Sharing notes: a qualitative analysis of description of archival music materials

Sharing Notes: A Qualitative Analysis of Description of Archival Music Materials

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November 9, 2018

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Introduction

Archival music collections encompass materials representing a seemingly endless array of styles, genres, performance practices, traditions, and time periods dating to the earliest eras of recorded human history. Present day collections also include music notated and recorded digitally, and technological developments have enabled widespread access via the Internet to archival music collections formerly accessible exclusively on site. This improved accessibility has been partially dependent on the development of standardized descriptive practices, which began to take shape in the United States in the late 1970s and have become increasingly important.[1] Standardization not only improves online access for users, it also supports long-term collections administration, and at the most fundamental levels, facilitates intellectual and physical control of archival music holdings.

Describing Archives: A Content Standard (DACS) is the current accepted standard for archival description in the United States.[2] It was designed to apply broadly to archival collections but does not offer recommendations specific to all formats held by archival repositories. This includes music materials, which for the purpose of this study are defined as sound recordings and notated music.[3] DACS provides an appendix with other recommended standards for description of special formats, including the Music Library Association's forthcoming guide to archival description of notated music, but the standard does not contain instructions for how to incorporate these other descriptive frameworks in a DACS-based finding aid. Further, the two standards recommended for sound

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1 For background on the development and importance of standards for archival description, see articles by Davis and Hensen, et al. Susan E. Davis, "Descriptive Standards and the Archival Profession," *Cataloging & Classification Quarterly* 35, no. 3-4 (2003), 291-308; Steven Hensen, William E. Landis, Kathleen D. Roe, Michael Rush, William Stockting, and Victoria Irons Walch, "Thirty Years on: SAA and Descriptive Standards (Session 706)," *The American Archivist* 74, Supplement 1 (2011), 1-36.

2 Society of American Archivists, *Describing Archives: A Content Standard, Second Edition* (Chicago: Society of American Archivists, 2013). This study references the most recent published edition of DACS, although SAA's Technical Subcommittee for DACS began using the Github website in 2015 for tracking new revisions to the standard, which was put on a constant revision cycle in 2012.

3 The Music Library Association's forthcoming supplement to DACS, with guidelines for description of notated music, was added via Github to DACS' Appendix B for recommended companion standards in June 2018. As of the time of the writing of this article, the supplement was available only in draft form. Music Library Association Working Group for Archival Description of Music Materials, *Archival Description of Notated Music, a Supplement to Describing Archives: A Content Standard* (Music Library Association, 2018). https://goo.gl/2Us8BX.

recordings are based on *Anglo-American Cataloging Rules, Second Edition* (AACR2).[4] AACR2 was superseded by *RDA: Resource Description and Access* (RDA) in 2010, and best practices for music description following AACR2 differ from those prescribed by RDA. The wide range of descriptive options permitted according to DACS means that practice can vary considerably, which may negatively impact standardization and limit both access to and the discoverability of music collections.[5]

Given the value of standardized practices, this study uses document analysis of finding aids to explore the manner in which music materials have been described in an archival setting since standardization has become more prevalent. The underlying assumption is that similarities across finding aids could suggest best practices for applying DACS to music materials. Further, the format of these materials likely impacts its description, so in addition to looking overall at finding aids for music materials, this study also evaluates differences between description of sound recordings and notated music.

Using the description of music materials in a sample set of finding aids, a group of 29 codes was iteratively developed to categorize the descriptive elements. These codes were then applied across all the finding aids in the study to determine the characteristics that were more frequently described. The study found that although various music-specific characteristics were among the codes, date was overall the most frequently described characteristic, with format of materials being the second most frequently described characteristic. However, when looking for differences according to type of music material, the study found that date was more frequently described for notated music and format more frequently for sound recordings.

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4 For archival audio, DACS recommends *The International Association of Sound and Audiovisual Archives* (IASA) *Cataloguing Rules: A Manual for Description of Sound Recordings and Related Audiovisual Media* and the *Oral History Cataloging Manual*. Both are derived partially from AACR2. Marion Matters, *Oral History Cataloging Manual* (Chicago: The Society of American Archivists, 1995); International Association of Sound and Audiovisual Archives and Mary Milano, *The IASA Cataloguing Rules: A Manual for the Description of Sound Recordings and Related Audiovisual Media* (Stockholm: International Association of Sound and Audiovisual Archives, 1999).

5 My forthcoming article, "Redacted for Peer Review," explores the lack of standardized practice in archival description of audio recordings of music and demonstrates how finding aids included in the study fail to apply DACS successfully. Anonymous, "Redacted for Peer Review," *Redacted for Peer Review*, no. 49 (Forthcoming), 34-50.

Literature Review

Document analysis is not a commonly-used methodology to research descriptive practice, whether archival, bibliographic, or otherwise.[6] However, a considerable body of relevant literature is broadly concerned with descriptive access to music materials and best practices for their description, along with a number of resources on descriptive standards for music other than DACS. These studies and resources can be grouped in three general areas, including case studies, guides and resources on cataloging music materials, and articles about issues specific to music archives, such as description. Descriptive problems related to the unique characteristics of music materials are common across different information contexts, so a number of non-archival studies present related concerns and recommendations. The present study fills a gap in the literature: no research studies have applied document analysis to specify the characteristics of music materials being described in existing finding aids. Further, most related studies consider either notated music or music sound recordings, but not music and recordings together.

