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Preserving 'His Masters' Voice': the archival significance of master recordings

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PRESERVING 'HIS MASTER'S VOICE': THE ARCHIVAL SIGNIFICANCE OF
MASTER RECORDINGS

By

Joseph Shay

Accepted in Partial Completion
Of the Requirements for the Degree
Master of Arts

Moheb A. Ghali, Dean of the Graduate School

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MASTER'S THESIS

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A Thesis
Presented to
The Faculty of
Western Washington University

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July 2011

Abstract

Master recordings as products created by the music industry are some of the greatest time capsules in American culture. Throughout the history of the music industry master recordings received little attention and were not appreciated for the informational and evidential values held within the recordings. American archival theory provides the solution to help prevent the loss of master recordings and hence the loss of a piece of America's culture. Through archival preservation and partnerships between record companies and independent archives, master recordings and the American culture contained within them have a better chance than ever of surviving for many years to come.

Acknowledgements

This thesis is dedicated to my mother. This is the final step in a long road to fulfilling a dream of mine as well as a dream of hers. She very much wanted to see me earn my Master's Degree from Western Washington University; however, cancer took that opportunity away from her. She made me promise before she passed away that I would finish my degree not only for myself but also for her. This is the fulfillment of that promise both to her and to myself. This is for you, Momma. For all you taught me to get me to this point and all that you taught me to help me in my future, thank you. This one's for you.

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INTRODUCTION

Music has been, is, and always will be a huge part of my life; it is my passion and my motivation. I love music, all types of music, from classical to heavy metal and even on occasion a little rap. I also love my chosen profession as an archivist and when I searched for a topic for this thesis I longed to find one that would combine my two passions. I found the inspiration for the topics and arguments presented in this thesis at two stages in the research process.

The first stroke of inspiration came during the initial phase of research. When looking at archival issues facing the music industry, the inspiration came from an unlikely source. I took a break from researching one day and as I sometimes do played some video games to clear my head. The game in question that day was Guitar Hero 3 and while playing I stumbled upon a video clip of the Sex Pistols talking about how they became involved with the Guitar Hero game. In the clip John “Johnny Rotten” Lydon and Steve Jones explain that they were fortunate that Guitar Hero asked them to be on the game. Jones tells the gaming audience that, “Guitar Hero actually wanted to use the Sex Pistols because we’ve lost our masters... someone’s got them or sold them or stolen them or whatever.”¹ John Lydon notes, “Our record company has no idea where the masters are... such is the legend of the Sex Pistols.”² This YouTube clip both simultaneously inspired me and blew my mind. It raised questions that embodied the early stages of my thesis research. Those questions were: How can a record company lose the master recordings of a band? Do they not have archivists keeping track of masters and the documentation associated with a

¹ *Guitar Hero III – Making of with Sex Pistols* [Video]. (2007). Retrieved February 4, 2011, from <http://www.youtube.com/watch?v=kbzYJ5A24EM>.

² Ibid.

band? What is the current status of archival holdings in the music industry? How can we as archivists and a private industry such as the music industry work together to preserve recordings for future generations and allow access to those recordings for research purposes?

Having these questions in mind, I continued with the first stage of my research by sending out research questionnaires to various local independent record companies in hopes of securing some answers as to how they run their business and how they care for master recordings. I chose independent companies because I assumed they would be more willing to give an interview about their business practices than would a major label. Along with sending research forms, I scoured the internet in hopes of finding interviews already conducted with record companies possibly asking the same questions to which I was seeking answers. From the questionnaires I sent out, I was able to get responses from three regional independent record companies. Through emails to Brenda Nelson-Strauss, Head of Collections for the Archives of African American Music and Culture at Indiana State University, and both Stephen Leggett and Janet McKee at the Library of Congress, I was able to locate an interview with two archivists, one from Universal Music Group and one from EMI Music, two major record labels. These sources combined with books from the library of Western Washington University on the internal operations of record companies, helped to answer the questions of how record companies manage master recordings and what is the current status of recordings held in these institutions.

While researching the current status of music industry archives, I was still seeking a solution to the problem of archivists having a bigger role in the care and preservation of music for record companies, including making the music they are preserving and the

records associated with the artists who created the music available for research and use by the public. Then one day while working at the Center for Pacific Northwest Studies, a colleague handed me a *New York Times* article about an agreement between the Library of Congress and Universal Music Group that allows for exactly the kind of agreement between archivists and record companies I was seeking. Along with that article, I located several articles and books on preservation of audio materials and at last I concluded that I had research materials enough to answer the questions I was asking and hence a proper thesis.

As the prime means through which goods and services are exchanged, businesses in the United States have grown to contribute enormously to the culture of American life. Along with the goods and services, culture and ideas are also exchanged. The records of businesses in the United States directly reflect the operation of these businesses, and as such reflect the impact these organizations make on the culture of the United States. As Francis X. Blouin notes in his introduction to *The Records of American Business*, “In the broad sense of the term, business is an institution that defines culture and values. In the narrow sense it is a set of organizations that have structure and purpose focused on the delivery of goods.”³ The music business is no exception to any other American industry in the impact it has had on American culture through its influence as a prominent business in this country.

The music business creates copious amounts of records, everything from paper documents, electronic records, to the physical manifestations of recorded music or “master tapes.” As archivists, it is impossible for us to be able to collect and save every

³ Francis X. Blouin Jr., “Introduction – Business and American Culture: The Archival Challenge,” in *The Records of American Business*, ed. James M. O’Toole (Chicago, IL: The Society of American Archivists, 1997), 3.

document created by a business like a record company, so we must select records that document the important aspects of the business that created the records. The master recordings, as the final product of the music industry, are the form of documentation we will be most concerned with in this thesis. The reason this thesis will focus so heavily on the master recordings is because master recordings represent the final products of the business activities of record companies. As such, they provide both details for how the business operates to create its final product, but even more so they provide evidence of broader historical and cultural concepts that are represented in the music that is recorded. Master recordings can have multiple meanings and uses for researchers, from the point of creation and for years after their creation. Moreover, those meanings and uses can change over time.

The thesis is presented in four chapters. Chapter 1 consists of definitions and discussion of music industry terms, the importance of copyright of master recordings, and how ownership of copyright is determined through contractual negotiations. Archivists need to have a grasp on these definitions and an understanding of copyright in order to understand what a master recording is, what its value is in terms of both monetary and cultural value, and why ownership of copyrights to master recordings is important.

Chapter 2 presents a synopsis of the results of the questionnaires I conducted and the interviews with the major record labels conducted by the Library of Congress. This information gives a clearer idea of how master recordings are created. Through this creation, master recordings get their evidential value. To get a clearer understanding of the archival and informational importance of master recordings, and their place and creation within the music industry, this chapter also examines these recordings in terms

of the records life cycle. The records life cycle is broken down into four stages: creation of the record, its use, its storage, and finally its disposition.⁴ This life cycle was followed for years, and as a result when a recording was no longer popular or no longer sold, the master was considered of little use to the day to day business of the record company and was disposed of. This chapter looks at how the records life cycle has changed. The music industry now realizes that master recordings do indeed have longer term value and shouldn't be discarded. This chapter also shines a light on several of the important archival issues facing record companies and gives a synopsis of those issues.

Chapter 3 looks at the archival concepts of selection and appraisal in terms of master recordings. This chapter examines the archival problems facing record companies discussed in Chapter 2 in terms of broader archival theory. The chapter argues against the idea that once a record is no longer useful to a company it should be destroyed. Chapter 3 argues that archivists need to step in before the disposition stage of the records life cycle in the music industry and work with record company executives to save the master recordings that record companies may be considering for disposal. We can save these records and keep them alive by applying concepts of selection and appraisal. Through these concepts archivists can demonstrate that just because the informational use of master recordings for the record companies themselves may be gone, there is other evidential and informational value held within the master recordings for individuals outside of the business. It is my argument that master recordings should be selected and appraised based on the information they can give outside researchers about the business

⁴ William Saffady, *Records and Information Management: Fundamentals of Professional Practice*. (Kansas: ARMA International, 2004), 5-6.

practices of the business, how the master recordings were created, and the cultural information contained within the recordings themselves.

Chapter 4 offers an analysis of preservation methods for audio recordings and master recordings and explains why it is important that archivists work to preserve these recordings. That analysis is paired with analysis and discussion of a *New York Times* article highlighting the positive strides an agreement between Universal Music Corporation and the Library of Congress makes in bridging the gap between the music industry and the public. The analysis of the *New York Times* article reflects a larger archival argument of whether to keep corporate archives within corporations or to place documents that have reached the end of the records life cycle in the care of independent archives. It is my argument that a cooperative effort between the records managers at record companies and independent archives should be put in place to ensure the preservation of master recordings to protect their informational value and preserve them as a piece of history for as long as possible. The *New York Times* article also addresses some problematic aspects of the agreement, including using digitization as a means of long term preservation, prioritizing digitization based on profit making rather than historical significance and research use, and some of the problems with providing access to master recordings without compromising copyright. Chapter 4 also looks at potential ways to resolve some of these more potentially problematic aspects of the agreement and seeks to create a possible model for future agreements between private record companies and independent archives.

