauge what kind of changes could -or should- be made to the system.

Prior to moving into the University Archive in the 1990’s, these films were stored in the Sports Information Department in Cole’s Gym. This information tells me that while they were stored in a department that would know about the films, their content, their possible relevance, and maybe even their production history, it also mans that they were stored in
building controlled temperatures in a building filled with chlorine (from the swimming pool), disinfectants, and sweat.

All of the films were housed in cans, however they were split between being housed in plastic and metal cans, and on reels and cores. The films of longer footage were all housed in plastic cans, while the smaller – approx. 400 ft. reels – were housed in metal cans. Some of the metal cans show signs of rust and off gassing from their outside.

Donning gloves, I went through the box reel by reel. Only opening the cans briefly to check if the films were on cores or reels, and to see what cursory information about film stock and other physical characteristics could be gathered. Through this method I was able to discern that all of the films are silent and contain footage of basketball and/or football games.

The container annotations of these items while confusing at first, ultimately shed some light on some of the documentation in the manila folder. The 4 films housed in small cans are all single game films identified on the can with the specific game and year.
The other 8 films in the collection proved to have unique titling in the form of a simple range of numbers.

This seemed to indicate that these numbers corresponded to other films, videos, or a specific record corresponding those numbers with a record of those contents. Looking at the other large reels in the collection is became apparent what the numbers corresponded to. On the next reel in the box, was a reel of the same size with a different number range, and this time the container annotations also identified a group of films.
From this can, it became apparent that these films somewhat corresponded to "Inventory B" in the folder of documentation. Inventory B contains a list of cataloged films that had been stored in an unshelved box in the rear of the University Archive. According to this inventory they had previously been spliced together and transferred to Betacam SP tapes. (The tapes are currently thought to be housed in the Sports Information Office.) Depending upon the quality of the films and the Beta SP tapes, in the future it would presumably be preferable to digitize the films.
The Inventory lists the films: identifying the games, years, sport, and number of reels; while this theory could only be corroborated by the film that detailed the contents of the reel (see the above image), it was likely that the other films would correspond as well. Meaning that “17 – 21” contains footage of these basketball games:

- NYU vs. Colorado 1947
- NYU vs. Notre Dame 1948
- NYU vs. Oklahoma 1951

The discovery of this information spelled good news for these films. This possible identification means that during the inspections when I would be looking for clues as to the specific content of the reels, I would have some hint as to what to look for and if there was no way to determine the contents without projecting it or viewing it through other means, there would at least be an educated guess as to what it is. This list also reveals that these films were produced from 1929 to 1963.
Unfortunately for these films though, these would join the ranks of the films in the worst condition and suffering of decay. Prior to fully opening the cans there was a smell of vinegar enough to identify it, but not strong enough to suspect the kind of decay that one or two of the reels is undergoing. Upon opening one of the cans AV5157, I was met with the overwhelming smell of vinegar and this:

The above photograph depicts a film that has decayed to the point of becoming overwhelmingly pungent, warped, and pinched. As it remained at the outset of this project, this film was at the risk of being at a point beyond repair, or at the least being at the point of a costly fix. Costly simply in that this film – and others in the collection like it – will require more work and time with an outside vendor to see first if they are able to do any work that allow this film to be transferred.

Moving through the rest of this box, the remainder of the film was in varying stages of decay. They they have varying signs of physical and chemical decay including the
containing of: dust, dirt, vinegar syndrome, warping, pinching, loose wind, early stages of becoming brittle. Eleven of these films have an IPI score of 3 or above, and eight of them are experiencing shrinkage of over 1%.

After inputting the items and data into the Access Database that were not previously there, Janet and I looked at and began discussing potential fields to add to the databases, began sorting through their inventory list, and looking at the films in the archive to determine which if any need immediate preservation attention. (Although they will all be rehoused at some point.) This starting point provided me with the chance to look at the Access and AT systems, ask questions about work-flows and information entry, and to gauge what kind of changes could/should be made to the system.

**Phase 2 – Inspection and Rehousing**

Ultimately a slower process than had initially been expected, the inspection of these films has proven to be informative, revealing IPI levels, descriptive content used to identify and date, shrinkage percentages, and physical condition notes.

By winding through each real in turn, I have been able to gather further details and information on the NYU sports films. While some films will – for now - remain unidentifiable, many of the films contain shots of scoreboards or splice in title cards providing information about what teams are playing, the date, and in some cases even the producer. Some of the reels provide sufficient information (team, year, date, score, location, etc.) on the container that can be used to find more content information, while others provide little information and content identification could prove very difficult. The films
within the preservation department have been rehoused and all have unique IDs within the database systems.

The conservation and preservation work that these films are undergoing mainly consists of rehousing the materials – right now they are all in metal cans and for the most part on reels -, repairing tears and splices, and working to identify content details of the films that may be of interest to research and may help to classify the relevance of these films within the broader Department of Athletics records. Inspection of these films was completed by Carmel Curtis and myself. Working with the preservation department helps to ascertain and understand the process of outsourcing the digitization of these materials, and what can be done for those that are already in an advanced state of decay.
The damage and decay on the films included: rusty reels, warp, pinching, brittle film, projection burns, sprocket tears, and tape residue and decay. The damage presumed to be from projection (burns, and sprocket tears) were mainly found on the football films, and indicate that they were in fact produced for game review. While the warping, pinching, and brittleness of the films are a result of their age, poor storage history, and state of decay.

As of early May 77 films have been inspected and rehoused. The footage totaling 41,975 ft., with an estimated running time of 19 hours and 25 minutes.

IPI and Shrinkage Levels

Of the 77 films inspected by early May 37% of the inspected films have an IPI score of 2 or above.

![IPI Levels Diagram]

Currently the University Archive is looking into storing any films with an IPI level of 2 or above offsite at Northeast Historic Film.

In terms of shrinkage, 5 films are under 0.50% shrunk, 39 films are 0.50% to 0.95%, 23 films range between 1% to 1.45%, and 9 films are 1.50% to 1.65%.

University Archive Challenges and Moving Forward
The first major problem that I spotted in my work was that the way the Archivists’ Toolkit system does not alert one if a unique identifier is entered more than once, and it is not possible to search the records to locate specific films. There is no function within the program that allows for the user to search for information within the records they are creating. The other shortcoming with the AT database, is that the UA made decision to group all Audiovisual materials into one single collection known as the “Audiovisual Collection”. Every time a new item record is created, it is simply added to the end of the long list of items already in the collection. The sports films – and other subgenres or collections – are not grouped together in anyway unless they are all entered at the same time. There are no subfolders dividing the AV collection into a certain subject, genre, personal collection, or specific department.

In the Access database there quickly came the problem with the larger reels that there was not enough space in the filed boxes to hold all of the information that should be recorded. While there is a notes field in the database, the program limits the amount of characters that can be entered into the field.

In the case of the University Archive, it is only one of several special collections (the Fales Library and Special Collections, Tamiment Library & Robert F. Wagner Labor Archives, University Archive, Poly Archives, and The Research Institute for the Study of Man) operating within the Elmer Bobst Library, and all of these collections work in the same-networked databases that reveal and record the same information. Changes to one database cannot be done without consulting archivists from the other archives.