A number of case studies provide background on special considerations for music description and demonstrate how repositories have adopted standards with modifications that best suit local needs. Judith Brimmer's case study on five repositories in the United Kingdom covers many administrative concerns specific to collections of music manuscripts including description.[7] For Brimmer, the processes surrounding music manuscripts (e.g., processes and practices that generate sketches, studies, drafts, performance markings, etc.) must also be documented, but bibliographic rules do not provide for this kind of description. To address this deficiency, she recommends a "hybrid" approach to archival description, one that includes context but encompasses features of bibliographic cataloging, such as the

6 In the forthcoming article "Redacted for Peer Review," I focus on how DACS has been applied in finding aids that describe music sound recordings, using a similar document analysis methodology. In this forthcoming study, I consider whether description of music sound recordings is in compliance with the standard and common reasons for non-compliance. Anonymous, "Redacted for Peer Review," 34-50.

7 Judith Brimmer, "Providing a National Resource: The Management of Music Manuscripts in the UK," *Journal of the Society of Archivists* 26, no. 2 (October 2005), 215-232.

use of uniform titles.[8] Similarly, David Procházka's two-part case study analyzes cataloging practice for music manuscripts at the Library of Congress.[9] His methodology most resembles the document analysis in the present study, in that he evaluates the consistency of catalog records for music manuscripts at the Library and finds widely varying practices. Like Brimmer, he advocates for the establishment of guidelines for cataloging music manuscripts for better consistency.[10]

Two other case studies on bibliographic cataloging of music materials—specifically, music sound recordings—demonstrate the problems of adapting bibliographic records to accommodate archival information. First, Ellen Garrison's case study on the Center for Popular Music's project to catalog its holdings articulates why specialized collections of music materials are difficult to describe using bibliographic standards, which are designed to help users find materials about certain topics.[11] Garrison explains that music sound recordings are not fundamentally *about* anything, but are "the by-products of an activity: performing—and in popular idioms often creating—music."[12] Given this and other circumstances at the Center, a hybrid cataloging approach was used, not unlike the one recommended by Judith Brimmer, in which archival and bibliographic practices were blended to maximize use of the Center's resources and best meet the needs of their users. Likewise, Suzanne Mudge and D.J. Hoek consider how cataloging rules do not specify description of important features of 78 rpm discs valuable

8 Ibid., 228.

9 David Procházka, "Cataloging Contemporary Music Manuscripts and Related Materials: A Look at Library of Congress Practices: Part I," *Technical Services Quarterly* 19, no. 4 (2002), 17-30; David Prochazka, "Cataloging Contemporary Music Manuscripts and Related Materials: A Look at Library of Congress Practices: Part II," *Technical Services Quarterly* 20, no. 2 (2002), 1-12.

10 Ibid., 11. Procházka's study of catalog records at the Library of Congress pre-dates the publication of *Descriptive Cataloging of Rare Materials (Music)*, the Association of College and Research Libraries' 2016 guide to bibliographic cataloging notated music manuscripts, developed in partnership with the Library of Congress. Jain Fletcher and Nancy Lorimer, eds., *Descriptive Cataloging of Rare Materials (Music)* (Chicago: Rare Books and Manuscripts Section of the Association of College and Research Libraries, 2016).

11 Ellen Garrison, "Neither Fish nor Fowl nor Good Red Meat: Using Archival Descriptive Techniques for Special Format Materials," *Archival Issues* 21, no. 1 (1996), 61-71.

12 Ibid., 68.

to researchers. They discuss how the Archives of Traditional Music adapts bibliographic cataloging rules to describe the unique characteristics of the discs, such as matrix numbers.[13]

In contrast, Jenn Riley and Michelle Dalmau consider the descriptive needs of four different institutions (including three libraries) involved in a consortial project to digitize sheet music, a format commonly found in archival collections. Based on research on users at each repository, Dalmau and Riley developed a relatively straightforward metadata model that incorporates title, names, dates, and subjects, along with a description of the cover's appearance.[14] Even though many of the other authors in this literature review have called for more complicated approaches to description, Dalmau and Riley determined that these five elements were sufficient for their project.

In all of the aforementioned case studies, user needs were an important consideration. Similarly, a number of academic music library user studies clarify user expectations and search preferences as well as what is most important to users for identifying and selecting relevant materials. Kirstin Dougan's survey of music students at the University of Illinois found that they more often search for recordings than music scores and prefer searching for specific performers or ensembles when looking for recordings.[15] Related to this, David King's user study suggests that music library users do not search as frequently by piece title, which aligns with Dougan's results.[16] He compares data on user search strategies in academic libraries for books and music materials, respectively, and confirms that users typically search for known items in a music library, whereas subject searching is more common when users search for books and other resources in non-specialized library settings.[17] Holly Ann Gardiner's

13 Suzanne Mudge and D. J. Hoek, "Describing Jazz, Blues, and Popular 78 RPM Sound Recordings: Suggestions and Guidelines," *Cataloging and Classification Quarterly* 29, no. 3 (2000), 21-48.

14 Jenn Riley and Michelle Dalmau, "The IN Harmony Project: Developing a Flexible Metadata Model for the Description and Discovery of Sheet Music," *The Electronic Library* 25, no. 2 (2007), 132-147.

15 Kirstin Dougan, "Information Seeking Behaviors of Music Students," *Reference Services Review* 40, no. 4 (2012), 561.

16 David M. King, "Catalog User Search Strategies in Finding Music Materials," *Music Reference Services Quarterly* 9, no. 4 (2005), 11.