CHAPTER 1: MASTER RECORDINGS AND COPYRIGHT

The music industry presents archivists with an excellent environment and array of records in which to apply our skills. Besides a clear understanding of the importance of the records we are working with, archivists must also have an understanding of how the music industry creates its records, and the legalities behind their creation. Record companies don't create records thinking that they will have long term historical value. Christopher Baer, in writing about how businesses view the creation of their records notes that, "Most business records are not so much conscious memorials, strictly speaking, as expendable byproducts of the drive for control and efficiency."¹ That being noted, whether a major label or an independent label, record companies do produce many different kinds of archival records. As with any business, the archivist cannot possibly collect and save every record created; however, if we are careful in our selection we can save records with the most evidential and informational value. For the music industry, the type of record that is going to be most valuable in terms of information is the final product created by that industry, which is the master recording. As final products of the record company business activities, master recordings provide two types of historical document. One is evidence for how the record company creates the master recording as a final product. The other is evidence of the broader historical and cultural concepts that are represented in the music that has been preserved in the masters. From the point of

¹ Christopher T. Baer, "Strategy, Structure, Detail, Function: Four Parameters for the Appraisal of Business Records," in *The Records of American Business*, ed. James M. O'Toole (Chicago, IL: The Society of American Archivists, 1997), 118.

creation and for years after their creation, master recordings can have multiple meanings and uses, both to which can change over time.

Businesses in general create many different kinds of records that serve many different purposes. As well as the day to day practices of the business itself, the records that businesses create document the communications between the business and the consumer, as well as communications within the business itself. Business records can include: financial records, meeting minutes, correspondence, memos, emails, finished products and other documentation created during the day-to-day operation of the business. All the records created by the business serve a purpose in documenting the activities of the business, from financial records documenting the exchange of goods and the purchasing of necessary supplies to meeting minutes documenting decisions made by executives of a business. All the records produced by a business also provide context to the activities of the business and how that business impacts the greater society as a whole. Business records have incredible value in terms of providing proof of the activities of a business. This proof can be used within the business to keep day to day activities running smoothly and can be used by individuals outside the business to hold the business accountable for its actions. The records created by businesses are the only things businesses leave that gives proof that the businesses exist and the records created provide a source of information as to how the business impacts the society in which it functions. As Bruce Bruemmer notes, “The ‘leavings’ of this communication, mostly in the form of paper records and graphic materials, form the foundation for most business histories and

historical information.”² The context that business records provide about the history of a business and the businesses historical impact is what makes them important for archivists seeking to preserve the records.

Record companies produce many of the same records that other businesses produce: financials, meeting minutes, correspondence, memos, emails, final products and other documentation of the daily activities of their business. All of these records give context to the importance of the day to day activities of the record company, as well as its communications with consumers and the internal communications of the business. The records created by a record company also document its history as well as the record company’s historical contributions to society. Possibly the most important historical record produced by a record company is the master recording.

The questions for archivists are this: what is a musical record? What is a master recording? How is each created? In his book *All You Need To Know About The Music Business: Revised and Updated*, Donald Passman gives a clear definition of both a musical record and a master recording. From his definitions archivists can better understand what the records they are dealing with are and what their complexities are. Passman defines a musical record as any device or format that can carry music alone or music with visual images for consumer use.³ A master recording then is a specific type of musical recording. Passman provides one of the clearest definitions for a master

² Bruce H. Bruemmer, “Avoiding Accidents of Evidence: Functional Analysis in the Appraisal of Business Records,” in *The Records of American Business*, ed. James M. O’Toole (Chicago, IL: The Society of American Archivists, 1997), 136.

³ Donald J. Passman, *All You Need To Know About The Music Business: Revised and Updated*, 7th ed. (New York: Free Press, 2009), 66.

recording, stating that, “The original recording made in the studio is called a master, because it is the master (meaning controlling entity) from which all copies are made.”⁴

There are two different types of master recordings: multi-track masters and two-track masters. Passman describes a multi-track master as, “Multi-track meaning that each instrument and voice part is recorded on a separate track or channel.”⁵ Each track of a multi-track master could then be considered an individual master. Many multi-track masters never become finished masters. This, however, does not make them less historically or monetarily valuable. In fact, the estates of many famous musicians Jimi Hendrix and Tupac Shakur, for instance have had finished albums released that were pieced together from unreleased multi-track master recordings.

The second type of master recording is a two-track master. This product is, usually, the finished master that all duplicate CDs, MP3s, etc. are produced from. “The word master also means a recording of one particular song.”⁶ Therefore every track on an album is an individual master.

It is important for archivists to understand that with master recordings each master track can be recorded on separate mediums and each medium has to be cared for and preserved in different ways so that the information on it will not deteriorate and become lost. The physical medium on which master recordings have been made has varied over the years. Within the music industry the most common forms have been coarse groove discs (78’s), microgroove discs (vinyl), magnetic tape, optical discs (CDs), and electronic or born digital formats for instance, (MP3s, WAVs, MP4s, etc.). Each format has specific preservation needs. This specific issue is discussed in Chapter 4.

⁴ Ibid, 67.

⁵ Ibid, 67.

⁶ Ibid, 67.

Other than being the physical medium by which a musician stores his work, what makes a master recording so important? Two answers: first, a master recording is the best recording from which duplicates can be made; and second, a master recording is the recording on which record companies place copyright. In his article in *Billboard* magazine Bill Holland posed the question of quality of source material (ie. masters) to an unnamed music industry veteran, who responded by saying, “The answer is simple the others, copies and such, don't sound as good. Copies sound duller. If you use the wrong tape, like one equalized for the characteristics of vinyl format, forget it. Or one where they used too much noise reduction on a disc-era reissue, it's going to sound plain lousy.”⁷ Obviously both recording artists and record companies want the best sound they can get. A good example of the use of the best quality masters is in the recent trend of anniversary reissues and re-mastered copies of albums by various bands. The band uses the best quality original master and takes it back into the studio to clean up the audio quality then releases it as “new and improved” remastering of the original recording. In doing this the band and record company are able to make money from a previously released album. Without the best master this money making opportunity would not be possible.

The next matter of importance for archivists to understand is the relationship between the ownership of the physical master recordings and ownership of the copyright of the masters. This issue hinges on two concepts: 1) the importance of copyright to the music industry, and 2) how copyright is negotiated between record companies and the

⁷ Bill Holland, “Labels Strive to Rectify Past Archival Problems,” *Billboard Magazine*, July 12 and 19, 1997. Reprinted at <http://www.billholland.net/words/Labels%20Strive%20to%20Rectify%20Past%20Archival%20Problems.pdf>.

artists. In their book *This Business of Music: The Definitive Guide to the Music Industry*, William M. Krasilovsky and Sidney Shemel define copyright and give very good examples of the importance of copyright to the music industry. Krasilovsky and Shemel note that, “The 1976 Copyright Act defines publication as distribution ‘to the public by sale or other transfer of ownership, or by rental, lease or lending,’ as well as the offering to distribute ‘phonorecords to a group of persons for purposes of further distribution.’”⁸ They also note that in regards to publication of a recording, “A recording is considered published if it is sold to the public or offered to wholesalers or retailers for ultimate sale to the public.”⁹ Shemel and Krasilovsky’s definitions illuminate that copyright is important because it grants the copyright holders the right to distribute and sell the musical work, hence granting them the ability to profit from the work.

Since the owner of the copyright to a piece of music is granted the rights of distribution and sale of that piece of music, record companies work to secure copyright of all the artists they have under contract so that they can profit from the artists’ work. In order to do this, record companies include clauses granting themselves ownership of the copyright to the recorded music. In the standard recording contract between an artist and the record company, the company makes it a point to secure copyright through the signed contract. As Krasilovsky and Shemel explain, “A recording agreement is usually written as an employment contract and therefore the record company will claim that the results and proceeds of the artist’s services belong to the record company as a work for hire.”¹⁰ This means that the record company would then retain the copyrights and the rights to

⁸ M. William, Krasilovsky and Sidney Shemel. *This Business of Music: The Definitive Guide to the Music Industry*. 9th ed. (New York: Billboard Books, 2000), 59.

⁹ *Ibid*, 59.

¹⁰ *Ibid*, 23-24.

use as they see fit all master recordings produced by the artist. The record company would also retain ownership rights to the materials on which those master recordings are recorded.

Another important aspect of the ownership of copyright is the right to license the master recordings to movies, television, video games, and other derivative uses.¹¹ The importance of this relates back to the story of the Sex Pistols losing their masters and not being able to license them to the Guitar Hero Game. It also demonstrates the usefulness that archivists might offer to the music industry. From an archival perspective, a record company should be responsible for the care and preservation of said recorded materials to prevent loss both historically and financially. Had an archivist been working for the Sex Pistols' record company, those masters would likely have been properly stored and made easily available years after they were produced. Even though a recording or a certain artist may no longer be popular in the mainstream, an archivist would have understood that the materials still have historical value.

As with everything there are exceptions. In some cases, the artists that create the music can be the owners of the copyright. In many agreements between recording artists and independent record companies, the copyright rule of authorship comes into play. The rule of authorship is that copyright generally falls to the author of a musical piece.¹² This is especially important to independent record companies because many such companies let the artists claim the ownership of copyright and therefore the ownership of their physical masters. This practice differs from the major record labels, who usually do not grant artists ownership of copyright or ownership of the physical masters.

