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# **Towards an Archaeology of Digital Early Music Heritage: Two Case Studies**

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## Abstract

The digitization of medieval manuscripts and early books has been widely discussed in both musicology and other disciplines, with scholars arguing for both the advantages and disadvantages of creating and using digital surrogates. However, one issue brought up by Zdeněk Uhlíř is that digitization is not just creating digital images but is a “complex activity concerning the presentation of cultural heritage and representation of historical sources.” In this thesis, I examine how digitized early music sources are not just digital images, but also representations and promotions of musical heritage. I analyze two case studies to illustrate and compare how two different digital libraries preserve, advertise, and sustain the digitized musical heritage in their collections.

The first case study is the Leuven Chansonier (B-AF-ms-1), a fifteenth-century songbook thought to have been produced in the Loire Valley region of France. The songbook was digitized by the Alamire Foundation’s digital lab in 2017. It has received considerable support from the Belgian state and city of Leuven to promote the Chansonier and their research nationally and internationally to reveal the artistry and relevance of early Franco-Flemish musical heritage. The second case study consists of two autographed volumes by the seventeenth-century English composer, Henry Purcell, which are currently held by the British Library. One volume is a manuscript containing keyboard music (MS Mus. 1) by Purcell at one end and the Italian composer, Giovanni Battista Draghi, at the other. The other volume is a scorebook (R.M.20.h.8) containing music written for the courts of Charles II and James II. In 2012, both Purcell manuscripts were digitized.

In this thesis, I argue that when dealing with digitized early musical heritage, more consideration should be put into how these digitizations reflect upon and possibly influence current perceptions about musical heritage. I show how the Leuven Chansonier and Purcell manuscripts have been promoted as cultural heritage and the sociopolitical considerations and motivations behind the preservation and sharing of early musical heritage. In conclusion, this thesis aims to illustrate how such digitizations fit into the larger trend of using digital and virtual methods to protect, access, and research early music sources and heritage.

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## List of Abbreviations

<i>Abbreviation</i>	Explanation
<i>ACHS</i>	Association of Critical Heritage Studies
<i>ADL</i>	Alamire Digital Lab
<i>DIAMM</i>	Digital Image Archive of Medieval Music
<i>EEBO</i>	Early English Books Online
<i>ICOM</i>	International Council of Museums
<i>ICOMOS</i>	International Council on Monuments and Sites
<i>IDEM</i>	Integrated Database for Early Music
<i>IIF</i>	International Image Interoperability Framework
<i>IIF-C</i>	International Image Interoperability Framework Consortium
<i>NSDA</i>	National Digital Stewardship Alliance
<i>OMR</i>	Optical Music Recognition
<i>R.M.</i>	Royal Music (Royal Music Library)
<i>RTI</i>	Reflectance Transformation Imaging
<i>UNESCO</i>	United Nations Educational, Scientific and Cultural Organization

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## Introduction

“I go to the Library of Congress web page and I see this really grainy image of music manuscripts that come from Ephrata and I realized—oh my goodness that’s choral music—it’s four part acapella music,” musicologist Christopher Herbert excitedly describes how he first found the Ephrata Codex, an eighteenth-century music manuscript currently held by the Library of Congress.<sup>1</sup> The Codex was from a corpus of around 135 American illuminated music manuscripts from the Ephrata and Snow Hill monastic communities in Pennsylvania.<sup>2</sup> While made between 1739 and the 1850s, these manuscripts follow “a much older tradition of European monastic scribes.”<sup>3</sup> Not only did these Pennsylvanian communities compose a large corpus of hymns and motets, but some of the compositions appear to be credited to women, possibly the first known women composers in Colonial America.<sup>4</sup>

However, Herbert noticed that locating and studying these manuscripts had proven difficult because very few had been digitized and made available to the public, even by the time he published his dissertation in 2018. In 2019, the Ephrata Codex was finally fully digitized by the Library of Congress, but Herbert expressed that future work on the Ephrata and Snow Hill corpus would require increased access to the various manuscript through digitization.<sup>5</sup> Digitization, the process of converting analogue or physical materials into digital form, offers images that are not only higher quality, but that can also be shared broadly and quickly on the web.<sup>6</sup> He argues that due to the unique nature and cultural value of these manuscripts, “such attention to their digital preservation would be worthwhile and valuable.”<sup>7</sup>

Since the late 1990s, the digitization of manuscripts and books has been widely discussed in both musicology and other disciplines, with scholars arguing for the advantages

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<sup>1</sup> Christopher Herbert, “The Music of the Ephrata Cloister,” April 17, 2019, YouTube video, 5:45, <https://www.youtube.com/watch?v=z2NhY9VO3aM&t=1s>.

<sup>2</sup> Christopher Dylan Herbert, “The Sounds of Ephrata: Developing a Research Methodology to Catalog and Study Eighteenth- and Nineteenth-Century Pennsylvanian Music Manuscripts,” *Notes* 76, No. 2 (December 2019): 199, doi:10.1353/not.2019.0090.

<sup>3</sup> Herbert, “Sounds of Ephrata,” 200.

<sup>4</sup> Herbert, “Sounds of Ephrata,” 202.

<sup>5</sup> Christopher Dylan Herbert, “Voices in the Pennsylvania Wilderness: An Examination of the Music Manuscripts, Music Theory, Compositions, and (Female) Composers of the Eighteenth-Century Ephrata Cloister” (DMA diss., The Juilliard School, 2018), 269, <https://repository.wpunj.edu/handle/20.500.12164/123>.

<sup>6</sup> Ross Harvey and Jaye Weatherburn, *Preserving Digital Materials*, (Lanham, Maryland: Rowman & Littlefield), 13.

<sup>7</sup> Herbert, “Sounds of Ephrata,” 221.

and disadvantages of creating and using digital surrogates as a method of preservation.<sup>8</sup> Even with the best care, books and manuscripts are in danger of deterioration, discoloration, and damage. For early music scholars, digitization has proven particularly useful because it allows for aging, delicate, and damaged sources to continue to be preserved and accessible, without having to continue to handle original copies and risk further damage. These digital surrogates also allow for scholars and students to be able to access and study these documents no matter where they are, thus limiting the need for expensive and time-consuming travel.<sup>9</sup> However, while libraries and archives are often inspired to make digitizations freely available to benefit researchers and the public, they also act as promotional materials that allow for institutions to make their collections more visible and distinguish themselves from other institutions.<sup>10</sup> This leads to a crucial question for musicologists to consider: how is early music being represented online through these digitizations?

In this thesis, I argue that more consideration should be put into how digitized early music manuscripts (from the fifteenth century to the mid-eighteenth century) reflect upon and potentially influence current perceptions about musical heritage. As pointed out by scholars such as Laurajane Smith and David Lowenthal, the notion of “heritage” has been greatly criticized for its ties to nationalism and Eurocentrism and should be dealt with carefully. With this in mind, I examine how the digitized Leuven Chansonnier and Purcell manuscripts have been promoted as musical heritage and delve into the sociopolitical considerations and motivations behind the preservation and sharing of early musical heritage.

Zdenek Uhlir, a librarian at the National Library of the Czech Republic, warned that the “digitization of historical documents and/or holdings means not only and not firstly creating mere digital copies for preservation purpose but complex activity concerning presentation of cultural heritage and representation of historical sources.”<sup>11</sup> In other words, creating digitizations can also be an act of practicing heritage. These sources are more easily accessible for both scholars as well as the general public and students without an extensive background in the field.<sup>12</sup> It should also be considered that these digital collections often do not represent the entirety of the conventional library or archive’s collections. Just like with

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<sup>8</sup> Julia Craig-McFeely, “Digital Man and the Desire for Physical Objects,” *Early Music* 41, no. 1 (February 2013): 131, <https://doi.org/10.1093/em/cas147>.

<sup>9</sup> Craig-McFeely, “Digital Man,” 131.

<sup>10</sup> Ilse Korthagen et al., *Checklist for the Digitisation of Manuscripts*, (Brussels: Koninklijke Bibliotheek, 2019), 15-16.

<sup>11</sup> Zdeněk Uhlíř, “Digitization is Not Only Making Images: Manuscript Studies and Digital Processing of Manuscripts,” *Knygotyra* 51 (2008): 159, <https://doi.org/10.15388/kn.v51i0.7895>.

<sup>12</sup> Uhlíř, “Digitization is Not,” 148-149.

traditional archives and libraries, not everything can be preserved and made available: some items are selected, and others are not.<sup>13</sup> These digitizations may influence what sources are being studied both now and in the future. With the proliferation of new digital libraries and archives, musicologists now have the opportunity to question how digitizations portray and affect the reception of musical heritage.

Chapter 1 discusses the term “heritage” and its multiple uses in scholarship in relation to the preservation of manuscripts and printed books. As I illustrate in the chapter, many scholars have discussed the various meanings and contexts associated with this term, as well as its connections to nationalism and problematic histories.<sup>14</sup> In this thesis, I address the two case studies from the perspective of William Logan, Ullrich Kockel, and Máiréad Nic Craith who define cultural heritage as “a mental construct” that involves attributing “significance” to certain items, locations, or behaviors.<sup>15</sup> They also explain that the processes of attributing this significance are also often political, so that heritage and its conservation is not just a cultural practice but also cultural politics.<sup>16</sup> Musical heritage thus is when “significance” is attributed music itself and the items that are used to make and transmit it.<sup>17</sup> Laurajane Smith and Stuart Hall both observe that heritage and the industries that support it were heavily motivated and controlled by Eurocentric and colonial ideals.<sup>18</sup> Although it appears that heritage often deals with things or physical objects, according to Laurajane Smith, it is in fact a cultural process that “engages with acts of remembering.”<sup>19</sup> How cultural heritage is treated and passed down can reveal a considerable amount about current perceptions of the past and how these can influence the future.<sup>20</sup>

Chapter 2 discusses the unique advantages and challenges for musical heritage in the digital age, such as the concerns about longevity and sustainability for digital archives. A major concern stressed by librarians and digital content managers such as Ross Harvey and

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<sup>13</sup> David Lowenthal, “Archives, Heritage, and History,” in *Archives, Documentation, and Institutions of Social Memory: Essays from the Sawyer Seminar*, eds. Francis X. Blouin and William G. Rosenberg (Ann Arbor: University of Michigan Press, 2007), 193-203.

<sup>14</sup> David Lowenthal, “Fabricating Heritage,” *History and Memory* 1, no. 10 (1998): 5-24, <https://www.jstor.org/stable/25681018>.

<sup>15</sup> William Logan, Máiréad Nic Craith, and Ullrich Kockel, “The New Heritage Studies: Origins and Evolution, Problems and Prospects,” in *A Companion to Heritage Studies*, eds. William Logan, Máiréad Nic Craith, and Ullrich Kockel, (West Sussex, UK: Wiley-Blackwell, 2015), 2.

<sup>16</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 2-3.

<sup>17</sup> Barley Norton and Naomi Matsumoto, “Introduction: Historical and Ethnographic Perspectives on Music as Heritage,” in *Music as Heritage Historical and Ethnographic Perspectives*, eds. Barley Norton and Naomi Matsumoto (London: Routledge, 2019), 1.

<sup>18</sup> Laurajane Smith, *Uses of Heritage*, (London: Routledge, Taylor & Francis Group, 2006), 11.

<sup>19</sup> Smith, *Uses of Heritage*, 2.

<sup>20</sup> Smith, *Uses of Heritage*, 11.

Jaye Weatherburn is that digitization itself is *not* preservation.<sup>21</sup> Digitization is only an aid to preservation. This chapter will consider the definitions of the terms digital heritage, digital preservation, and sustainability, as well as what is needed to keep digitized cultural heritage accessible and usable in the long-term. This chapter will also introduce the methodology for analyzing the two case studies in Chapters 3 and 4.

Digital humanities scholars such as Bonnie Mak, Matthew Kirschenbaum, and Sarah Werner have argued for the idea that digital sources and surrogates have a type of “materiality.”<sup>22</sup> Despite the intangibility of digital sources, they still represent material sources and are often addressed as though they have a kind of materiality.<sup>23</sup> The scholars advocate that digitization represents just a new medium of transmission like papyrus, parchment, paper, and print once were. Along similar lines, Randall McLeod coined the term “transmission” to describe the process of being transformed and transmitted through different mediums at the same time.<sup>24</sup> Like these different transmission methods, digitization also requires adjustments and changes in the processes of how materials are used and understood, which in turn reflects upon the culture that uses them. Bonnie Mak argues for adapting research methods of paleography, codicology, and textual studies to examine digital materials as the next step in transmitting materials.<sup>25</sup>

Taking my cue from these scholars, I draw on the methodological approach from Mak’s “Archaeology of a Digitization” in which she performs an “excavation” of *Early English Books Online* (EEBO), an online archive of digitized early English books. Through this archaeology she discusses “the constitution of that project, how we might interpret the conditions in which its digitizations circulate, and how we might approach similar initiatives as sites of critical analysis.”<sup>26</sup> This concept of an “archaeology” as a method of critical analysis draws on Michel Foucault’s *The Archaeology of Knowledge*.<sup>27</sup> She concludes that while digitizations have many benefits, EEBO is also restricting “the look of early English

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<sup>21</sup> Harvey and Weatherburn, *Preserving Digital Materials*, 13-14.

<sup>22</sup> Bonnie Mak, “Archaeology of a Digitization,” *Journal of the Association for Information Science and Technology* 65, no. 8 (2014): 1515–1526, <https://doi.org/10.1002/asi.23061>; Matthew Kirschenbaum and Sarah Werner, “Digital Scholarship and Digital Studies: The State of the Discipline,” *Book History* 17 (2014): 21, <https://doi.org/10.1353/bh.2014.0005>.

<sup>23</sup> Dot Porter, “The Uncanny Valley and the Ghost in the Machine: A Discussion of Analogies for Thinking About Digitized Medieval Manuscripts,” *Dot Porter Digital: Development in production*, last modified October 31, 2018, <http://www.dotporterdigital.org/the-uncanny-valley-and-the-ghost-in-the-machine-a-discussion-of-analogies-for-thinking-about-digitized-medieval-manuscripts/>.

<sup>24</sup> Kirschenbaum and Werner, “Digital Scholarship and Digital Studies,” 439.

<sup>25</sup> Mak, “Archaeology of a Digitization,” 1515.

<sup>26</sup> Mak, “Archaeology of a Digitization,” 1515.

<sup>27</sup> Mak, “Archaeology of a Digitization,” 1515.

heritage” and influencing the scope of future research.<sup>28</sup> Mak conceived of this archaeology as a method that could be used by other scholars to approach and critically analyze similar sites.<sup>29</sup> Currently, there are not comparable studies in musicology, particularly not in early music. In Chapters 3 and 4, I apply the same method as Mak by “excavating” information about the conditions, background, and motivations behind the digitizations of the Leuven Chansonnier and Purcell manuscripts and consider how these reflect upon current perceptions about the past and musical heritage.

Chapter 3 will address the first case study, which consists of consists of two digitized autographs by the English composer, Henry Purcell (1659-1695), that are currently held by the British Library. Henry Purcell is often regarded as “the greatest English composer” of his time.<sup>30</sup> His manuscripts and their digitizations serve as important representations of national heritage for the United Kingdom. The first volume examined is the scorebook R.M. 20.h.8 (c. 1680-1690), containing music written for the courts of Charles II (r. 1660-1685) and James II (r. 1685-1688), including the anthem, “My heart is inditing,” which was written for the Coronation of James II in 1685.<sup>31</sup> In 1957 Queen Elizabeth II presented R.M. 20.h.8 and the rest of the Royal Music Library to the British Museum Library so that the large collection of manuscripts and printed books could be shared publicly.<sup>32</sup>

The other volume is a manuscript containing keyboard music (MS Mus. 1) by Purcell at one end and the Italian composer, Giovanni Battista Draghi, at the other. I shall refer to this manuscript as the Purcell-Draghi manuscript. The manuscript is thought to have belonged to a student who took harpsichord lessons from Purcell between 1693-1695 and then studied with Draghi sometime after Purcell’s death in 1695.<sup>33</sup> The manuscript was discovered and purchased by the British Library in 1995 (largely with funds from the National Heritage Memorial Fund) and featured at an exhibition celebrating the 300th anniversary of Purcell’s death later that year.<sup>34</sup> In 2012, both Purcell manuscripts were digitized, and the launch of

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<sup>28</sup> Bonnie Mak, “Archaeology of a Digitization,” 1521.

<sup>29</sup> Mak, “Archaeology of a Digitization,” 1515.

<sup>30</sup> Robert Thompson, *The Glory of the Temple and the Stage: Henry Purcell (1659-1695)*, (London: The British Library, 1995), 5.

<sup>31</sup> Robert Shay and Robert Thompson, *Purcell Manuscripts: The Principal Musical Sources* (Cambridge: Cambridge University Press), 126-127.

<sup>32</sup> P.R. Harris, *A History of the British Museum Library: 1783-1973*, (London: British Library, 1998), 593-594.

<sup>33</sup> Thompson, *Glory of the Temple*, 53.

<sup>34</sup> “Manuscript of Keyboard Pieces, by Purcell and Draghi,” Projects, National Heritage Memorial Fund, accessed June 18, 2021, <https://www.nhmf.org.uk/projects/manuscript-keyboard-pieces-purcell-and-draghi>; Thompson, *Glory of the Temple*, 53.

these online editions was celebrated with a “Purcell Study Day” at the library on June 26, 2012.<sup>35</sup>

Chapter 4 will discuss the second case study, the digitized Leuven Chansonnier (B-AF-ms-1), a fifteenth-century songbook containing Franco-Flemish music that is thought to have been produced in the Loire Valley region and which was rediscovered in 2014 when an art dealer purchased the manuscript at an auction house in Brussels and took it to the Alamire Foundation to have it identified.<sup>36</sup> The manuscript was found in remarkably good condition and contains forty-nine French songs and one Latin work. Twelve of the songs were previously unknown, thus making this an exceptionally rare and exciting new example of Franco-Flemish musical heritage.<sup>37</sup> In 2016 it was bought by the King Baudouin Foundation in Belgium and permanently loaned to the Alamire Foundation so that it could be valorized and studied.<sup>38</sup> The Foundation has received considerable support from the Belgian state and city of Leuven to promote the Chansonnier and their research nationally and internationally to reveal the artistry and relevance of early Franco-Flemish musical heritage. This chapter will conclude with a comparison of the two case studies and how the two institutions hosting the physical objects and producing the digital surrogates complement and contrast each other in their missions and methods of preserving and promoting the musical heritage in their collections.

These case studies were meant to be representative of digitizations by two different institutions and their order is dictated by when the projects and digitizations were created. The Purcell-Draghi manuscript and the Leuven Chansonnier are both recently discovered manuscripts that were recovered from the private market with funds allotted for national heritage. However, R.M. 20.h.8 was also included because of its prevalence in promotional materials such as the British Library Treasures Gallery, thus making it more comparable to the Alamire Foundation’s promotion of the Leuven Chansonnier in the media.

Although the primary focus of the case studies are the digitizations themselves, the institutions are the agents that digitize the materials and decide what to refer to and treat as heritage. The British Library represents a major national library that has a dedication to serve the public as well as academics and researchers. The library’s collection of materials is also

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<sup>35</sup> Sandra Tuppen, “Original Purcell Manuscripts Digitised,” Music Blog, The British Library, June 28, 2012, [https://blogs.bl.uk/music/2012/06/purcell\\_digitised.html](https://blogs.bl.uk/music/2012/06/purcell_digitised.html).

<sup>36</sup> “Leuven Chansonnier,” Alamire Foundation, December 9, 2020, Vimeo video, 21:07, <https://vimeo.com/488917155>.

<sup>37</sup> David J. Burn, *Leuven Chansonnier: Study* (Antwerp: Davidsfonds Uitgevers, 2017), 36-45.

<sup>38</sup> “Leuven Chansonnier,” Vimeo video.

massive, consisting of over 170 million items.<sup>39</sup> The Alamire Foundation, on the other hand, is a particularly important case study for musicology due to their focus on early music manuscripts and printed books, primarily polyphony. The Foundation is also much smaller, younger, and more focused than the British Library, giving them more freedom to spend more time adapting their database and digitizations specifically for early music. Further research could address other examples of musical heritage in these two institutions or the massive collections of early music manuscripts digitized by other institutions such as the Bibliothèque nationale de France.

There is considerable potential for future research into new possibilities for preserving early musical heritage through digital formats, as well as how these digitizations are influencing current and future scholarship. There are also opportunities to go beyond manuscripts and consider printed books or historically informed performance. Technology is developing rapidly and is becoming more ubiquitous and integrated into society. These technologies ought to be considered not only for how they benefit musicology or scholarship, but also how they reflect upon society and culture. Broadly speaking, this thesis aims to illustrate how such digitizations fit into the larger trend of using digital and virtual methods to protect, access, and research early music sources and heritage.

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<sup>39</sup> “About Us,” The British Library, accessed July 4, 2021, <https://www.bl.uk/about-us>.

## Chapter 1: Defining Musical Heritage

In this chapter, I explore the history and context of heritage and situate it within the field of musicology for the purposes of this thesis. The modern concept of heritage and its conservation is argued to have begun in Europe in the late eighteenth or early nineteenth century, when events such as the end of the French Revolution brought about considerable social upheaval and instability.<sup>1</sup> Individuals and communities felt the need for more cultural cohesion and stability and there was increased public support for preserving objects from the past.<sup>2</sup> The rising ideology of nationalism also inspired the need for nations to develop their own national stories and “outdo” other nations.<sup>3</sup> Monuments and buildings were the primary focus of these early conservation movements, but increasing concern for heritage and the past coincided with other events, such as the revival of early music in the nineteenth century.<sup>4</sup> Some notable examples of this revival are the restoration of Gregorian chant (such as the repertory of the monks at Solesmes) and Mendelssohn’s performances of *St. Matthew’s Passion* in 1829.<sup>5</sup>

Both heritage conservation and the revival of early music are argued to have roots that go further back than the nineteenth century, but this time period represented a shift in many public perceptions about heritage and practices from the past.<sup>6</sup> There was an increased “longing for a long-lost world free of the literacy and industrialism that plagued modernity” as well as a new mindset for what part the institutions and the general public played in preserving and sustaining culture.<sup>7</sup> For instance, musicologist Celia Applegate describes how around the time of Mendelssohn’s Bach revival, a number of institutions formed in the early

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<sup>1</sup> David Lowenthal, *The Past is a Foreign Country – Revisited*, (Cambridge: Cambridge University Press, 2015), 27; Miles Glendinning, *The Conservation Movement: A History of Architectural Preservation: Antiquity to Modernity*, (London: Taylor & Francis Group, 2013), 65-68.