The NYU databases need an overhaul before they can truly be said to be ready for audiovisual materials. The archivists and preservation specialists are aware of this,
however with such vast collections, limited work time and workers, and enough materials to continue cataloging for several lifetimes, creating and switching to a new system is a daunting task that the library administration has elected not to pursue.

Moving forward with this collection (and considering the other AV materials in the UA), work will continue towards creating a more suitable audiovisual database system, and fields in the current system. Suitable storage options – both on and offsite – are being considered, and will hopefully be going into affect in the upcoming months. In addition to my hands on work with the sports films, I will also be providing the UA with a brief AV Handling guide. (See Appendix 2.)

Digitization

Two outside vendors were consulted for price estimates of digitizing this collection: The MediaPreserve and Reflex Technologies. The Media Preserve was chosen as a possible vendor based on their positive history of digitizing film content for NYU libraries in the past. Reflex Technologies was decided on as the second vendor based on a relationship recently formed between Reflex President Tim Knapp and NYU Professor Dan Streible.

Estimate Cost

The MediaPreserve

- Film Digitization
- Archival Master: SD 10-bit MOV or 2K uncompressed DPX
- Access/Edit Master: DVCPro50 or Apple Pro Res
Reflex Technologies

- Film Digitization
- Archival Master: 2k AVI
- Mezzanine: ProRes or H.264
- Estimated Cost: $32,000.00

Reflex Technologies has offered to digitize two of NYU's sport films pro bono, and discussions are currently underway between Reflex Technologies, Janet Bunde of the University Archive, Kimberly Tarr in NYU's Preservation Lab, and Jeffrey Bernstein from NYU's Sports Information Department.

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38 Tim Knapp, President of Reflex Technologies. e-mail message to author, March 19, 2014.
Case Study: University of Washington

University of Washington Background

The University of Washington (UW) was founded in 1861. It remains one of the oldest public universities on the West Coast, and has multiple campuses in Seattle, Tacoma, and Bothell, with a collective 16 colleges and schools. 39

Brief coverage of Special Collection

The Special Collections division – nested in the University Library like NYU’s library structure - of the University of Washington’s Libraries is one of the school's major resources for rare and archival materials that cover a plethora of topics, formats, and periods including: the history of the Pacific Northwest, architecture records, photography, American literature, maps, funeral records, moving images, and the Archives of the University. 5,686 of the collection guides (or finding aides) are available online. Also available online is a digital collection containing a small representation of the Special Collection’s photographs, books, manuscripts, archives, and moving images.

The moving image digital collection is comprised of film clips from a wide variety of films in the Moving Image Collection. Clips range from 1 to 4 minutes, and feature a large sampling of the subjects held including their earliest film, “a motorcycle race on a board track at the Tacoma Speedway in 1915”. 40 Original formats of the clips vary from 35mm, 16mm, and Super 8 film, to videos including DigiBeta and 2” Quad.

Past and Current Sports

The University of Washington Huskies have participated in college athletics since the late 1800s. While the Husky was not the original mascot, students replaced the original mascot – the Sun Dodger – in 1922. The varsity athletic teams are NCAA Division 1 and participate in the Pacific 12 Conference.

Teams fielded at UW over the last century include: football, track and field, basketball, volleyball, gymnastics, baseball, rowing, indoor track and field, tennis, softball, golf, and swimming (though men’s and women’s teams were eliminated in 2009). Today, UW fields varsity teams in:

Men’s and Women’s:
Basketball, Crew, Cross Country, Golf, Soccer, Tennis, and Track & Field

Men’s:
Baseball, Football

Women’s:
Gymnastics, Sand Volleyball, and Volleyball

UW’s football team was known to be quite competitive from early on, as demonstrated from 1907 – 1917 when the team went undefeated in 63 consecutive games, an NCAA record. The Huskies have on their record the 1960 and 1991 national title, eight Rose Bowl victories, and an Orange Bowl title.

The men’s basketball team has also been successful over the years, featuring periods of highs and lows with a recent resurgence of success. The team has competed in 6 NCAA

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tournaments under head coach Lorenzo Romar, and secured a no.1 seed in 2005. On December 23 that year, the team secured their 800th victory.

Rowing has also been a longstanding sport at UW, dating back to 1901. In 1936, the men's team gained international distinction when they won the gold medal at the Summer Olympics in Berlin. (Coincidentally, this is the same year that the NYU University Archive has footage of NYU athletes at the Summer Olympics.)

Sports Archiving Project

In 2009 the University of Washington’s Husky Stadium was about to undergo a massive renovation when an unexpected discovery was made. A storage room was found to be home to boxes upon boxes of film, stacks of videotapes, programs, and leaf blowers. As this room was also open to the wind and other outdoor elements, remnants of a family of raccoons and a rather large amount of ladybugs were also found amongst the dust and dirt layered ephemera. Upon this discovery, Hannah Palin – Film Archives Specialist in Libraries Special Collections – worked with a group of UW students to pack up the materials, move them out of the stadium and into an offsite library facility.

By then end of this moving and the first initial count, there were over 3,000 reels of film and over 4,000 videotapes that were suspected to be documenting Husky athletics from the late-1920s through the early 2000s. In vary conditions and states of identification, the athletics department gave their blessing for Hannah and her staff to take charge of

43 Sarah Freeman, ICA Moving Image Lead Technician, University of Washington Libraries, Special Collections. interview by author. 2014.
44 Hannah Palin, Film Archives Specialist, University of Washington, Special Collections. e-mail message with author, 2014.
these materials under the intention to preserve and make accessible. At this point it could be determined that content included: football, basketball, crew races, training and recruitment films, soccer, and more sports related material. While many of the films and tapes were in some form of protective housing, there were materials found not in housing that had to be sent out to labs to have specialized disaster recovery work performed on them. Often these materials were found to be unsalvageable. What was apparent from the initial discovery point though, is that this collection includes a large span of different media formats including a number of obsolete formats that require “extinct” analog equipment that can only be found in two or three companies in the country. This cost alone can be in the low thousands but these add the additional cost of needing repair and other work in order to repair and save them for future generations.

The UW Special Collections library and staff are working under an initial five-year goal of having these films organized, described, inspected, properly stored, and accessible. An ultimate goal of acceptance into the Special Collections collection, as well as digitization and online viewing availability is realized by all working on the project, and while they have already raised over $330,000, but an additional $800,000 is needed to provide access and preserve the games.45

This collection came into the Library’s possession in 2009 when it was discovered in Husky Stadium before the stadium underwent massive renovations. At the time the collection – mixed film and video – was housed in 35 dusty cardboard boxes. Some films were found housed simply on reels and then in the boxes, no can or outside housing whatsoever. While the collection was taken possession of by the University of Washington

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Special Collections Library, unlike the reset of the Special Collections materials, the sports materials are housed in an offsite facility and are not directly recognized as being a part of Special Collections.