17 Ibid., 7.

conclusions support King's findings. Her in-depth interviews with music faculty members from three different academic institutions showed that they primarily used the library catalog to search for known items (i.e., music scores and sound recordings), and that they prefer to search first by composer, with title searches being their second-most frequent preference.[18] Unfortunately, there is no research on the descriptive preferences of music archives users.

Extending beyond the specialized users of academic music libraries, the field of music information retrieval (MIR) is more frequently concerned with the preferences of a larger audience for music recordings. MIR applications are used in commercial settings, and determining what musical characteristics are the most important for the greatest number of users has been a research focus.[19] Although MIR research is loosely related to the focus of this study, user preferences uncovered by MIR research could certainly be incorporated in archival description. This area of inquiry deserves more attention from music librarians and archivists concerned with improving user access to music materials and reaching a broader user group. One article, by Deborah Kulczak and Lora Lennertz Jetton, provides an example of how this might be accomplished.[20] They explain how they used music genre information online to evaluate and improve the description in their catalog records. Kulczak and Jetton take an approach similar to those in MIR, with the goal of helping users find music with search terms that better reflected familiar genre terminology.

Articles on bibliographic cataloging for printed music and sound recordings, including the one by Kulczak and Jetton and related guides for standards other than DACS, present additional ways to

18 Holly Ann Gardinier, "Access Points Perceived as Useful in Searching for Music Scores and Recordings" (Ph.D. dissertation, University of California, Los Angeles, 2004), 274.

19 For literature reviews of user studies in MIR research, see articles by Lee and Cunningham and by Weigl and Guastavino. Jin Lee and Sally Cunningham, "Toward an Understanding of the History and Impact of User Studies in Music Information Retrieval," *Journal of Intelligent Information Systems; Integrating Artificial Intelligence and Database Technologies* 41, no. 3 (July 2013), 499-521; David M. Weigl and Catherine Guastavino, "User Studies in the Music Information Retrieval Literature" (Miami, Florida, International Society for Music Information Retrieval, 2011). doi:10.5281/ZENODO.1417810.

20 Deborah E. Kulczak and Lora Lennertz Jetton, ""Lexicon of Love": Genre Description of Popular Music is Not as Simple as ABC," *Music Reference Services Quarterly* 14, no. 4 (Oct, 2011), 210-238.

approach and think about music description.[21] Many archival collections contain published music and sound recordings, so the literature on bibliographic cataloging provides useful information for description of non-unique music materials found in archival collections. For example, in 2015 the Music Library Association published a guide to the application of RDA for music materials, which is part of the RDA toolkit, and a recent joint publication from the Association for Recorded Sound Collections and the Council on Library and Information Resources on best practice audio preservation includes a chapter on description according to various standards other than DACS.[22] In 2017 Richard Smiraglia published the fourth edition of his music cataloging manual with Jihee Beak, updated to reflect RDA, and in 2018 Jean Harden's new guide to music cataloging according to RDA was published by the Music Library Association.[23] The guide provides good examples for identifying published pieces of music and features a supplementary chapter on music archives. This chapter gives a broad overview of archival practices, which is directed at librarians, and does not include specific instructions for archival description of music materials. Given DACS provides a crosswalk to RDA and the abundance of resources on cataloging using these rules, another descriptive approach could involve researching and adapting this crosswalk for music materials.

The last category of resources related to archival description of music materials either focus on different aspects of music archives with some discussion, often limited, of descriptive issues, or on description of music materials specifically, but without applying a research methodology. In an article

21 For a history of bibliographic cataloging of sound recordings in the context of RDA, see C. Rockelle Strader, "Cataloging Music Sound Recordings in the United States: An Evolution of Practice and Standards," *Notes* 72, no. 2 (December 2015), 276-327. For a history of library cataloging practices for notated music, see Carol June Bradley, "Classifying and Cataloguing Music in American Libraries: A Historical Overview," *Historical Aspects of Cataloging & Classification* 35, no. 3 (January 2003), 467-481.

22 Music Library Association RDA Music Implementation Task Force, *Best Practices for Music Cataloging Using RDA and MARC21, Version 1.1*, (Music Library Association, 2015), https://cdn.ymaws.com/www.musiclibraryassoc.org/resource/resmgr/BCC_RDA/RDA_Best_Practices_v1.1-1502.pdf; Samuel Brylawski, Maya Lerman, Robin Pike, and Kathlin Smith, eds., *ARSC Guide to Audio Preservation* (Washington, D.C.: Council on Library and Information Resources, 2015), https://www.clir.org/wp-content/uploads/sites/6/pub164.pdf.