<sup>2</sup> Glendinning, *The Conservation Movement*, 66-67; John Butt, *Playing with History: The Historical Approach to Musical Performance*, (Cambridge: Cambridge University Press, 2002), 171.

<sup>3</sup> Glendinning, *The Conservation Movement*, 66; David Lowenthal, “Fabricating Heritage,” *History and Memory* 1, no. 10 (1998): 14, <https://www.jstor.org/stable/25681018>.

<sup>4</sup> William Logan, Máiréad Nic Craith, and Ullrich Kockel. “The New Heritage Studies: Origins and Evolution, Problems and Prospects,” in *A Companion to Heritage Studies*, eds. William Logan, Máiréad Nic Craith, and Ullrich Kockel, (West Sussex, UK: Wiley-Blackwell, 2015), 2; Butt, *Playing with History*, 165-217.

<sup>5</sup> Katherine Bergeron, *Decadent Enchantments – The Revival of Gregorian Chant at Solesmes* (Berkeley and Los Angeles, 1998), 14-24; Celia Applegate, *Bach in Berlin: Nation and Culture in Mendelssohn’s Revival of the “St. Matthew Passion,”* (Ithaca, NY: Cornell University Press, 2014), 1-9, <https://doi-org.proxy.library.uu.nl/10.7591/9780801455827>.

<sup>6</sup> John Haines, “Antiquarian Nostalgia and the Institutionalization of Early Music,” in *The Oxford Handbook of Music Revival*, eds. Caroline Bithell and Juniper Hill, (New York: Oxford University Press, 2014), <https://doi.org/10.1093/oxfordhb/9780199765034.013.011>; Glendinning, *The Conservation Movement*, 1-2.

<sup>7</sup> John Haines, “Antiquarian Nostalgia.”

1800s that “defined a singular space for music among the creations of what Germans understood to be their nation, and thus together defined what national culture was and what it took to sustain it.”<sup>8</sup> Public interest in defining and sustaining heritage and these “national cultures” continued into the twentieth and twenty-first centuries.<sup>9</sup>

The twentieth century led to the establishment of many institutions such as the United Nations Educational, Scientific, and Cultural Organization (UNESCO), which was founded in 1945. UNESCO was founded with the intention of creating peace and security after World War II, and heritage would quickly become a major focus.<sup>10</sup> The organization began to work with and create a number of heritage organizations such as the International Council of Museums (ICOM) and the International Council on Monuments and Sites (ICOMOS).<sup>11</sup> UNESCO also worked to create more protections for heritage such as the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict which was held in response to the extensive destruction of cultural heritage during World War II.<sup>12</sup> This would be the first international treaty concerning only heritage.<sup>13</sup>

In 1972 the Convention Concerning the Protection of the World Cultural and Natural Heritage (often referred to as the World Heritage Convention) was held for nations to come together to further discuss designating and protecting heritage.<sup>14</sup> This convention was remarkable for expressing “a cultural internationalist view – one advocating global ownership of heritage” and creating a distinction between “cultural heritage” and “natural heritage,” the two major categories of heritage.<sup>15</sup> Later, in 1991 the UNESCO’s World Heritage Center would be founded to continue to identify and protect cultural heritage on a global scale.<sup>16</sup> By creating the idea of a global or world heritage, UNESCO encouraged the idea that heritage is something for all peoples and nations to share, preserve, and appreciate together.<sup>17</sup> There has, however, been some concern and criticism for this label. The concept of “heritage” was originally created specifically with Western heritage in mind, and arguably “promotes a

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<sup>8</sup> Applegate, *Bach in Berlin*, 2.

<sup>9</sup> Lowenthal, *The Past is a Foreign Country*, 27.

<sup>10</sup> Poul Duedahl, “Introduction: Out of the House: On the Global History of UNESCO, 1945–2015,” in *A History of UNESCO: Global Actions and Impacts*, (London: Palgrave Macmillan, 2016), 3-4.

<sup>11</sup> Aurélie Éliisa Gfeller and Jaci Eisenberg, “UNESCO and the Shaping of Global Heritage,” in *A History of UNESCO: Global Actions and Impacts*, (London: Palgrave Macmillan, 2016), 280-281.

<sup>12</sup> Gfeller and Eisenberg, “UNESCO,” 285-286.

<sup>13</sup> Gfeller and Eisenberg, “UNESCO,” 285.

<sup>14</sup> Gfeller and Eisenberg, “UNESCO,” 286.

<sup>15</sup> Gfeller and Eisenberg, “UNESCO,” 285.

<sup>16</sup> Gfeller and Eisenberg, “UNESCO,” 286-288.

<sup>17</sup> Lowenthal, *The Past is a Foreign Country*, 417.

certain set of Western elite cultural values as being universally applicable.”<sup>18</sup> It should be considered if it is appropriate to expect other cultures or nations to accept or adapt to this particular type of cultural practice.

Additionally, there are many cultures and nations that only know UNESCO and the concept of heritage “through restrictions: those concerning access to the archeological sites and restricting architectural practices.”<sup>19</sup> UNESCO describes heritage as “our legacy from the past, what we live with today, and what we pass on to future generations” and is a source of “life and inspiration.”<sup>20</sup> However, there are many different definitions, connotations, and roles that can be associated with heritage.

### **Defining the Broad Concepts of Heritage**

The editors of *A Companion to Heritage Studies* (2016) define heritage as “a mental construct that attributes ‘significance’ to certain places, artifacts, and forms of behavior from the past through processes that are essentially political, we see heritage conservation not merely as a technical or managerial matter but as a cultural practice, a form of cultural politics.”<sup>21</sup> In other words, the meaning and significance of things determined to be heritage are not inherently a part of the things themselves, rather humans decide what things have cultural value or additional meanings. “Musical heritage” is thus also a mental construct attributing “significance” to musical sounds, artifacts, places, and behaviors through cultural practices and political processes. These are the definitions of “heritage” and “musical heritage” that I will use for this thesis. However, it is also important to understand the debates and scholarship that ultimately led to this definition.

David Lowenthal, an American historian and geographer, was greatly influential in the field of heritage studies, and his work represents an essential part of the theoretical framework in this thesis. He described heritage as a “fabrication” or a distortion of historical truth, akin to a religion or a cult that is guided by blind faith rather than evidence.<sup>22</sup> Nonetheless, despite his seemingly endless criticisms of heritage, he argued that heritage is still a necessity and that “falsified legacies are integral to group identity and uniqueness.”<sup>23</sup> He stressed that heritage is not about learning about the past but *becoming* something in the

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<sup>18</sup> Laurajane Smith, *Uses of Heritage*, (London: Routledge, Taylor & Francis Group, 2006), 11.

<sup>19</sup> Gfeller and Eisenberg, “UNESCO,” 289.

<sup>20</sup> “World Heritage,” UNESCO, accessed 1 April 2021, <https://whc.unesco.org/en/about/>.

<sup>21</sup> Logan, Nic Craith, and Kockel. “The New Heritage Studies,” 1.

<sup>22</sup> Lowenthal, “Fabricating Heritage,” 5-24.

<sup>23</sup> Lowenthal, “Fabricating Heritage,” 11.

present.<sup>24</sup> It is not just about objects and artifacts, but also traditions and practices. According to Lowenthal, heritage is the act of people in the present engaging with an imagined history.<sup>25</sup>

Similarly, archaeologist Laurajane Smith stated that: “There is, really, no such thing as heritage.”<sup>26</sup> According to Smith, Heritage is not a *thing* (although we often refer to things as being heritage), but rather a *cultural process*.<sup>27</sup> For example, the Leuven Chansonnier is not necessarily heritage in and of itself, but the act of digitizing, performing, or otherwise engaging with it is. In her work, Smith has observed that “Heritage was a process of engagement, an act of communication and an act of making meaning in and for the present.”<sup>28</sup> Smith argues that if the heritage ceases to be “practiced” and passed from one generation to the next, it will cease to exist.<sup>29</sup> While bold, Smith’s ideas show that heritage is something that is active and experienced, rather than just a static object.<sup>30</sup> This also highlights the importance of how heritage is practiced, or if it is able to be practiced at all. The way that digitizations are carried out could influence what becomes heritage and how heritage is experienced. Prior to its purchase by the British Library in 1994, the Purcell-Draghi manuscript (British Library MS Mus. 1) was not publicly known or engaged with.<sup>31</sup> However, following its discovery and its presentation to the public through exhibitions and later digitization, it can be viewed, studied, and performed. It is no longer just a static material object but something that proves its cultural significance through its ability to be experienced.

Despite dealing with things from the past, heritage is something for the present to use and experience.<sup>32</sup> This does not mean that heritage is without its problematic aspects, and it is not our only connection to the past. There are some important distinctions to make between heritage and history. Although heritage may be based on or intertwined with a people’s or nation’s history, Lowenthal stressed that it should not be conflated with history itself. He stated that “history seeks to convince by truth, and succumbs to falsehood. Heritage exaggerates and omits, candidly invents and frankly forgets, and thrives on ignorance and

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<sup>24</sup> Lowenthal, “Fabricating Heritage,” 19.

<sup>25</sup> Lowenthal, “Fabricating Heritage,” 14.

<sup>26</sup> Smith, *Uses of Heritage*, 11.

<sup>27</sup> Smith, *Uses of Heritage*, 11-13.

<sup>28</sup> Smith, *Uses of Heritage*, 1.

<sup>29</sup> Smith, *Uses of Heritage*, 2.

<sup>30</sup> Smith, *Uses of Heritage*, 47-48.

<sup>31</sup> Christopher Hogwood, “A New English Keyboard Manuscript of the Seventeenth Century: Autograph Music by Draghi and Purcell,” *The British Library Journal* 21, no. 2 (AUTUMN 1995): 161-162, [www.jstor.org/stable/42554408](http://www.jstor.org/stable/42554408).

<sup>32</sup> Smith, *Uses of Heritage*, 1.

error.”<sup>33</sup> One example is the *Chanson de Roland*, an eleventh-century *chanson de geste*, that was rediscovered in the nineteenth century and gave France a national epic, thus allowing them to match other nations and their literary canons.<sup>34</sup> As stated by the medievalist Andrew Taylor in 2001, the *Chanson* “was part of the quest for national origins that dominated French romantic philology” and played a part in reinvigorating the “spirit” of France in the nineteenth century.<sup>35</sup> Yet Taylor had suspicions about the epic and how it was meant to be performed. Previously, it had been assumed that it was sung, but since the poem is exceptionally long (over 4,000 lines) it would have been a very remarkable oral tradition.

Indeed, after studying the earliest out of the seven surviving copies of the *Chanson*, Oxford’s MS Digby 23, Taylor concluded that the piece was likely never sung, at least not all at once. The patriotic ideal of a great epic being sung into battle or at celebrations was a fabrication. Even the majestic title attributed to the poem does not appear in the earliest surviving manuscript. Taylor concluded that because of France’s need for a national epic they either needed to find one or make one, “And the *Chanson de Roland* was, if not invented, at the very least, constructed.”<sup>36</sup> Other scholars agree with Taylor’s conclusions that the piece was not meant to be performed in its entirety and it was simply a nineteenth-century constructed “work with the scope to fulfill a need for a national French epic like the *Iliad* was for Greece.”<sup>37</sup> One historian, Isabel N. DiVanna, even goes so far as to express that scholars in the nineteenth century manufacturing this type of idealized past for France was nothing new, and that similar efforts also occurred in Germany to “capture the essence of the Germanic past.”<sup>38</sup> In other words, heritage may deal with the past, but its purpose is generally to benefit the present in some way.

Lowenthal points out that history is not without its own biases. While heritage is a perversion of an accurate telling of the past, history often is as well. “Above all, history departs from the past in being an interpretation rather than a replica: it is a view, not a copy, of what happened,” declares Lowenthal.<sup>39</sup> Scholars cannot directly view the past and there

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<sup>33</sup> Lowenthal, “Fabricating Heritage,” 7.

<sup>34</sup> Andrew Taylor, “Was There a Song of Roland?” *Speculum* 76, no. 1 (2001): 28-65, <https://doi.org/10.2307/2903705>.

<sup>35</sup> Taylor, “Was There a Song of Roland?” 35.

<sup>36</sup> Taylor, “Was There a Song of Roland?” 53.

<sup>37</sup> Jane Gilbert, “The *Chanson de Roland*,” in *The Cambridge Companion to Medieval French Literature*, ed. by Simon Gaunt and Sarah Kay (Cambridge: Cambridge University Press, 2008), 21-34.

<sup>38</sup> Isabel N. DiVanna, “Politicizing national literature: the scholarly debate around *La chanson de Roland* in the nineteenth century,” *Historical Research* 84, no. 223 (February 2011): 109-119, <https://doi.org/10.1111/j.1468-2281.2009.00540.x>.

<sup>39</sup> David Lowenthal, *The Heritage Crusade and the Spoils of History*, (Cambridge: Cambridge University Press, 1998), 112.

are no sources that provide a complete, unbiased view of the past. Archives, while they may hold large amounts of information, cannot possibly preserve everything, some decisions must be made, and some details will have to be filled in or speculated. In a similar statement to Lowenthal, Helen Freshwater explains that reading and using the contents of archives for historical scholarship must be viewed as a reinterpretation rather than a reconstruction of the past.<sup>40</sup> Similarly, in historical performance practice, the search for the meaning of historical “authenticity” has been met with failure time and time again.<sup>41</sup> There are some details that will simply never be known to us and scholars and performers must make do with the information that is available. Ultimately, those in power are in charge of both history and heritage, and an unbiased past is unknowable.<sup>42</sup>

As stated previously, heritage originally encompassed predominantly tangible or material items such as monuments and architecture, particularly in Europe and North America.<sup>43</sup> Later, it was determined that there were other aspects of culture and heritage that were not tangible and that still required protection and conservation. In 2000, UNESCO called for intangible aspects to be considered a part of cultural heritage in the Masterpieces of the Oral and Intangible Heritage of Humanity program.<sup>44</sup> Later, the Convention for the Safeguarding of the Intangible Cultural Heritage treaty was adopted by UNESCO in 2003 and permanently changed the scope of what was considered to be cultural heritage.<sup>45</sup>

There are now two major categories of cultural heritage classified by UNESCO and many other heritage institutions: “tangible heritage,” such as artifacts, monuments, and locations, and “intangible heritage,” such as traditions, music, and folklore. These two categories are not entirely separate and can overlap or complement each other. Laurajane Smith’s definition of heritage as a process or practice means that even with the loss of an original object, the intangible part of its heritage can still live on if experiences continue to be passed down.<sup>46</sup>

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<sup>40</sup> Helen Freshwater, “The Allure of the Archive,” *Poetics Today* 24, no. 4 (December 2003): 738, <https://doi.org/10.1215/03335372-24-4-729>.

<sup>41</sup> Dorottya Fabian, “The Meaning of Authenticity and The Early Music Movement: A Historical Review,” *International Review of the Aesthetics and Sociology of Music* 32, no. 2 (2001): 153-67, <https://doi.org/10.2307/1562264>.

<sup>42</sup> Freshwater, “The Allure of the Archive,” 738; Lowenthal, *Heritage Crusade*, 112.

<sup>43</sup> Logan, Nic Craith, and Kockel. “The New Heritage Studies, 2.

<sup>44</sup> Kristen Kuutma, “From Folklore to Intangible Heritage,” in Logan, Nic Craith, and Kockel, *Companion*, 41-42.

<sup>45</sup> Kuutma, “From Folklore,” 41-42.

<sup>46</sup> Smith, *Uses of Heritage*, 2.

Musical heritage is often designated as being intangible cultural heritage due to its ephemerality. While the two categories of cultural heritage are often viewed as separate, heritage scholars such as Mounir Bouchenaki argue that the tangible and intangible are interdependent and that scholars should instead utilize a “symbiotic concept of heritage.”<sup>47</sup> Intangible heritage provides context and meanings for tangible heritage.<sup>48</sup> If the concept of music did not exist, written musical notation would lose its purpose and meaning—it would essentially be gibberish. On the other hand, musical heritage often relies on tangible items such as instruments, books, and manuscripts to be performed and passed down.<sup>49</sup>

Arguably, the majority of the value of music does come from its intangible attributes, such as the ability for it to be performed, transmitted, and appreciated, rather than solely from looking at an original manuscript or first edition print. Early music sources, however, do often have value and appeal as tangible heritage due to their age and rarity, and because of the artistic qualities of many sources (I use “early music” to refer to sources from the late Middle Ages to the mid-eighteenth century). For example, the manuscript Bibliothèque nationale de France, fonds français 146, which is the unique source of the interpolated version of the *Roman de Fauvel* (dated ca. 1317-18) is of great interest as a work of literature, music, and art.

Digitizations of these types of sources are an effort not only to preserve the informational elements of books and manuscripts but also to preserve at least some aspect of their materiality. Musicologists and other scholars who work with early books and manuscripts are primarily concerned with *both* the tangible and intangible aspects of these sources because of what the physical attributes of sources can reveal about how they were performed and used.<sup>50</sup> Otherwise, institutions would not need to spend so much time and money investing in high-quality photography and lighting equipment to capture the intricate details of the sources that are not a part of the text or music. Libraries and archives, both conventional and digital, are responsible for determining what objects represent heritage and then keeping that heritage preserved and accessible.<sup>51</sup>

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<sup>47</sup> Máiréad Nic Craith and Ullrich Kockel, “(Re-)Building Heritage: Integrating Tangible and Intangible,” in Logan, Nic Craith, and Kockel, *Companion*, 429-430.

<sup>48</sup> Nic Craith and Kockel, “(Re-)Building Heritage,” 430.

<sup>49</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 4.

<sup>50</sup> Barley Norton and Naomi Matsumoto, “Introduction: Historical and Ethnographic Perspectives on Music as Heritage,” in *Music as Heritage Historical and Ethnographic Perspectives*, eds. Barley Norton and Naomi Matsumoto (London: Routledge, 2019), 1-2.

<sup>51</sup> Kuutma, “From Folklore,” 48.

The cultural theorist Stuart Hall, like Laurajane Smith, considers these institutions and their practices to be a critical part of what heritage is:

I take [heritage] to refer to the whole complex of organizations, institutions and practices devoted to the preservation and presentation of culture and the arts—art galleries, specialist collections, public and private, museums of all kinds (general, survey or themed, historical or scientific, national or local) and sites of special historical interest.<sup>52</sup>

For clarity, in this thesis, I will refer to these organizations, institutions, and their practices as the “heritage industry” rather than “heritage” itself, even though the industry is an integral part of creating and curating heritage. In some texts, the heritage industry is also referred to as the “memory industry,” as a reference to the cultural or collective memories that heritage often embodies.<sup>53</sup> This industry consists of the galleries, archives, and libraries responsible for managing and conserving heritage, as well as providing opportunities for the public to view heritage such as through tourism.<sup>54</sup>

Heritage plays a major role in many national economies. Cultural tourism is one of the fastest growing types of tourism, bringing in money and jobs that can help to support nearby communities as well as fund the conservation of the heritage. In many instances, it is a business, and can potentially be a lucrative one.<sup>55</sup> Also, much of the heritage industry involves government and publicly funded institutions, heritage is also bought and sold on the private market to collectors.<sup>56</sup> Both its value and its rarity make it an appealing investment, but this often comes at the cost of allowing it to be accessible to the public. Both the Leuven Chansonier (Alamire Foundation MS 1) and the Purcell-Draghi keyboard manuscript (British Library MS Mus. 1), which will be discussed in chapters 3 and 4, were recovered from the private market. Swift action had to be taken by institutions at the recommendation of musicologists to prevent the heritage from being “lost” again.

Heritage can be immensely useful for bringing money and tourism into communities, thus aiding economic development and stability.<sup>57</sup> However, heritage also can be bought and

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<sup>52</sup> Stuart Hall, “Whose Heritage? Un-settling ‘The Heritage’, Re-imagining the Postnation,” in *The Politics of Heritage: The Legacies of Race*, ed. Jo Littler and Roshi Naidoo, (London: Routledge, 2005), 21.

<sup>53</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 7.

<sup>54</sup> Smith, *Uses of Heritage*, 12.

<sup>55</sup> Brenda Trofanenko, “Valuing the Past, or, Untangling the Social, Political, and Economic Importance of Cultural Heritage Sites,” in Logan, Nic Craith, and Kockel, *Companion*, 170-172.

<sup>56</sup> Lowenthal, *Heritage Crusade*, 91.

<sup>57</sup> Trofanenko, “Valuing the Past,” 170-172.

owned and can become an exclusive resource only accessible to the elite. While there are many debates on whether or not museums and libraries are the best options for all historical and heritage artifacts, there are some instances where these institutions could be viewed as the better option. These institutions allow for heritage to be more easily accessed and enjoyed, which further aids in its protection. The preservation of heritage also relies upon it being known and passed down by enough people for it to survive as a practice.<sup>58</sup> As seen through the various definitions and explanations spread throughout literature heritage is many things. It is a construction, a fabrication, a practice, a cultural process, and an industry. I will now discuss what scholars have to say about *why* heritage matters, particularly musical heritage.