Handling the day-to-day task of tackling this project is Sara Freeman, a recent graduate from Washington’s MLIS program who first began working on this collection during her final year, and Hannah Palin, the Film Archives Specialist at the University.

While initially focused on print materials, during her time in the MLIS program Sarah became interested in the archiving and preservation of film. When she became a student worker in the Library, the sports film collection was a “new” project that had been sitting around for a few years waiting for a student to be available to work on it. The more she works with the collection the more she has come to appreciate the unique contents of materials from over a span of more than eight decades.

The Collection

This vast collection of is divided nearly in half between formats: 4,000 16mm films, and 4,000 videotapes. The videotapes are comprised of a mix of formats: Betacam, Betacam SP, VHS, ¼” audiocassette, and 1-inch Type C. The material was produced before 1937 until around 2010.

The library decided to first sort the AV materials by format – a decision they would not have made looking back -, which resulted in some issues in cataloging when they found that they had the same game on different formats, but the formats were in three different locations. The questions they started off with were, “what is the best way to store these?” With so many different formats – and different requirements for storage – “by format”
made sense as a way to store them while maximizing shelf space. Following the format sorting, they spent 2 months putting the materials in chronological order within the respective formats.

For now, the films and tapes remain in their largely in their original (if they had some) containers. The writing on them remains legible. The library had some new cases available for some of the tape formats, so those that needed housing – or who’s was in disrepair – were able to be rehoused. The films that were without were rehoused in archival housings.

For cataloging, an Access Database with a unique identifier system is currently being used to catalog the materials. If the items ever move into being a part of the permanent collection in the library they will have to be re-cataloged into that system.

The unique identifier system is more complex then simply adding a “randomly” assigned number to each item. Instead, each identifier is comprised of 3 elements that work to individually identify each item in greater detail. Each identifier begins with a letter corresponding to the sport it contains.

Ex. Football = F
    Baseball = B
    Basketball = K
    Soccer = S

For women’s teams, a “W” precedes the sport identification letter. There is no extra letter for Men.

Ex. Women’s Soccer = WS
Following the letter is a number indicating the last 2 digits of the year of the game—or event. After this number is a randomly assigned number. The sequence of these numbers follows each other for a given year, at the start of the next year the random number resets. Along with the unique alphanumerical identifier assigned to each item, each sport is also assigned a different color sticker that is placed on the spine of the taps and the edge of the cans. The different colors make the sports easily identifiable at a glance.

Other basic information in the preliminary catalog record is: container annotations, title, assigned title, stock manufacturer. Assigned titles are given if there is not already a title already on the AV material, and when input into the system it is put into brackets [University of Washington, Baseball].

Currently the audiovisual materials are stored on 11 shelving unit sections, six shelves high, holding the approximate 8,000 items. The materials are organized on the shelves by format and then chronologically.

Content

Of the 4,000-item collection, the majority of the film content is football or basketball games. Due to the 43-year span across which the films were produced, the collection features a variety of characteristics. There are black & white films, color films, and color films with black & white copy prints. After 1974/75 there was a noticeable switch to creating mainly color films, however of the holdings 80% of them are b&W. The films are almost exclusively silent, with the exception of some optical sound.

Nearly all of the films are works for hire. Some of them are productions from local TV news stations that shot the footage for its own purposes and then gave the school a
copy. Sarah Freeman and the staff have been reaching out to these news stations to see if there is interest is having these materials, and to see if there is other information to be uncovered. She has found that a lot of times the station do not have copies of their own.

Mixed in with the vast amounts of sports films, there have been found materials with non-sport content. This is a common phenomenon that could be occurring as a result of the poor storage and handling conditions that these collections experience. Sports films seem to often come to archives in boxes found in closets or elsewhere that it is just known to contain films relating to the university. Or perhaps films of unknown content were found in sports department offices or areas and just presumed to be about sports, and added to the collection.

Condition

Of the many formats comprising this collection, the Betacam tapes are holding up the best. The ¾” U-matic tapes are also “holding up well”\textsuperscript{46}, they are also experiencing problems when they attempt to run the tapes through the U-matic decks. As per the problem that is plaguing many archives, running the U-matic tapes through the deck is ruining both the tape and the deck. Thus in essence the tapes only appear to “holding up well”, when in fact they are degrading to the point that they may only be able to pass once through the U-matic deck.

While they do hope to one day have the films professionally transferred, they currently are creating digital copies of films using an Elmo projector that has been rigged to connect to a computer, imports the film into Final Cut Pro. After the digital files areburned

\textsuperscript{46} Sarah Freeman, ICA Moving Image Lead Technician, University of Washington Libraries, Special Collections. interview by author. 2014.
to a DVD or transferred to another hard drive they are deleted. The archive simply does not have the storage capacity at this time to store these large files.

They are now stored in a temperature controlled offsite facility. However unfortunately only materials that are catalogued and ready for Inter Library Loans can be stored there. Therefore their current environment remains non-temperature controlled. The lights are zone-based and remain off when no one is working with the materials.

**Rights Issues**

While sports are popular at the University of Washington, there was no initial push from the Sports Department to keep, catalog, or digitize these films and videos. It was simply happy to not have to deal with it.

As the collection is being cataloged, word has spread about the collection and now many requests are received for copies of the films. Recently an old football coach, Don James (coach from 1975 to 1992) passed away but just prior to his death his family requested digital copies of some of his favorite games for him to watch. There is also great alumni interest building. Now the Sports Department wants to reclaim the collection, which has brought on a very interesting rights situation with the material. Now they are in a debate over who owns the material since the Sports Department realized there is in fact money that could be made from the collection, should it ever reach a point where this is possible. Even though content does not always equate to profit, the Sports Department is under the impression that it will. This interaction has also brought to light that the Sports Department has a deal with licensing company, stating that all sports ephemera must pass through them to get permission to distribute, and they get a portion of the profits. Well the
library is not currently charging a fee for these digital copies and if they did, this deal would mean that the licensing company and the Sports Department would take some percentage of the monetary compensation, but not necessarily a profit, leaving minimal – if any – money for the collection itself.

Aside from the rights of the UW materials in the collection there also arises the question of what is to be done with materials that feature two teams where neither is UW? Now, as the material is in the possession of – and more than likely created by – UW there appears to be no rights conflict in them keeping it. However, if they decided to deaccession such materials from their collection, whom would it go to? How is it decided which school or party will get the film, particularly in the event that neither school as a copy of its own?

4. Moving Forward

The end goal of this project is to have all moving image materials fully integrated into Special Collections, and specifically to have the films available for viewing online. [To be expanded]
Case Study: Northwestern University

[Brief Northwestern athletic history to be inserted.]

Overview

In 2010, Stefan Elnabli began working as a Moving Image Specialists in Libraries (MISL) fellow at Northwestern University Library, working with audiovisual collections. The largest collection that he has been working on is the collections of 16mm films documenting the Northwestern Wildcats football team, which totals approximately 3,000 items. With hundreds of hours of films, and the long-term goal of making them digitally accessible worldwide, Northwestern is leading off with an enterprising and innovative project.