23 Richard P. Smiraglia and Jihee Beak, *Describing Music Materials: A Manual for Resource Description of Printed and Recorded Music and Music Videos*, fourth ed. (Lanham: Rowman & Littlefield, 2017); Jean Harden, *Music Description and Access: Solving the Puzzle of Cataloging* (Middleton, Wisconsin: A-R Editions, Inc. and Music Library Association, 2018).

that focuses on description of notated music, Adriana Cuervo and Eric Harbeson outline unique considerations in describing notated music, ranging from identification of different kinds of creators (e.g., arranger or composer) to how various notated music formats reflect different contexts (e.g., performance vs. study scores).[24] Cuervo and Harbeson explain that description is difficult because notated music serves a proxy for "the music itself," and based on their experiences at the Sousa Archives and Center for American Music, they recommend and provide examples of best descriptive practices for music, which often require more granularity in their model.[25] Like Cuervo and Harbeson, Delaina Sepko also considers archival description of music materials, but she is concerned with connecting genre theory and description according to *Rules for Archival Description*, the standard used in Canadian archives.[26] Unlike DACS, this archival standard contains an entire chapter on description of sound recordings. Sepko recommends that genre description be included in a finding aid's scope and content note, a proposal that could also align with the rules in DACS.[27]

Although Lisa Hooper focuses on many different aspects of music archives, both her book with Donald Force and her article cover description.[28] In the latter, Hooper studies the quantity of unprocessed and inaccessible archival material in music libraries. When these materials are described, she demonstrates the prevalence of inconsistent description and suggests more study could help address this problem.[29] In contrast to the article, the book deals less with archival backlogs and instead provides a general

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24 Adriana P. Cuervo and Eric Harbeson, "Not Just Sheet Music: Describing Print and Manuscript Music in Archives and Special Collections," *Archival Issues: Journal of the Midwest Archives Conference* 33, no. 1 (2011), 41-55.

25 Ibid., 42.

26 Delaina Sepko, "Sound Records: Genre and Popular Music in Rules for Archival Description," *IASA Journal*, no. 40 (2013), 5.

27 Ibid., 9-10.

28 Lisa Hooper, "Moving to Preserve the Past: Current State of Archival Music Collections and Future Possibilities," *Music Reference Services Quarterly* 14, no. 1 (2011), 14-29. Lisa Hooper and Donald C. Force, *Keeping Time: An Introduction to Archival Best Practices for Music Librarians* (Middleton, Wis.: A-R Editions, Inc. and Music Library Association, 2014).

29 Hooper, "Moving to Preserve the Past," 26.

examination of archival practice that is directed at music librarians, including a chapter on archival description that introduces the basics without specifying descriptive practice.[30] However, Hooper and Force discuss archival description of sound recordings in slightly greater detail, but in relationship to audio digitization and apart from a finding aid context.[31]

Since the unique descriptive needs of archival music materials have already been well-defined in the literature and a number of guides to describing music materials already exist, this study employs a new tactic to get at potential best practices: assessing finding aids for real-world music collections to establish a baseline from which to move forward. Looking at current descriptive practice provides a lens through which to study the descriptive choices of music archivists and others with responsibility for music collections and helps uncover commonalities across finding aids and repositories. These commonalities, in turn, provide more data that could be used in developing best practices for music description.

Methodology

Using document analysis, I studied how music materials were most commonly described in online finding aids using qualitative and quantitative data. First, I iteratively developed a set of codes based on the music description in finding aids included in the study. I then applied these codes to all of the finding aid elements with music description to look for common practices across the sample. I also categorized finding aids by their complexity and their contents by type of material so that I could look for practices specific to different types of finding aids and materials. All sampling and data collection occurred in 2016.

Sampling strategy

30 Hooper and Force, *Keeping Time*, 37-45.

31 Hooper and Force, *Keeping Time*, 86-87.

To create my sample frame of finding aids, I listed and randomized the names of institutions and repositories (n=256) included in the 2016 membership directories of SAA's Performing Arts Section, the Association for Recorded Sound Collections, and the Music Library Association's Archives and Special Collections Committee.[32] I targeted these organizations to establish a purposive sample, given my focus on music materials. By limiting the sample according to these professional affiliations, the goal was also to focus on expert music description as opposed to that of archivists without musical knowledge. I reasoned that expert description might be more likely to represent best practices and a better understanding of user needs and demonstrate commonalities across finding aids. I then selected the first 20 repositories from the randomized list of names and searched online for finding aids at each that met the inclusion criteria, detailed below.

Using the search tools available on a repository's website, I reviewed the finding aids in my results when I searched for the word "music." I selected finding aids for inclusion in the study only if they:

> -Were created in 2005 or later, after DACS was first endorsed by SAA in 2004, and
>
> -Described a collection that substantially represents the musical activity of its creator or consisted primarily of music materials, with a series or sub-series assigned accordingly.

Although this study does not confirm whether sampled finding aids were created using DACS, I limited the sample to finding aids published after SAA's endorsement. I posited they might be more likely to describe music materials using similar descriptive practice than finding aids created before DACS was widely adopted. To determine whether a collection met the second criteria, I reviewed scope and content notes, biographical and historical notes, and series listings for each finding aid. Collections that did not focus on music or that emphasized non-musical activities were excluded.

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32 This sampling strategy was also used for another article I wrote, "Redacted for Peer Review." Anonymous, "Redacted for Peer Review," 40-43.

In the process of looking for finding aids, I found that eight of the 20 repositories in my list either did not appear to have any music collections and/or online finding aids, so these eight were excluded from the study. Many of these collections focused on other performing arts or recordings without music, and therefore did not meet the inclusion criteria. However, I did include many types of finding aids to sample a wide range of descriptive practice, but only if they provided at least a collection-level description and title.

Following this sampling strategy, I listed the finding aids according to repository, in the order of the search results from each repository's website, and then randomized each list to eliminate potential bias from the repository's online search algorithm. I then selected the first three in each repository's randomized list for my analysis, with the exception of San Jose State University, which had only two relevant finding aids. Overall, my analysis includes 35 finding aids from 12 repositories for collections of various sizes (Table 1).