### **The Importance of Preserving Heritage**

In *The Heritage Crusade and the Spoils of History*, Lowenthal asks “Why this rash of backward-looking concern? What makes heritage so crucial in a world beset by poverty and hunger, enmity and strife?”<sup>59</sup> He then answers his question by declaring that “We seek comfort in past bequests partly to allay these griefs.”<sup>60</sup> Heritage is protected and practiced because it brings comfort.<sup>61</sup> Lowenthal explains that heritage is what creates individual and group identities so that people can find something in common, thus creating a more cohesive, stable community.<sup>62</sup> For marginalized communities, such as Indigenous and minority cultures, heritage is what allows them to hold on to their collective identity and cultural memories. For nations, heritage is what inspires and perpetuates patriotism and nationalism, thus giving citizens a reason to care about their country and support it.<sup>63</sup> Lowenthal states that national heritage particularly thrives off of selectively forgetting and editing the past to create a “national story” while removing or diminishing many of the unsavory traits in national heroes or events that could tarnish the reputation of the nation.<sup>64</sup> This creates an idealized story or mythology for citizens to believe and model their behavior after.<sup>65</sup>

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<sup>58</sup> Smith, *Uses of Heritage*, 1-7.

<sup>59</sup> Lowenthal, *Heritage Crusade*, xiii.

<sup>60</sup> Lowenthal, *Heritage Crusade*, xiii.

<sup>61</sup> Lowenthal, *Heritage Crusade*, xiii; Lowenthal, *Past is a Foreign Country*, 28.

<sup>62</sup> Lowenthal, “Fabricating Heritage,” 8-11.

<sup>63</sup> Hall “Whose Heritage?” 21-22.

<sup>64</sup> Lowenthal, “Fabricating Heritage,” 8-11.

<sup>65</sup> Hall, “Whose Heritage?” 22.

For example, Hall discusses how national heritage is constructed to be used as a method of governing. Cultural identity unifies the citizens by preserving the relevant pieces of heritage and incorporating the national story into education.<sup>66</sup> This both unites and strengthens the nation, but it also means that historical accuracy is pushed aside in favor of not corroding the carefully crafted mythologies of greatness. In the eighteenth century, music began to be used to show national pride and support through national anthems, patriotic songs, and musicians and composers who serve as national or cultural heroes.<sup>67</sup> Lowenthal stated that “As with language and legend, patriots looked to popular music for ethnic and national virtues.” National anthems are used for citizens to publicly show support and pride in their nation while also ingraining or teaching certain virtues or beliefs.<sup>68</sup> Thus, even musical heritage can be deeply entwined with political motivations which inspire its creation and preservation. For example, in chapter 3 the case study consists of two digitizations of Henry Purcell manuscripts by the British Library, a national institution. I show through an archaeology of these two digitizations that the British Library holds Purcell up to be a sort of national hero, one of the “greatest English composers.”<sup>69</sup> Creating these national stories and heroes allows for nations to solidify their national identities and compete with one another.<sup>70</sup>

Yet, while heritage can be used to build up nations and identities, it can also be used to tear them down. The purposeful displacement, damage, or destruction of heritage can severely weaken or subjugate other cultures and nations.<sup>71</sup> In 2015, the Islamic State purposely destroyed large numbers of books, manuscripts, statues, and other artifacts in the museums, libraries, and universities of Mosul, Iraq. This destruction prompted UNESCO and the United Nations to take steps to ensure that cultural heritage carried certain legal protections. The ability to access and enjoy heritage is considered to be not only a cultural right but a human right.<sup>72</sup> In 2016 the United Nations Special Rapporteur in the field of cultural rights, Karima Bennouna, stated that “It is impossible to separate a people’s cultural

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<sup>66</sup> Hall, “Whose Heritage?” 22.

<sup>67</sup> David Lowenthal, “From Harmony of the Spheres to National Anthem: Reflections on Musical Heritage,” *GeoJournal* 65 (2006): 6-7.

<sup>68</sup> Lowenthal, “From Harmony of the Spheres,” 7.

<sup>69</sup> Robert Thompson, *The Glory of the Temple and the Stage: Henry Purcell (1659-1695)* (London: The British Library, 1995), 5.

<sup>70</sup> Lowenthal, “Fabricating Heritage,” 14.

<sup>71</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 7-8.

<sup>72</sup> Benjamin Isakhan, “Heritage Under Fire: Lessons from Iraq for Cultural Property Protection,” in Logan, Nic Craith, and Kockel, *Companion*, 271; Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 13.

heritage from the people itself and their rights.”<sup>73</sup> This further illustrates why the preservation and accessibility of heritage is important and deserves consideration.

Not all destruction of heritage is purposeful. Natural degradation, accidental damage while handling, and natural disasters are also considerations when protecting and managing cultural heritage. In April 2021 a wildfire in Cape Town, South Africa swept through the University of Cape Town, destroying numerous historical buildings and a portion of the university library’s special collections which contained priceless artifacts of African cultural heritage such as maps, manuscripts, and films.<sup>74</sup> Additionally, a number of books and materials also sustained considerable water damage from efforts to put out the fire. Librarians had already been making efforts to digitize some of the materials but had only managed to digitize a portion of the collection.<sup>75</sup> The records and artifacts that were lost are irreplaceable and represent a great permanent loss of cultural heritage. In a statement with the New York Times, the university’s Vice-Chancellor Mamokgethi Phakeng stated that “The resources that we had there, the collections that we had in the library were not [just] for us but for the continent.”<sup>76</sup>

The two Purcell manuscripts discussed in chapter 3 (British Library R.M. 20.h.8 and MS Mus. 1) were both determined to be of great national importance for the United Kingdom. R.M. 20.h.8 was a part of the Royal Library Collection and contained anthems and other pieces written for the royal court, while the second was obtained with funds dedicated specifically for endangered “national heritage.”<sup>77</sup> Heritage is important for the cohesiveness and identity of cultures, but also plays a major role in building the identity of nations. Hall states that: “It is important to remember that the nation-state is both a political and territorial entity and what Benedict Anderson has called ‘an imagined community.’”<sup>78</sup> As a political scientist and historian, Anderson argues that citizens of a nation imagine a sort of comradeship, despite the fact that many of them may never meet. Hall, in turn, suggests that these imagined communities are strengthened by national stories inspired and fed by heritage practices.<sup>79</sup>

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<sup>73</sup> “The Destruction of Cultural Heritage is a Violation of Human Rights – UN Special Rapporteur,” News, United Nations Human Rights Office of the High Commissioner, March 4, 2016, <https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?Newsid=17151&Langid=E>.

<sup>74</sup> Nora McGreevy, “Why the Cape Town Fire Is a Devastating Loss for South African Cultural Heritage,” *Smithsonian Magazine*, April 20, 2021, <https://www.smithsonianmag.com/smart-news/cultural-heritage-historic-library-destroyed-south-africa-blaze-180977539/>.

<sup>75</sup> McGreevy, “Cape Town Fire.”

<sup>76</sup> McGreevy, “Cape Town Fire.”

<sup>77</sup> “Standard Funding Stream,” Funding, National Heritage Memorial Fund, accessed July 25, 2021, <https://www.nhmf.org.uk/funding/standard-funding-stream>.

<sup>78</sup> Hall, “Whose Heritage?” 22.

<sup>79</sup> Hall, “Whose Heritage?” 22.

Despite Anderson's influence, this concept of "imagined communities" has been criticized by other scholars, most notably Partha Chatterjee, a political scientist and anthropologist, who objected to Anderson's suggestion that Asia and Africa chose from "modular forms" of imagined communities (and thus nationalisms) that were supplied by Europe and the Americas.<sup>80</sup> He argues that "Europe and the Americas, the only true subjects of history, have thought out on our behalf not only the script of colonial enlightenment and exploitation, but also that of our anticolonial resistance and postcolonial misery. Even our imaginations must remain forever colonized."<sup>81</sup> This is a valid criticism, and the Eurocentricity of literature on both nationalism and heritage studies warrants more consideration. Still, perhaps while Anderson's modular forms were questionable, the idea that a nation is more than just a swath of land but also a group of individuals who share an identity. This identity is often based upon heritage, which is argued to be a construction or fabrication. In essence, heritage and the identities that it imparts could be seen as being imaginary.

### **Heritage, Eurocentrism, and the Efforts to Change It**

Much of the terminology and scholarship in heritage studies has been written from a predominantly Eurocentric perspective of cultural heritage, though.<sup>82</sup> Many institutions in the West were formed or influenced by colonial histories and some efforts to preserve and promote heritage could also be still contributing to colonialism.<sup>83</sup> Smith argues that the concept of heritage was largely created to pass down and promote certain European and Western elite cultural values.<sup>84</sup> Additionally, at its core, heritage is something that has intrinsic ties to culture and is preserved or protected because it has been given some sort of value. It should be considered who gives it this value. Lowenthal bluntly states that "populism notwithstanding, heritage normally goes with privilege: elites usually own it, control access to it, and ordain its public image."<sup>85</sup> Archives, libraries, museums, and other places for storing and preserving cultural information and items are a reflection of the times they were made in and who held power and (usually monetary) influence over these

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<sup>80</sup> Partha Chatterjee, *The Nation and Its Fragments: Colonial and Postcolonial Histories* (Princeton: Princeton University Press, 1993), 4-5.

<sup>81</sup> Chatterjee, *Nation and Its Fragments*, 5.

<sup>82</sup> Logan, Nic Craith, and Kockel, "The New Heritage Studies," 15; Smith, *Uses of Heritage*, 11.

<sup>83</sup> David Lowenthal, "Archives, Heritage, and History," in *Archives, Documentation, and Institutions of Social Memory: Essays from the Sawyer Seminar*, eds. Francis X. Blouin and William G. Rosenberg (Ann Arbor: University of Michigan Press, 2007), 193-195.

<sup>84</sup> Smith, *Uses of Heritage*, 11.

<sup>85</sup> Lowenthal, *Heritage Crusade*, 90.

institutions. Jeannette A. Bastian argues that “traditional archival theory offers few accommodations for cultural representations or cultural discourse beyond accepted Western models.”<sup>86</sup>

This points out two key issues: some archives are simply not compatible with non-Western heritage and many aspects of our current archival structure may be hold-overs from colonial pasts. Bastian stresses the necessity of reconsidering and redefining the relationships between archives and society, as well as power structures in the archive.<sup>87</sup> While the case studies addressed in this thesis both concern European musical heritage in European institutions, I would suggest that traditional archival theory could also be inadequate for new types of archives, such as digital archives. Institutions are no longer insulated; they are making themselves publicly available on the internet on a global scale. Additionally, if these institutions want to boast their contributions to a “global” heritage, they must put in the work to make the heritage accessible and applicable globally.

How heritage is made and practiced can reveal critical information about cultures in the present. Heritage reflects the time and context of when it was made, but also the time and context of when it is preserved and promoted.<sup>88</sup> What archivists and institutions decide to preserve and how they display and promote it not only determines *what* is available for future generations to study but also *how* it is received and understood. In the past, this was done primarily by archivists, librarians, and curators restoring, cataloging, and caring for physical collections. Cultural institutions (for instance, libraries and museums) despite their interest and support in historical scholarship also have a dedicated interest in the preservation and promotion of cultural heritage. They also often receive government funding and are often pressured to find new ways to improve the longevity of cultural heritage and the heritage industry. In recent decades there is increasing attention on the use of digital methods to aid in these processes.

Because of the power and necessity of heritage for individual, cultural, and national identities, Lowenthal argues that the fabrication of heritage “is no vice but a virtue.”<sup>89</sup> Nevertheless, he also notes that there are still many dark sides to the promotion and use of cultural heritage.<sup>90</sup> Heritage is important for the creation and preservation of individual and

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<sup>86</sup> Jeannette A. Bastian, “The Records of Memory, the Archives of Identity: Celebrations, Texts and Archival Sensibilities,” *Archival Science* 13 (2013): 123, <https://doi.org/10.1007/s10502-012-9184-3>.

<sup>87</sup> Bastian, “The Records of Memory,” 121-131.

<sup>88</sup> Lowenthal, “Archives, Heritage, and History,” 194.

<sup>89</sup> Lowenthal, “Fabricating Heritage,” 7.

<sup>90</sup> Lowenthal, “Fabricating Heritage,” 7.

collective identities and can greatly stabilize and connect communities.<sup>91</sup> However, it can also strive to keep people out. For example, for Britain, Stuart Hall expressed that heritage is “intended for those who ‘belong’—a society which is imagined as, in broad terms, culturally homogeneous and unified.”<sup>92</sup> Defining a group by something can also result in “othering” or “differencing” those outside of the group.<sup>93</sup>

Musicologist Kofi Agawu discussed these acts of “differencing” when musicologists speak about African music. For example, he brings up how ethnomusicologist Erich von Hornbostel answered the question “What is African music like as compared to our own?” with the statement “African and (modern) European music are constructed on entirely different principles.”<sup>94</sup> Rather than consider the similarities, Hornbostel chose to highlight the differences. Agawu points out that this trend of characterizing Africans as people who are radically different from Europeans is harmful and creates an imbalance of power.<sup>95</sup> Musicologists Olivia Bloechl and Melanie Lowe also discussed how in the nineteenth century, European music’s conceived “difference” and “uniqueness” was also perceived as “superiority,” which “authorized the emerging distinction between historical and comparative or systematic treatment of the world’s musics, with history reserved for written, occidental music.”<sup>96</sup>

Music, like heritage, has also been used to further highlight “differences” and perpetuate harmful ideologies. When it comes to choosing how to preserve and promote heritage, we must consider what heritage is being preserved and who it is for. Could heritage be something that only further exemplifies differences and creates imbalances of power, or can it be turned into something more collective and global? Hall, and later Smith, argue that heritage is not unchangeable, but is a discursive practice that is influenced by history, politics, and current interests. In other words, there is the opportunity to make heritage better.

The editors of *A Companion to Heritage Studies* (2015) wrote their introduction and definition of heritage with a “new heritage studies” in mind.<sup>97</sup> This was in response to

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<sup>91</sup> Anthony Pryer, “Musical Heritage as a Cultural and Global Concept,” in *Music as Heritage Historical and Ethnographic Perspectives*, eds. Barley Norton and Naomi Matsumoto (London: Routledge, 2019), 33-35.

<sup>92</sup> Hall, “Whose Heritage?” 24.

<sup>93</sup> Hall, “Whose Heritage?” 24.

<sup>94</sup> Kofi Agawu, “Contesting Difference: A Critique of Africanist Ethnomusicology,” in *The Cultural Study of Music: A Critical Introduction*, eds. Martin Clayton, Trevor Herbert, and Richard Middleton (New York: Routledge, 2011), 117.

<sup>95</sup> Agawu, “Contesting Difference,” 120.

<sup>96</sup> Olivia Bloechl and Melanie Lowe, “Introduction: Rethinking Difference,” in *Rethinking Difference in Music Scholarship*, eds. Olivia Bloechl, Melanie Lowe, and Jeffrey Kallberg (Cambridge: Cambridge University Press, 2015), 11.

<sup>97</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 18.

academics in Australia, Sweden and the UK who called for a “critical heritage studies.”<sup>98</sup> An organization known as the Association of Critical Heritage Studies (ACHS) was formed in the early 2010s and released a manifesto stating:

Heritage is, as much as anything, a political act and we need to ask serious questions about the power relations that “heritage” has all too often been invoked to sustain. Nationalism, imperialism, colonialism, cultural elitism, Western triumphalism, social exclusion based on class and ethnicity, and the fetishizing of expert knowledge have all exerted strong influences on how heritage is used, defined and managed. We argue that a truly critical heritage studies will ask many uncomfortable questions of traditional ways of thinking about and doing heritage, and that the interests of the marginalized and excluded will be brought to the forefront when posing these questions.<sup>99</sup>

There are, however, worries that the ACHS will only “deepen the already existing gulf between theory and practice, scholars and practitioners.”<sup>100</sup> Other scholars argue that what they propose is good, but not enough. Tim Winters argues that critical heritage studies should not only critique current practices and organizations but also consider current critical issues in the world today, such as deeper social and political issues that in turn affect heritage scholarship and industries.<sup>101</sup> For musical heritage, this is especially important. Music is a very broad subject with a number of different actors. Current critical issues for musicologists, performers, and music librarians are capable of affecting each other in various ways. If one wants to address current critical issues about musical heritage, many of these issues must first be addressed in musicology and music performance which shape how music is studied and used. How archives and libraries collect, valorize, and manage heritage will also greatly affect how musical heritage is understood, as well.

If digitizations are a “presentation of cultural heritage and representation of historical sources,” then considerable thought must be put into how these digitizations are framed and constructed.<sup>102</sup> These institutions have traditionally taken up the mantle to protect and promote heritage and historical sources. However, as online libraries and archives gained

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<sup>98</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 18-19; “History,” Association of Critical Heritage Studies, accessed July 5, 2021, <https://www.criticalheritagestudies.org/history>.

<sup>99</sup> “History,” Association of Critical Heritage Studies.

<sup>100</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 18.

<sup>101</sup> Tim Winter, “Clarifying the Critical in Critical Heritage Studies,” *Journal of Heritage Studies* 19, no. 6 (2013): 532-545, <https://doi.org/10.1080/13527258.2012.720997>.

<sup>102</sup> Zdeněk Uhlíř, “Digitization is Not Only Making Images: Manuscript Studies and Digital Processing of Manuscripts,” *Knygotyra* 51 (2008): 159, <https://doi.org/10.15388/kn.v51i0.7895>.

prominence there were concerns over how (or if) they would continue to have the same mission and reliability as their traditional counterparts. In the early days of digital libraries, film and digital preservation scholar Howard Besser argued that digital libraries should not be called “libraries” until they could incorporate several key elements and services that are present in conventional libraries such as commitments to certain ethical traditions, service to the community, and diversity of knowledge.<sup>103</sup> It is possible, however, that digital libraries and the online counterparts to other cultural institutions are ultimately meant to serve a different purpose than their conventional counterparts, despite carrying the same title. Perhaps this can be seen as online institutions simply expanding the services that their physical counterparts provide, rather than trying to be digital copies. The following chapter will consider how these concepts of heritage have adapted and changed in the digital age, and how digital media can benefit or harm the production, promotion, and preservation of musical heritage.

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<sup>103</sup> Howard Besser, “The Past, Present, and Future of Digital Libraries,” in *A Companion to Digital Humanities*, eds. Susan Schreibman, Ray Siemens, and John Unsworth, (Chichester: John Wiley & Sons, 2007), 558-560.

## Chapter 2 – Digital Heritage and Early Music

The UNESCO Charter on the Preservation of Digital Heritage describes digital heritage as “resources of information and creative expression” that are “increasingly produced, distributed, accessed and maintained in digital form, creating a new legacy.”<sup>1</sup> Digital heritage includes materials and resources that were “born digital” as well as physical materials converted into a digital form such as digitized manuscripts and books. Digitization of music and texts gained traction in the late 1990s and early 2000s as a new method of preservation and distribution for musicologists and other scholars due to the ease of access and high quality of the images. The creation of projects such as the Digital Image Archive of Medieval Music (founded in 1998), the Integrated Database for Early Music (IDEM), and other digital libraries meant that researchers and students no longer had to travel to reach original sources or rely on microfilm or printed facsimiles.<sup>2</sup>

Instead, students, researchers, and even the public can access numerous sources in color from the comfort of their homes or offices through the web. A major benefit of digitization is the availability and “democratization” of these sources.<sup>3</sup> As discussed by Julia Craig-McFeely, the Project Manager of DIAMM, it is currently easier than ever to find original manuscripts or early editions and draw conclusions from these sources without having to consult edited modern editions.<sup>4</sup> This is essential for both scholars who may find errors or gaps in previous scholarship and performers who want to determine what the original composer wrote versus what might have been later added by editors. Manuscripts and other early sources are also now more available to students and the public, groups that may not have had the time, funds, or connections necessary to otherwise have access to them.

Digitization is also viewed as a safer, more “permanent” form of preservation (the actual permanence of these methods will be discussed later).<sup>5</sup> Material objects will always be at risk of damage or destruction from the elements, handling, or theft. Some sources are so

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<sup>1</sup> Quoted in Fiona Cameron and Sarah Kenderdine, “Introduction,” in *Theorizing Digital Cultural Heritage: A Critical Discourse*, ed. Fiona Cameron and Sarah Kenderdine, (The MIT Press: Cambridge, Massachusetts, 2007), 3.

<sup>2</sup> Julia Craig-McFeely, “Digital Image Archive of Medieval Music: The Evolution of a Digital Resource,” *Digital Medievalist*, 3, (2008), <http://doi.org/10.16995/dm.16>.

<sup>3</sup> Julia Craig-McFeely, “Digital Man and the Desire for Physical Objects,” *Early Music* 41, no. 1 (February 2013): 131, <https://doi.org/10.1093/em/cas147>.

<sup>4</sup> Craig-McFeely, “Digital Man,” 132.

<sup>5</sup> Trevor Owens, *The Theory and Craft of Digital Preservation*, (Baltimore: Johns Hopkins University Press, 2018), 1-2.

degraded that they can no longer be handled or are unusable in their original state.<sup>6</sup> Through digital imaging and other technologies, we can find and examine features that were previously hidden by damage or decay in sources. Craig-McFeely, Katherine Butler, and others in musicology have made advancements in altering and editing digital images of severely degraded and damaged music manuscripts to make them readable.<sup>7</sup> There are also projects such as Fragmentarium, an international project begun in 2015 and based in Switzerland, which have provided platforms for librarians and researchers to work with digitized manuscript fragments.<sup>8</sup> Through the Fragmentarium Digital Laboratory, users are able to catalog, transcribe, and arrange manuscript fragments in order to better research and identify them.<sup>9</sup> There are many examples of how digitization creates innovative opportunities for scholars to work with damaged or fragmented manuscripts and collaborate with other researchers around the world.