¹¹ Ibid, 64.

¹² Ibid, 64.

One final aspect of copyright that is incredibly important for archivists is the difference between ownership of copyright and ownership of the actual physical master tapes. As Krasilovsky and Shemel note, “Ownership of a copyright, or of any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object.”¹³ As an example of this difference and its importance, anybody can physically own a master recording-whether it’s an archive, a musician, or a record company-but this does not grant them the ability to license that recording for use or to make a profit. Unless, of course, they have ownership of the copyright for that master recording. Without the copyright none of those entities have rights of distribution or sale and therefore none of the entities have the right to sell or grant the use of any of the master recordings they have in their possession.

This point constrains archivists who wish to provide access to musical recordings. Hence it is important to locate both owners of the physical masters and the owners of copyright and to work with both parties if the owner of the masters is not the owner of the copyright to ensure that access to the materials can be granted. We must as archivists ensure not only the physical protection of a recording but ensure that we are aware of the copyright situation of a recording in order to properly perform our jobs and the protectors and grantors of access to the materials.

It is important that archivists understand what a musical record and master recording is as well as what copyright is. Having this knowledge allows archivists to know how to navigate the legalities of ownership as well as giving us a clear

¹³ Ibid, 83.

understanding of the value of these records to the record companies. Understanding what a master recording is and understanding copyright laws allows archivists to identify the importance of our role in ensuring that master recordings and the copyright of those recordings are protected and preserved for future generations.

CHAPTER 2: THE STATE OF ARCHIVES IN THE MUSIC BUSINESS

Chapter one explained what a master recording is, as well as delineated the importance of copyright ownership. The next issue is the status of the archives and archival practices of record companies in the United States. This chapter examines the archival status of both major label recording companies and independent recording companies. This analysis is based on research using interviews of the major label record companies by the National Recording Preservation Board of the Library of Congress. The NRPB interviewed Paul West, who works in the studio and vault operations at Universal Music Group, and Don Andes, who is the Director of the EMI Music's United States Archives. In addition, I conducted interviews with independent record companies myself via email surveys. The independent record companies represented are Clickpop Records and Double Crown Records, both of Bellingham, Washington, plus another large independent company, who will be referred to as Record Company A. Their company's legal team requested anonymity when participating in the questionnaire.

The request of the third independent record company and the smaller sample size of the companies interviewed brings up an issue that I feel needs some discussion and clarification. This is the ease of access to public records versus the ease of access to private records. I knew when beginning my research into this topic that I was going to have difficulty finding companies willing to grant me interviews. In fact, it is a common understanding amongst archivists who write about the status of business archives, especially those in the music and film industries, that it is incredibly difficult to

determine the status of their archives because they are private entities. The key difference between public and private records is, of course, that there are laws that grant the public rights of access to the records held by public entities. Corporations, however, are not governed by those same laws. The fact that I was able to get answers from the companies that I did is truly a blessing. To them I would like to extend my thanks.

The overall status of record company archives and their holdings historically has been quite bleak—as noted with the Sex Pistols example stated earlier. In recent years, however, the status of record company archives has improved greatly. More attention is being paid to the preservation of materials. Yet, as always, more work can be done. James H. Billington points to this bleak history of preservation in his introduction to *The State of Recorded Sound Preservation in the United States: A National Legacy at Risk in the Digital Age*. “As a nation, we have good reason to be proud of our historical record of creativity in the sound recording arts and sciences. However, our collective energy in creating and consuming sound in all genres has not been matched by an equal level of interest, over the same period of time, in preserving them for posterity.”¹

To look specifically at, major label record companies, Bill Holland’s 1997 article in *Billboard* points out some startling revelations as to the preservation concerns faced by record labels. Holland writes, “Today, catalog preservation is more of a priority for the major U.S. record companies than at any time in the history of the century-old industry. But these efforts come too late for untold numbers of recordings, old and not so old, that

¹ The National Recording Preservation Board of the Library of Congress, *The State of Recorded Sound Preservation in the United States: A National Legacy at Risk in the Digital Age* (Washington, D.C.: Council on Library and Information Resources and the Library of Congress, 2010), VI.

have been thrown away, mislaid, left behind in warehouses, and even sold for scrap.”² In the early days of the recording industry it, was thought that master recordings held very little value once the success of the artist waned. Because of this, record companies were practicing very poor records management and archival methods. Throughout his article Holland points to several examples of the historically poor records management and preservation practices of record companies, including an extreme example of mishandling of master recordings described by Bob Irwin of Sony Records and owner of Sundazed Records. Irwin notes that, “I saw CBS employees in the late '80s actually using a band saw on tape reels, multitracks and masters of major artists ... They were sawing the tapes off and saving the metal reels for scrap. I argued with them and eventually got 30 or 40 reels away from those people and brought them to someone who knew better.”³

Much of the reason for this poor handling of master recordings in the early days of the recording industry can be explained with a bit of understanding of records management theory. Most archivists in record companies act more in the role of a records manager than an archivist. Records management is concerned mostly with the vital records of a company necessary to keep that company functioning fiscally. As William Saffady notes in his book on records and information management, “Vital records protection is one of the most important components of a systematic records management program.”⁴ This is important with regard to master recordings because for years master recordings were looked at as only final products. They held value for only as long as

² Bill Holland, “Labels Strive to Rectify Past Archival Problems,” *Billboard Magazine*, July 12 and 19, 1997. Reprinted at <http://www.billholland.net/words/Labels%20Strive%20to%20Rectify%20Past%20Archival%20Problems.pdf>.

³ Ibid.

⁴ William Saffady, *Records and Information Management: Fundamentals of Professional Practice*. (Kansas: ARMA International, 2004), 123.

records were being sold. Once the product was no longer selling it was no longer a vital record and therefore no longer useful, placing it in the disposition stage of the records life cycle.

The examples of poor treatment and records management practices regarding master recordings illustrated above no longer occur in the music industry. Much of this destruction occurred before record companies realized that master recordings had the potential for long-reaching historical value. For much of the early days in the history of music recording, the master recording of the music, much like early cinema masters, were considered a throw-away culture. When something was no longer popular it was no longer useful to the company and hence it was discarded.

The destruction of master tapes for the purposes of clearing shelf space and making money from scrap metal has not been a practice of record companies for at least the past thirty or more years. As historian Jonathan Sterne notes, “Beyond a certain point, companies lacked a compelling reason to preserve recordings that did not hold commercial promise, and if a company went out of business, its archive would not necessarily be maintained, and the continued preservation of the recordings housed therein became more a matter of accident than of intention.”⁵ Recording companies have come to the realization that master recordings are their bread and butter. They have the potential to make money for the company years after the original recording was popular. As Bill Holland writes regarding the interviews he conducted for his article, “All of those interviewed said such occurrences don't happen anymore. ‘It’s a different climate now,’ said a source. Because when you get down to it, all a record company has of value, really,

⁵ The National Recording Preservation Board of the Library of Congress, *The State of Recorded Sound Preservation in the United States: A National Legacy at Risk in the Digital Age* (Washington, D.C.: Council on Library and Information Resources and the Library of Congress, 2010), 34.

are its artist contracts, its current release inventory, and its catalogue.”⁶ This change in thought about the importance of archival preservation of master recordings by record companies is evident when looking at examples of the current state of archives in the recording industry. As seen through the interviews found and conducted for this thesis, while the methods are still not perfect, things have improved greatly.

To begin an in-depth look at the current state of record company archives we will begin by looking at the status of major labels, by using the examples of Universal and EMI. Then as a comparison to the larger labels we will look at the status of the archival practices of independent labels, using the examples of Clickpop, Double Crown, and Record Company A. Through the examination of the interviews of these record companies we will be able to get a clear picture of just how far the companies have come in their archival and records management practices moreover, we will be able to see in what areas these practices can be improved.

In November of 2006, the National Recording Preservation Board of the Library of Congress interviewed Paul West of Universal Music Group and Don Andes of EMI Music. The topic was the current archival and preservation status of major recording labels (It should be noted that while both West and Andes are in charge of the archives of their respective institutions, their approach to the care of the records resembles more that of a records manager than an archivist.) In his comments, Paul West explains just how far record companies have come since the days of destroying master tapes to create shelf space. West explains, “The first rule of thumb we have is to ‘Collect and Save All’...

⁶ Bill Holland, “Labels Strive to Rectify Past Archival Problems,” *Billboard* magazine, July 12 and 19, 1997. Reprinted at <http://www.billholland.net/words/Labels%20Strive%20to%20Rectify%20Past%20Archival%20Problems.pdf>.

nobody I think can play God, if you will, in terms of knowing what we should actually keep or what actually we should not.”⁷ As part of this collect and save all policy, West notes that not all the recordings Universal has in its archival holdings are final or published recordings. These recordings are still valuable to the record company because as noted previously, even though the recordings are not final or published, the recordings are still considered masters. West notes:

Only 65 to 75 percent of what is in our library has ever been released. We are dealing with elements ... A lot of finished product we create is actually the result of gathering elements and basically putting these together for a final source or final master or production for a final product. So in our world, we do not look at it like having a book manuscript or the master tape of something like that. We look at the elements that make up the steps along the way ... If you don't start from the multitrack down through the flat master ... you are quite candidly missing the boat.⁸

Clearly, in terms of the records life cycle, West sees that though these records may no longer have value as a vital record for the company, they have a value that extends beyond their initial use.