Once I determined which finding aids would be included, I recorded whether a finding aid was multi- or single-level and what types of music materials were included in the collection so I could later compare descriptive practice based on type of material and finding aid. DACS provides guidelines for both multi- and single-level finding aids. Single-level finding aids describe a collection as a whole, while multi-level finding aids describe collections arranged into smaller, hierarchical units of description (e.g., series, sub-series, file, item).

Data gathering

I used spreadsheets to gather and organize my data. The sampling units in my study are the discrete elements of archival description in each finding aid in my sample (e.g., "folder title," "scope and content note," etc.). I transcribed these units verbatim from the various finding aid parts and sections, but only the units with description of music materials (n=2,859). For each sampling unit, I also noted

the collection name, home institution, the type of finding aid element with description (e.g., scope and content note, collection title, folder title), and the kind of music materials being described: notated music, sound recordings, or both. Table 2 provides an example from the spreadsheet for the Margaret Sauter sheet music collection.

I iteratively created my codebook. I started with a set of 15 codes that I anticipated would be used to describe musical characteristics (e.g., composer, piece title, date). I then used this list to code seven finding aids at two institutions, adding to and subtracting from the list as I went along. I also added a few codes later in my analysis to accommodate types of description I did not initially encounter when developing the codebook. Whenever I incorporated a new code, I was sure to apply it retroactively as needed. Ultimately, the codebook included 29 categories of descriptive information about music materials (Table 3). I also included one multipurpose code, "other," for idiosyncratic description and made notes about its application in the spreadsheet. I only applied this code for music description that was unique in the sample and did not occur more than once.

Data analysis

For each finding aid, I ranked the codes according to their frequency of occurrence and then compared these rankings across collections. I ranked the codes for each finding aid so that the data would not be skewed because of variations in collection size and extent of description. I also compared data based on whether a finding aid was multi- or single-level and the types of materials being described to look for patterns and differences. Finally, I determined which code(s) occurred most frequently as well as which codes were the second and third most frequently occurring in each finding aid.

One drawback of this methodology and analysis is that description can and should reflect a wide variety of factors and decision points. However, accounting for these factors is dependent on knowledge of the specific context for description of each collection, which would require additional

research to uncover. It is also worth noting that after the study's data was gathered, several finding aids were revised and/or expanded, demonstrating the iterative process of archival description and how additional and revised description may be incorporated after a collection has been arranged and described.

Results

Using the number of codes per finding aid as a rough measure of the granularity of description shows that multi-level finding aids tend to feature more granular description than single-level finding aids. This is unsurprising since multi-level finding aids contain more description than single-level finding aids by definition. Multi-level finding aids averaged 11 codes per finding aid, with a range of six to 26 codes per finding aid. Single-level finding aids averaged four codes, with a range of one to seven codes per finding aid.

The granularity of description in the entire sample varied considerably, with one finding aid including only one of the 29 codes, while another included 26. The average number of codes per finding aid for the entire sample was nine, meaning that music materials were described, on average, in nine different ways in each finding aid. However, the frequency of certain types of description varied considerably, with several codes occurring much more frequently than others. In many cases, more than one category of musical description occurred with the same frequency within a finding aid. For example, a finding aid could include both date and format information in eight finding aid elements, more than any other element for the finding aid. As a result, these would both be ranked as the most commonly occurring codes for that finding aid.

Overall, the most commonly occurring code is date, with 30 finding aids (86%) including date information most frequently. Date is a required descriptive element according to DACS and other standards for archival description, so this high level of frequency comes as no surprise. Next is format,

with 17 finding aids (57%) documenting the format of the music materials being described most often. Beyond format and date, size/extent/page count (20%) and piece title (13%) were among the most commonly occurring codes.

In terms of the second-most commonly occurring code, 31% of the finding aids (n=11) included format information, while 29% included piece titles (n=10). Date was the second-most commonly occurring code for 26% of the finding aids (n=9). The third-most commonly occurring codes were piece title and format, with 23% of finding aids (n=8) including information in each of these areas, respectively.

Examining the connection between the type of materials and what characteristics are more frequently described, some differences between notated music and sound recordings become apparent. I only analyze differences in description based on types of materials for multi-level finding aids because single level finding aids did not always clearly identify how description applies to specific types of materials. Table 4 summarizes the results of this analysis, indicating what codes appeared most frequently for different kinds of materials and finding aids. Codes are ranked by their frequency of appearance, from most frequent to third most frequent. The numbers equaling the codes indicate the number of finding aids to which each frequency of appearance applies

In multi-level finding aids with description of notated music, date was more commonly described than any other characteristic. In contrast, description of sound recordings included information about format most frequently in multi-level finding aids. This was the most striking difference between description of notated music and sound recordings in multi-level finding aids.

Another difference between the two was piece title. Description of notated music more frequently indicated piece title than did description of sound recordings. Thinking about the nature of archival description and sound recordings, this difference makes sense. A sound recording often includes

multiple pieces, but archival description generally does not extend much beyond item level description to enumerate all of the component parts of an item (e.g., the pieces represented on a cassette tape).

Even more, when it comes to music sound recordings, DACS recommends the application of audiovisual cataloging rules created by the International Association of Sound and Audiovisual Archives (IASA) to meet the specialized descriptive issues of archival sound recordings. However, DACS does not provide specific guidelines on how to apply these rules, so practice varies widely across repositories in terms of granularity, standardized description, and type of information. Without additional information from the authors of the finding aids in my sample, it would be difficult to determine whether they were using DACS. Regardless, this study's data demonstrates the wide array of descriptive practices used in describing archival collections with sound recordings of music and the associated lack of standard practices.