Bill Endres, a digital humanist who specializes in imaging technology for medieval manuscripts, has pointed out that not only can the digital images be edited after they are taken, but there are also different options for how they are taken in the first place. By adjusting the light, color, and type of imaging used, it is possible to see features that otherwise would have remained hidden.<sup>10</sup> For example, by using ultraviolet light, scholars were able to notice erased images of faces in the Black Book of Carmarthen (Peniarth MS 1, The National Library of Wales).<sup>11</sup> The use of ultraviolet light to examine manuscripts has also been used in musicology for decades, for example, Margaret Bent used ultraviolet light to examine details about the initials in the Old Hall Manuscript that could not be seen with the naked eye (British Library, Add MS 57950) in the 1960s.<sup>12</sup> However, digitization presents even more opportunities to do utilize multispectral imaging and make the results more publicly available.

Another type of imaging increasingly being used in cultural heritage digitization is Reflectance Transformation Imaging (RTI). With RTI, a series of photographs are taken of

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<sup>6</sup> Julia Craig-McFeely, "Recovering Lost Texts: Rebuilding Lost Manuscripts," *Archive Journal*, last modified September 2018, <https://www.archivejournal.net/essays/recovering-lost-texts-rebuilding-lost-manuscripts/>.

<sup>7</sup> Craig-McFeely, "Recovering lost texts"; Katherine Butler, "Tudor Partbooks: Digitising, Analysing and Reconstructing the Music Manuscripts of Sixteenth-Century England," *Oxford Musician* 5, 2015, 8-9, [http://www.music.ox.ac.uk/assets/Oxf\\_Musician\\_2015.pdf](http://www.music.ox.ac.uk/assets/Oxf_Musician_2015.pdf).

<sup>8</sup> "Digital Laboratory," Fragmentarium, accessed July 17, 2021, <https://fragmentarium.ms/pages/about/digital-laboratory>.

<sup>9</sup> "Digital Laboratory."

<sup>10</sup> Bill Endres, *Digitizing Medieval Manuscripts*, (Leeds: Arc Humanities Press, 2019), 7-46.

<sup>11</sup> Endres, *Digitizing Medieval Manuscripts*, 2.

<sup>12</sup> Margaret Bent, "Initial Letters in the Old Hall Manuscript," *Music & Letters* 47, No. 3 (July 1966), 231 <https://doi.org/10.1093/ml/47.3.225>.

the object under a variety of lighting conditions.<sup>13</sup> These images can then be compiled and used in an image viewer that allows a user to change the direction and strength of the lighting when viewing the digitized object.<sup>14</sup> The user is then able to see more surface details such as the contour of the page, drypoint glosses (letters or markings etched without ink), erasures, and other marks that would likely be lost in regular two-dimensional imaging.<sup>15</sup> While RTI is far more difficult and time-consuming than regular digitization, since it requires a specialized lighting setup and generally around 24-60 photographs per page, it can still be selectively used for certain items<sup>16</sup>

There are some concerns about how to go about the process of digitization, which requires the materials to be handled and positioned for photographs, could still pose dangers for delicate books and manuscripts. Digitization is not always undertaken by specialists familiar with how to handle paper and parchment, and it may not be done by conservators or researchers familiar with the specific sources being digitized.<sup>17</sup> This can lead to accidental damage. Some books and manuscripts are also not suited for digitization if they are too delicate or unable to open enough that the pages can be photographed.<sup>18</sup> A group of book conservators and librarians at KU Leuven created a “Checklist for the Digitisation of Manuscripts” that aims to inform the digitizer of certain preexisting damages or weak points to be cautious of. This allows the digitizer to “ensure that the value of the physical object is recognised and neither diminished nor altered during the digitisation process.”<sup>19</sup> In some cases, digitization at the cost of damaging the original object might be necessary to preserve some aspect of the manuscript’s information and appearance.<sup>20</sup> This way, manuscripts and books can continue to be accessible even after complete loss from deterioration or other causes. Endres also argues that using light and photography to bring out hidden details is far less invasive than previous methods, such as the caustic chemicals that were used in the nineteenth century.<sup>21</sup>

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<sup>13</sup> Endres, *Digitizing Medieval Manuscripts*, 33-34; “Reflectance Transformation Imaging (RTI),” Cultural Heritage Imaging, accessed May 18, 2021, <http://culturalheritageimaging.org/Technologies/RTI/>.

<sup>14</sup> Endres, *Digitizing Medieval Manuscripts*, 34; Bill Endres, “The St Chad Gospels: Reflectance Transformation Imaging and Dry-Point Glosses,” March 26, 2015, YouTube video, 3:40, <https://www.youtube.com/watch?v=YQN5n-hjVaE&t=9s>.

<sup>15</sup> Endres, *Digitizing Medieval Manuscripts*, 34.

<sup>16</sup> Endres, *Digitizing Medieval Manuscripts*, 35.

<sup>17</sup> Ilse Korthagen et al., *Checklist for the Digitisation of Manuscripts*, (Brussels: Koninklijke Bibliotheek, 2019), 7.

<sup>18</sup> Korthagen et al., *Checklist*, 27-28.

<sup>19</sup> Korthagen et al., *Checklist*, 4.

<sup>20</sup> Korthagen et al., *Checklist*, 14.

<sup>21</sup> Endres, *Digitizing Medieval Manuscripts*, 7-8.

## Access and Democratization

Increased access and democratization are major benefits of the increase in digitized sources and online libraries. This is particularly beneficial for the study and enjoyment of cultural heritage, which as discussed in Chapter 1 is both a human right and important social practice.<sup>22</sup> There are, however, concerns about the use of the internet and digital applications to control the availability of cultural and historical materials. A film and digital preservation scholar, Howard Besser, warned against the commodification of information and commercialization of intellectual property that could occur with the increase in digital collections.<sup>23</sup> It is not uncommon for digital materials such as online academic journals to be behind paywalls or other methods of restricting access to only certain individuals. In an interview, Eric Ensley, a book historian, provides an insight into the British Library's digitization processes:

I think the other thing that's interesting, too, is the British Library...they're such a unique case and they're increasingly kind of out in left field with their digitization policy in the sense that they charge quite a bit for their images, and then also that they have what are called the special restricted manuscripts that you can't take photos of, which is a very strange policy. Even without flash, you can't take photos of those. And so it's kind of this funneling project where you end up having to pay for the images they've made. I think, increasingly, though, libraries have seen this sort of public good of offering images and have taken on the cost to do it themselves.<sup>24</sup>

Although it is possible or even likely that some institutions restrict access to materials, there are indeed many institutions that have made their materials publicly available even at considerable cost. The choice to make digitized sources easily accessible for free can increase the "online visibility" of both the source and the library that has made it available.<sup>25</sup> This in turn allows for the library to proudly promote its "outstanding collections" to international

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<sup>22</sup> William Logan, Máiréad Nic Craith, and Ullrich Kockel, "The New Heritage Studies: Origins and Evolution, Problems and Prospects," in *A Companion to Heritage Studies*, eds. William Logan, Máiréad Nic Craith, and Ullrich Kockel, (West Sussex, UK: Wiley-Blackwell, 2015), 2-4.

<sup>23</sup> Howard Besser, "The Past, Present, and Future of Digital Libraries," in *A Companion to Digital Humanities*, eds. Susan Schreibman, Ray Siemens, and John Unsworth, (Chichester: John Wiley & Sons, 2007), 573.

<sup>24</sup> Caitlin Postal and James Harr III, "Episode 6: Digital Archive & Materiality," March 25, 2021, in *Coding Codices*, produced by Digital Medievalist Postgraduate Subcommittee, podcast, 53:07, <https://podcast.digitalmedievalist.org/episode-6-digital-archive-and-materiality/>.

<sup>25</sup> Korthagen et al., *Checklist*, 15-16.

audiences and to further distinguish itself from other institutions by the quality and quantity of materials that it makes available online.<sup>26</sup> Nevertheless, even if such materials are made freely available by the institutions, researchers who utilize or write about these sources may still ultimately publish their findings in journals that are behind paywalls, which still makes an aspect of these sources less publicly accessible. Digitization is both a move to preserve and promote cultural materials such as musical heritage, and a move to aid cultural institutions in public relations. Craig-McFeely states that:

If we create universal multi-user access to unique materials there is suddenly a reason to understand the notation and navigate our way around books that were created for a world with a very different mind-set from ours...we can access the original sources ourselves at any time, usually without cost, make our own edition or, better still, perform directly from the original sources, taking power from the editor and giving it back to the performer, bypassing the various tyrannies imposed on pre-barline music by modern notation, and exploring the process of negotiation that is an integral part of performing and understanding the works they contain.<sup>27</sup>

There is the hope that a larger online presence will increase interest and support from students and researchers for these sources and the research that surrounds them. When digitization first became more widely known and used, there were fears that conventional libraries and archives would fall out of use. This has not been the case, though. There are now concerns that digitizations create so much more awareness for certain manuscripts and books that the original objects will be requested and handled even more than they were before.<sup>28</sup>

Not only have online and digital sources opened up new opportunities to edit and study sources, but they have also changed the way that we search for sources. Searching through sources on the web requires different skills than looking through the stacks of a library or files in an archive. Users also begin to expect certain things such as user-friendly interfaces, the ability to search for keywords and tags to find what they are looking for, and the ability to zoom on specific images. Mia Ridge, the Digital Curator for Western Heritage Collections at the British Library, recommended that user research and usability testing be

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<sup>26</sup> Korthagen et al., *Checklist*, 15-16.

<sup>27</sup> Craig-McFeely "Digital Man," 131-132.

<sup>28</sup> Korthagen et al., *Checklist*, 14; Craig-McFeely, "Digital Man," 133.

major parts of creating and updating online collections.<sup>29</sup> This way, the collections can be tailored to what customers or users actually need.

Search algorithms and web sources are not perfect, though, and have the potential to cause us to overlook or misinterpret data. Musicologist Benjamin Walton discussed how text searching can lead to finding evidence that agrees with any hypothesis one can think of, while also preventing one from seeing the full scope of alternatives.<sup>30</sup> For instance, rather than fully reading a text, it is possible to search for specific terms or phrases within it and pull quotes or topics out of context. The onus is on the researcher to ensure that they do their due diligence to look for alternative opinions and ensure the trustworthiness of the sources that they find. Search engines such as Google also remember details about each user's location and search history, tailoring results to be closer to what it thinks one would want rather than an objective overview of options.<sup>31</sup>

This illustrates a major issue with how we now search for information, but also shows the limitations of our current technologies and search algorithms. Digitizing is not as simple as taking digital images and uploading them online. One critical aspect of creating searchable databases is thinking ahead to how users will search for items.<sup>32</sup> There are tricky issues, such as if a manuscript or piece is known by titles with different spellings or the same title but in different languages. For example, a user might search for "Chanson de Roland" or they might search for "Song of Roland." If the piece is only labeled "Chanson de Roland" but a user searches "Song of Roland" they might not get any results. On the other hand, users might just search "Roland" in which case they might be overwhelmed with results that are unrelated to the *chanson de geste*.

Therefore metadata, "structured information that describes, explains, locates, or otherwise makes it easier to retrieve, use, or manage an information resource," is so important.<sup>33</sup> Metadata is crucial for ensuring that digital objects can be located, properly recorded, and understood.<sup>34</sup> Not only is vital for metadata to be present, but also for it to be

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<sup>29</sup> Mia Ridge, "Mia Ridge (British Library) - IIF British Library Viewer and Manifest," Towards a National Collection, July 7, 2021, YouTube video, 3:42, <https://www.youtube.com/watch?v=-IHQJYJUYVs>.

<sup>30</sup> Benjamin Walton, "Quirk Shame," *Representations* 132, no. 1 (Fall 2015): 126, <https://doi.org/10.1525/rep.2015.132.1.121>.

<sup>31</sup> Walton "Quirk Shame," 126.

<sup>32</sup> Joy Humphrey, "Manuscripts and Metadata: Descriptive Metadata in Three Manuscript Catalogs: DigCIM, MALVINE, and Digital Scriptorium," *Cataloging & Classification Quarterly* 45, no. 2 (2007): 25-26, [https://doi.org/10.1300/J104v45n02\\_03](https://doi.org/10.1300/J104v45n02_03).

<sup>33</sup> Quoted in Ross Harvey and Jaye Weatherburn, *Preserving Digital Materials*, (Lanham, Maryland: Rowman & Littlefield), 80.

<sup>34</sup> Harvey and Weatherburn, *Preserving Digital Materials*, 80.

correct and up to date. When working on digitizing the St. Chad Gospels for Lichfield Cathedral, Bill Endres realized that there were errors in some of the metadata. For instance, one of the computer scientists who had previously worked on the project had mistakenly identified the manuscript as being Welsh in origin—although it is written in Old Welsh, scholars do not conclusively know its provenance.<sup>35</sup> Had Endres not realized and corrected the metadata, it would have accompanied the official images and could have led to many misunderstandings about the origins of the manuscript.<sup>36</sup> How these digital objects are framed by the information that surrounds them is immensely important, especially if they are open for all to view.

Despite the limitations and difficulties of digitization, the overall benefits do make it worth it. Digitization should be viewed as a different type of source, with different considerations and uses. Even just the zoom function of these online manuscripts and books has been immensely useful to musicologists. Extremely high-definition photos in ideal lighting conditions allow for scholars to see details that they could not usually see even with a magnifying glass.<sup>37</sup> Technology also continues to improve and there are now new projects experimenting with three-dimensional imaging and virtual reality. Computational musicology is also increasing the types of research questions we can ask and giving new ways to search through vast amounts of data quickly.

Considerable research is being done in the field of Optical Music Recognition (OMR), a technology that allows for a computer to “read” music.<sup>38</sup> This has a variety of uses, such as allowing users to search for specific musical phrases, melodies, or passages within a database.<sup>39</sup> Another possible use of OMR is transcription. For example, the HISPAMUS project (started in 2018) aims to preserve handwritten Spanish musical heritage by transcribing it using various technologies, including OMR.<sup>40</sup> The goal is to provide better access to archival music sources so that they can be studied and performed more easily.<sup>41</sup>

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<sup>35</sup> Endres, *Digitizing Medieval Manuscripts*, 78-79.

<sup>36</sup> Endres, *Digitizing Medieval Manuscripts*, 79.

<sup>37</sup> Grace Eden and Marina Jirotko, "Digital Images of Medieval Music Documents: Transforming Research Processes and Knowledge Production in Musicology," 2012 45th Hawaii International Conference on System Sciences, Maui, HI, USA, 2012, pp. 1646-1655, doi: 10.1109/HICSS.2012.217.

<sup>38</sup> Christoph Wick, Alexander Hartelt, and Frank Puppe, "Staff, Symbol and Melody Detection of Medieval Manuscripts Written in Square Notation Using Deep Fully Convolutional Networks," *Applied Sciences* 9, no. 13 (2019): 2646, <https://doi.org/10.3390/app9132646>.

<sup>39</sup> Jorge Calvo-Zaragoza, Jan Hajič Jr., and Alexander Pacha, "Understanding Optical Music Recognition," *ACM Computing Surveys* 53, no. 4, Article 77 (July 2020): 1, <https://doi.org/10.1145/3397499>.

<sup>40</sup> "What is HISPAMUS," HISPAMUS, accessed July 15, 2021, <https://grfia.dlsi.ua.es/hispamus/>.

<sup>41</sup> "What is HISPAMUS."

While great progress has been made in OMR, there are still many technical challenges to overcome. Handwritten musical sources and early music notations have proven particularly difficult for computers to read with enough accuracy to be usable, although great strides have recently been made with the use of neural networks.<sup>42</sup> The possibilities for both researchers and performers are great, and if accuracy improves, OMR would be immensely useful in online databases and archives for digitized music.

These computational tools can work together with digitization projects to allow us to do things that never would have been possible before. Still, even if we implement these in musicology, there will always be a need for facsimiles and the original sources. One major fear that Craig-McFeely encountered in the early years of DIAMM was musicologists fearing the end of needing material sources.<sup>43</sup> However, this has not happened. It is more often the case that the digital sources attract more interest to the physical archives and libraries where they are housed.<sup>44</sup> Nevertheless, much like physical materials and the institutions that house them, online archives and libraries also require efforts to sustain and promote them so that they can continue to exist.

## **Digital Preservation and Sustainability**

Like “heritage,” “sustainability” can have a variety of meanings in different contexts, even within heritage studies and musicology. The term “sustainability” in this thesis, however, refers specifically to “digital sustainability,” which is concerned with the longevity and preservation of digital sources.<sup>45</sup> Various economic, technical, and social considerations must be considered for digital heritage to last and be accessible or usable in the future.<sup>46</sup> One of the most critical aspects of sustainability is funding. Trevor Owens expressed that: “If you want to evaluate how serious an organization is about digital preservation, don’t start by looking at their code, their storage architecture, or talking to their developers. Start by talking to their finance people. See where digital preservation shows up in the budget.”<sup>47</sup>

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<sup>42</sup>Jorge Calvo-Zaragoza, Alejandro H. Toselli, and Enrique Vidal, “Handwritten Music Recognition for Mensural Notation with Convolutional Recurrent Neural Networks,” *Pattern Recognition Letters* 128 (2019): 115, <https://doi.org/10.1016/j.patrec.2019.08.021>.

<sup>43</sup> Craig-McFeely, “Digital Man,” 132-133.

<sup>44</sup> Craig-McFeely, “Digital Man,” 132-133.

<sup>45</sup> Kevin Bradley, “Defining Digital Sustainability,” *Library Trends* 56, no. 1 (Summer 2007): 148-163, doi:10.1353/lib.2007.0044.

<sup>46</sup> Bradley, “Defining Digital Sustainability,” 148-151.

<sup>47</sup> Owens, *The Theory and Craft*, 5.

Not only is funding needed for the initial project itself, but it must continue for the upkeep of any online archive. Constant work must be put into websites to continue to make them appealing and accessible, fix bugs and errors, and keep up with changes and updates in technology and browsers. The question of who funds the projects also affects what is given priority for digitization, or even what is digitized at all. Many digital libraries rely on donations from charitable organizations who often specify that their funding is to be allotted for the digitization of specific collections. The Digital Bodleian, for example, admits that their digital collections are largely shaped by the wishes of funders.<sup>48</sup> Thus, certain authors, collections, and time periods are given priority based on the preferences and agendas of those who hold the money.

This reflects the dangers of traditional archives, which, as discussed in chapter 1, were also frequently controlled by the individuals with the most political and monetary power.<sup>49</sup> Online databases, libraries, and archives, like their conventional counterparts, reflect upon the times they were created in and where the money came from. They often serve more as a reinterpretation of history rather than a reconstruction.<sup>50</sup> These online resources have made great bounds in allowing for more public access and input on collections, but they still also affect what is ultimately available to scholars and the public, which will, in turn, affect what heritage and history is studied and appreciated. It is just as crucial to examine the archives or institutions being used for research as it is to examine their holdings.

Besides private donations, cultural institutions also rely heavily upon government funds. This too can shape the collections that are digitized and promoted. National institutions such as the British Library do have a dedicated interest in their nation's particular heritage, but it should also be considered how much nationalism plays a part in the promotion of cultural heritage. In chapter 1, it was discussed how nationalism influenced the conceptualization of heritage in the eighteenth and nineteenth centuries.<sup>51</sup> The promotion of national heritage and the idealized "national stories" that it conveys play a role in eliciting a desired response and respect from a given nation's citizens.<sup>52</sup> Because of this, heritage, no

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<sup>48</sup> "Frequently Asked Questions," Digital Bodleian, accessed June 1, 2021, <https://digital.bodleian.ox.ac.uk/faq/>.

<sup>49</sup> David Lowenthal, *The Heritage Crusade and the Spoils of History*, (Cambridge: Cambridge University Press, 1998), 90.

<sup>50</sup> Helen Freshwater, "The Allure of the Archive," *Poetics Today* 24, no. 4 (2003): 738, <https://doi.org/10.1215/03335372-24-4-729>.

<sup>51</sup> Miles Glendinning, *The Conservation Movement: A History of Architectural Preservation: Antiquity to Modernity*. (London: Taylor & Francis Group, 2013), 66.

<sup>52</sup> Stuart Hall, "Whose Heritage? Un-settling 'The Heritage', Re-imagining the Postnation," in *The Politics of Heritage: The Legacies of Race*, ed. Jo Littler and Roshi Naidoo, (London: Routledge, 2005), 22-23; David

matter the format, is often “inflected by the power and authority of those who have colonised the past, whose versions of history matter.”<sup>53</sup> Funding and institutional stability are critical for the preservation of such large collections of cultural heritage, but this does not mean that the impacts of these processes should not be examined critically.<sup>54</sup>

Preservation is an active, ongoing process. Owens stresses that “Nothing *has been* preserved, there are only things *being* preserved.”<sup>55</sup> Digitizing a music manuscript does not render it perpetually preserved. Both the original object and the digitized copy require upkeep and care to continue to be in top condition and usable. For books and manuscripts, this requires keeping materials in the proper environment, keeping track of damages and deterioration, and making repairs as necessary. For digitizations, preservation requires keeping up with changing platforms, technologies, and user expectations so that the object can continue to be up to current standards.<sup>56</sup> The point of digital preservation is also not only to keep copies of things but to ensure that these copies are *usable*. A digital object may technically exist somewhere on the internet or in some sort of storage medium such as a CD, but if it is difficult or impossible to access and utilize, then it is not effectively preserved.<sup>57</sup>

The way we store digital materials has been changing rapidly. At one point, floppy disks were the main method of storage, then CDs, and now the Cloud is where many individuals keep their files. Keeping sources accessible is a major challenge for digital preservation because things change so quickly. A floppy disk might still hypothetically be accessible, but without a reader it is essentially useless. Storing things solely online is not the best method of preservation either. There always needs to be multiple levels of backup security.<sup>58</sup> The NSDA (National Digital Stewardship Alliance) suggests having at least three complete copies of whatever it is that is being preserved so that if damage occurs to the system, it can be restored (and if damage occurs to one or more backup there is another backup available).<sup>59</sup> These copies should also not be kept in the same location (either online or physical). Digital materials and systems require regular maintenance (which requires

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Lowenthal, “Fabricating Heritage,” *History and Memory* 10, No. 1 (Spring 1998): 8-11, <http://www.jstor.org/stable/25681018>.