While the collect and save all rule is a good one, it does create an archival problem. This includes the monetary cost of implementing long term storage and preservation plans, as well as locating the proper equipment with the ability to play back various recording formats at later dates. With so many recordings and parts of recordings in the vaults of major record companies, it becomes a challenge to determine where to begin when considering what to keep and what to preserve and how to afford to do so. In their interviews with the National Recording Preservation Board, Paul West and Don

⁷ Testimony of Paul West, vice president, studios and vault operations, digital logistics and business services, Universal Music Group, and Don Andes, Director, United States Archives, EMI Music, “Record Company Archivists” session, National Recording Preservation Board public hearings, Los Angeles, November 29, 2006.

⁸ Ibid.

Andes take on the preservation problem that faces recording company archivists and Andes gives good insight into the way record companies view the problem of storage space. In his interview Paul West discusses the two steps that the archive of a record company takes after implementing the collect-and-save-all rule to determine what preservation issues exist and where to begin on preservation of storage needs. The first step he describes is finding out, “What is the deterioration rate of a particular format?”⁹ This is important because if an archivist knows the deterioration rates of master recording formats, he or she can prioritize preservation needs based on the rates of deterioration.

The next step West notes is to consider what he calls the “Obsolescence Factor.” This is a very contemporary problem connected to the rapid change in technology. Essentially, master recordings may be saved in formats where playback technologies no longer exist¹⁰ West explains that because of the obsolescence factor, “It’s going to be maybe a little surprising to hear that some of the stuff that we are in the middle of preservation is stuff that probably was recorded 15 years ago, not something that was recorded 30 or 35 years ago and that really is to the thanks of basically what ended up being a lot of very obsolete magnetic tape-based digital multi-track tape systems...”¹¹ Don Andes further elaborates on West’s comments by addressing the difficulty of finding equipment to play certain formats. Andes states, “There’s no machines. If there are machines, they’re in bad shape... finding a capacitor or resistor to fix an analog machine is rather easy. Finding a specialized IC chip for a Sony DASH machine is impossible. So that means when the machines are gone, the format is gone.”¹² The difficulty in finding

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid

equipment to play back and make use of master recordings may even have been one of the factors that contributed to the recording industry's history of getting rid of masters. Ernest Dick, in writing generally about audio visual materials in business archives, notes that, "Sound and visual materials are somewhat cumbersome because they often require complicated playback equipment to be seen and heard. They admittedly cannot be comprehended instantaneously and take time to be played back. As such they have been easily dismissed as transitory and ephemeral, and not warranting an on going investment."¹³ While this is a problem evident in many businesses, it is most striking in the music industry. Along with the obsolescence factor, availability of equipment and the limited ability to play various master recording formats, as major archival problems for record companies to face, there is also the problem of storing master recordings. During his interview with the National Recording Preservation Board, Don Andes explains well the cost of storage issues facing major record companies and how the company determines what is valuable enough to keep.

As a business, we have a bill to pay for the storage and the business is constantly looking to reduce the amount of money we pay to store the elements because they're thinking about the elements that go to the stores today. The company really has no interest in paying to store elements from 20 years ago, unless we can directly relate them to profits that we're going to make tomorrow and the case is that a very small percentage of the assets that I hold or Paul [West] holds are actually going to be valuable for future revenues.¹⁴

The idea that master recordings are only valuable in a monetary sense is frightening to archivists the idea is held across the board by record companies. This is yet another place

¹³ Ernest J. Dick, "Corporate Memory in Sound and Visual Records," in *The Records of American Business*, ed. James M. O'Toole (Chicago, IL: The Society of American Archivists, 1997), 276.

¹⁴ Testimony of Paul West, vice president, studios and vault operations, digital logistics and business services, Universal Music Group, and Don Andes, Director, United States Archives, EMI Music, "Record Company Archivists" session, National Recording Preservation Board public hearings, Los Angeles, November 29, 2006.

where archival practices need to be changed. Perhaps outside archives like the Library of Congress need to get involved to insure the protection of these historically-valuable materials.

Indeed, cost is the driving force behind how record companies decide what master recordings to preserve and store and which ones to scrap. From West's and Andes's comments, it is apparent that cost plays a huge part in the decision making of major record companies. When one looks at the archival practices of smaller independent record companies one can see that the cost of storage and implementation of preservation programs is a heavier burden for independent companies than it is for the major record companies. The questionnaires completed by the local independent record companies shed some real light on the status of their archival holdings.

It is important to understand some of the methodology that went into the questionnaires sent to the record companies. The questionnaires were designed to determine some very important information as to the state of independent record companies. The information covered in the questionnaires includes: the physical types of master recordings received by the record companies; who retains the final copyrights to the masters; where are the masters stored; and what archival practices are used by the record company in storing, preserving and organizing the master recordings.¹⁵

The first question asked of the survey respondents was: when you purchase the rights to represent and/or distribute a recording, what is the physical property that you receive it in (mp3, wav, tape, etc.)? This question was asked to determine the physical manifestations of the master recordings that the record company may have in its archival

¹⁵ The survey questionnaire is located in the appendix on pgs. 55-56.

holdings and as such what preservation concerns would be associated with those recordings.

Record Company A, the largest of the companies questioned, and as such closer in business model and size to the major record companies, noted that it receives its masters as either tape or in electronic form on a hard drive.¹⁶ The part of Record Company A's response that was most intriguing was that other than the tangible physical master recording format of magnetic tape it is also dealing with masters that are completely digitally born. In fact in the responses given by the other record companies who completed questionnaires it was shown that digitally born masters are the exclusive format that they receive. Sean Berry of Double Crown Records responded that, "I usually receive master recordings via CD-R, but recently I've started accepting songs via e-mail or by download (I usually insist in WAV format, but in a pinch I'll take a high quality MP3, depending on the project)."¹⁷ The response of David Richards of Clickpop Records echoed that of the other two record companies. He receives his masters digitally in WAV format via hard drive or disc.¹⁸ In terms of future storage and preservation, the digital formats and the hardware on which they are stored pose a plethora of potential problems for the record companies. In Chapter 4 of this thesis we discuss possible ideas to alleviate these potential problems.

The next question asked of the independent record companies was who retains the final rights to any materials created by the artist under contract to the record company.

This question was asked to determine who holds the rights not only to completed albums,

¹⁶ Record Company A, Completed questionnaire, October 15, 2010 (The actual name of the record company is withheld by request of the heads and legal team of the company).

¹⁷ Sean Berry, Double Crown Records, Completed Questionnaire, October 3, 2010.

¹⁸ David Richards, Clickpop Records, Completed Questionnaire, November 18, 2010.

but more importantly to the master recordings. Both Record Company A and Clickpop responded that they retain the rights to the music the artists under contract to them produce. In regard to the final masters Record Company A noted that, “The record company holds the final rights and keeps and maintains the records.”¹⁹ David Richards of Clickpop Records responded that, “We are not involved in any publishing. That is up to the artist. We are responsible for the masters.”²⁰ In other words, Clickpop operates as a production company who holds the rights to masters, but allows the artists to find their own distribution company.

On the other hand, Double Crown Records’ Sean Berry’s response presented a problem that hadn’t been considered in regard to ownership of masters, and that appeared exclusive to independent companies-because of their smaller size and smaller budgets. The archival problem in the case of Double Crown Records and potentially in the case of other smaller independent companies is that Double Crown serves in the capacity of a distributor rather than as both a production company and distributor as most major record companies and larger independent companies do. As Berry’s response in the questionnaire indicates, “The artist/s I’m working with retain the rights to their recordings – I just license the recordings for release through Double Crown Records.”²¹ The solution for archivists then is to be aware that in some cases we must work not only with record companies but with the artists themselves if they are the ones who hold the rights to their own master recordings. As Mr. Berry noted in the questionnaire, “The artists in nearly every case have the primary master recordings, and are ultimately

¹⁹ Record Company A, Completed questionnaire, October 15, 2010 (The actual name of the record company is withheld by request of the heads and legal team of the company).

²⁰ David Richards, Clickpop Records, Completed Questionnaire, November 18, 2010.

²¹ Sean Berry, Double Crown Records, Completed Questionnaire, October 3, 2010.

responsible for the preservation of recorded materials.”²² In this scenario archivists must work not only with record companies but with the artists if they should own the rights and physical copies of their own masters to ensure their preservation.