One notable difference between multi- and single-level finding aids is that format is more frequently described in single-level finding aids, whereas description of sound recordings and notated music in multi-level finding aids more frequently includes date information. This difference might be due to the efficiency of collection-level description. Single-level finding aids do not enumerate title, date, and other kinds of information for all items in a collection. Instead, single-level finding aids may collectively describe the formats of materials as an efficient way of providing a baseline description.

Date information occurs frequently in multi-level finding aids because date information is often provided at multiple levels of description, including at the item level. In single level finding aids, date information is generally provided at the collection level only. For example, in the Irma Goebel Labastille collection at the University of Miami, date information for all the materials in the collection is provided once in the finding aid at the collection level. Likewise, format information for a variety of materials is included in the finding aid's scope and content note: "The Irma Goebel Labastille collection consists primarily of sheet music and notebooks of sheet music, but also includes clippings,

poetry, photographs, notes, and manuscripts."[33] Another example is in the finding aid for the William E. Koch collection at the Kansas Historical Society, in which format is described in a section titled "Specific Contents Identified." It lists nine bullet points including "33 Rpm vinyl records," "audio/visual materials," and "copies of a/v materials."[34] These bullet points serve to group broad characteristics of materials in the collection, instead of detailing items or groupings of items. Based on these and other examples, some differences between descriptive practice are likely related to the level of description in the finding aid.

Although it was very common in my sample, title information appeared less frequently than I expected. Even in multi-level finding aids with only notated music and no sound recordings, piece title was less frequently described than date and format. In some cases, this was because music was described in bulk (e.g., "Sheet music, A-F") instead of listing specific titles. The decision to describe music at the item level versus bulk description can be dependent on any number of factors: time available for description, significance of the individual pieces, expertise of the finding aid author, significance of notated music to the rest of the collection, etc. This study does not answer questions about how to make decisions about the level of description to use in a finding aid, but the results suggest that the repositories in the study did not consider item-level description of titles necessary. These results also align well with the studies about users of academic music libraries mentioned above, which have shown that users who are searching for known items search more often using criteria other than title.

Similarly, description of format occurred commonly for notated music and sound recordings, both in single- and multi-level finding aids. Again, this study does not answer questions about the reasons for describing specific aspects of music materials, but the results show that format information is

33 University of Miami Special Collections, "Collection ASM0609 - Irma Goebel Labastille collection," https://atom.library.miami.edu/asm0609 (accessed January 8, 2016).

34 Kansas Historical Society, "William E Koch Collection," https://www.kshs.org/archives/42513 (accessed January 10, 2016).

frequently described. This could be explained in a couple ways. First, given that most of the collections in the study include a variety of materials—correspondence, photographs, reports—in addition to music, describing the format of music materials makes sense. Finding aid authors wish to communicate the contents of the collections being described, so indicating that a collection includes "manuscript scores" or "live bootleg audiocassettes" conveys to potential users that music materials are available in the collection, even if the description does not follow standardized practices. Secondly, the code definition for "format" was broad by design, but establishing sub-codes, such as notation style or media type, might reduce this code's frequency. Further study of the description of music formats could better explain why format was so frequently described.

Conclusion

When describing notated music and music recordings, archivists and others with responsibility for music collections have a wide variety of options. They can follow bibliographic cataloging rules, endeavor to write DACS-compliant description, use another widely-adopted standard, or they can establish local rules that do not reflect wider standardized practices. However, these practices are helpful for several reasons, most importantly for taking advantage of electronic tools for improving collections administration and access. Given DACS, the standard for archival description in the United States, has only recently recommended a forthcoming publication on description of notated music and does not yet include recommendations for music sound recordings following current standards, this study reviews existing archival description to look for common practices.

Drawing from a wide sample of finding aids with archival description of music materials, a set of 29 codes was established to categorize and analyze the descriptions of music materials in each finding aid. These codes were then applied across the sample. Analyzing the code frequencies reveals differences in descriptive practice based on both the types of materials being described and the level of description. Multi-level finding aids included the most granular description of music materials and more often

included date information about music materials than single-level finding aids, which more frequently described format. Without accounting for the level of description, the most commonly occurring codes overall are also date and format, with piece title also being somewhat frequently described, especially in description of notated music. For sound recordings, the most commonly occurring code in multi-level finding aids was format.

Given these results and the other studies that have considered archival description of music materials, those with responsibility for description should carefully consider the options and decide on an approach that aligns with standard practices as much as possible, takes a repository's resources into account, and reflects user needs. In fact, further research on music archives users might show their descriptive preferences resemble those of music library users, and future studies could compare user preferences to the findings of this study to see how well existing description of archival music materials aligns with user preferences. Regardless, the key to maximizing resources hinges on good decision making, and since every archival repository and collection is unique, it is unlikely there is one best approach for all archives, beyond meeting the fundamental requirements for single-level finding aids recommended by DACS. However, upon the publication of the Music Library Association's DACS supplement, archivists and others who wish to create finding aids that comply with the standard will finally have a clearer set of guidelines, at least for describing notated music. If DACS were also updated to recommend a better and current guide for the description of sound recordings, many of the descriptive idiosyncrasies associated with music collections could be addressed.