<sup>53</sup> Hall, “Whose Heritage,” 24.

<sup>54</sup> Lauren Istvandy, “How Does Music Heritage Get Lost? Examining Cultural Heritage Loss in Community and Authorised Music Archives,” *International Journal of Heritage Studies* 27, no. 4 (2021): 332, <https://doi.org/10.1080/13527258.2020.1795904>.

<sup>55</sup> Owens, *The Theory and Craft*, 5.

<sup>56</sup> Harvey and Weatherburn, *Preserving Digital Materials*, 101-108.

<sup>57</sup> Bradley, “Defining Digital Sustainability,” 154-155.

<sup>58</sup> Owens, *The Theory and Craft*, 106-107.

<sup>59</sup> Owens, *The Theory and Craft*, 106-107.

teamwork and funding) to last and continue to be useable. Systems and their backups may have to be continuously updated as technology and the internet advance.<sup>60</sup> In chapters 3 and 4 I will discuss some specific preservation strategies employed by the Alamire Foundation and British Library to ensure the sustainability of their online collections.

If digital preservation is truly the next step in cultural heritage preservation, then institutions must be prepared to be dedicated to it entirely, not only for the sake of preservation but also for continued public access to these digital objects. In museum studies, Fiona Cameron and Sarah Kenderdine mention that: “Although the cultural heritage sector acknowledges that digital technology requires institutions to face new challenges, many of these issues have not yet been fully imagined, understood, or critically explored outside of conference roundtables.”<sup>61</sup> It is crucial that these issues be explored in greater detail with regards to the digitization of music books and manuscripts, because if these digital objects are considered to be a form of cultural heritage, then they too will have the same protections and importance.<sup>62</sup>

### **Digital Objects and Materiality**

It is important too to consider *what* it is that is being preserved. The material and physical attributes of sources are just as important to appraise as the information that they contain.<sup>63</sup> Trevor Owens, the Head of Digital Content Management for Library Services at the Library of Congress, suggests that there are three frameworks for preservation: artefactual, informational, and folkloric.<sup>64</sup> These three frames help to explain what specific aspects of something need to be preserved. “Artefactual” is related to the materiality of the object, where its importance and value lie with how it physically connects us to the past.<sup>65</sup> “Informational” objects, on the other hand, are concerned with making certain that some part of information continues to be transmitted, such as the score for Handel’s *Messiah*.<sup>66</sup> The original manuscript of the work has value as an artifact, but the music, which has informational value, is transmitted through countless editions, reprints, and recordings.

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<sup>60</sup> Owens, *The Theory and Craft*, 106-108.

<sup>61</sup> Fiona Cameron and Sarah Kenderdine, “Introduction,” in *Theorizing Digital Cultural Heritage: A Critical Discourse*, eds. Fiona Cameron and Sarah Kenderdine, (Cambridge, MA: The MIT Press, 2007), 3.

<sup>62</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 4.

<sup>63</sup> Kate van Orden, *Materialities: Books, Readers, and the Chanson in Sixteenth-Century Europe*, (Cary: Oxford University Press USA - OSO, 2015), 4; Bill Endres, *Digitizing Medieval Manuscripts*, (Leeds: Arc Humanities Press, 2019), 2-3.

<sup>64</sup> Owens, *The Theory and Craft*, 15-26.

<sup>65</sup> Owens, *The Theory and Craft*, 15-17.

<sup>66</sup> Owens, *The Theory and Craft*, 17-21.

Finally, there is “folkloric” which refers to rituals, traditions, stories, and practices that lie outside of the other two frameworks.<sup>67</sup>

For musicology, both the intangible (informational) aspects and physical (artifactual) aspects of musical heritage are relevant. Physical details about music books and manuscripts can reveal information such as how a manuscript was used.<sup>68</sup> This way we can infer how pieces were performed—did performers read the manuscript while they performed or was it likely written down as a reference for something performed from memory? The materiality of the source can also tell us about who owned and made it (i.e., if it was the personal possession of a jongleur or a gift for a king). Even though some details are still apparent, even in a flat image, there are still so many details that are lost. Musicologist Kate van Orden argues that although digitizations have many benefits, they also severely limit the experience of working with music sources.<sup>69</sup> Both van Orden and Endres stress that examining the materiality of sources is critical to fully understanding them.<sup>70</sup> However, despite the advancements in photography and digitization in comparison to previous preservation methods, it is still difficult to capture the materiality of manuscripts and books through two-dimensional images.<sup>71</sup>

There is also another dimension of the materiality of music sources that deals with the “folkloric” aspects, which presents many issues for digital preservation. “Folkloric” objects, as described by Owens, do not only deal with folklore but have a particular ritual, traditional, or religious significance.<sup>72</sup> Folkloric objects may have informational or artifactual value, but they may also be significant to religious or cultural practices. For instance, Endres discusses that in some cases a manuscript with religious significance “that still serves its community is foremost a sacred artefact rather than an artefact of cultural heritage.”<sup>73</sup> His specific case study is the St. Chad Gospels, but other items that are of interest to musicologists, such as books or manuscripts containing liturgy, may still be used in religious ceremonies and services. Other items, while not in regular use, will still hold religious relevance for certain communities. For example, the nuns at the monastery of Stary Sacz in Poland are extremely protective of the fragments of Notre-Dame polyphony that they hold. Only one person has been allowed to view them recently and these fragments have not been digitized or made

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<sup>67</sup> Owens, *The Theory and Craft*, 21-26.

<sup>68</sup> Van Orden, *Materialities*, 1-38.

<sup>69</sup> Van Orden, *Materialities*, 4.

<sup>70</sup> Van Orden, *Materialities*, 4; Endres, *Digitizing Medieval Manuscripts*, 2-3.

<sup>71</sup> Endres, *Digitizing Medieval Manuscripts*, 1-7.

<sup>72</sup> Owens, *The Theory and Craft*, 21-23.

<sup>73</sup> Endres, *Digitizing Medieval Manuscripts*, 68-69.

available to the public in any way.<sup>74</sup> Thus it is important to remember that there may be religious or cultural concerns for how digitized objects are used and publicized, because even in a digital form they are perceived as having a material presence and importance.

Even outside of objects with “folkloric” value, there have been various discussions over how to consider the materiality of digital surrogates in comparison to the objects that they represent. Dot Porter, the Curator of Digital Research Services in the Schoenberg Institute for Manuscript Studies, expressed that there is very little distinction when one talks about physical books or manuscripts versus digital surrogates. Porter asks:

How many times have you said, or heard someone else say, ‘I saw the manuscript online’ or ‘I consulted it online’ or ‘I used it online’? Not pictures of the manuscript or the digitized manuscript but the manuscript? So one question to come out of this is: If the digitized manuscript isn’t the manuscript, then what is it?<sup>75</sup>

Benjamin Walton similarly expressed how citations do not always distinguish between sources consulted online versus those consulted in person.<sup>76</sup> Citing a digitized book or manuscript is often the same as if the physical object was consulted. What is the distinction then between the digital and the material? Does the digital have its own materiality? In museum studies, Fiona Cameron argues that while digitized objects are interacted with very differently than their physical counterparts, they still have their own new type of materiality.<sup>77</sup> Digitization and the digital page have opened up new opportunities to interact with and disseminate sources. Bonnie Mak also states that the digital page “has its own distinct materiality” and that through this materiality, the digital page, like parchment or paper, acts as an interface between the designer and the reader.<sup>78</sup> She argues that “the page is

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<sup>74</sup> For a recent study of these fragments and including the discovery of new fragments at the same convent, see: Katarzyna Grochowska, “Tenor Circles and Motet Cycles: A Study of the Stary Sacz Manuscript [PL-SS Muz 9] and its Implications for Modes of Repertory Organization in 13th-century Polyphonic Collections,” (PhD diss., University of Chicago, 2013), <https://www.proquest.com/openview/4673f9e21146310c3a2d2226251c457b/1?pq-origsite=gscholar&cbl=18750&diss=y>.

<sup>75</sup> Dot Porter, “The Uncanny Valley and the Ghost in the Machine: A Discussion of Analogies for Thinking About Digitized Medieval Manuscripts,” *Dot Porter Digital: Development in production*, last modified October 31, 2018, <http://www.dotporterdigital.org/the-uncanny-valley-and-the-ghost-in-the-machine-a-discussion-of-analogies-for-thinking-about-digitized-medieval-manuscripts/>.

<sup>76</sup> Walton “Quirk Shame,” 123.

<sup>77</sup> Fiona Cameron, “Beyond the Cult of the Replicant: Museums and Historical Digital Objects—Traditional Concerns, New Discourses,” in *Theorizing Digital Cultural Heritage: A Critical Discourse*, eds. Fiona Cameron and Sarah Kenderdine, (Cambridge, MA: The MIT Press, 2007), 57-58.

<sup>78</sup> Bonnie Mak, *How the Page Matters*, (Toronto: University of Toronto Press, 2011), 62.

more than a simple vehicle or container for the transmission of ideas; it is a part of those ideas, entangled in the story itself.”<sup>79</sup> Pages, either digital or traditional act as a way to transmit information and they do so in more ways than words alone. The physical arrangement of the text, font, images, and other details are all used to transmit information. For example, Mak discusses how “specific letter forms can infuse a text with social or political suggestion.”<sup>80</sup>

In her 2011 book, Mak suggested approaching digital mediums from a perspective based in manuscript and book studies, where digitizations are viewed as simply being the next mode of transmission for texts. Throughout the book, Mak examines the manuscript, print, and digital transmissions of the fifteenth-century Latin treatise, the *Controversia de nobilitate*, by Buonaccorso da Montemagno. In the *Controversia* there is a fictional library where it is argued that “books can attest to the character of their owner.”<sup>81</sup> The art historian Maria Ruvoldt further explains, “The objects displayed in a study were expressions of the self, material manifestations of the variety of their owner’s interests and, by extension, evidence of his virtue.”<sup>82</sup> In other words, the objects that are chosen and how prominently they are displayed can reveal a considerable amount about a library’s intentions and character. This is likely as true for libraries today as it was in the time that the *Controversia* was written, although many libraries today, both conventional and digital, do not typically reveal the character or interests of one individual but rather those of an institution and its patrons.

An institution such as a library is a complex system not unlike a beehive. It might appear to technically be one “organism,” but it is made up of multitudes of moving parts. I argue that the output of this “organism” can reveal a considerable amount about the goings-on within it. The color, taste, and consistency of honey can give us information about the bees that made it, such as what flowers they get their nectar from. The types of manuscripts and books that a library chooses to digitize and how they present them can reveal their priorities and possibly even what these priorities are shaped by. For instance, the Alamire Foundation specifically focuses on early Low-Countries musical heritage, with a noticeable preference for polyphony, which is what the organization was founded to do.<sup>83</sup> The way that

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<sup>79</sup> Mak, *How the Page Matters*, 11.

<sup>80</sup> Mak, *How the Page Matters*, 15.

<sup>81</sup> Mak, *How the Page Matters*, 48.

<sup>82</sup> Mak, *How the Page Matters*, 48.

<sup>83</sup> “History,” Alamire Foundation, accessed June 20, 2021, <https://alamirefoundation.org/en/organisation/history>.

specific objects within the collections are brought to the forefront through publicity or events can reveal more information about an institution and what they consider to be important (or what their funders consider important).

### **Digitizations as an “Archaeology” Method**

Mak suggests looking at digitizations as an “archaeology,” based on Foucault's ideas for critical analysis. She references how in the 1970s, the medievalist L.M.J. Delaisse also argued for an archaeology of medieval manuscripts which “guarantees that we are in possession of all the material facts revealing the life of these books and vital for understanding their contents.”<sup>84</sup> This “archaeology” is how I will examine the case studies in the following chapters.<sup>85</sup> This method is less concerned with the digital objects themselves but rather the practices and processes that went into creating them.<sup>86</sup> As stated by Gary Gutting: “The interest, to invoke the archaeological analogy once more, is not in the particular object (text) studied but in the overall configuration of the site from which it was excavated.”<sup>87</sup>

In other words, these digitizations should be considered cultural objects that we can “excavate” to reveal insights into our current and previous perceptions about the past. The interest is less on the contents of the texts themselves, although the types of texts chosen and how they are preserved can tell us quite a bit about the conceptual environment they were digitized in. To undertake this “archaeology” I will examine the context and background of the digitizations, the current practices of the institution managing the digitizations, the sustainability of these collections, and how these details might influence current and future perceptions of these digital objects.

For example, one facet to consider is how some digital sources may have been shaped by and continue to perpetuate colonialism. The digital humanist Roopika Risam has written about the traces of colonialism that remain and are perpetuated in the digital humanities and stresses that decolonization is not as simple as “diversity.”<sup>88</sup> She aptly states: “Humanities-based knowledge production—whether in history, art, literature, or culture, more broadly—has historically been wielded as a technology of colonialism, as important as the technologies

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<sup>84</sup> Bonnie Mak, “Archaeology of a Digitization,” *Journal of the Association for Information Science and Technology* 65, no. 8 (2014): 1515.

<sup>85</sup> Mak, “Archaeology of a Digitization,” 1515–1526.

<sup>86</sup> Mak, “Archaeology of a Digitization,” 1515.

<sup>87</sup> Gary Gutting, *Foucault: A Very Short Introduction*, (Oxford, UK: Oxford University Press, 2005), 34.

<sup>88</sup> Roopika Risam, “Decolonizing the Digital Humanities in Theory and Practice,” in *The Routledge Companion to Media Studies and Digital Humanities*, ed. Jentery Sayers, (New York: Routledge, 2018), 79.

of the slave ship and the gun.”<sup>89</sup> In the digital age, with the increasing accessibility of sources and information on the internet from all over the world, there are increasing calls for consideration of a global or world cultural heritage, that we all contribute to. Risam points out that while democratization may be one of the main draws for the digital humanities (as seen in the literature by proponents for digitizing sources) “such possibilities are undercut by projects that recreate colonial dynamics or reinforce the Global North as the site of knowledge production.”<sup>90</sup> Therefore, Risam concludes that the key issue is not actually decolonizing the digital humanities itself but instead acknowledging how it has continued and contributed to the harmful practices of colonialism and neo-colonialism.

The goal of an archaeology of these digitizations is not to tear down these institutions that created them, but to better understand them and how they function. How do these institutions portray digital cultural heritage? How could such portrayals affect the way that history is taught or understood? These digital objects and the libraries and databases that hold them can perpetuate and represent national and cultural identities, for better or for worse.<sup>91</sup> For instance, Mak argues how the British Library's description of the Lindisfarne Gospels as “the pinnacle of Anglo-Saxon art” which was associated with the digitized copy could mislead audiences to think that the origin and style of the manuscript was definitively known, when scholars are still studying and debating these details.<sup>92</sup>

She, much like Bill Endres, advocates for framing the digital book as a material, bibliographical object or artifact that is capable of transmitting ideas.<sup>93</sup> For example, Mak shows that the concepts of paratext and epitext, which were created for literary studies, can be applied to web pages and digitizations.<sup>94</sup> “Paratext,” a term coined by the French literary theorist Gérard Genette, describes the texts and features that exist outside of the main text, such as the cover, dedication, table of contents, and footnotes.<sup>95</sup> It serves to contextualize and frame the main text and can greatly influence the way that the text is received by readers. Even in the case of web pages and digitized manuscripts and books, paratext is still present in the form of metadata, banners, menus, and other features on the page. There is also “epitext” which consists of items and text that also serve to further contextualize or frame the main

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<sup>89</sup> Risam, “Decolonizing the Digital Humanities,” 80.

<sup>90</sup> Risam, “Decolonizing the Digital Humanities,” 80.

<sup>91</sup> Hall, “Whose Heritage,” 22-23; David Lowenthal, “Fabricating Heritage,” 8-11.

<sup>92</sup> Mak, “Archaeology of a Digitization,” 1517.

<sup>93</sup> Mak, “Archaeology of a Digitization,” 1515–1526.

<sup>94</sup> Mak, *How the Page Matters*, 64-67.

<sup>95</sup> Gérard Genette, *Paratexts: Thresholds of Interpretation*, trans. Jane E. Lewin (Cambridge: Cambridge University Press, 1997), 4-5.

text, but exist outside of it, such as reviews, interviews, blog posts, and media coverage.<sup>96</sup> A crucial part of performing an “archaeology” of these digitizations also means taking into consideration the elements around the digital objects and how these influence a user’s experience and interpretations.

Just because these digital surrogates are only “surrogates” does not mean that they are divorced from the significance that their material counterparts hold. As discussed by Mak, “The digitization of a medieval manuscript is the materialization of a 21st-century perception of an object that has been evolving for over 500 years.”<sup>97</sup> In her book *How the Page Matters*, Mak discusses how written works have been constantly evolving. First stories and information evolved to be written down in the first place, then printed, and now they are digitized and transcribed online. A digitized medieval manuscript “occurs in a particular social, cultural, economic, and political climate of the modern day, and is correspondingly marked by a particular approach to recalling and commemorating a specific past for modern audiences.”<sup>98</sup>

Future generations will not only look back at these sources (if they have survived) as merely objective sources of knowledge about early music but also into how we present scholars perceived and studied these objects. Stuart Hall expressed that heritage “is always inflected by the power and authority of those who have colonized the past, whose versions of history matter. These assumptions and co-ordinates of power are inhabited as natural—given, timeless, true, and inevitable.”<sup>99</sup> Mak suggests that due to the view of these assumptions as “timeless, true and inevitable,” digitization databases may be using their ties to cultural heritage to escape criticism.<sup>100</sup> This may have been true in 2014, but with the rise in movements to decolonize institutions and reconsider structures of knowledge and power, such criticism has become increasingly more common.<sup>101</sup> It is time for these institutions and their practices to be critically analyzed for what versions of history they are promoting and how this is shaping our collective, societal perceptions of the past, because these will in turn influence the future.

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<sup>96</sup> Genette, *Paratexts*, 4-5.

<sup>97</sup> Mak, “Archaeology of a Digitization,” 1516.

<sup>98</sup> Mak, “Archaeology of a Digitization,” 1516.

<sup>99</sup> Hall, “Whose Heritage?” 24.

<sup>100</sup> Mak, “Archaeology of a Digitization,” 1517.

<sup>101</sup> For example, the open letter to the Music Faculty of the University of Cambridge which received over 500 signatures: “Decolonising Music, Cambridge, Open Letter – BLM,” Google Form, [https://docs.google.com/forms/d/e/1FAIpQLSfWdyJ0iui\\_gbClkfmsBCvPjwNsilZzdYJyfEEZGz2Ruqy5bQ/viewform?fbclid=IwAR1CZ\\_q3yr4cJDVpNu19QLHVgjYu2zNGmw7tNUMQOdi3WvCAv5CK-Tn8Bfo](https://docs.google.com/forms/d/e/1FAIpQLSfWdyJ0iui_gbClkfmsBCvPjwNsilZzdYJyfEEZGz2Ruqy5bQ/viewform?fbclid=IwAR1CZ_q3yr4cJDVpNu19QLHVgjYu2zNGmw7tNUMQOdi3WvCAv5CK-Tn8Bfo).

## Chapter 3 – Two Digitized Purcell Manuscripts at the British Library

In the early eighteenth century, there was no significant museum or library in London that was open to the public, only libraries for specialist groups.<sup>1</sup> This changed with the establishment of the British Museum in 1753, which was founded with the intention to “encompass all fields of knowledge” and house antiquities, books, manuscripts, prints, and other artifacts.<sup>2</sup> A part of the British Museum was the British Museum Library, which would house and care for the manuscripts, books, and other library materials. The British Library Act of 1972 established the British Library as the national library of the United Kingdom, an amalgamation of the British Museum Library and several smaller institutions.<sup>3</sup> Today, the library houses over 170 million items and represents one of the largest libraries in the world, rivaling even the Library of Congress.<sup>4</sup>

The British Library began to experiment with digitizing manuscripts in the early 2000s. In 2004, the library started the Codex Sinaiticus Project, which was funded by the Stavros Niarchos Foundation and aimed to “virtually reunify the world’s oldest bible.”<sup>5</sup> The project was successful and in 2008 the website containing the digitizations and transcriptions was launched.<sup>6</sup> Following this success, the British Library then started the Greek Manuscripts Digitisation Project. The library houses over 1,000 Greek manuscripts and over 3,000 papyri, and in 2008 received funding from the Stavros Niarchos Foundation to begin digitizing this collection and building the website to house them.<sup>7</sup> This project was intended to be a pilot for future manuscript digitization projects and in 2010 the British Library finally launched its Digitised Manuscripts website.<sup>8</sup> The Codex Sinaiticus and Greek manuscripts projects paved the way for the digitizations of more collections of music, maps, and texts to be created and made available. In January of 2021, the British Library celebrated the milestone of having

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<sup>1</sup> P.R. Harris, *A History of the British Museum Library: 1783-1973*, (London: British Library, 1998), 1-2.

<sup>2</sup> Harris, *History of the British Museum Library*, 1.

<sup>3</sup> “History of the British Library,” About Us, The British Library, accessed June 25, 2021, <https://www.bl.uk/about-us/our-story/history-of-the-british-library>.

<sup>4</sup> “History of the British Library.”

<sup>5</sup> “The British Library Project Support,” Arts & Culture, Stavros Niarchos Foundation, accessed June 15, 2021, [https://www.snf.org/en/grants/grantees/t/the-british-library/project-support-\(1\)/](https://www.snf.org/en/grants/grantees/t/the-british-library/project-support-(1)/).

<sup>6</sup> “The British Library Project Support.”

<sup>7</sup> Claire Breay, “British Library Digitises Greek Manuscripts,” The British Library, September 27, 2010, YouTube video, 2:51, <https://www.youtube.com/watch?v=uQ4QX3puJ1c>.

<sup>8</sup> Breay, “British Library Digitises.”

over 4,500 ancient, medieval, and early modern manuscripts digitized and made available.<sup>9</sup> Among these collections is a small number of autographs by the seventeenth century English composer, Henry Purcell (b. 1659, d. 1695).