The final questions asked of the independent record companies covered the archival storage and care of the master recordings received by the companies. The companies were asked where they keep the masters they received, if they had any special arrangement practices for the masters, and if there were any particular principles followed in the archiving of the master recordings of the artists represented. Record Company A’s response showed that its archival setup was very similar to that of major record companies as it has a larger budget than many independent companies. Record Company A noted that, “Master copies are stored in a top-notch archival facility. We keep records of master copies in a database.”²³ Record Company A further elaborated on its archival practices when it described how it arranges and describes the master recordings as it received them. The company noted, “Using Filemaker pro, masters are described by Artist, Release Title, and [Record Company A] Catalog Number. They are arranged at the archiving facility by a corresponding Box #.”²⁴

For the smaller independent companies, much of the archival storage is done on site. With limited budgets, these companies work to preserve their masters as best they can to keep these materials in the best possible shape. These materials are what keep the company running. Clickpop Records even with its smaller budget manages to maintain very good archival practices. In his answers to the questionnaire David Richards notes

²² Ibid.

²³ Record Company A, Completed questionnaire, October 15, 2010 (The actual name of the record company is withheld by request of the heads and legal team of the company).

²⁴ Ibid.

that the company stores records on site in a secure storage space that is underground, temperature controlled, and fire proof.²⁵ As to the organizational practices at Clickpop Richards answered that they arrange the masters in alphabetical order and give each a label and catalog number so that they can track each master.²⁶ As far as the independent companies are concerned Double Crown is again not the traditional record company as it works as a distribution company more so than a standard record company. Even though it does not keep many masters on site the company does care about the preservation of the masters. Sean Berry of Double Crown noted that, “As mentioned before, masters are mostly kept with the artists and manufacturer I use. For the masters I have, I just have a box in my closet that I keep them in ... if they are on CD-R, DAT or reel to reel tape. Digital files are kept on my computer, as well as backed up to memory stick ... I keep the box closed, so the materials are relatively dust free. The closet stays at a fairly constant temperature year round.”²⁷ As to Double Crown’s means of organization Berry responded that because he keeps so few masters the organization is rather lax but he is fully aware of every master he has and who the artists are that produced them. In the case of the independent record companies it was evident that they could benefit from having a full time archivist on staff to care for the master recordings received by the companies. Record Company A may have an archivist on staff; however, I was unable to find that out through our interviews. As for the other local companies it was evident that no archivist was kept on staff for these organizations as cost prevented this from happening.

It is clear that record companies’ appreciation of the value of master recordings has improved greatly since the early days. Great strides have been made in the collection

²⁵ David Richards, Clickpop Records, Completed Questionnaire, November 18, 2010.

²⁶ Ibid.

²⁷ Sean Berry, Double Crown Records, Completed Questionnaire, October 3, 2010.

and saving of master recordings. It is also clear that there is still room for improvement of the archival principles used by record company archivists. Though much improvement has been made since the early days of destroying master tapes to make room on the shelves of vaults there is still much more to be done in terms of selection and appraisal and preservation practices.

CHAPTER 3:

SELECTION AND APPRAISAL OF MASTER RECORDINGS

The aim of this chapter is to look at the issues raised in Chapter 2 in terms of broader archival theory. Particular focus will be paid to ideas of selection and appraisal. The purpose of this exercise is to see if broader archival concerns and ideas can be applied to the problems facing archivists in the music industry. We will begin this chapter by looking at the “collect-and-save-all” idea for master recordings in terms of the archival concepts of selection and appraisal. We will also look at how ideas of selection and appraisal are important in understanding the evidential and informational value of a master recording. I argue that we must collect and save all master recordings because their evidential and informational value has the potential to serve many purposes and finally there will be a discussion of the informational value of a master recording in terms of the records life cycle.

Paul West’s “collect and save all” policy when dealing with master recordings is very similar to the selection and appraisal ideas put forth by Hilary Jenkinson. Jenkinson believed that all records are of value and all must be collected and saved forever to protect them for future generations. Jenkinson believed in the accessioning of all documents in original order without interference by the archivists to insure that the records collected are the original and not forgeries. Jenkinson stressed the passiveness of archivists to insure originality and truth in documentation. Jenkinson notes that, “It would appear that not only are Archives by their origin free from the suspicion of prejudice in regard to the interests in which we now use them: they are also by reason of their subsequent history equally free from the suspicion of having been tampered with in those

interests.”¹ Jenkinson then suggested that the only way to know a document is factual is to have the original. In terms of master recordings, Jenkinson’s theory is agreeable; however, the archivist does need to be active when accessioning records and one of the things he can actively do while accessioning is to think about the informational and evidential value of master recordings.

To do this I propose a combination of West’s collect-and-save-all theory and T. R. Schellenberg’s theory on appraisal. Schellenberg suggests that, “An archivist need not observe the principle of original order in arranging items within archival series that are preserved solely for their informational value.”² Schellenberg’s concept of arrangement by “informational value” is important when considering master recordings because master recordings are preserved mostly for their informational value and only somewhat for their evidential value. The informational value of master recordings has the potential to change over time, so archivists must be sure to not be passive in our selection as Jenkinson suggests. We should definitely collect and save all master recordings, but we should also catalog and note everything in our collections so that we know what is there. In his article on corporate memory in sound and visual records, Ernest J. Dick echoes the importance of the documentation of every record collected and saved. Dick notes that companies create a lot of audio and visual material when creating a final product. This is even more so the case with record companies. Dick writes, “Sound and visual productions invariably generate much superfluous sound and visual material that is usually carefully logged and monitored for the purpose of making the production. While there is any possibility of ‘recutting’ or reediting the production for another market, all

¹ Hilary Jenkinson, *A Manual of Archive Administration* (Oxford: The Clarendon Press, 1922), 12-13.

² T. R. Schellenberg, *The Management of Archives* (Washington D.C.: National Archives and Records Administration, 1965), 102.

such materials is invariably retained.”³ As Dick’s statement suggests, the parts in creating the final product are important and therefore all should be retained and kept track of. This is important for archivists in the music industry, as all these pieces involved in creating a master are important for understanding the final master recording as a whole. These pieces should be preserved in their entirety, not only for their informational value but for the potential use in other activities, from historical study to remastering by the artist/record company.

To expand further the application of Schellenberg’s concept of informational value to master recordings, Christopher T. Baer’s article on appraisal in business records provides a parameter for appraising business records. In his article Baer uses concepts of strategy, structure, detail, and function as parameters for the appraisal of business records. Baer’s detail parameter suggests the informational value contained within a record is incredibly important in determining if the record should be selected for archival preservation. The idea behind Baer’s detail parameter is that every record contains some level of detail. What that level of detail tells the archivist about the informational and evidential value of a record helps the archivist appraise that record. Baer’s detail parameter can be tied to Schellenberg’s concept of “informational value.” As Baer notes, “Detail is about information ... and does explain something important about the first part of Schellenberg’s term [Informational Value] and why persons might value it.”⁴ This is important when looking at master recordings in the broader scope of record company records. As noted earlier, master recordings provide both detail for how the business

³ Ernest J. Dick, “Corporate Memory in Sound and Visual Records,” in *The Records of American Business*, ed. James M. O’Toole (Chicago, IL: The Society of American Archivists, 1997), 282.

⁴ Christopher T. Baer, “Strategy, Structure, Detail, Function: Four Parameters for the Appraisal of Business Records,” in *The Records of American Business*, ed. James M. O’Toole (Chicago, IL: The Society of American Archivists, 1997), 101.

operates to create the master recording as a final product, and in addition they provide detail in regard to broader historical and cultural concepts that are represented in the music recorded. Therefore, they can have multiple meanings and uses for researchers, from the point of creation and for years after their creation. The unpredictability of future uses and meanings of a master recording is the main reason for adopting Jenkinson's principle of accessioning without interference by the archivist but without proper documentation of what is present in an archival collection it is pointless to accession at all.

Informational value and evidential value are truly elements an archivist must consider when thinking about selection and appraisal of master recordings. Moreover, archivists must consider both informational and evidential value when a master recording has reached the end of its life cycle. By the time the master recordings pass through the records life cycle and are in the hands of archivists, that record is facing the possibility of disposition. At this stage, the archivist's concern is how future use of the master recording will be different from its original intended use. This concept of the possibility of different uses ties into Baer's argument of detail as "informational value". As Baer writes, "In attempting to answer the question of how much detail is enough, the archivist is really seeking to determine when or if the original use is likely to reoccur and how subsequent use may be different, and so will not require the same level of detail."⁵ Baer's concept of determining original use can be easily applied to master recordings. For instance, the master recording is used to make duplicate recordings for sale by a retail store or online. When sales of a specific artist are up, more duplicates need to be made, and when sales are not up there is no need for further duplication. One can also apply this

⁵ Ibid, 103.

concept to the remastering process, and use it with the idea of creating digital masters. Those digital masters allow for the keeping of a format that can be used by researchers in its “original” status and then can be used by the studio for its original use. Detail in the future use of a master recording is also important as its level is going to differ widely depending on the information the master can provide. That information is going to differ greatly based on the future users of the master recording.

The unpredictability of the future use of master recordings is the most important reason for a record company archivist to adapt a hybridized Jenkinsonian/Schellenbergian policy for selection and appraisal. There is no way for an archivist to know what the future use of a master recording will be, so it is essential to apply Paul West’s theory of collect and save all to all master recordings, as well as the theory of documentation of master recordings so that the archivist can know what they have and know how those recordings came into being.