Northwestern acquired the collection of athletic films in the 1980s, and since then have traded films with other universities (Duke, Princeton, Indiana, Wisconsin, and more). University Archivist, Kevin Leonard, was part of the decision to choose the collection of football films for this project. The football film collection was chosen based on the large volume of materials, the expectation of a built-in audience, and the hope that the preservation and subsequent open access to these materials would help to garner future support in preserving and digitizing collections.

On the offset of this project, the library was not equipped with digital capabilities or the amount of storage necessary. Through this continuing project, however, storage and

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processing is being reevaluated in order to maximize space, conform to best practices, and build better workflows.

**Collection Content**

The Northwestern University Archives holds hundreds of hours of football films. At the start of this project the 16mm film collection of the university’s football team – was initially comprised of 2,425 reels that had been produced by the Athletics department. The films were produced from 1929 to 1989. Since moving from the Athletic Department into the University Archive, the collection now belongs to the University Archive, though the rights for the material are believed to fall under the university as a whole.50

Detailed information regarding the content and history of the collection can be found online through the Northwestern Library's finding aids. The “Guide to the Athletic Department Football Films” includes an abstract of the collection, acquisition information, processing information, dates, separated materials, access conditions, electronic format, repository information detailed scope and content, and more. This is a very informative and helpful finding aid that provides researchers with information they may not even have thought of to ask for such as: the number of materials that were separated (304 reels of duplicate games), and the brief history of the creation of the electronic formats.51

This film collection includes practices, junior varsity games, Big Ten Conference highlight films, and some nearly complete seasons from the 1950s – 1980s. The 16mm reels contain some games completed on multiple reels, and a few games documented.

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50 Elnabli, Stefan. “Space is the Place” MISL Moving Image Specialists in Libraries. http://www.nyu.edu/tisch/preservation/research/libraries/2011/03/stefan_enabli_space_is_the_pla_1.html

51 University Archive. “Guide to the Athletic Department Football Films” Northwestern University Library. http://findingaids.library.northwestern.edu/catalog/inu-ead-nua-archon-1157
separately by offense and defense. The films are primarily of acetate film base. The collection is comprised of primarily silent, color & black and white films.

Condition

The films are suffering from varying stages of vinegar syndrome, though they are stored in archival housing and stacked in cold storage. Storage conditions for the films are high above most university standards in that the library has been able to supply enough shelving for keep all of the films of this collection stored flat like pancakes in an environmentally controlled and well ventilated area. This is not to say that all films in the library are stored in the same manner of excellence, but this newly processed collection is.

Phase 1

Phase one of this project called for the rehousing and pilot digitization of the films. During this phase of the project, as part of the rehousing, the films were also inspected for condition and historical value. A large part of this project and the initial phase – and continuing into the next phases – is the expanding of the digital storage capabilities.

Phase II & III

Currently Phase II & III are ongoing. Phase II deals with the access issues that are encountered in the Northwestern Library and through the Avalon Media System. Phase III involves dealing with the review and improvement
Digitization

The library at Northwestern does have the capability to digitize some materials in-house, and thus the storage they have fills up quickly. When it comes to digitizing archival audiovisual materials, the storage space fills up all the faster as result of the uncompressed files created. As the number of digital files accumulates and increases, so vastly does the digital space fill-up. [To be expanded.]

Digital transfers and DVDs of games have been made by a variety of vendors from around the United States. “Digital transfers in DVD format of football footage from the 1968 and 1969 Northwestern were transferred by Mike Pikula of San Antonio, Texas, Graham Warger of Marlton, New Jersey, and Helix of Chicago.” Noted in the finding aid, these transfers appear to have come before the most recent digital transfers that are now available online, but appear as though - at least some of them – were done to improve upon previous transfers.

For current digitization undertakings, the films are digitized to SD master files. Digital files of the films are accessible through the Northwestern Library website which in turn takes users through to the Avalon Media System that is at the root of the accessibility of the files. As the Avalon Media System utilized by the library to provide online access to the digital video files is designed to sit-atop the institutions storage, it is imperative that space be kept available.

Avalon Media System

52 University Archive. “Guide to the Athletic Department Football Films” Northwestern University Library. http://findingaids.library.northwestern.edu/catalog/inu-ead-nua-archon-1157
The Avalon Media System is an open source access platform designed in 2010 in collaboration by the University of Indiana and Northwestern University as a media management system. Designed for managing large collections of digital audio and video files, this is a freely available system that enables libraries and archives to distribute, manage, and provide online access to their collections. Avalon arrives in time to help archives and libraries as video and audio collections continue to grow rapidly. This system offers an easy way for institutions to curate content and manage workflows that can generate video and audio content.\(^{54}\)

The key to remember though is that this is NOT a Digital Asset Management System (DAM). Rather Avalon is an access layer that integrates with the institutions storage system, designed specifically for management capabilities.

A third release of the Avalon Media System is now available, with future releases planned for Winter of 2014.

**Post-Digitization**

After the films are digitized they are returned/stored to cold storage.

**Issues**

As typical in a large institution and research library, managing expansive and large media collections quickly finds itself with a host of challenges.

In an article he wrote for NYU “Space is the Place”, Stefan remarks that:

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Both physical storage and digital storage are of increasing concern as the library continues to accession media into its collections, and reformat materials for preservation and access in digital formats.55

Northwestern as a vast collection of thousands of reels of film, both audio and video magnetic media, as well as the offering of digital services for faculty, staff and researchers to digitize still images, audio, and video for their use. Stefan goes on to discuss how since the library is equipped to digitize materials in-house, it is a constant buzz of production activity and the storage fills up quickly. As in the case of most libraries and institutions nowadays, at the start of this project the Northwestern Library was not equipped to handle the vast amount of digital storage that would be required.

One of the main impetuses for this project is the need and desire to increase digital storage capabilities and to construct a functioning workflow plan for the digitization of AV materials. The football films became a test for all AV materials in the library. The library had not done much of this kind of digital work before, let alone undertaking something that would require this kind of space.

**Value and Incentives**

In a way, like NYU, Northwestern is a surprising school to be undertaking this project in this manor, as it is not a school that is well known for its sports athletics. While in the Big Ten conference, Northwestern tends to fall to the bottom of the competition which means that these materials may be of more interest to schools beyond Northwestern that are in the same conference.

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55 Elnabli, Stefan. “Space is the Place” MISL Moving Image Specialists in Libraries. 
http://www.nyu.edu/tisch/preservation/research/libraries/2011/03/stefan_enabli_space_is_the_pla_1.html
Fundraising was a major component to this project. Working with the Development Office at Northwestern, the University archivists are working to archive, preserve, and promote the film collection in an effort to raise money for the continuing preservation and access of the films.
Case Study: Other Universities

Speaking with NYU Cinema Studies PhD candidate Alex Kupfer (who is working on a dissertation focusing on the educational uses and distribution of university sports films,) I learned that he completed most of his research on the history of sport teams at Notre Dame, the University of Wisconsin, Madison, and the University of Idaho. These were just a few of the institutions that he had become aware of during the course of his research that are currently working towards preserving their athletic history.