The British Library has a history of preserving and celebrating the life and works of Henry Purcell. For example, the Department of Printed Books within the British Museum Library featured a temporary exhibition in 1895 to commemorate the 200<sup>th</sup> anniversary of Purcell's death. This "Purcell Commemoration" featured a number of pictures of the composer as well as manuscripts and printed volumes of his music.<sup>10</sup> Then, in 1959, the British Library held another exhibition featuring the works of both Purcell and George Frideric Handel. This exhibition marked the 300<sup>th</sup> anniversary of Purcell's birth and 200<sup>th</sup> of Handel's death. This exhibition was an opportunity to celebrate two composers who represented almost ninety years of English musical history. Both were teachers, organists, and harpsichordists, and held appointments with the royal family.<sup>11</sup> Purcell, however, was likely not known outside of England, while Handel only came to England around fifteen years after Purcell's death.<sup>12</sup> Although Handel's music "became a cult among the nobility and gentry" the 1959 exhibition catalogue is quick to remind readers that "devotion to the cause of Purcell's music did not die out."<sup>13</sup> Purcell's music continued to be known even after his death and in the nineteenth century organizations such as the Purcell Club (1836-1863) and the Purcell Society (founded 1876) were established.<sup>14</sup> The Purcell Society still exists to this day and has been dedicated to making the works of Purcell published and available.<sup>15</sup>

The 300<sup>th</sup> anniversary of Purcell's death in 1995 was once again celebrated with an exhibition at the British Library.<sup>16</sup> The exhibition was also accompanied by an "online exhibition" on their website (which still remains accessible).<sup>17</sup> This online exhibition consists of a single web page featuring a brief overview of Purcell's career and compositions. At the

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<sup>9</sup> "Over 4,500 Manuscripts Now Online," Medieval manuscripts blog, The British Library, January 13, 2021, <https://blogs.bl.uk/digitisedmanuscripts/2021/01/over-4500-manuscripts-now-online.html>.

<sup>10</sup> "The Purcell Exhibits at the British Museum," *The Musical Times and Singing Class Circular* 36, no. 634 (1895): 797-99, <https://doi.org/10.2307/3363795>.

<sup>11</sup> *British Museum. Henry Purcell, 1659 -1695. George Frideric Handel, 1685-1759: Catalogue of a Commemorative Exhibition, British Museum, May-August 1959* (London: Published by the trustees, 1959), 7.

<sup>12</sup> *Catalogue of a Commemorative Exhibition*, 7.

<sup>13</sup> *Catalogue of a Commemorative Exhibition*, 9.

<sup>14</sup> *Catalogue of a Commemorative Exhibition*, 9.

<sup>15</sup> *Catalogue of a Commemorative Exhibition*, 9; "The Purcell Society: Publishing the Complete Works of Henry Purcell," The Purcell Society, accessed July 26, 2021, <http://www.henrypurcell.org.uk/>.

<sup>16</sup> "Henry Purcell 1659-1695, the glory of the temple and the stage," Online Gallery, The British Library, accessed July 26, 2021, [https://www.bl.uk/onlinegallery/features/purcell.html?\\_ga=2.197115564.1277458112.1617872456-727528839.1613570932](https://www.bl.uk/onlinegallery/features/purcell.html?_ga=2.197115564.1277458112.1617872456-727528839.1613570932).

<sup>17</sup> "Henry Purcell 1659-1695, the glory of the temple."

top of the page is the blurb: “Henry Purcell, one of England's greatest composers, died in November 1695, and is buried in Westminster Abbey.”<sup>18</sup> The page also includes images and sound excerpts (which no longer work) from three Purcell manuscripts held by the British Library: Purcell's setting of a Latin psalm (from Add. MS. 30930), the coronation anthem from the scorebook R.M.20.h.8, and the “Courant” from the Suite in A minor (Z.663) from the then newly discovered manuscript of keyboard music by Purcell and Draghi (MS Mus. 1).<sup>19</sup>

These three pieces not only represent different aspects of the composer’s life and career but also further illustrate the vastness and quality of the British Library’s collections. This was also an opportunity for the library to proudly display the newly acquired Purcell-Draghi manuscript, which is the only surviving handwritten keyboard music by Purcell.<sup>20</sup> In 2012, all three of the Purcell manuscripts were digitized by the British Library’s digitization services, and the launch of these online editions was celebrated with a “Purcell Study Day” at the library on June 26, 2012.<sup>21</sup> Now, I turn to examine two of these manuscripts in particular: R.M. 20.h.8 (c. 1680-1690), an autograph scorebook containing music written for the royal court, and MS Mus. 1, a manuscript of keyboard manuscript by Purcell and Giovanni Battista Draghi (c. 1690-1700).

### **The Two Purcell Manuscripts: R.M. 20.h.8 and the Purcell-Draghi Manuscript**

Sometimes around the year 1680, Henry Purcell obtained the scorebook R.M. 20.h.8 and would continue to use the book for several years to record music written for the courts of Charles II and James II.<sup>22</sup> In the front end of the scorebook Purcell recorded anthems, then at folio 85 the scorebook reverses and starting from the other end of the book he recorded secular vocal works such as odes and solo songs. A flyleaf in the front features the inscription “A Score Booke containing severall Anthems wth symphonies.” At the other end of the book is another title stating: “Score booke. Anthems welcome songs and other songs all by my father.” There also is a flyleaf with the inscription: “Ed. H. Purcell grandson to the Author of this Book” which refers to Edward Henry Purcell (d. 1765).

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<sup>18</sup> “Henry Purcell 1659-1695, the glory of the temple.”

<sup>19</sup> “Henry Purcell 1659-1695, the glory of the temple.”

<sup>20</sup> Christopher Hogwood, “A New English Keyboard Manuscript of the Seventeenth Century: Autograph Music by Draghi and Purcell,” *The British Library Journal* 21, no. 2 (Autumn 1995), 161, <https://www.jstor.org/stable/42554408>.

<sup>21</sup> Sandra Tuppen, “Original Purcell Manuscripts Digitised,” *Music Blog*, The British Library, June 28, 2012, [https://blogs.bl.uk/music/2012/06/purcell\\_digitised.html](https://blogs.bl.uk/music/2012/06/purcell_digitised.html).

<sup>22</sup> Robert Shay and Robert Thompson, *Purcell Manuscripts: The Principal Musical Sources* (Cambridge: Cambridge University Press), 127.

Besides an anthem by John Blow and a sacred song by Maurizio Cazzati, all the music recorded in R.M. 20.h.8 is by Purcell.<sup>23</sup> Musicologists Robert Thompson and Robert Shay point out that Purcell's large scorebooks such as Lbl Add. 30930 and R.M. 20h.8 use "demy" (c. 350 by 485 mm.) and "medium" (c. 400 by 550 mm.) sizes of paper, which would have made such books too large and heavy to easily use for performance.<sup>24</sup> Additionally, in R.M. 20.h.8, some of the pieces are incomplete, such as "Rejoice in the Lord always" (f. 37v-39v) which is missing inner string and chorus parts, so it is unlikely that the book was used as a reference to make copies of performing parts from.<sup>25</sup> Thompson proposed that "a good musician" could have used the book to assist in directing, coaching, or accompanying performances.<sup>26</sup> It has also suggested that Purcell "regarded it less as a personal document than as a formal record and master copy of music performed at Whitehall in the Chapel Royal, at semi-public ceremonial occasions, and privately in the royal apartments."<sup>27</sup> R.M. 20.h.8 is the only surviving major autograph where copyists assisted Purcell in compiling the works.<sup>28</sup> "My heart is inditing," the anthem written for the coronation of James II (f. 53v-66v), appears to be the last anthem copied by Purcell himself rather than one of his three assistants.<sup>29</sup> Nonetheless, the scorebook represents one of Purcell's "great autograph scores" and has enabled musicologists to date many of the works and further study his handwriting.<sup>30</sup>

Based on the inscriptions from Purcell's son and grandson, R.M. 20.h.8 must have remained within the Purcell family for some time.<sup>31</sup> However, it eventually became a part of the Royal Music Library and was loaned to the British Museum Library in the early twentieth century.<sup>32</sup> In 1910, the Master of the King's Music, Sir Walter Parratt, wrote to the Director of the British Library that King George V intended to loan the royal collection of approximately 1,000 manuscripts and 3,000 printed volumes to the British Museum and requested that they make the necessary arrangements.<sup>33</sup> In April 1911, the collection was received and stored in the museum library. While the Royal Music collection still belonged to

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<sup>23</sup> Robert Thompson, *The Glory of the Temple and the Stage: Henry Purcell (1659-1695)*, (London: The British Library, 1995), 18.

<sup>24</sup> Shay and Thomson, *Purcell Manuscripts*, 12.

<sup>25</sup> Robert Thompson, "Purcell's Great Autographs," in *Purcell Studies*, ed. Curtis Price (Cambridge: Cambridge University Press, 1995), 19.

<sup>26</sup> Thompson, "Purcell's Great Autographs," 19-20.

<sup>27</sup> Shay and Thomson, *Purcell Manuscripts*, 126.

<sup>28</sup> Shay and Thomson, *Purcell Manuscripts*, 126.

<sup>29</sup> Thompson, *Glory of the Temple*, 18.

<sup>30</sup> Thompson, *Glory of the Temple*, 18.

<sup>31</sup> Robert Thompson, "Sources and Transmission," *The Ashgate Research Companion to Henry Purcell*, ed. Rebecca Herissone (Farnham: Ashgate Publishing), 13.

<sup>32</sup> Thompson, "Sources and Transmission," 13.

<sup>33</sup> Harris, *History of the British Museum Library*, 430.

the royal family, scholars and students were still allowed access to the vast collection.<sup>34</sup> Then in 1957, Queen Elizabeth II visited the Museum and gifted the Royal Music Library to the British Museum Library and the nation.<sup>35</sup> This collection included a number of printed books of music as well as autographs of Purcell, Handel, Scarlatti, and J.C. Bach.<sup>36</sup> The 1959 exhibition featuring Purcell and Handel thus occurred shortly the library obtained ownership of R.M.20.h.8 and the rest of the Royal Music Library.

The next volume discussed in this case study is a manuscript containing keyboard music by Purcell at one end and the Italian composer, Giovanni Battista Draghi, at the other. This manuscript (MS Mus. 1), in contrast to R.M. 20.h.8, was a working manuscript likely used for teaching purposes. The book is approximately 21 by 27 cm, bound in gold stamped calf's skin, and was bound before being used.<sup>37</sup> Although the book was manufactured in the 1680s, based on Purcell's handwriting and concordances with other pieces, musicologist Curtis Price estimates that Purcell likely used the manuscript around 1693-1694.<sup>38</sup> The Draghi half has not been conclusively dated and could have been written before or after Purcell used the book.<sup>39</sup> Twenty-one of the pieces are in Purcell's hand (three of which were previously unknown) and the other seventeen pieces were by Draghi (four of which were also previously unknown).<sup>40</sup>

The music in the book is of varying difficulties and not written in a progressive order, suggesting that it might have been used for two students who were at different levels of musical ability, such as siblings or relatives.<sup>41</sup> Despite the simplicity of some of the pieces, Price argues that they are still "probably the best English keyboard music of the era."<sup>42</sup> Musicologist Robert Thompson suggests that the Purcell-Draghi manuscript may have belonged to a student or students who first took lessons from Purcell between 1693-1695 and then later studied with Draghi.<sup>43</sup> According to Thompson, Purcell had many harpsichord pupils in the 1690s and Draghi was "a well-known virtuoso who might well have been

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<sup>34</sup> Harris, *History of the British Museum Library*, 528.

<sup>35</sup> Harris, *History of the British Museum Library*, 593-594.

<sup>36</sup> Harris, *History of the British Museum Library*, 593-594.

<sup>37</sup> Curtis Price, "Newly Discovered Autograph Keyboard Music of Purcell and Draghi," *Journal of the Royal Musical Association* 120, no. 1 (1995): 79, <https://doi.org/10.1080/02690403.1995.11828225>.

<sup>38</sup> Price, "Newly Discovered Autograph," 97.

<sup>39</sup> Price, "Newly Discovered Autograph," 102.

<sup>40</sup> Hogwood, "New English Manuscript," 162.

<sup>41</sup> Thompson, *Glory of the Temple*, 18.

<sup>42</sup> Price, "Newly Discovered Autograph," 97.

<sup>43</sup> Thompson, *Glory of the Temple*, 53.

employed to teach an advanced student.”<sup>44</sup> This is one possible explanation for why the two composers ended up using the same book.

The manuscript was in the hands of private owners and unknown publicly until the early 1990s. Musicologist and harpsichordist Christopher Hogwood described the discovery as: “The sale of what in the late seventeenth century would have been household keyboard book” that “took on the trappings of a Hollywood epic.”<sup>45</sup> It was initially a part of a collection of music books being sold by Bloomsbury Book Auctions in 1993 and was bought by Lisa Cox, an antiquarian music dealer in Devon.<sup>46</sup> Cox first became intrigued by the manuscript because it was written in two different hands. Upon showing the manuscript to the lutenist Robert Spencer, the first hand was identified as that of Purcell, while the second was identified as Draghi.<sup>47</sup> Cox stated that “This didn’t seem like the writing of someone who was copying out music. It had the look of an inspired flow from someone composing quickly, straight onto the paper.”<sup>48</sup> Curtis Price and fellow musicologist Margaret Laurie further confirmed that the manuscript was in Purcell’s scribal hand and confirmed that this was an authentic Purcell autograph that was previously unknown.<sup>49</sup>

Cox elatedly stated that “It’s the greatest Purcell find of the century, and Purcell was the greatest English composer ever,” and expressed her wish that the manuscript go to a national institution.<sup>50</sup> Curtis Price similarly said that: “It should be a required purchase by the British Library. That is the natural place for it.”<sup>51</sup> A national institution would have been the fitting place for the manuscript by the “greatest English composer” to go. The manuscript, however, did not immediately end up at the British Library. Cox would put it up for sale at Sotheby’s where it was sold in London on 26 May 1994 to a private collector in Paris. It was sold for £276,500, which was a new record for a British music manuscript.<sup>52</sup> In order to give the British Library time to acquire funds to match the sale price of the manuscript, the export license was withheld and in January 1995 the manuscript was sold to the British Library.<sup>53</sup> The library was able to purchase it with the use of grants from the National Heritage Memorial Fund, Thorn EMI plc and the Classical Division of EMI Records UK, The

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<sup>44</sup> Thompson, *Glory of the Temple*, 53.

<sup>45</sup> Hogwood, “New English Manuscript,” 161.

<sup>46</sup> Richard Morrison, “Purcell’s Notebook Revealed,” *The Times*, November 17, 1993.

<sup>47</sup> Morrison, “Purcell’s Notebook.”

<sup>48</sup> Morrison, “Purcell’s Notebook.”

<sup>49</sup> Morrison, “Purcell’s Notebook.”

<sup>50</sup> Morrison, “Purcell’s Notebook.”

<sup>51</sup> Morrison, “Purcell’s Notebook.”

<sup>52</sup> Hogwood, “New English Manuscript,” 161-162.

<sup>53</sup> Hogwood, “New English Manuscript,” 161-162.

Foundation for Sport & the Arts, The Leopold Muller Estate, The Britten-Pears Foundation, The Friends of the National Libraries, Lord Palumbo and the Rayne Foundation, and a number of private individuals.<sup>54</sup> Thus, the British Library was able to put a considerable amount of energy into quickly collecting the necessary funds to acquire this material object of “national pride” (as Cox presented it).<sup>55</sup> Fortunately, the Purcell-Draghi manuscript was also obtained just in time for the Tercentenary Exhibition in 1995. Now that both manuscripts have been introduced, I will examine the practices of producing these digitizations and how they reflect upon current perceptions of early musical heritage.

### **The Digitized Purcell Manuscripts**

Both digitized manuscripts are available on the Digitised Manuscripts website and both use the same image viewer and interfaces. One key difference between the two manuscripts is the quality and quantity of the metadata provided. Besides the images of the digitized manuscripts, both manuscripts have accompanying metadata that provides information for date, title, content, languages, physical description, ownership, and bibliography. This information serves administrative and preservation purposes, but also serves as a kind of paratext that can help the reader further contextualize and understand the manuscript.

While the Purcell-Draghi manuscript has details in every field, R.M. 20.h.8 does not have any information under “ownership” or “bibliography”. The information under “physical description” is also very limited, it only states that according to the librarian and bookbinding historian Howard M. Nixon, R.M. 20.h.8 was rebound around 1770-1780, although traces of the old binding are still visible.<sup>56</sup> The metadata provides no description of size, materials, or condition. The metadata text for both manuscripts is off center on the screen, small, and sometimes organized into large, dense paragraphs that make reading difficult. This interface reveals that the designers intended for this database to serve a very basic functional purpose, but it was not designed with enhanced usability in mind.

A comparison of the digitized R.M. 20.h.8 and Purcell-Draghi manuscript also reveals discrepancies in how each individual collection item is treated. Information about R.M. 20.h.8’s physical appearance, ownership, and bibliography are known, yet they are still

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<sup>54</sup> “MS Mus. 1,” Digitised Manuscripts, The British Library, accessed July 26, 2021, [https://www.bl.uk/manuscripts/FullDisplay.aspx?ref=MS\\_Mus\\_1](https://www.bl.uk/manuscripts/FullDisplay.aspx?ref=MS_Mus_1).

<sup>55</sup> Morrison, “Purcell’s Notebook.”

<sup>56</sup> “R.M. 20.h.8,” Digitised Manuscripts, The British Library, accessed July 29, 2021, <https://www.bl.uk/manuscripts/FullDisplay.aspx?ref=R.M.20.h.8&index=8>.

absent. The contents of the Purcell-Draghi manuscript are also listed neatly with a vertical space between each entry for easy readability, while the far more substantial contents of R.M. 20.h.8 are listed in two very large paragraphs. Perhaps more attention has been given to the Purcell-Draghi manuscript due to its more recent discovery and the media coverage that it received, or perhaps the two manuscripts were simply entered by different individuals with different ideas of how much information to include. Regardless, looking at the two entries suggests that more attention was given to one over the other after digitization.

Both R.M. 20.h.8 and the Purcell-Draghi manuscript have played major roles in the public and online presence of the British Library. The Purcell-Draghi manuscript was discovered as the internet began to be more frequently used, and its discovery was able to be celebrated with the webpage accompanying the 1995 exhibition. However, while the Purcell Draghi manuscript was the “greatest Purcell find” of the last century, R.M. 20.h.8 has also been given a great amount of significance due to its connection to the monarchy.<sup>57</sup> Notably, it is referenced outside of the Digitised Manuscripts database and the British Library’s blog, such as in the British Library’s learning materials, which are made available for students, teachers, and families.

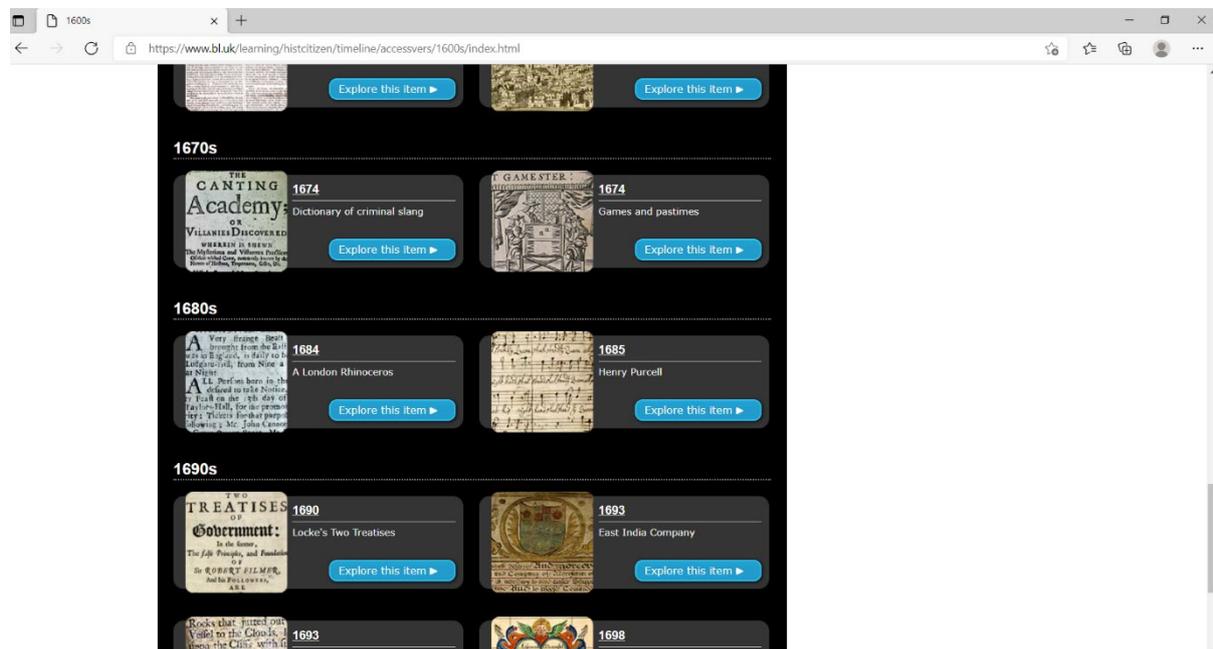


Figure 1. The British Library “Timelines: Sources from History” 1670s-1690s.

Henry Purcell is featured on the “Timelines: Sources From History,” as seen in figure 1. When users click the link “Explore this Item” they can view a brief summary about

<sup>57</sup> Morrison, “Purcell’s Notebook.”