CHAPTER 4:

PRESERVATION METHODS AND ARCHIVAL PARTNERSHIPS

This chapter focuses on technical aspects of the preservation of master recordings including simple steps that can be taken to assess the need for preservation of master recordings. It is essential to note the reason that preservation of master recordings is important. It may seem obvious but it none the less should be stated. If master recordings are not preserved there runs a severe risk that the information held within those recordings will be lost forever. If a master recording deteriorates to the point that it is no longer usable then the ability to license and distribute that recording dies with the recording. For instance if the original master recording for Bing Crosby's "White Christmas" were to be allowed to deteriorate to the point that it is no longer usable America would then lose a large piece of its musical history. That master is a symbol of Americana and if it were to be allowed to deteriorate to the point of uselessness the work that went into creating that master would be lost along with the ability for that song to ever be used in anything again. This is the importance of preservation of master recordings.

Along with looking at preservation practices this chapter also examines the possibilities of partnerships between the corporate archives of record companies and public archives to aid in preservation and storage of master recordings. This would also provide access to those recordings to scholars and the public while maintaining copyright and protecting against piracy. These partnerships are important in helping to reduce the cost of storage and preservation of master recordings for the record companies and they allow an opportunity for the public to have access to a piece of American culture that

otherwise would be locked away in inaccessible vaults. These partnerships also keep master recordings from reaching the disposal stage in the records life cycle by giving record companies a place to store master recordings that may no longer be making them money. As an example of the agreements between record companies and public archives we will be analyzing the recent agreement between Universal Music Group and the Library of Congress as a model. We will look at both the pros and cons of this agreement and how it could be improved to insure positive outcomes for the master recordings, the record company, the archive, and the users.

To begin this chapter we examine some aspects of preservation that are important for record companies to understand when reviewing their master recordings for a preservation program. This requires considering the different types of materials that master recordings are recorded on and their life expectancies. It should be noted that the physical and chemical nature of the materials on which master recordings are recorded, along with repeated replay, increase their susceptibility to damage and information loss greater than that of paper-based documents.¹ As noted by the International Association of Sound and Audiovisual Archives in its report on standards and recommended practices and strategies for audio collections, “Audio carriers are more vulnerable to damage caused by poor handling, by poorly maintained or malfunctioning equipment and by poor storage than conventional text documents.”² However, analysis of what materials should be attended to first and how to handle these materials, or a sort of triage, if you will, can

¹ Dietrich, Schuller. “Sound Recordings: Problems of Preservation.” In *Managing Preservation For Libraries and Archives: Current Practice and Future Developments*, ed. John Feather (Burlington, Vermont: Ashgate Publishing Company, 2004), 113.

² International Association of Sound and Audiovisual Archives: Technical Committee, *Standards, Recommended Practices and Strategies IASA-TC 03 The Safeguarding of the Audio Heritage: Ethics, Principles and Preservation Strategy* (Version 3, December 2005) Reprinted at http://www.iasa-web.org/sites/default/files/downloads/publications/TC03_English.pdf.

be used as a cost saving measure for the companies. This begins with determining what records should be considered for preservation and which ones can be stored for longer periods of time.

As we have seen with the interviews and the questionnaires of the record companies the most common formats for master tapes and recordings in the music industry that archivists will come across are coarse groove discs (78's), microgroove discs (vinyl), magnetic tape, optical discs (CDs), and electronic formats, or born digital formats such as Mp3s, WAVs, MP4s etc. Each format has its own specific preservation needs and shelf life. By looking at the preservation needs and shelf lives for these different types of recording formats, a hierarchy of preservation needs can be established that can direct a preservation program to focus first on the most vulnerable records and work from there. This works as a cost saving measure because the least vulnerable records can sit on shelves longer without the need to spend money to preserve these recordings and money can be diverted to the records that have the greatest preservation needs.

To begin the analysis of mediums on which master recordings are recorded we will look at coarse groove discs or 78's. While in today's recording industry 78's are not used for master recordings they were used for master discs from around 1900 to the mid-1950s, so many larger record companies have substantial volumes of this type of master. The discs are both heavy and fragile and can easily be damaged without proper handling, but with proper handling the format is very stable physically. They are, however, fairly chemically stable as long as they are not exposed to high humidity or high heat. Replay requires specialized equipment and it is somewhat difficult to find players for 78's in the

modern era.³ In regard to the triage hierarchy 78's are low on the list for need of preservation. If stored and handled properly these discs have long shelf life expectancy and should remain stable for many years.

The next physical manifestation of master recordings under analysis is microgroove discs or vinyl records. Microgroove discs were produced from the late 1940s to around 1990 and are still produced in small quantities today though they are produced primarily for sale to consumers rather than as master recordings. The main formats of microgroove discs are the long play format or LP's that are 25 or 30 cm. in size and play at 33 rpm and singles or extended plays (EP's) that are 17cm. in size and play at 45 rpm.⁴ Microgroove discs are fairly stable as long as kept out of extreme temperatures and high humidity. In his book on the preservation of sound recordings, Dietrich Schuller discusses the vulnerability of microgroove discs. Schuller notes, "Because of the softness of the material they are extremely vulnerable to mechanical damage by improper handling or poor-quality replay equipment."⁵ Microgroove discs present another problem for archives because multiple plays tend to wear down the discs rapidly. Because of this only good equipment should be used for replay of this type of medium. In regard to the proposed hierarchy of archival needs microgroove discs are higher in priority than are coarse groove discs.

Magnetic tape is yet another common format. Magnetic tape is very important as it is one of the main formats that master recordings have been recorded on historically and are currently being used. Magnetic tape is fairly stable at least in the older reel to reel

³ Dietrich, Schuller, "Sound Recordings: Problems of Preservation." In *Managing Preservation For Libraries and Archives: Current Practice and Future Developments*, ed. by John Feather (Burlington, Vermont: Ashgate Publishing Company, 2004), 114.

⁴ *Ibid*, 115.

⁵ *Ibid*, 115.

format. As Schuller notes, “As with vinyl discs, to date no systematic failure of this material has been experienced... Magnetic tape is generally much less vulnerable to damage in replay than mechanical carriers. A tape will survive several hundreds of replays before the quality is affected, provided well serviced equipment of recent production is used.”⁶ Newer cassette tapes as well as newer magnetic reel to reel tape pose a problem with deterioration because the metals used as part of the magnetic process have a tendency to corrode and fall apart. As Schuller notes, “Once metal particles corrode they also lose their magnetic properties and, therefore, their recorded information.”⁷ The newer magnetic tape is more fragile and this not only poses a problem for the original master recorded to it, but also a problem rerecording old masters to new tape as a form of preservation. In many cases in fact it is safer to keep the old masters as long as physically possible unless the deterioration is so bad there is no choice but to rerecord. As Christopher Ann Paton writes in her article on re-recording as a means of preservation in audio archives, “Paradoxically, acetate tapes that are in good condition may still outlast “preservation” copies made on newer polyester-based tape, much of which has a shorter life expectancy.”⁸ Since magnetic tape is one of the most stable formats for masters with one of the longest shelf lives, it is on the lower end if not the bottom of the preservation hierarchy and can wait to be preserved. When preservation for magnetic tape is necessary the process is generally far simpler and less costly than for other formats.

⁶ Ibid, 115-116.

⁷ Ibid, 116

⁸ Christopher Ann Paton, “Preservation Re-Recording of Audio Recordings in Archives: Problems, Priorities, Technologies, and Recommendations,” *The American Archivist* Vol. 61 (Spring, 1998): 195.

The final format for master recordings is the born digital recording, which is becoming one of the most commonly used formats. The standard formats for born digital recordings are generally WAV Files and Mp3s, according to the interviews and questionnaires discussed earlier. Digital born recording is the recording style many new artists are using and in turn is the format that is preferred by many record companies. It is slowly becoming the standard by which all companies and bands make their masters. Born digital master recordings are generally stored on hard-drives, whether they are internal or external hard drives on a computer, or stored on digital tapes or optical discs such as CDs or DVDs. These CDs, DVDs, and hard drives are incredibly poor carriers and digital born masters are incredibly corruptible because the devices they are stored on are so easily damaged or corrupted. As Christopher Ann Paton notes in her 1998 article, “The longevity of digital storage media, both tape and disc, is currently suspect. Technicians and archivists report sudden, unexplained failure of some digital tapes, and optical disk life expectancies are still under discussion.”⁹ In his article on preservation of electronic media Frederick J. Stielow echoes Paton’s observation of the fragility of CDs. Though Stielow’s article was written six years before Paton’s, it shows that CDs have never been a good storage medium for electronic records, as he writes of the life expectancy of CDs at the time stating, “Ten to twenty-five years seems to be the best current “guesstimate” for most current products.”¹⁰ CDs and DVDs are by far the storage mediums of born digital masters most susceptible to data loss as far as deterioration and ease of damage to the recording. They are easily scratched and the varnish is easily damaged and just through these simple acts significant data loss can result. Digital born

⁹ Ibid, 208.