The following case studies briefly explore the preservation work being done at: the University of Maryland, University of Idaho, Washington State, and Duke University. These universities were chosen based on the availability of access to information about their work on their athletic collections, and provided alternative workflow models.

University of Maryland

As elsewhere, the function of the University Archives is to acquire, arrange, describe, and preserve the history of the University of Maryland. Of the thousands of audiovisual materials in the university’s archive, around 7,000 audiovisual items housed are mainly documenting the schools athletic history. Material primarily dates form the 1950s to today. Archival material covers both intercollegiate and intermural activities.

University of Maryland Archives is digitizing film of Terrapin football games going back decades. Maryland recognizes that turning the film into a digital format preserves the games and builds Terrapin pride, and while they are still missing a lot of games they are working to find this lost footage. When alumni and community members donate films,

these films are digitized and posted online and made accessible to the public. The archive in turn returns the original film along with a DVD copy. [To be explained.]

In 2012, the University Archives at Maryland highlighted their continuing work by working with the football program to digitize over 800 reels of football films that date back to the 1940s. The digitized films were showcased alongside an array of other UM football ephemera at a Signing Day for the school’s team.57 58

[To be expanded: Explain the model and philosophy.]

University of Idaho

The University of Idaho is home to a sizeable collection of digitized 16mm reels of film that can be found in film, videotape, and digital format. The small collection is known as The Vandal Video Collection.

The Vandal Video Collection is a collection comprised of some 160 digitized — of comparable size to NYU - 16mm film reels that are held by the University Idaho’s Library’s Special Collections & Archives.59 The content of the collection consist of Vandal Training and Scouting films spanning from 1925 to 1997. The materials cover “both football and basketball games, with the bulk of these having been recorded in the 1970s.”

The collection of training and scouting films originally belonged to and were held by Idaho’s Athletic Department and by Vandal Boosters. They were transferred to the

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58 A short video about the UMD film archiving project can be seen on YouTube here: http://www.youtube.com/watch?v=6xugE2_vH20
University of Idaho Library from these owners over a period of nearly 20 years, from 1984 and 2000.

Professional cinematographers were hired to shoot the films for the purposes of instruction and scouting. They found that none of the original footage includes audio, audio was not necessary for the films to fulfill their purpose. The original footage – and the videos – are identified by game date because this is how the original game footage identified them. Contents of the recordings vary from full games to only portions of the game, specifically special team plays.

The Vandal Video Collection website states that:

The cinematographers often recorded and developed the films themselves, using the local labs at away games. They then broke these films into offensive and defensive reels for the coaches to use, and the original film went with the head coach for the subsequent Vandal Boosters meeting. This footage was also used to show both the football and basketball game highlights on Idaho and Washington television stations.60

These films reveal the inner workings of the Idaho football team.

Graham Wagner, a library volunteer, completed the digitization project of the Vandal Training and Scouting Films Collection of films and tapes. The audiovisual material was transferred to digital format and saved on DVDs from 2010 to 2011. The digital videos available online were ripped from the DVD digitization of the 16mm films. Metadata assigned to each digital video includes: location, outcome, date, and other information important to each game. The digital videos were then uploaded to YouTube for online viewing and access.

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Washington State University

Washington State University’s University Archives holds a collection of 16mm films and videos originally created by the WSU/WSC Athletic Department. The Athletic Department gave these films to the University Archive in DATE for permanent storage and preservation.

The films were digitized by “using an Elmo TRV-16G projector and Adobe Premiere Elements 7 / 9 software.” The files were saved as MPEG2 files and then placed in a permanent storage facility in the University’s Manuscripts, Archives, and Special Collections (MASC). The mpeg2 files were then branded and uploaded to YouTube for public online viewing and access. “Metadata and links were placed into a WSU Libraries-hosted CONTENTdm database and server for keyword level access.” Metadata accompanying these files can include: description, opponent, running time, silent/sound, number of reels, original format, final score.

University Archivist Mark O’English, Alex Merrill of WSU Libraries’ Systems, and Jeff Kuure of MASC originally developed the encoding and storage procedures for the digital files. Kerry Clark, Jim Kernan, Alex Merrill, Shawn Willoughby, and Tim Mace conducted the digitization and file conversions.

Duke University [To be expanded]

62 A Washington State University video can be viewed here: http://www.youtube.com/watch?v=eqJUCcwIIKE
The Duke collection of sports films located in the University Archive is comprised of 16mm films and videotapes mainly featuring the football and noted men's basketball teams. There are brief clips available online from some of the films, however the entirety of the films are not available for online viewing.

The films in the collection are primarily silent, and are a mix of black & white and color films depending on when the film was produced. The collection is experience degradation and decay films undergo as they age and has affected Duke's ability to create copies of some of the films.63

The rights of these films remain largely with Duke University as a whole, although the Duke Sports Information Office must approve the commercial use of any films, and like the University of Washington these requests will occasionally have to be approved by other licensing concerns.

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General Problems and Concerns [Will be expanded]

When dealing with University film collections – as with any collection – there are a cornucopia of problems and obstacles that need to be hurdled in order to accomplish what needs to be done. In these cases the highest of those obstacles frequently lands on: funding, space, interest, copyrights, and ownership.

Ownership

In the case of ownership this can often become clouded when the materials came to the archive from another school or department within the University. Through my research I found that often a department will pass along an “old” collection of films or tapes that have been sitting around. The department does not want them, so the University Archive or Special Collections take them in because they are part of the University’s history and thus may hold some hidden importance to future researchers.

A few different things happen next after this acquisition or transfer. In many cases, the materials are stored on a shelf or in an offsite storage facility until there comes a time when a full-time staff member or student worker can catalog them. In some instances materials are catalogued and processed based on the request of a patron – or the university – to have material digitized and made accessible.

Legality and Rights

First and foremost, who actually owns these films? Is it Athletic Department? Or the University Archive? Or is it the coaches? What is it exactly that is owned? The print, copies, content, copyright, all of the above and more?
The answer to this question will be dependent on each school, though it seems typical for the University Archive to assume rights over the materials that come into their collection, for the University of Washington this was not the case for them and they now fight to gain the ability to control what they do with the materials that they took in when the Athletics Department was content to simply dispose of them.

As I stated before, the rights of the audiovisual sports material in NYU is ambiguous beyond the point of fact that NYU owns them. This seems to be the case for many of the schools examined through this research as well. Northwestern and

Films of other schools found in these collections could be considered of questionable legality, that is to say these films may have been produced without permission. For example, in the NYU collection there is a 16mm film of Columbia vs. Princeton. Now, since the origins of this film are unknown (beyond its provenance coming from the Sports Information office) one can surmise that this film could have been given to NYU by one of these schools, or brought with a coach or player who switched schools. However, it could also be that these films was recorded by NYU football with the singular purpose of scouting out plays and players.