Purcell's life and an image from the scorebook (ff.55v-56) which shows an excerpt from the anthem, "My heart is inditing."<sup>58</sup> Not only is Purcell once again touted as "clearly one of the greatest composers England has ever produced," but his anthem is shown on this timeline along with other great historical sources such as Shakespeare's *King Lear* and John Locke's *Two Treatises*.<sup>59</sup> Even without explicitly stating that this scorebook is an item of musical heritage, it is certainly treated like one. It is attributed a significance beyond that of just a historical artefact, and the process of attributing the significance does have political influences, since this was a personal item owned by the royal family that was then gifted to a national institution to be shared publicly.

R.M. 20.h.8 is also included in the "British Library Treasures," a collection of some of the "greatest works" that the British Library holds.<sup>60</sup> Many of these treasures can be seen in both the physical gallery, as well as through selection of "highlights" that are viewable on the website. Among these digitized "highlights" is an image of R.M 20.h.8 open to f. 55v and 56r, which feature part of the anthem "My heart is inditing." The anthem is featured alongside manuscripts and works by other composers such as Handel, Edward Elgar, the Old Hall Manuscript (Add MS 57950), and Mozart.<sup>61</sup> Not only do these represent various particularly notable English composers and compositions, but also other "great" works from the European classical music canon (all by men).

The British Library has begun making a concerted effort to diversify the items considered to be "treasures," stressing their "active and long-standing commitment to represent diversity in the Treasures Gallery."<sup>62</sup> So far, these efforts are not visible in the music manuscripts from the Treasures Gallery that are highlighted online, since all are by white men. The issue is not only with the practices and processes that go into digitizing Purcell specifically, but also how the digitized object is then framed by these paratexts and epitexts created by the institution. It is understandable that a piece by Purcell that has cultural significance for the United Kingdom would be highlighted, but it is notable what other pieces have been highlighted alongside it and what have not. This is just one example of how examining the practices by which digitizations of early music are used produced can reveal

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<sup>58</sup> "Henry Purcell: Coronation Anthem 1685," Timelines: Sources from History, The British Library, accessed July 29, 2021, <https://www.bl.uk/learning/timeline/item105244.html>.

<sup>59</sup> "Henry Purcell," Timelines.

<sup>60</sup> "Treasures of the British Library," Exhibitions, The British Library, accessed July 29, 2021, <https://www.bl.uk/events/treasures-of-the-british-library>.

<sup>61</sup> "Highlights," British Library Treasures, The British Library, accessed July 29, 2021, <https://www.bl.uk/british-library-treasures/collection-items?formats=musical%20score>.

<sup>62</sup> Julian Harrison, "Welcome Back to Our Treasures Gallery!" *Living Knowledge Blog*, The British Library, August 25, 2020, <https://blogs.bl.uk/living-knowledge/2020/08/welcome-back-to-our-treasures-gallery.html>.

certain cultural practices, such as the continued bias towards white men and the classical music canon.

Rather than going into the vast amount of literature concerning the classical music canon, I would like to bring attention to a particular example. Paula Higgins drew attention to this issue in 2001 regarding Josquin, a frequent example of musical “genius” or “greatness.”<sup>63</sup> Higgins discusses the problematic nature of putting specific individuals and their works on pedestals. She discusses how these categories are often focused particularly on white men, thus suppressing other alternatives or views.<sup>64</sup> She quotes Herrnstein Smith who stated that:

It must be—and always is—simultaneously a move to assign dominant status to the *particular* conditions and perspectives that happen to be relevant to or favored by that person, group, or class; it must be—and always is—simultaneously a move to deny the existence and relevance, and to suppress the claims, of *other* conditions and perspectives.<sup>65</sup>

By highlighting or deciding that some items are more treasured or worth more notice, other items are suppressed or pushed aside. If only compositions by white men are held up to be “treasures” or examples of “musical genius” then other compositions are assumed to not be as important or “great.”<sup>66</sup> From the current state of their collections, particularly their highlighted “treasures,” Purcell is framed within this mythology of musical genius and the classical canon. The same is true for the past exhibitions the library has held featuring Purcell. For instance, the 1995 exhibition book immediately refers to Purcell as “the greatest English composer between the 16<sup>th</sup> and 20<sup>th</sup> centuries (and often considered the greatest English composer of all time)” whose music displays the “aural evidence of his genius.”<sup>67</sup>

He is given the role of a national hero and is held up alongside the “great” and “genius” composers from other nations in Western Europe (who are all of course white men).<sup>68</sup> Higgins reminds us that “the idolatry of genius is rarely naive and always politically suspect. One hardly needs reminding of how the music of certain genius composers has been

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<sup>63</sup> Paula Higgins, “The Apotheosis of Josquin des Prez and Other Mythologies of Musical Genius,” *Journal of the American Musicological Society* 57, no. 3 (Fall 2004): 443-510, <https://doi.org/10.1525/jams.2004.57.3.443>.

<sup>64</sup> Higgins, “Apotheosis of Josquin,” 490.

<sup>65</sup> Quoted in Higgins, “Apotheosis of Josquin,” 490.

<sup>66</sup> Higgins, “Apotheosis of Josquin,” 490.

<sup>67</sup> Thompson, *Glory of the Temple*, 5.

<sup>68</sup> “Henry Purcell 1659-1695, the glory of the temple.”

misappropriated in the interests of unsavory nationalist agendas.”<sup>69</sup> Similarly, heritage, as discussed in chapter 1, has a long history of being used to aid ideologies such as nationalism.<sup>70</sup> This is not to suggest that Purcell and his music should not be appreciated and celebrated by the United Kingdom and its national institutions, but that some of the practices involved in portraying, studying, and cataloguing music be reconsidered or at least acknowledged. While Purcell’s problematic status as a “musical genius” and his part in the classical music canon is not the main focus of this thesis, it is an avenue for future research.

Currently, however, it is worthwhile to consider how the process of digitization and creating online libraries and archives reflect and perpetuate certain views and beliefs. In 2020, Musicologist Margaret E. Walker expressed that the value system “that the musical inheritance of Europe is part of ‘the greatness and distinctiveness of Western civilization’—seems still to underpin most of the choices made in post-secondary music courses, textbooks, and performance requirements.”<sup>71</sup> This also appears to be the case in other institutions, such as libraries and archives. The role that online institutions and databases of digital musical heritage play in perpetuating colonialism and nationalism needs further consideration, or at the very least acknowledgement. Walker points out that it is not only an issue that music education is centered on “European elite music” but that these practices are “so embedded in our institutions that it is often invisible.”<sup>72</sup> These practices are not only embedded in universities and curricula but also in libraries, archives, and the heritage industry.

## **Heritage and the British Library**

Another detail that I noticed in my “archaeology” is that in the British Library’s dealings with early music, there is a noticeable avoidance of the use of the term “heritage,” unlike other institutions such as the Alamire Foundation, which embrace the term. The British Library is a major part of the British heritage industry, but it does not always acknowledge all the heritage in its collections as being heritage. The library states that “Our mission is to make our intellectual heritage accessible to everyone, for research, inspiration and enjoyment.”<sup>73</sup> Yet the institution sometimes seems to avoid referring to some collections as heritage, particularly the music collections. This could likely be due to the changing

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<sup>69</sup> Higgins, “Apotheosis of Josquin,” 492.

<sup>70</sup> David Lowenthal, “Fabricating Heritage,” *History and Memory* 1, no. 10 (1998): 14, <https://www.jstor.org/stable/25681018>.

<sup>71</sup> Margaret E. Walker, “Towards a Decolonized Music History Curriculum,” *Journal of Music History Pedagogy* 10, no. 1 (2020): 2, <https://www.ams-net.org/ojs/index.php/jmhp/article/view/310>.

<sup>72</sup> Walker, “Towards a Decolonized,” 3.

<sup>73</sup> “Our Vision,” About Us, The British Library, accessed July 26, 2021, <https://www.bl.uk/about-us/our-vision>.

definitions and politicized opinions about heritage. As seen in chapter 1, even heritage scholars such as David Lowenthal criticize heritage for its inaccuracies and ties to problematic views. In 1998 Lowenthal commented on how:

British heritage above all seems an elite domain...Sotheby's and Christies, the chief purveyors of heritage, vie in aristocratic snobbery (as of 1994, Christies had five titled directors, Sothebys four). A lord on the board promises elite contacts and a rich aura of ancient tradition. The National Heritage Memorial Fund used most of its first lottery money to reward the Churchill family for Sir Winston's archives and to refit an exclusive hunting lodge in the Scottish Highlands. This "startling redistribution of wealth from ordinary working people to leading Conservatives," in a national newspapers' words, "is not what most folk expected."<sup>74</sup>

This portrayal of the process of national heritage being sold at Sotheby's and other auction houses and then being bought from wealthy individuals with funds from the National Heritage Memorial fund is eerily similar to the situation with the Purcell-Draghi manuscript. The Purcell-Draghi manuscript was acquired with funds from a variety of sources, but one of the largest grants (of £115,500) was from the National Heritage Memorial Fund. The NHMF is intended to be a last resource source of funding and items obtained with their funds are required to be of great importance to the national heritage of the United Kingdom and outstanding in some way such as "rarity, quality, association with a historic figure or event or designations."<sup>75</sup> The item must also be proven to be at risk since "the role of the Fund is specifically to save items that are at risk."<sup>76</sup> To acquire the Purcell-Draghi manuscript, the British Library must have made a case that it was both important national heritage and at risk of being lost on the private market if not quickly obtained. Another caveat is that the "application should demonstrate how your acquisition of the item will provide new opportunities for the public to access it."<sup>77</sup>

There have, however, been some opportunities where the term "heritage" was used directly by the British Library. In 2018, the Library did announce a project titled "Heritage Made Digital" in which they would be "digitising parts of our collection that have never been

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<sup>74</sup> David Lowenthal, *The Heritage Crusade and the Spoils of History*, (Cambridge: Cambridge University Press, 1998), 91.

<sup>75</sup> "Funding," National Heritage Memorial Fund, accessed July 26, 2021, <https://www.nhmf.org.uk/funding>.

<sup>76</sup> "Funding," National Heritage Memorial Fund.

<sup>77</sup> "Funding," National Heritage Memorial Fund.

made available online before, or are underrepresented in our online collections.”<sup>78</sup> In the blog post announcing this project, they also expressed that they would be consolidating and making current digitized collections more accessible and reusable.<sup>79</sup> There have not been any major changes announced for the Digitised Manuscripts website, although “manuscripts” were included in the discussed list of heritage materials.

The British Library also refers to its recent acquisitions as “Intellectual Heritage for Everyone” and musical archives are considered to be a part of this “Intellectual Heritage.”<sup>80</sup> Perhaps the British Library is making an attempt to distance themselves from this image of heritage being “an elite domain.” It is possible that the institution’s cautious use of the term “heritage” and making it “for everyone” is their attempt at rebranding heritage and the heritage industry. They appear to be following a larger social trend away from not only focusing on national heritage but also contributing to a more “global heritage” (or sharing their national heritage on a more global level).<sup>81</sup> A major part of making this heritage accessible, particularly on a global level, relies upon the sustainability and capabilities of the online resources.

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<sup>78</sup> “Heritage Made Digital,” Projects, The British Library, published November 12, 2018, <https://www.bl.uk/projects/heritage-made-digital>.

<sup>79</sup> “Heritage Made Digital.”

<sup>80</sup> “Everyone Engaged,” Projects, The British Library, published June 14, 2019, <https://www.bl.uk/projects/everyone-engaged>.

<sup>81</sup> “World Heritage,” UNESCO, accessed July 15, 2021, <https://whc.unesco.org/en/about/>.

## Digital Sustainability and the British Library

Although more materials have been added and changes have been made, the Digitised Manuscripts website has not undergone any major updates or changes to appearance or functionality since it was originally built. While still perfectly functional, it does have the appearance of an earlier website and, as seen in figure 2, it is noticeably off center on a wider modern computer screen.

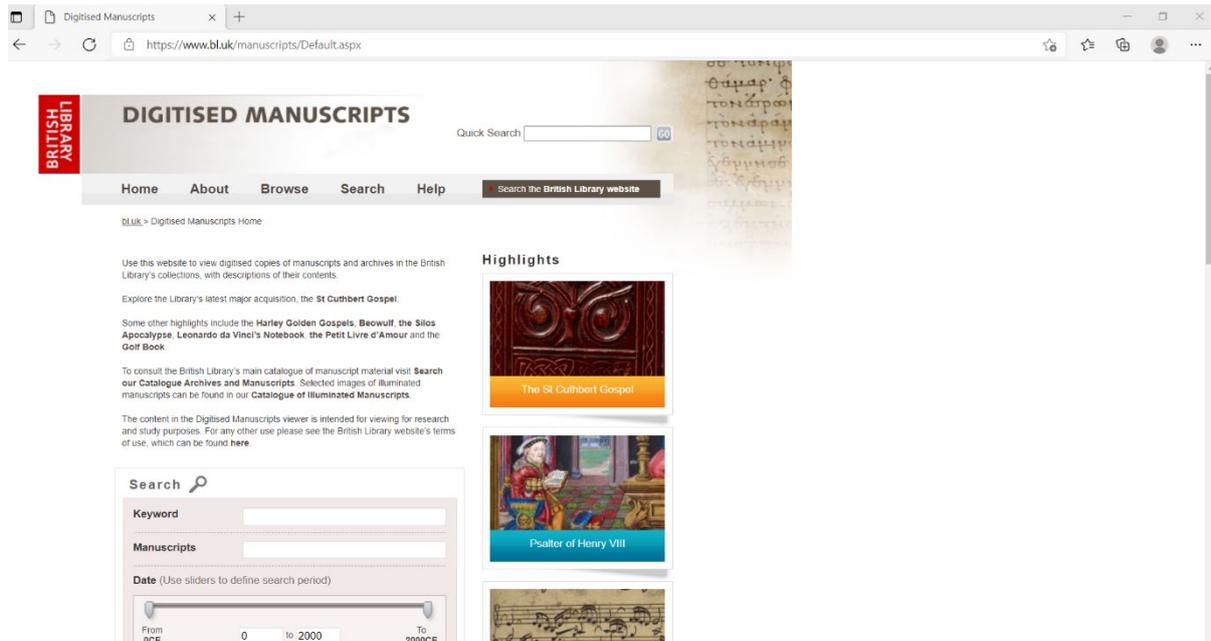


Figure 2. The British Library's current Digitised Manuscripts website homepage.

The design of the Digitised Manuscripts website is very different and more outdated compared to the primary website for the British Library. The text is small, making some of the features more difficult to view and navigate. Users can find manuscripts by either using the search function or browsing through indexes of manuscripts, authors, titles, or scribes. These indexes, however, have not been updated to list the entirety of the collections. For example, the Purcell manuscripts cannot be found by browsing by title or author.

Another feature of the database that is in need of updating is the image viewer, the application that allows users to see and navigate through the digitized manuscripts. In 2016, the British Library began working to create a new image viewer for some of their online collections built with the "Universal Viewer" software and using the IIIF (International

Image Interoperability Framework) standard for interoperability.<sup>82</sup> IIF aims for a number of goals such as better functionality, reducing long term maintenance and costs, and increasing shareability.<sup>83</sup> By aligning with the IIF standard, the new British Library image viewers would also increase the legibility and standardization of the metadata within the collections.

In chapter 2 the importance of metadata for digital preservation was briefly discussed. This data allows for digital objects to be correctly identified and located by users.<sup>84</sup> For instance, it ensures that if someone searches for “Purcell” in the Digitised Manuscripts website search bar that manuscripts with music by Purcell will come up. Metadata can be used to meet the “distinct requirements of digital preservation: maintaining the availability, identity, persistence, renderability, understandability, and authenticity of digital objects over long periods of time.”<sup>85</sup> The accessibility of the collections and capabilities of the image viewer are important, but metadata is also integral to understanding and preserving digitizations once they are created.

Not only does it make these digitized objects more accessible and approachable for less experienced researchers, but it also serves to fill in the gaps left by not being able to handle the original object. For example, the images of R.M. 20.h.8 are very high quality, but they do not provide any frame of reference for the size of the scorebook. Some digitized books and manuscripts include a ruler or object to use as a size reference, but this is not the case with the digitized Purcell manuscripts. Without this frame of reference, a user might go to the item description and metadata to see if these details are included, however, any description of size is absent from R.M. 20.h.8’s metadata. While it is possible to find this information by searching through other sources, having these details readily available would increase the usability of the database and help to contextualize the digital images. Although it is not reasonable to expect information about every aspect of a manuscript, it is necessary to state enough information that the digital object can be conclusively located and identified and to ensure that that information is standardized across the database so that objects are treated and preserved equally.

At the time of writing this thesis in July 2021, the new image viewer has not been implemented on the Digitised Manuscripts site, and the current manuscript viewer is still

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<sup>82</sup> “About IIF,” About, International Image Interoperability Framework, accessed June 25, 2021, <https://iif.io/about/>.

<sup>83</sup> “About IIF.”

<sup>84</sup> Ross Harvey and Jaye Weatherburn, *Preserving Digital Materials*, (Lanham, Maryland: Rowman & Littlefield), 80.

<sup>85</sup> Harvey and Weatherburn, *Preserving Digital Materials*, 81.

quite limited in its capabilities. In fact, in a presentation for the new IIIF image viewer in 2016, Mia Ridge, the British Library's Digital Curator for Western Heritage Collections, used the Digitised Manuscripts viewer as an example of the "old" manuscript viewers.<sup>86</sup> In this video Ridge compared the "old" and new viewers and states that while the old viewer "offers great access to the images but we can do better in terms of contextualizing them and helping people understand what it is they are looking at."<sup>87</sup> The "old" viewer does have some capabilities beyond simply viewing the basic images such as zoom, or choosing whether to view the pages individually or in pairs. However, the text that displays additional information about the digital object is not easily accessible or readable. It is only visible in a small window that users have to scroll through to read.

The IIIF consists of a set of open standards that are recommended for libraries, archives, and other institutions to adopt to allow for certain features and capabilities in their online image viewers that can aid researchers. IIIF standards include features such as deep zoom, manipulation of size and scale, and annotation capabilities.<sup>88</sup> The IIIF community, the cultural institutions and organizations that support and utilize their standards, has been rapidly growing and now includes many notable institutions such as the Vatican Library and Smithsonian Institution. The IIIF Consortium (IIIF-C) was founded in 2015 to "provide steering and sustainability for the IIIF community."<sup>89</sup> The British Library is currently one of the 51 full members of the IIIF-C and was one of the founding members of the Consortium.<sup>90</sup> This makes their lack of complete implementation of IIIF standards even more concerning.

There are some medieval manuscripts in the British Library collection that have been made available online through viewers that meet the IIIF standards, such as the "Manuscripts from the British Library and the Bibliothèque nationale de France, 700-1200" project funded by the Polonsky Foundation that was announced in 2016.<sup>91</sup> These, however, are not on the Digitised Manuscripts site. According to Mia Ridge (who became the product owner of the new image viewer when she became the library's digital curator in 2015) the vastness of the library has proven to be an issue with migrating content into the new systems that are IIIF

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<sup>86</sup> Mia Ridge, "Digitised Manuscripts Platform and the Library's New Viewer," The British Library, January 22, 2017, YouTube video, 18:22, <https://www.youtube.com/watch?v=KPjwmIrJdpM>.

<sup>87</sup> Ridge, "Digitised Manuscripts Platform."

<sup>88</sup> "IIIF Frequently Asked Questions (FAQs)," FAQ, International Image Interoperability Framework, accessed June 25, 2021, <https://iiif.io/community/faq/>.

<sup>89</sup> "IIIF Consortium," Community, International Interoperability Framework, accessed June 25, 2021, <https://iiif.io/community/consortium/>.

<sup>90</sup> "IIIF Consortium."

<sup>91</sup> "France et Angleterre: manuscrits médiévaux entre 700 et 1200," The British Library, accessed July 21, 2021, <https://www.bl.uk/medieval-english-french-manuscripts>.

capable.<sup>92</sup> Additionally, she explains that the original project ended in 2016 and was not begun again until 2021 due to “resourcing issues.”<sup>93</sup>

The British Library is an extremely large and varied collections of materials. This was the original intended goal of the institution when it first was founded under the British Museum, and it certainly is an admirable one. The library has made itself invaluable to researchers across a variety of disciplines. The vastness of their collections could, however, also be seen as a risk. With so many materials available, choices must be made regarding what to prioritize for digitization. There also is a major issue known as “archival buildup.”<sup>94</sup> Not everything can be preserved, as there simply are not enough resources. Lowenthal expresses that “Uncontrollable accretion is a second cause of archival degeneration.”<sup>95</sup> When there are too many objects, digital or material, for an institution to care for effectively, there is the risk that some of the items may be damaged or allowed to degrade due to neglect. Fortunately, the British Library is a massive organization with funding and staff to match, but it still appears to be slow moving in some regards. As stated previously, the Digitised Manuscripts database has not had its design or major functions updated since it was first created. While sources continue to be added, it is still extremely limited in terms of functionality compared to other collections at the library. Musicologists and medievalists could greatly use the features included in the IIF standards. Perhaps plans are being made to update or improve the website, but one still must wonder why it has taken so long.

Additionally, at the time of writing this thesis, some parts of the British Library website, such as the Timeline and learning materials previously mentioned, still have options to use Adobe Flash, a software which is no longer supported anywhere. It was announced that Adobe Flash would be going into “End of Life” support in 2017 and that by January 2021 it would be blocked from running altogether.<sup>96</sup> It appears that the British Library has struggled to keep up with the rapid changes in technologies and applications.

It may be that the immense breadth of the British Library’s collections and activities is both a benefit and a drawback. While they have made themselves an invaluable resource for researchers, they also are limited by their broad reach. As a large, old organization, they

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<sup>92</sup> Mia Ridge, “Mia Ridge (British Library) - IIF British Library Viewer and Manifest,” Towards a National Collection, July 7, 2021, YouTube video, 3:42, <https://www.youtube.com/watch?v=-IHQJYJUYVs>.

<sup>93</sup> Ridge, “IIF British Library Viewer.”