The initial results of this study were presented at the 2015 International Association of Music Libraries and International Musicological Society Congress, held in New York City, as part of the paper, "Sharing Notes: Current Music Description Practice in the Context of DACS." The study was initiated through the 2014 Institute for Research Design in Librarianship.

(Table 1) Repositories and collections included in the study

Name of the home institution	Name of the collection	Linear ft. (except as noted)	Multi- or Single-level finding aid	Type(s) of music materials described
Bowling Green State University	Joel Rudinger Papers	8.75	Multi	sound recordings
Bowling Green State University	Steve Allen Collection	24 boxes	Multi	sound recordings
Bowling Green State University	Ray B. Browne Collection	43 cu. ft.	Multi	sound recordings and notated music
Case Western Reserve University	Donald Erb papers	55	Multi	sound recordings and notated music
Case Western Reserve University	Marcel Dick Papers	17	Multi	notated music
Case Western Reserve University	Maurice Goldman Papers	9.18	Multi	sound recordings and notated music
Cornell University	Adler hip hop archive	36.5	Multi	sound recordings
Cornell University	Black Metal Music collection	3.5	Multi	sound recordings
Cornell University	Breakbeat Lenny Archive	2	Multi	sound recordings
Emerson College	Helen Shea Collection	2.34	Multi	notated music
Emerson College	Variety Protected Materials Department Collection	7.5	Multi	notated music
Emerson College	Warren Debenham Comedy Sound Collection	24	Multi	sound recordings
Great American Songbook Archives and Library	Gus Kahn Papers	4	Multi	notated music
Great American Songbook Archives and Library	Margaret Sauter Sheet Music Collection	5	Multi	sound recordings and notated music
Great American Songbook Archives and Library	Sandler & Young Collection	12	Multi	notated music
Kansas Historical Society	Annie M. P. Bundy scrapbook	1	Single	notated music
Kansas Historical Society	Whitehead-Osborne papers	1.5	Single	notated music
Kansas Historical Society	William E. Koch Collection	15.5	Single	sound recordings
Marshall University	Dr. Glenray C. Stein Musical Score	0.5	Single	notated music

Name of the home institution	Name of the collection	Linear ft. (except as noted)	Multi- or Single-level finding aid	Type(s) of music materials described
Marshall University	Revella E. Hughes Papers	8 cu. ft.	Single	notated music
Marshall University	William Tweel Papers	1 cu. ft.	Single	notated music
San Jose State University	Manuscripts [Beethoven Center collection]	unknown	Multi	notated music
San Jose State University	San Jose State College Songs and Music Collection	1.25	Multi	sound recordings and notated music
State University of New York at Potsdam	Allen L. Richardson Papers	2.1 cu. ft.	Multi	sound recordings and notated music
State University of New York at Potsdam	Mary E. English papers	2.1 cu. ft.	Multi	sound recordings
State University of New York at Potsdam	Paul A. Steinberg papers	2.7 cu. ft.	Multi	sound recordings and notated music
Texas Tech University	Box Family [sic]	unknown	Single	sound recordings and notated music
Texas Tech University	Ida Selby Papers	18	Multi	notated music
Texas Tech University	Reed, Elsie Brashears [sic]	unknown	Single	notated music
University of Iowa	Lynda Mendoza Collection of David McCallum Memorabilia	36.5	Multi	sound recordings and notated music
University of Iowa	Philip Greeley Clapp Papers	34.25	Multi	sound recordings and notated music
University of Iowa	Wilferd Kracht and Vincent C. Brann Papers	4	Multi	sound recordings and notated music
University of Miami	Alfred Reed papers	2	Multi	notated music
University of Miami	Irma Goebel Labastille collection	1 box	Single	notated music
University of Miami	Ramón S. Sabat Panart Collection	20	Single	sound recordings

(Table 2) Excerpt from data spreadsheet for Margaret Sauter Sheet Music Collection, Great American Songbook Archives and Library

Repository	**Collection**	**Element**	**Element Name if Different**	**Type**	**Text**	**Code1**	**Code2**	**Code3**	**Code4**	**Code5**
Songbook	Margaret Sauter	collection title	Collection	Music score(s)	Margaret Sauter Sheet Music Collection	Format				
Songbook	Margaret Sauter	date	Dates	Music score(s)	1900 – 1991	Date				

Repository	Collection	Element	Element Name if Different	Type	Text	Code1	Code2	Code3	Code4	Code5
Songbook	Margaret Sauter	other	Contents	Music score(s)	The collection consists of sheet music, arrangements, and folios that belonged to Margaret Sauter.	Format				
Songbook	Margaret Sauter	collection title	Title	Music score(s)	Scores from Broadway musicals, n.d.	Style or genre	Date			

Repository	Collection	Element	Element Name if Different	Type	Text	Code1	Code2	Code3	Code4	Code5
Songbook	Margaret Sauter	other	Contents	Music score(s)	Sheet music for concert band and chorus and program from Optimist Club of Grosse Pointe, 11/6/1976.	Format	Instrumentation	Date	Location	

Repository	Collection	Element	Element Name if Different	Type	Text	Code1	Code2	Code3	Code4	Code5
Songbook	Margaret Sauter	other	Contents	Music score(s)	Graham, Mary Nancy. Fifty Songs for boys and girls. Racine: Whitman, 1935.	Composer	Collection/Book Title	Location	Publisher	Date