In the mid to late 1920s there was a ban placed on the filming of football games because they were used for scouting players from other schools. Also in 1929, the head coach of Oregon was fired for sending Army game film. [To be answered: What is the official legal position? Perhaps they are in orphan limbo in the legal sense too. If footage was shot but never exhibited isn’t it considered “unpublished work”? Could it be entered into where UA, or whoever, acquires it as legal property?]
The confusion over who at a university owns the rights to athletic department recordings in the University Archives is rooted in the confusion over physical rights vs copyrights. When collections are acquired into an archive often the donor signs an agreement saying that gives the archive physical rights over the items in the collection. These physical rights are what allow archives to perform actions deemed necessary for the access or longevity of materials. This however, does not give copyrights to the materials through which the archive could license and/or distribute the material.

Now on to the moneymaker. (No, seriously!) What the professional organizations were quick to realize – and that colleges have been seemingly slow to pick up on – is that no matter how good or bad a team is, there is money to be made in historic footage. Athletics make up a large part of societies and cultures around the world. The adrenaline, camaraderie, and general competitive nature of the events make them overly appealing to the mass audiences.

**On the Professional Side** [To be expanded]

Issues in the archiving of sports materials are not unique to University Archives. The professional world of sports archiving deals with many of the same issues that academic institutions due.

Surprisingly so, like college athletics, professional sports are not all that well archived and documented through moving images. Sure there are hundreds of thousands – likely millions – of DVR and video tape recordings. But, most of these recordings have not survived through the decades, nor ever made their way to the governing organizations that are so invested in these activities.
The title for the most widely recognized, organized, and established archive currently belongs to NFL Films. NFL Films ...

A lesser-known – but steadily growing – archive is found at Major League Baseball Productions (MLBP). An offshoot of the overall Major League Baseball organization - and in professional capacity connected to MLB Network – MLBP began their official Library and Archive in 2009 when their offices transferred from Chelsea Market to Secaucus, NJ.

The NCAA has an archive of college athletic ephemera, including audiovisual material...The NCAA largely uses moving image materials in its collection to license footage out to TV stations and sports news programs such as ESPN.

ESPN has deals with multiple sport organizations for the rights to license and air footage on their station. In these instances ESPN is not always given the rights to air material in perpetuity, often the license agreement will be for a set period of time and then expire. ESPN also purchases thousands of older sports films for its own archival collection.

**Money**

Some sports departments do not want to spend the money to complete the work that is needed, but as soon as they hear there is interest and “value” in the collection, they want to reap the benefits. On the other hand, the university archives want the collections but often do not have the funding, knowledge, or motivation to complete the projects.

As with any collection and archive, Universities have trouble finding the money and support to properly preserve their collections. This is also where the archiving of sports films becomes quite interesting, as there are multiple routes in which this problem can be tackled.
In the first case, the archive could seek aid from the Athletics Department. As the films likely came from them and would most benefit them, it is surprising that more Athletic Departments are not actively seeking to help with this task. In fact it appeared through my research that more often than not the Athletic Departments are more than happy to give the school’s archive the materials either after persuasion on the archive’s part or “spring cleaning” on the part of the Athletics’ staff. Athletics Departments typically have one of the larger budgets of school activities and therefore why couldn’t they spend some of those millions preserving their history?

Northwestern University’s work pursues another option where the library archivists choose this kind of project as a fundraiser for helping to further promote and support archiving activities in the library. As is continually reiterated, athletics are ingrained into many an institution and alumni. Using school spirit to fundraise for the school is not a new practice, so why abandon it?

**Overcrowding**

Exactly the same as the problem that faces the national prison system, archives and libraries have a reputation for taking in far more materials than they can properly manage and store, usually suffering in the climate controlled storage space department. For overcrowded libraries, the basic reorganization of space is often needed to meet the needs of the archive. The chance to solve this problem also offers the opportunity to work on getting better environmental monitors and controls.

**Interest and Information**
With archiving sports films, the problem is that the enthusiasm for this memorabilia is not the same as it is for uniforms, autographs, and photographs. The ability to hold a photograph or see the scanned images of stills and programs online is thrilling for alumni, friends, and family members. It can be hard to build momentum and interest in this project in these kinds of situations when alumni call the archive looking for a specific game only to learn that the University is unsure if they have it because their collection remains cataloged or undated.

This is not a problem whose blame solely lies on those outside of the archive though. These collections have some exceptional footage that is valued below of what it documents. While some materials will be found to be unvalued altogether in that they are out of focus, a bad print, etc. this will also not be known until these collection and materials are examined. Most collections will contain materials that fall into the middle of these scenarios. There will be some amazing and never realized footage, and there will be recordings that are not worth another glance. It is important to keep in mind that these sports film collections – and all other collections – should not simply be judged by their genre or classification. One never knows what treasures the images may hold, or what relevance it could have beyond that classification.
Beyond the Game: Considering the Inherent Perceived Value of these Films [To be refined]

So what is the importance of all this? Why should anyone beyond sports fanatics and nostalgic alumni care about preserving these films and all those like them? Why are these films important? NYU no longer plays football, and the basketball men's and women's team are Division III, attracting little public interest or even student interest.

What can often be forgotten is that is the number of iconic cultural moments that have become legend that originated with sports. The moments that brought cultural change.

Outside of the importance of capturing big victories, shattering losses, and stars, sports media has captured and made quite an impact on the world. From the infamous acts of Janet Jackson's Super Bowl "wardrobe malfunction" in 2004 to Major League Baseball's Disco Demolition Night in 1979 that ended in attendees rushing the field, fights, and post-game riots. These historical moments are not important simply because they are a sporting events but they are sporting events where something greater happened.

In the collection at NYU and any of these other schools, there is the potential for any sort of discovery. With the NYU collection one can see the NYU Violets play football in Yankee Stadium and basketball in Madison Square Garden. You find how the uniforms of these sports changed from the 1920s to the 1960s, also displaying the change in dress and style of the spectators.

What if there was footage of the “Bates Seven” controversy? In November 1940, seven NYU students were suspended after a student and faculty protest against an NYU football game against Missouri where one of NYU's lead players, Leonard Bates, was not
allowed to play because he was black. What if there was footage of this protest or this game in a collection but it remained undiscovered simply because it was labeled as sports material? A protest against their football team playing away games against southern schools where black student-athlete were not allowed to participate would be very interesting to see. But is there footage of this? Is there footage of the football team from that year? These are all elements and pieces of information that could be investigated. [To be discussed.]

Prior to the 2010 Orphan Film Symposium: Moving Pictures Around the World, in 2010 a group of NYU MIAP students, Jonah Volk, Stefan Elnabli, and Walter Forsberg, collaborated with the archivists from the NYU University Archive to preserve, digitize, and screen footage from the sports films collection. 16mm home movie footage shot at the 1936 Berlin Olympics where NYU sent several athletes. The Berlin home movie footage was included on the Orphans 7 DVD, and 500 DVDS are in circulation, some in Universities and reference libraries. Now the University Archive at NYU has the original film prints in archival housing, and digital copies for access. In my research looking into the University of Washington athletics, I uncovered that they too had sent student athletes to the 1936 Berlin Olympics. What if their students were on the film as well? And why does NYU have the 1936 in particular? While the Olympic footage is an outlier, as it is not a film of NYU Athletics, it is an example of what sorts of gems can be hidden in these collections.