¹⁰ Frederick J. Stielow, “Archival Theory and the Preservation of Electronic Media: Opportunities and Standards Below the Cutting Edge,” *The American Archivist* Vol. 55 (Spring, 1992): 339

master recordings are the most critical of recordings on our preservation hierarchy as their fragility makes it so that we must work to ensure that these documents are preserved. Functional copies must also be maintained in multiple locations and in mediums like hard drives that are more stable than CDs, tapes, and DVDs. As Schuller writes about audio carrier stability, “It can be seen that the most endangered sound carriers are instantaneous discs, modern magnetic tape of all kind, and – ironically – CD-Rs which are widely used as target formats for digitization projects to preserve endangered analogue carriers of various kinds.”¹¹

An analysis of proper storage methods should conclude this section on basic preservation practices and master recording formats. Dietrich Schuller notes that at the time of his writing in 2004 two methods of storage for audio materials were recommended. One set of storage conditions was suggested for materials that will be accessed and used and an entirely different set of storage conditions was suggested for materials that are being preserved until accessible copies can be made.¹² Though this may be the best method it is a costly one and may not be advisable within the scope of budgets for many record company archives. If this is the case the recommendation would be for them to maintain their holdings in the conditions needed for preservation copies of recordings.

Schuller writes that the ideal conditions for access copies should be between 5% and 40% relative humidity and temperature of the storage facility should be between 3 and 20 degrees Celsius. The reason he suggested that if the record company could not

¹¹ Dietrich, Schuller, “Sound Recordings: Problems of Preservation.” In *Managing Preservation For Libraries and Archives: Current Practice and Future Developments*, ed. John Feather (Burlington, Vermont: Ashgate Publishing Company, 2004), 117.

¹² *Ibid*, 117-118.

afford two different storage setups to go with the preservation setup is because as Schuller notes, “Preservation storage is recommended for archival masters (or studio masters) or safety copies.”¹³ In the preservation storage setup the humidity should be maintained at 30% RH or lower. The humidity should be maintained at a constant level as much as possible to avoid increasing deterioration speed of the recordings. The temperature of the preservation storage setup should be between 1C and 8 to 10 C, so basically the records will be stored in a low humidity cold refrigerator. As part of the triage and storage program discussed the archivist should check the audio materials that are in storage for dirt and debris and work to ensure proper cleaning practices.

While the above preservation facts are beneficial for archivists to know, implementing a program to use those practices can be a costly endeavor. Throughout this thesis cost has been a major consideration for the preservation of master recordings by music companies. It is the driving force behind the prioritization of records by record company archivists, as noted by the archivists at Universal and EMI. It seems that there must be a way to alleviate costs while ensuring the preservation of master recordings as well as ensuring access to those recordings by academics and casual listeners without jeopardizing the copyright of those recordings through pirating of the recordings. There is much discussion within the archival community about where and how to store business records to alleviate costs and this discussion is applicable to the discussion of where to store the master recordings of record companies. There are two distinct camps of belief in terms of where the archives of businesses should be housed. Richard Cox, as a voice for one of the camps, argues for the nurturing of institutional archives within a business

¹³ Ibid, 118.

itself.¹⁴ While it is agreed that this concept would help the business to understand the historical importance of its records, having a private archive within a business may shut out the possibility of the public as researchers to use these records. Ernest J. Dick summarizes the other side to the storage discussion. Dick argues that for the preservation, appraisal, and access of sound and visual recordings of businesses the corporate archivist and the public archivist should work together.¹⁵

Ernest Dick offers the best solution if applied to the recording industry. Record companies and their private archives need to partner with public archives to ensure that costs are alleviated, records are maintained in the best possible condition, and that those records are accessible without compromise of copyright. The importance of collaboration is expressed further in Samuel Brylawski's article on the preservation of digitally recorded sound as he notes that, "Whether between record companies and archives or with others, some type of collaborative approach to audio preservation will be necessary if significant numbers of audio recordings at risk are to be preserved for posterity."¹⁶ The question then is what should the working arrangement be between the archives of record companies and public archives? How will the partnership work and what are the costs and benefits for both institutions?

In early 2011 a partnership much like what has been suggested here was formed between the Universal Music Group and the Library of Congress. The agreement between the Library of Congress and Universal Music Group provides an excellent

¹⁴ Richard J. Cox, "Blown to Bits: Electronic Records, Archivists, and the Corporation," in *The Records of American Business*, ed. James M. O'Toole (Chicago, IL: The Society of American Archivists, 1997), 232.

¹⁵ Ernest J. Dick, "Corporate Memory in Sound and Visual Records," in *The Records of American Business*, ed. James M. O'Toole (Chicago, IL: The Society of American Archivists, 1997), 279.

¹⁶ Samuel Brylawski Recorded Sound Section, Motion Picture, Broadcasting and Recorded Sound Division Library of Congress, "Preservation of Digitally Recorded Sound", <http://www.clir.org/pubs/reports/pub106/sound.html> (Accessed September 24, 2010).

chance to examine the agreement and explain its pros and cons. Through the examination of the agreement a basis for creating a general model for future cooperative agreements can be established. In January of 2011 the Universal Music Group gave the Library of Congress a large donation of master recordings. The donation consists of approximately 200,000 metal, glass, and lacquer master discs from the period 1926 to 1948.¹⁷ The collection is astounding in its scope and content. This is an enormous group of master recordings, including some of the nation's most beloved music. Among the masters included in the collection are Bing Crosby's 1947 edition of "White Christmas," Louis Armstrong singing "Ain't Misbehavin'," and Les Paul's "Guitar Boogie."¹⁸

The agreement between the Library of Congress and Universal is interesting in terms of the balance between copyright ownership and ability to grant public access to the recordings. According to the *New York Times* article, "Under the agreement negotiated during discussions that began two years ago the Library of Congress has been granted ownership of the physical discs and plans to preserve and digitize them. But Universal... retains both the copyright to the music recorded on the discs and the right to commercialize that music after it has been digitized."¹⁹ This seems to be an ideal arrangement to solve the problem of maintaining copyright while providing a potential means of access to the records. It also makes the records viable for the record companies to use for profit in the future. Vinnie Freda, executive vice president for digital logistics and business services at Universal, echoed the dilemma faced by many record company

¹⁷ Larry Rohter, "Library of Congress Gets a Mile of Music," *New York Times* January 10, 2011 late edition.

¹⁸ Library of Congress Website News Section, "Universal Music Group Donates over 200,000 Master Recordings to the Library of Congress: Library's Largest Musical Gift Features Billie Holiday, Louis Armstrong, Bing Crosby & Others", <http://www.loc.gov/today/pr/2011/11-003.html> (Accessed January 14, 2011).

¹⁹ Larry Rohter, "Library of Congress Gets a Mile of Music," *New York Times* January 10, 2011 late edition.

archivists but was ecstatic having worked out the agreement with the Library of Congress. Freda is quoted as saying:

The thinking behind this [agreement] is that we have a very complimentary relationship... I've been trying to figure out a way to economically preserve these masters in a digital format, and the library is interested in making historically important material available. So they will preserve the physical masters for us and make them available to academics and anyone who goes to the library, and Universal retains the right to commercial exploit the masters.²⁰

Librarian of Congress James H. Billington echoed Freda's excitement for the agreement as he exclaimed:

It is certainly within the national interest to acquire this recorded collection and all its accompanying materials, for custodial care... A surprisingly high percentage of America's recording heritage since the early part of the 20th century has been lost due to neglect and deterioration. The donation of the UMG archive to the Library of Congress is a major gift to the nation that will help maintain the inter-generational connection that is essential to keeping alive, in our collective national memory, the music and sound recordings meaningful to past generations.²¹

Many of the aspects of the agreement between these two agencies show promise in helping to preserve master recordings for future generations and to provide access to those recordings. The fact that the Library of Congress is taking responsibility for the care and preservation of the original masters is very comforting. The digitization aspect of the agreement has promise but also is of a bit of a concern. As we discussed previously, digital files are some of the most corruptible and easily lost mediums for a master recording. It is understandable that Universal wants their masters digitized so that they can clean them up in the studios and then license them to online music groups like iTunes and Zune. It also works out positively for the Library of Congress since it allows

²⁰ Ibid.

²¹ Library of Congress Website News Section, "Universal Music Group Donates over 200,000 Master Recordings to the Library of Congress...", <http://www.loc.gov/today/pr/2011/11-003.html> (Accessed January 14, 2011).

them to stream the audio in a way that protects it from piracy. Just a small loss of metadata can render an electronic master useless, let alone other possible disasters that can ruin the electronic masters. As Christopher Ann Paton notes, “Although digital technology offers great promise, and will eventually become the standard recording technology, it is presently neither perfect nor a magic cure, and should be utilized cautiously and with full understanding of the long-range implications of such a decision.”²² Richard Cox proposes a possible solution for archivists to have more control over digital records systems. Cox argues that in terms of the electronic records of a business the archivist needs to be actively involved in designing systems for businesses that create a functional digital records management system. “Archivists are, then, part of a team of systems designers working with corporate legal counsel and other administrators to facilitate the management of records with continuing value to the organization.”²³ Archivists must be able to adapt to the changing technology and seek to create solutions to any long range problems that may arise.