Repository	Collection	Element	Element Name if Different	Type	Text	Code1	Code2	Code3	Code4	Code5
Songbook	Margaret Sauter Sheet Music Collection	other	Contents	Music score(s)	Schirmer's Library Vol. 279 "Vaccai" Practical Italian vocal method for alto or baritone, 1894.	Collection /Book Title	Instrumentation	Date	Publisher	

Repository	Collection	Element	Element Name if Different	Type	Text	Code1	Code2	Code3	Code4	Code5
Songbook	Margaret Sauter	other	Contents	Music score(s)	Schirmer's Library Vol. 695 Alexander von Fielitz Op.9 Ten songs for medium voice, 1902.	Collection /Book Title	Instrumentation	Composer	Publisher	date

Repository	Collection	Element	Element Name if Different	Type	Text	Code1	Code2	Code3	Code4	Code5
Songbook	Margaret Sauter	other	Contents	Music score(s)	Selection from Showboat for Hammond organ and miscellaneous, 1952.	Piece Title	Instrumentation	Parent Work	Date	

(Table 3) Descriptive codes and explanation

Code	**Explanation**
Album title	Applied when an album title is present
Piece title	Applied when the title of a specific piece of music is present
Collection-book title	Applied when the title of a collection or book of musical works is present
Composer	Applied when a composer is identified
Editor	Applied when an editor is identified
Copyist	Applied when music copyists are mentioned
Arranger	Applied when an arranger is identified
Performer	Applied when a performer is identified
Publisher	Applied when a publisher is identified or when publication information is present
Lyricist	Applied when a lyricist is identified
Lyrics	Applied when the existence of lyrics is mentioned
Date	Applied when date information for music is present (e.g., undated, February 1924)
Size-extent-page count	Applied when extent, size, or page count is quantified (e.g. 10-inch, one page, three pieces of sheet music)
Format	Applied when the type of format or physical format is described, including media type (e.g., disc or cassette), notation style (e.g., manuscript or typeset), music format (e.g., sheet music, part, conductor's score), and whether the material is a copy or the original
Material composition	Applied when the physical material of items is described (e.g., onion skin paper, vinyl, lacquer)
Draft or Sketch	Applied when notated music is identified as a draft or initial sketch
Instrumentation	Applied when the performing forces are identified (e.g., chorus, piano, trombone, orchestra, medium voice)
Key	Applied when the key of a piece of music is identified

Code	Explanation
Style or genre	Applied when musical style or genre is named (e.g., symphony, sonata, rap, avant garde, cowboy songs)
Incomplete-missing parts	Applied when the material is identified as incomplete
Notes	Applied when the description identifies something extra written on the materials (e.g., autographs, dedications, markings and fingerings, commissions, revisions)
Location	Applied when geographic information related to the music is present (e.g., premiere location)
Rights	Applied when information about intellectual property rights and copyright is present
Parent Work	Applied when a larger creative work is identified as the origin of the material being described (e.g., "Selections from My Fair Lady")
Record Label	Applied when a record label is identified by name
Issue Number	Applied when commercial issue numbers are present
Playback speed	Applied when the playback speed is specified
Union Information	Applied when any information related to a musicians' union is included
Other	Applied when idiosyncratic characteristics are described (e.g., extent of revision, damage, home recordings, etc.)

(Table 4) Summary of results

Multi-level finding aids (n=25)

Description of notated music (collections with notated music and sound recordings, n=10)

1st most frequently occurring	date=9	piece title=2	performer, lyrics=1
2nd most frequently occurring	piece title=4	format, style/genre=3	
3rd most frequently occurring	lyrics, instrumentation, format, collection/book title, piece title=2	composer, size/extent/page count, location=1	

Description of notated music (collections with only notated music, n=8)

1st most frequently occurring	date=5	format=3	piece title, lyrics, style/genre=1
2nd most frequently occurring	piece title, composer, format=2	arranger, date, size/extent/page count, instrumentation, notes=1	
3rd most frequently occurring	key, size/extent/page count, date, lyricist, composer, piece title=1		

Description of sound recordings (collections with notated music and sound recordings, n=10)

1st most frequently occurring	format=8	date=5	size/extent/ page count, style/genre=2	performer, instrumentation, material composition, location, parent work, record label=1
2nd most frequently occurring	date=4	composer=2	style/genre, size/extent/page count, album title=1	
3rd most frequently occurring	piece title=3	style/genre, format, size/extent/page count, composer, performer=1		

Description of sound recordings (collections with only sound recordings, n=7)

1st most frequently occurring	format=5	date=2	other=1
2nd most frequently occurring	date=4	album, size/extent/page count, performer=2	record label, piece title, composer=1
3rd most frequently occurring	issue number, style/genre, collection/book title, performer, size/extent/page count, format=1		

Description of sound recordings and notated music (collections with notated music and sound recordings n=10)

1st most frequently occurring	date=9	piece title=1	size=1	
2nd most frequently occurring	format=4	piece title=3	style=2	album title=1
3rd most frequently occurring	format=4	piece title, collection/book title=2	composer, instrumentation, lyrics, style/genre=1	

<u>Single Level Finding Aids (n=10)</u>

1st most frequently occurring	format=4	style/genre, date=3	composer= 2	other, record label, location, piece title, arranger, size/extent/ page count=1
2nd most frequently occurring	format=4	date, size/extent/ page count, instrumentation=2	style/genre, arranger=1	
3rd most frequently occurring	location, style/genre=2	playback speed, material composition=1		