These outliers are to be considered and contextualized within the history of an institution as much as any other directly related recordings. Amongst the games, the plays, and periods, moments of great historical importance can also be found on these films that one may have least expected, or never expected.
Moving Forward

What happens to these collections from here? In the case of NYU below is a list of recommendations on courses of action that they should take for this and all AV collections.

Short-Term (6-12 Months)

- Rehouse
- Inspect and repair
- Acid Detection
- Digitization of high risk items
- Sort out the rights issues
- Update internal records
- Digitize 2 films through Reflex Technologies
- Continue working towards a more suitable AV database system and fields
- Consider alternatives to replace Archivists’ Toolkit
  - AVPreserve AVCC Cataloging Toll

Medium Term (1-5 Years)

- Add proper shelf space and storage for AV materials
- Digitization the collection
- Access
- Figure out which games are missing

Long-Term (5-10 Years)

- Relate films to specific folders or boxes within RG41
- Assess all other audiovisual materials in the UA collection
• Digital Repository

• Offsite suitable storage
**Conclusion** [To be elaborated]

New York University, by far, has the smallest collection of sports films of the universities I examined. With only 110 films, NYU easily has the most manageable collection physically and monetarily. While the money required to move forward with the digitizing of the films is more than the UA can spend independently, it is significantly less than that required for the preservation of the 8,000+ AV materials at the University of Washington or any of the other collections.

Through the intensive project completed at NYU and the accompanying case studies, it is fairly clear that the fate of sports films is up to the archivists and not the athletic programs that create them and collect them.

[Insert summary of project conclusions]

Beyond the money, the sports, and the city, NYU has a deep-rooted connection to their athletics. For the first few decades the teams were known as the Violet and this small delicate flower was their mascot. The moniker of the Violets – much like that of the Ivy Leagues – came about because of the flowers planted around the main campus buildings at Washington Square Park and University Heights campus buildings, a symbol of the school. The violet remained NYU’s mascot until 1984 when it was voted that the mascot would be changed to the Bobcat. A Bobcat, chosen not for only its identity as a ferocious animal, instead chosen because it was the newly adopted character of the new computer catalog in the Bobst Library; this symbolizing a link between NYU’s academic and athletic identities.
Appendix I

Thesis Workflow for Emily Nabasny: Project with the NYU University Archive

University Archives staff have identified approximately 107 16mm and 58mm films depicting athletic competitions in which NYU was involved that date from the 1920s to 1960s. Most are currently cataloged in the University Archives’ internal audiovisual database. The bulk of the films were donated by the Sports Information Center at the University in several accessions in the mid-1990s. Accession records for these materials are scant, but the staff recalls an approximate number.

In consultation with the Barbara Goldsmith Conservation and Preservation Department, University Archives staff has begun the process of transferring these films to the Lab for inspection and rehousing. Approximately 15 of the most severely degraded films have already been transferred down to the Preservation Lab. Per a verbal agreement with Preservation Media Lab staff, films that have an IPI score of 2 or above will be retained by Preservation in the cold storage located in Bobst Library. Films with a score of below 2 will be rehoused and returned to the University Archives for storage.

Project:

University Archive:

- Work with approximately 110 16mm and 8mm films in the University Archive
- Enter un-cataloged films into the main Access Database
- Enter all films into the Archivist Toolkit resource record for the AV Collection
- Work to identify previously unknown content and add details to known content
  - Possibly relate films to other materials (documents, photos, news clippings, etc.) in the same Record Group (RG) 41: records of the Department of Athletics
- Add additional metadata uncovered over the course of the project through outside research and physical inspection
• Review the database fields and make recommendations of fields to add to each database
• ID and Prep films for conservation work
• Identify films for priority preservation work
  o Set films aside to be sent down to the Preservation lab a.s.a.p.
• Prepare paperwork required by the Media Lab to physically transfer films to the lab for inspection
• Provide a collections assessment
  o Provide recommendations for storage and reformatting
  o Include estimated cost of reformatting
  o *Possible task* of calculating footage of collection and providing UA with cost estimates for transfer, as well as transfer specifications (ideal formats, storage, etc.)
• At the end of the project provide the University Archive with guide on how to best manage incoming audiovisual materials
  o Note which fields in the databases are most important
  o Format identification and risks
  o Suggest additional cataloging tools that may be of use to UA in their work with such materials.

**Barbara Goldsmith Conservation Laboratory**
• Work with lab staff to properly care for and conserve the films
• Use Preservation Lab facilities to inspect and rehouse UA sports films
  o Work in conjuncture with student workers in the lab to complete inspections
• Identify content of films
  o Look for content clues and note information that may be of help to researchers and others looking to access the materials

**Work may also:**

1) Provide case studies of other institutions with similar collections (Northwestern, University of Washington)
2) Situate sports films within collecting sports-related materials at a college or university archive and explore how films may relate to photographs, ephemera, memorabilia, and other sports-related materials.

3) Compare how major sports organizations (ESPN, MLB, NFL) are cataloging sports films and what metadata those organizations have deemed essential for this work.

4) Explore the significance/value of the sports films outside these organizations.

Goal Deadline: End of March

[While the goal was not met, I will continue working on these films into the summer. Seeing through the completion of the inspection and rehousing.]
Appendix 2 [Still in progress]

Quick Guide to Audiovisual Handling and Preservation

Prepared for New York University libraries
by Emily Nabasny
Introduction

In 2014, NYU graduate student Emily Nabasny completed her thesis on archiving sport films in universities. A large portion of her research was based around a project involving the inspection, repair, and rehousing of approximately 100 films from NYU’s sports films collection in the University Archive.

Working alongside Janet Bunde (assistant archivist in the University Archive), Emily agreed to write a brief manual that could guide and help the archivists and student workers to identify moving image materials in the collection, and make informed decisions regarding preservation action and storage.

It is the intention of this guide to help the NYU University Archive to recognize and address issues of moving image preservation and to help facilitate better care for these materials. The following guide provides basic information regarding: format identification, decomposition and degradation, preservation, storage, and access.

This guide can be used with the *NFPF Film Preservation Guide, Washington State Film Preservation Manual*, and *Videotape Identification and Assessment Guide* (see: Resources and Bibliography) to recognize and deal with issues found in collections containing moving images.

Cataloguing and Identification

There are many factors that go into determining what is in a collection. From the offset it is helpful to gather and record as much information as possible about each item.

Any and all accompanying information found on film cans, boxes, labels, notes, etc. is important and is to be recorded into the Access Database for the Audiovisual Collection. Not all of these materials will make it down to the Preservation lab where more detailed information such as: film gauge, stock, element, and condition would be recorded. If this information is recorded when the item is first catalogued and is accessible, that can make a large impact later for researchers, as well as future preservation decisions.