Though David Stephens addresses the damage sustained to the vital digital records of small companies affected by the September 11th attacks, his ideas can easily be applied to potential dangers to digital master recordings. Stephens quotes Joseph Walton of EMC Corp. who said of the damage of the attacks, “In general, however, small and mid-size businesses were more vulnerable because few had the budget for real-time data backup or offsite recovery facilities.”²⁴ Stephens continues discussing small companies

²² Christopher Ann Paton, “Preservation Re-Recording of Audio Recordings in Archives: Problems, Priorities, Technologies, and Recommendations,” *The American Archivist* Vol. 61 (Spring, 1998): 195.

²³ Richard J. Cox, “Blown to Bits: Electronic Records, Archivry, and the Corporation,” in *The Records of American Business*, ed. James M. O’Toole (Chicago, IL: The Society of American Archivists, 1997), 243.

²⁴ David O. Stephens, “Protecting Records in the Face of Chaos, Calamity, and Cataclysm,” *The Information Management Journal*, (37:1 Jan/Feb 2003), 34.

stating that some small companies, “were just put out of business. Their ability to get back to business depended on whether they recently saved essential data to disk, tape, or other media for storage offsite and many had not done so.”²⁵ This is where the concern lies for record companies using digital masters. Such companies must keep several masters in several locations and should be diligent to insure that all the copies of the masters are migrated and are still playable as technology changes.

Stephens addresses exactly this problem by looking at Merrill Lynch and how they were able to bounce back from the 9/11 attacks by investing in simple offsite storage facilities and by keeping track of all their records. Offsite storage protects electronic records in case of damage to the actual home base of business operations and seems to be the best method to protect vital records from destruction during disasters. As a large corporation Merrill Lynch was able to afford to do this, but it seems that even a smaller entity could essentially do this with today’s technology of portable external hard drives and zip drives. While this technology is not a viable means for long term storage in terms of hundreds of years, it is possible for an archive to maintain a close watch on these carriers and be sure no corruption has occurred. At the same time an archive or record company could keep external hard drives in safe locations away from the central business. As an example a record company or archive could store master recordings electronically on an external hard drive and place it in a safe deposit box at a bank or a trusted employee could keep the hard drive at his or her home. This example works in the case of the smaller independent companies discussed earlier and is a potentially safe means for longer term preservation and safety of the records. The major drawback of this is that whoever is responsible for the offsite storage of the records would have to update

²⁵ Ibid, 34.

them daily. This provides more reason for small companies to outsource storage to online internet storage companies.

One of Stephens' other ideas for offsite storage of electronic records that can be used practically by smaller organizations is, as stated above, storage via the internet. There are many web based businesses today that offer offsite storage via internet channels. Essentially a business sends its electronic vital records via the internet to one of these organizations and for a small fee the organization stores and keeps active these records in case retrieval is necessary at some later date. This form of offsite storage can be valuable when considering what Stephens notes about the internet availability after September 11th. Stephens notes, "Despite massive breakdowns on the telecommunications and computing front, the Internet never skipped a beat...The packet-based, asynchronous Internet enables messages to travel by a variety of routes to reach recipients, thereby reducing the risk of overall system failure."²⁶ Because of the flexibility of the Internet an organization could cost effectively store vital electronic records offsite and retrieve them even in the face of catastrophic disasters. The main foreseeable problem here for record companies or archives is that copyright would have to be protected and a contract would need to be signed between the holders of the copyright and the internet storage provider, insuring that at no time would access be allowed to the master recording by anyone other than the copyright holder. Online storage of digital masters is also a good possibility for the artists who have control of their own masters.

The agreement between the Library of Congress and Universal Music Group is the best answer for the preservation of past, present, and future master recordings. If this

²⁶ Ibid, 38.

model is used, with the suggested corrections regarding digital records, it has great possibilities for success. The model can be adapted by any archive capable of handling audio recordings and with the technology to house digital collections both on and off site. This partnership will allow costs to be shared evenly between multiple organizations. The model will also allow for musicians who hold the rights to their own music to contract with archives for the preservation of their masters and will allow more exposure to independent artists through the establishment of the digital streams the Library of Congress provided in the agreement. This is an added bonus as independent musicians are constantly seeking exposure and this would allow archives to in some ways be a part of the music business by saving a piece of cultural history and potentially promoting a band. The agreement model could also easily be brought to a smaller scale to help benefit smaller independent music groups. A small local repository could take on the role of the Library of Congress and work with local record companies in their area to help preserve the recordings they create. Even if it were not possible for the repositories to take on complete collections of music from independent companies the archivists at the local repositories could act in an advisory capacity to help the independent companies by advising them on proper storage techniques in the hopes of transferring the masters to the repository in the future when money and space become available.

CONCLUSION:

Throughout the history of music in the United States, the music industry has been a very private and sheltered industry. The music industry for years looked at the master recordings they created as simply final products that were only of value to the company while they were popular and were selling to consumers. When the masters were no longer of value to the record company during the early days of the industry, much of the music history of the United States was lost to improper storage and preservation techniques employed by individuals in the music industry. Times have indeed changed and record companies now realize that as much as money was a driving force behind the poor decision making in their early history, they were destroying the only items they possessed that were worth any value. Through the interviews and the questionnaires conducted for this thesis we are able to see that much has changed in the music industry since its early days.

There is however still a great need for preservation efforts to be made to save the many master recordings that rest in the vaults of both major and independent record companies. Preservation efforts can be a costly endeavor, but as we have seen cost measures can be cut by simply setting up priorities and a system of triage when tackling a preservation project. We have also seen that new and better solutions have arisen to alleviate the cost of preservation by cooperative efforts between the private archives of record companies and the public archives. The agreement between the Universal Music Group and the Library of Congress has great potential as a future model for further agreements between the creators of music--be they a record company or an individual artist--and an archive.

One should always be wary of the change in technology that affects every aspect of everyday life. For the music industry and for archives this is no exception. While the agreements between public archives and private music creators have the potential to be great archivists must be wary of new technology. For as the music industry leans more and more towards creating digitally born masters there becomes a greater potential for loss due to the instability of the format. As part of these agreements which one hopes will continue to occur between archives and the music industry, archivists need to work with people in the music industry to figure out ways in which to ensure the best possible long term preservation for digitally born master recordings. Whether that is through the creation of multiple masters and storing them in multiple locations or whether that is through the creation of a more stable storage device for digital media, something must be done.

The recording industry, much like other industries, creates several types of records that have value in terms of providing context and documentation of interactions between the business and its customers as well as interactions within the business itself. Along with documenting the interactions of a business the records produced by a business provide a history of the business and a means for documenting the historical significance of the business. Business records should be selected and appraised based on their evidential and informational values and what those records can tell us about the business as a whole as well as the businesses historical impact on society. Master recordings provide a great context for the day to day business of record companies as well as the historical impact of those companies on the greater society. Master recordings should be selected, appraised, and preserved based on the amount of the evidential and

informational value they contain. Archivists should do all they can to ensure proper selection, appraisal, and preservation practices for master recordings to preserve them for future generations.

The brightest future for the music industry does lie in the partnership between the music industry and archives. For years archives have been preserving the world's history in paper form. It's time we worked with the music industry to save the world's musical history in all its forms.

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Appendix

Copy of Record Company Questionnaire

1. When you purchase the rights to represent and/or distribute a recording, what is the physical property that you receive it in (mp3, wav, tape, etc.)?
2. When you purchase the rights to represent and/or distribute a recording, who retains the rights to that physical property?
3. What does the physical manifestation of the project consist of? For instance: CD, lyric sheets, sheet music, posters, other promotional materials (t-shirts, etc.).
4. Regarding the show that your artist puts on: does your company have a say in things like stage production, lighting, sound, riders, etc.
5. Regarding less tangible sellables like electronic rights (iTunes, etc.), is this included in the negotiations for the physical rights? Or is this a separate negotiation?
6. Streaming v. Down-loading: Is this part of the band rights negotiations?
7. When you purchase the rights to a recording, do you share the rights with the artist? If so, what is the usual split? (50-50?)
8. Do you use in-house or free-lance producers?
9. If you use either in-house or independent producers, how do you determine which to use?
10. Do you use in-house or independent recording studios?
11. If you use either in-house or independent recording studios, how do you determine which to use?
12. Where do you keep the physical manifestations of a recording (master tape, master electronic file, etc.) and any other physical records associated with a band you are under contract with?
13. Is there a particular principle guiding your company's storage of the physical manifestations of a recording (master tape, master electronic file, etc) and the other physical records associated with a band you are under contract with?
14. Who holds the final rights to the materials created by a musical artist the record company or artist and who is in charge of keeping and maintaining those records?

15. What are some of the archival/organizational practices used by those who are in charge of maintaining the final materials?

16. How are the materials of a recording artist arranged and described to make sense of them for future use?

Preservation concerns: [Added as additional questions to think about and did not think to add numbers]

Where are the physical and electronic manifestations of the works housed?

What are the climate and physical conditions of the storage facility in which the physical and electronic works housed?

Is the preservation of the materials a shared endeavor? Or does one or the other right holder (record company and artists) have final control of the preservation of the materials?

Terms: [Added as additional concepts to think about and did not think to add numbers]

Provenance (the order in which it was created and/or accepted)

Creation of Series and Sub-series (the entire creation process of one album one be a series)