Note any specific related materials or record groups as well. If the there is accompanying documentation, be sure to record such material exists but separate these paper materials from being in immediate contact with the audiovisual item as they can increase degradation.
Identifying Film

Below is a chart identifying the most popular film gauges (aka formats). The film gauge is the measurement of the width of the film stock, measured in millimeters.

<table>
<thead>
<tr>
<th>Format</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular 8mm</td>
<td>8mm</td>
</tr>
<tr>
<td>Super 8mm</td>
<td>8mm</td>
</tr>
<tr>
<td>9.5mm Palhe</td>
<td>9.5mm</td>
</tr>
<tr>
<td>16mm dual perf</td>
<td>16mm</td>
</tr>
<tr>
<td>16mm Sound / Super 16mm</td>
<td>16mm</td>
</tr>
<tr>
<td>35 mm</td>
<td>35 mm</td>
</tr>
</tbody>
</table>

Identifying Video [to be expanded]

Video formats are often easier to identify than film, largely because the tape itself nearly always says what the format it.

Damage and Deterioration

Acetate Decay (aka Vinegar Syndrome) = The chemical deterioration of acetate plastic in film that is accelerated by high temperatures and RH. Films experiencing acetate decay release a vinegar-like smelling odor.

- The level of vinegar syndrome or decay can be tested through the use of acid detection strips (A-D strips) that are sold by the Image Permanence Institute. All films coming into the archive should be tested. The test is simple and only requires placing one of the A-D strips in the can with the film for 24-hours (depending on storage temperature) and then reading the results.

Hydrolysis = a chemical reaction during which the binder of a tape absorbs moisture and the underlying structure begins to breakdown.
Sticky Shed = the shedding of the tape binder due to hydrolysis.

Mechanical Damage = Damage inflicted onto an item due to mishandling or poor treatment.
- Films are the typical victims of this, and the damage often appears as: tears, poorly executed repairs, non-archival tape, and physical damage.
- Be careful whenever handling media items, and always wear gloves when handling film.

Chemical Damage = Occurs as media items decay. It is often seen as: nitrate decay or acetate decay.

**Preservation**

Film should always be considered a high priority for preservation and transfer.

It also is important to remember that while film is the oldest of the AV formats, this does not mean it is automatically the highest priority for preservation.

Since video entered onto the media scene, there have been a plethora of formats in both the professional and amateur fields. The some of the most popular and well known of these formats being: 1-inch Type C, ¾” U-matic, Betacam, Betacam SP, Digital Betacam, DVCam, MiniDv, and VHS.

Betacam, ¾” U-matic, and 1-inch Type C are considered high-risk materials for preservation.

Betacam SP, Digital Betacam, VHS, DVCam, and Mini DV are considered a medium to low risk for preservation.

Remember! As media has shifted from video to optical (DVDs) to digital, the video formats are rapidly becoming obsolete and each year it becomes harder to find working playback machines for these formats, which is why videos are now classified as ‘medium’ and ‘high’ risk items in collections on priority transfer lists.

All videotape (and audiotapes) come with a ‘record’ button or tab on the cassette that allows for recording or re-recording of the tape. This button or tab should be removed upon ingest into an archive to prevent any accidental deletion of content.
In the above photo, the red dot is the ‘record’ button to be removed.

In the above photo the small rectangular, ‘record’ tabs should be broken off and removed.
If for any reason you wish to record over or erase the material, this can be accomplished by simply placing a piece of tape over the area where the ‘record’ tab/button was.

**Storage**

For all media it is important that all labels be recorded, and checked that they are securely fastened to the material.

**Film:**
Films may be found stored either on a reel or a core, and in a box or a can.

Most commonly films are found stored on a metal or plastic reel used for projection. Reels are not intended for long-term storage and cause stretching or mechanical damage (such as warping, tearing, or cupping) over time. Films can also be found stored in cardboard boxes and metal cans. Both can have ill effects on the film over time, largely because they trap in the fumes that the film releases as it begins to decay. These gases work to speed up the decomposition process.

Films found on reels, or in metal cans or boxes (or without housing at all!) should be identified and considered for immediate rehousing.
Ideally films should be stored on inert plastic cores inside vented plastic cans. Films should always be stored and stacked like pancakes. Preferably stored on shelves to allow for ventilation and air circulation.

**Videocassettes:**
Videocassettes are typically found stored in cardboard or plastic boxes.

Any videocassettes without housing should be rehoused and properly labeled. Videos should ideally be stored upright – or on an end – like books. Stacking tapes flat like pancakes, risks dislodging the pieces within the tape that allow for playback.

Based on the recommendation of the Image Permanence Institute
Magnetic tape should be stored at:
- 52°F (11°C) max. temp. for 50% max. RH.
- 63°F (17°C) max. temp. for 30% max. RH.
- 73°F (23°C) max. temp. for 20% max. RH

Film should be stored at:
- 36°F (2°C) max. temp. for 50% max. RH.
- 41°F (5°C) max. temp. for 40% max. RH.
- 45°F (7°C) max. temp. for 30% max. RH.  

**Endnote**

Dealing with audiovisual materials in the University Archive may seem daunting or out-of-scope, but with this quick guide the first steps can be taken in the preservation process to help ensure the longevity of the materials. It is the hope that this guide will encourage all who work in the archive to consider actively working towards preserving the audiovisual collection and making it accessible.

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http://www.climatenotebook.org/MSQR/MSQR_home.html
Glossary of Preservation Terms

These definitions are courtesy of the National Film Preservation Foundation's *Film Preservation Guide*.

**Access**— Access is the process through which film content is shared with the public. Depending on the institution, access embraces a range of activities, from support of on-site research to exhibition on the Internet. In museums, libraries, and archives, the most common access media at this time are film and video.

**Conservation**— Conservation is concerned with protecting the original film artifact from unnecessary handling by storing it under conditions that slow physical decay. Conservation usually entails creating a copy of the original that is then used for exhibition and research.

**Duplication**— Duplication is making a surrogate copy that is both viewable in a form that faithfully replicates its visual and aural content. It is then protected for the future by preservation masters from which subsequent viewing copies can be created. The preservation copy most closely represents the film as it was originally shown.

**Preservation**— Preservation encompasses all of the activities necessary to protect the film and share the content with the public. It embraces the concepts of film handling, duplication, storage and access. Film preservation is not a onetime operation, but an ongoing process. Even duplication must sometimes be repeated as techniques and standards improve.

**Restoration**— Restoration goes beyond the physical copying of the surviving original materials and attempts to reconstruct a specific version of a film and, in some cases, enhancing image and sound to compensate for past damage. Film restoration, unlike art or paper restoration, always involves duplicating the original artifact.

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Resources and Bibliography

Association of Moving Image Archivists
http://www.amianet.org/publication/resources/guidelines/guidelines.html

National Film Preservation Foundation
http://www.filmpreservation.org

Film Forever
http://www.filmforever.org

National Television & Video Preservation Foundation
http://www.ntvpf.tv/html/preservation/resources.html

AMIA Storage Standards and Guidelines for Film and Videotape Fact Sheet
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