<sup>94</sup> David Lowenthal, “Archives, Heritage, and History,” in *Archives, Documentation, and Institutions of Social Memory: Essays from the Sawyer Seminar*, eds. Francis X. Blouin, Jr. and William G. Rosenberg (Ann Arbor: University of Michigan Press, 2007), 195.

<sup>95</sup> Lowenthal, “Archives, Heritage, and History,” 195.

<sup>96</sup> “Adobe Flash Player EOL General Information Page,” Adobe, last modified January 13, 2021, <https://www.adobe.com/products/flashplayer/end-of-life.html>.

do not appear to be able to move or change as quickly as newer and more specialized organizations are. Perhaps this is a part of the danger of archival buildup in the digital age. Rather than the risk of only physical objects being accidentally buried or pushed to the wayside, it is the risk of not being able to keep up with technological trends and changes.

As discussed in chapter 2, there are even more methods for digitizing books and manuscripts than just taking digital images. Reflectance Transformation Imaging, virtual reality, and other technologies are now becoming increasingly used. Chapter 4 will also discuss the Integrated Database for Early Music (IDEM) and their plans for creating more dynamic user experiences. Keeping up with technology is not only about showing off an institution's capabilities, but also plays a role in the usefulness of the digital object and its quality of preservation. Why are these objects being preserved and what exactly about them is being preserved? Is it just the informational aspects or do the artifactual qualities matter, as well? How a society or institution treats the things that it considers to be important says a lot about it.<sup>97</sup> It highlights what is deemed valuable and worth keeping.

By performing an “archaeology” of these digitizations at the British Library, a number of details were revealed, not only about the sustainability and state of the current practices at the library, but also concerning current perceptions regarding Purcell's standing as a musical “genius” and his place in the classical music canon. This exemplifies how digitizations of early music sources are not just digital images, but also representations and promotions of musical and national heritage. R.M. 20.h.8 and the Purcell-Draghi manuscript were only a small representation of a much larger collection, but they illustrate how critical it is to consider the roles that digitizations play in both musicology and the heritage industry. These are not just neutral, static objects, but a continuation of the transmission and transformation of information and ideals. I will move now into my second case study, which examines a smaller institution that researches and preserves early music exclusively from the Low Countries.

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<sup>97</sup> Bonnie Mak, “Archaeology of a Digitization,” *Journal of the Association for Information Science and Technology* 65, no. 8 (2014): 1515–1526.

## Chapter 4 – The Digitized Leuven Chansonnier and IDEM

The Alamire Foundation, also referred to as the *Internationaal centrum voor de studie van Muziek in de Lage Landen* (International Center for the Study of Music in the Low Countries), was founded in 1991 as a collaboration between the Musicology Research Unit at Katholieke Universiteit Leuven and the non-profit organization, Musica Impulse Centre for Music.<sup>1</sup> The Foundation was named after Petrus Alamire (b. Nuremberg, c1470 – d. Mechelen, 1536), a German-Dutch music copyist. As explained by David Burn, Professor of Musicology at KU Leuven, Petrus Alamire was chosen as the organization’s namesake “Because of the significance that he had for Low Countries’ musical heritage. He’s really one of the central, most important sources of the musical heritage of the Low Countries.”<sup>2</sup>

Petrus Alamire did indeed contribute greatly to the musical heritage of the Low Countries and was known for copying and supervising the copying of a great number of manuscripts in the late fifteenth and early sixteenth centuries. He copied the works of many great composers, such as Pierre de La Rue, Josquin, Mouton, Févin, and Obrecht.<sup>3</sup> In many ways, the Alamire Foundation is continuing the work of Petrus Alamire by continuing to copy and preserve early Low Countries’ music through facsimiles, digitization, and *The Journal of the Alamire Foundation* which is published by Brepols Publishers in both paperback and open access form. The Alamire’s dedication to the research, preservation, and valorization of early musical heritage has made it an ideal case study.

The founder of the Alamire was Baron Herman Vanden Berghe, a Belgian geneticist, hunting horn player, and music lover. He would remain on the board of the Foundation until his death in 2017.<sup>4</sup> Throughout his life, Vanden Berghe was involved in a number of scientific and scholarly organizations, as well as cultural institutions and events. He was chairman of the Festival of Flanders in Flemish Brabant, a division of the Festival of Flanders (one of the most prominent cultural events” in Flanders).<sup>5</sup> Most notably, Vanden Berghe was chairman and later honorary chairman of the King Baudouin Foundation, the foundation

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<sup>1</sup> “History,” Organization, Alamire Foundation, accessed July 8, 2021, <https://alamirefoundation.org/en/organisation/history>.

<sup>2</sup> Sander Tas, “Alamire Foundation at Park Abbey, Leuven, Belgium,” Alamire Foundation, June 30, 2017, Vimeo video, 6:16, <https://vimeo.com/223735430>.

<sup>3</sup> Herbert Kellman, “Alamire, Pierre,” *Grove Music Online*, January 20, 2001, <https://www-oxfordmusiconline-com.proxy.library.uu.nl/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000000399>.

<sup>4</sup> Ludo Meyvis, “Geneticus Herman Vanden Berghe Overleden,” Nieuws, KU Leuven, January 23, 2017, <https://nieuws.kuleuven.be/nl/2017/geneticus-herman-vanden-berghe-overleden>.

<sup>5</sup> “Festival van Vlaanderen,” Festival van Vlaanderen, accessed July 15, 2021, <http://www.festival.be/en>.

named after the same king who ennobled Vanden Berghe. The King Baudouin Foundation's mission has been "to contribute to a better society in Belgium, in Europe and in the world" and is involved in social justice, health, international philanthropy, and preserving heritage (natural, architectural, movable, and cultural).<sup>6</sup> The Alamire would eventually go on to develop a close bond with the King Baudouin Foundation and the KBF would assist with funding and acquisition of materials.<sup>7</sup>

During his time as chairman, Vanden Berghe was noted to be involved in both the KBF's health programs, as well as active in preserving the musical heritage of Flanders.<sup>8</sup> He was consistently linked to the musical heritage industry in Belgium, and in an area (Leuven) that was, fortunately, willing to fund such projects. After founding Alamire in 1991, he also founded a non-profit organization, called Resonant: Muzikaal Erfgoed in Vlaanderen, with funds from the King Baudouin Foundation and the former Minister of Culture Luc Martens to prevent the loss or deterioration of Flemish musical heritage.<sup>9</sup> Vanden Berghe's intention was for the Alamire Foundation to focus on research, particularly research into early polyphony, while Resonant would be meant to actively protect musical heritage. He stated that "Daar waar Alamire zich toespitst op onderzoek, en met name op onderzoek naar de muziek van de polyfonisten, heeft het de zorg voor het muzikaal erfgoed aan Resonant overgelaten. Zelf ben ik geen groot musicoloog, maar ik begrijp wel wat Alamire allemaal doet en de polyfonie heeft mij altijd enorm aangesproken." (Where Alamire focuses on research, and particularly on research into the music of the polyphonists, it has left the care of the musical heritage to Resonant. I myself am not a great musicologist, but I understand what Alamire is doing, and polyphony has always appealed to me greatly.)<sup>10</sup>

Despite his admission to not being a "great musicologist," Vanden Berghe's contributions and connections to the various foundations and organizations involved in cultural heritage research and preservation were incredibly forward-thinking and instrumental to the state of many projects today. Today, Resonant has now become CEMPER: Centrum voor Muziek en Podiumerfgoed (Center for Music and Stage Heritage) and works more in

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<sup>6</sup> "Mission, Vision, Values," About Us, King Baudouin Foundation, accessed July 15, 2021, <https://www.kbs-frb.be/en/About-us/What-we-do/Mission-vision-values>.

<sup>7</sup> *Strategic Vision 2020-2024* (Brussels: King Baudouin Foundation, 2020), 44, <https://en.calameo.com/read/0017742956f45aebef6df?authid=9hU4nXfUd5Ou>.

<sup>8</sup> "Tribute to Our Honorary Chairman Baron Herman Vanden Berghe," Press Releases, King Baudouin Foundation, January 23, 2017, <https://www.kbs-frb.be/en/Newsroom/Press-releases/2017/20170123ND>.

<sup>9</sup> "Herman Vanden Berghe, Voorzitter Koning Boudewijnstichting 2000-2003," King Baudouin Foundation, accessed July 15, 2021, <https://www.kbs-frb.be/nl/HermanVandenBerghe.html>.

<sup>10</sup> Many thanks to my friend Keerthi Sridharan for assisting with translations: "Herman Vanden Berghe, Voorzitter."

advising institutions on how to properly care for their heritage.<sup>11</sup> The Alamire, on the other hand, has made a name for itself both nationally and internationally as an organization that is dedicated to valorizing, preserving, and researching Low Countries' musical heritage.

### **The Alamire Foundation and IDEM**

The Alamire Foundation's mission, as currently stated on their website, is to "undertake, stimulate, and co-ordinate innovative research on music and musical life in the Low Countries from the early Middle Ages until 1800."<sup>12</sup> The results of their research and valorization efforts appear in various forms such as monographs, scholarly articles, facsimiles, and digitizations. In 2011, the Alamire Foundation introduced the Alamire Digital Lab (ADL), a portable and state-of-the-art lab for photographing manuscripts.<sup>13</sup> The ADL consists of high-resolution cameras, cradles, and stands for holding the material to be digitized, and specialists who are not only familiar with the equipment but also the care and conservation of early books and manuscripts, particularly sources containing music. It is very crucial that the ADL makes use of both state-of-the-art technology and knowledgeable specialists who are in charge of digitizing the materials.<sup>14</sup> This not only means that they can investigate the materials as they work with them, but also significantly decreases the risk of damages due to lack of knowledge or training. This further aids in preserving through both digitization and care for the original object.<sup>15</sup> Having musicologists in charge of the digitization process means that "Not only can the choices made during the digitization process be better accorded with the final purpose of the images, but the scientific examination of the manuscript can already take place in the digitization space itself."<sup>16</sup> Burn clarifies that this is not so much that the process itself changes, but that who digitizes the manuscripts can greatly improve the quality and efficiency of the process.<sup>17</sup>

It is through this lab that the Alamire Foundation's Integrated Database of Early Music or IDEM, which was started in 2014, has obtained so many high-quality digital images

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<sup>11</sup> "Resonant werd CEMPER!" Nieuws, Resonant: Muzikaal Erfgoed in Vlaanderen, accessed July 15, 2021, <https://www.muzikaalerfgoed.be/alleen-nieuws/724-resonant-werd-cemper>; "Over CEMPER," CEMPER: Centrum voor Muziek en Podiumerfgoed, accessed July 15, 2021, <https://www.cemper.be/>.

<sup>12</sup> "Mission," Organisation, Alamire Foundation, accessed July 19, 2021, <https://alamirefoundation.org/en/organisation/mission>.

<sup>13</sup> "Alamire Digital Lab," Research, Alamire Foundation, accessed June 5, 2021, <https://alamirefoundation.org/en/research/alamire-digital-lab>.

<sup>14</sup> "Alamire Digital Lab."

<sup>15</sup> Ilse Korthagen et al., *Checklist for the Digitisation of Manuscripts*, (Brussels: Koninklijke Bibliotheek, 2019), 7.

<sup>16</sup> "Alamire Digital Lab."

<sup>17</sup> David Burn, email message to author, April 27, 2021.

of Franco-Flemish musical heritage from institutions around the world. While some of the digitizations are obtained from the institutions that hold the materials, for example the British Library and Stadsarchief Antwerpen provided their own digitizations of the materials that they hold, the rest are digitized by the Alamire's Digital Lab.<sup>18</sup> In 2012 the ADL was even given access to the Vatican library to take images of several manuscripts containing Low Countries' musical heritage.<sup>19</sup> By having musicologists in charge of the digitization, the descriptions and metadata can immediately be double checked and corrected if mistakes are made.<sup>20</sup> Once images are digitized they "can be uploaded to Leuven immediately, where our eight-strong vocal group, Park Collegium, can read the source texts and perform them live."<sup>21</sup> Although the physical sources are housed in various libraries and archives around Europe, the digitizations are viewed through the IDEM website and the image rights belong to the Alamire Foundation.

The headquarters of the ADL and the Alamire's IDEM is Park Abbey, Leuven, Belgium.<sup>22</sup> Not only do these images allow for the original materials to be better preserved by no longer having to be handled or manipulated, as often, but through digitizing the materials the Foundation also increases awareness and value of the heritage.<sup>23</sup> One of the central goals of the Alamire Foundation is valorization, or creating value, of the heritage that they research. This is done by performing the music and printing facsimiles, as well as by making materials digitally available on IDEM so they can be shared more with audiences that previously might not have had access to or awareness of such materials.<sup>24</sup> In a short documentary about the Foundation, David Burn expressed that "the Alamire Foundation tries to make that heritage better known. It tries to do that by bridging the gaps between music and scholarship."<sup>25</sup>

The Foundation is able to achieve their many goals through financial support from a variety of sources such as the Hercules Foundation (which is now administered by the Fonds Wetenschappelijk Onderzoek or FWO), the Flemish Community, KU Leuven, and the

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<sup>18</sup> *Leuven?! Unveiling a Creative City in 8 Stories*, (Leuven: Dienst cultuur, 2021), 135.

<sup>19</sup> *Leuven?! Unveiling a Creative City in 8 Stories*, 135.

<sup>20</sup> David Burn, email message to author, April 27, 2021.

<sup>21</sup> *Leuven?! Unveiling a Creative City in 8 Stories*, 135.

<sup>22</sup> At the time of writing this thesis in spring 2021, it was not possible to visit the lab due to the restrictions related to the pandemic in both the Netherlands and Belgium.

<sup>23</sup> Korthagen et al., *Checklist*, 14-16.

<sup>24</sup> Sander Tas, "Alamire Foundation at Park Abbey."

<sup>25</sup> Sander Tas, "Alamire Foundation at Park Abbey."

Ministry of Culture.<sup>26</sup> The King Baudouin Foundation also has remained a partner of the Alamire Foundation and aided in the purchase of the Leuven Chansonnier (B-AF-ms-1). In the KBF's recent *Strategic Vision 2020-2024* booklet it was stated that "The Foundation has formed partnerships with more traditional actors in the sector, such as Alamire and the Queen Elisabeth Music Chapel. The added value we provide is widely respected."<sup>27</sup> However, many of these funds are not recurrent and preserving digitizations is a very expensive process, so the Foundation must constantly seek out funding opportunities for their various projects.<sup>28</sup>

Although the major mission of the Alamire Foundation is research, the Foundation has also made great efforts to broadcast its work to more general audiences. Recent additions to the collection, such as the Leuven Chansonnier, have attracted considerable attention among a variety of audiences. The rediscovery of the fifteenth-century manuscript was featured in national and international news sources, and the acquisition of the manuscript prompted a visit of Queen Mathilde to the Alamire Foundation. Along with their more traditional, scholarly media in the form of facsimiles and academic journal articles, they also make an effort to have their results be as public as possible through short documentaries, performances, exhibitions, webinars, and participations at local and national cultural events.<sup>29</sup>

For example, the Foundation created a documentary for the Leuven Chansonnier that was released in Dutch, English, and French and is freely available to view online.<sup>30</sup> The Alamire also seeks to encourage collaboration between different institutions, as well as between musicians and scholars. In May of 2021 the Alamire Foundation and Columbia University together with the General Delegation of the government of Flanders organized a webinar on the Mechelen Choirbook (Mechelen – Stadsarchief MS s.s.), a late fifteenth or early sixteenth century choirbook created in the workshop of Petrus Alamire.<sup>31</sup> These various events have helped the Foundation to become more recognized and appreciated.

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<sup>26</sup> David Burn, email message to author, April 27, 2021; Sam Capiiau, "Alamire Foundation en Vaticaanstad Digitaliseren Muziekhandschriften," *Vlaamse Erfgoedbibliotheken*, November 20, 2012, <https://vlaamse-erfgoedbibliotheken.be/nieuws/2012/11/2619-alamire-foundation-en-vaticaanstad-digitaliseren-muziekhandschri>.

<sup>27</sup> *Strategic Vision 2020-2024*, 44

<sup>28</sup> David Burn, email message to author, April 27, 2021.

<sup>29</sup> "Mission," Alamire Foundation; "Exhibited," Valorisation, Alamire Foundation, accessed July 19, 2021, <https://alamirefoundation.org/en/valorisation/exhibited/exhibited>; "Sung," Valorisation, Alamire Foundation, accessed July 19, 2021, <https://alamirefoundation.org/en/valorisation/sung/sung>.

<sup>30</sup> "Leuven Chansonnier," Alamire Foundation, December 9, 2020, Vimeo video, 21:07, <https://vimeo.com/488917155>.

<sup>31</sup> "Music and Art in Renaissance Flanders: The Mechelen Choirbook in Context," News, Alamire Foundation, May 11, 2021, <https://alamirefoundation.org/en/organisation/news>.

In 2021, the Alamire Foundation and its partners, the KU Leuven Musicology Research Group and Matrix New Music Centre, received the Maatschappijprijs Humane Wetenschappen, which is “awarded by the KU Leuven Humanities Group to scientists whose research is of great relevance to the public debate.”<sup>32</sup> The city of Leuven has also recognized the Alamire’s relevance and their potential to increase interest in the city and culture of Leuven. Recently, they were voted to become one of Leuven’s eight Creative Ambassadors, a two-year role which is not only a great honor, but also allows for more publicity for the organization.<sup>33</sup> The Creative Ambassadors are chosen to specifically highlight the creative talent of the city both nationally and internationally.<sup>34</sup> The Ambassadors are proudly advertised on the city’s website which also features a book and promotional video.<sup>35</sup> Bart Demuyt, the Director of the Alamire Foundation, was interviewed for these promotional materials.<sup>36</sup> All the materials are in both Flemish and English, to make them accessible to as broad and international an audience as possible. These efforts to gain publicity and encourage collaboration not only allows for the heritage in their collection and the research they do to be more broadly appreciated, but also could potentially inspire new types of research and partnerships. I will now turn to the event that played a major role in putting the Alamire Foundation on the map: the discovery of the Leuven Chansonier.

### **The Leuven Chansonier**

“Imagine if a long-lost song by Lennon and McCartney was suddenly rediscovered? Or maybe one by Gershwin. That is how the discovery of some brand-new songs that date back 450 years is being described,” news anchor Brandis Friedman announced on the program *Chicago Tonight* in January 2019. Although the “long lost” songbook had already been rediscovered in 2014, this episode of *Chicago Tonight* was specifically advertising the Newberry Consort’s upcoming concert series “What’s Old Is New” where they would perform a selection of the songs from the Chansonier. It also served to introduce the songbook to a new, American audience.

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<sup>32</sup> “Alamire Foundation Wins Award,” News, Alamire Foundation, accessed July 1, 2021, <https://alamirefoundation.org/en/organisation/news>.

<sup>33</sup> “Creative Ambassadors,” Stad Leuven, accessed July 18, 2021, <https://www.leuven.be/en/creativeambassadors>.

<sup>34</sup> “Creative Ambassadors,” Stad Leuven.

<sup>35</sup> “Creative Ambassadors,” Stad Leuven.

<sup>36</sup> “Creative Ambassadors - Studiecentrum voor historische muziek Alamire Foundation,” Stad Leuven, April 22, 2021, Youtube video, 2:19, [https://www.youtube.com/watch?v=1OJ\\_Z3BFaQ8](https://www.youtube.com/watch?v=1OJ_Z3BFaQ8); *Leuven?! Unveiling a Creative City*, 127-143.

The manuscript, named the Leuven Chansonnier, had already received some media attention in Belgium, Germany, and France following its recovery and loan to the Alamire Foundation. The Leuven Chansonnier has been one of the most important musicological finds in the twenty-first century. The last time a similar chansonnier was rediscovered was the Nivelles de la Chaussée Chansonnier (Paris, Bibliothèque nationale, Rés. Vmc. ms. 57) in 1939, and this manuscript was not made publicly available until 1979. “It would be fair to describe the discovery of the Leuven Chansonnier as once in a lifetime event,” expressed Ryan O’Sullivan, a doctoral student and researcher at the Alamire Foundation.<sup>37</sup> In 2018 the Minister for Culture of the Flemish Government added the manuscript to the Masterpieces list of the Flemish Government.<sup>38</sup>

Like the Nivelles Chansonnier, the Leuven Chansonnier was initially purchased at auction by a private collector. However, the new owner of the Leuven Chansonnier did not know the value of what they had purchased, prompting them to seek out the opinion of the researchers at the Alamire Foundation.<sup>39</sup> David Burn humorously noted that after the owner reached out to the Alamire Foundation to have the manuscript assessed: “That day someone brought it around to me in their rucksack.”<sup>40</sup> Once Burn examined the manuscript, it was quickly realized that this was a very exceptional find. Unfortunately, once the owner realized the value, they expressed no interest in parting with it.<sup>41</sup> Not wanting the manuscript to become lost again on the private market, the Alamire Foundation began quickly seeking out funds to purchase the manuscript. Fortunately, the King Baudouin Foundation (specifically the Léon Courtin-Marcelle Bouché Fund) was able to purchase the manuscript for an undisclosed amount and has allowed the Alamire Foundation to keep the manuscript on permanent loan.<sup>42</sup>

The Leuven Chansonnier is a fifteenth century polyphonic songbook thought to have been created in the Loire Valley region of France sometime around 1470-1470. The book is small, only about 12 cm tall and 8.5 cm wide, and is in good, undamaged condition with its original binding.<sup>43</sup> Whether the remarkable condition of the book is due to being well taken care of or lack of use, it is quite fortunate to find a Loire Valley songbook in such good

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<sup>37</sup> “Leuven Chansonnier,” Vimeo video.

<sup>38</sup> “Home,” IDEM: Integrated Database for Early Music, Alamire Foundation, accessed July 29, 2021, <https://idemdatabase.org/>.

<sup>39</sup> “Leuven Chansonnier,” Vimeo video.

<sup>40</sup> “Leuven Chansonnier,” Vimeo video.

<sup>41</sup> “Leuven Chansonnier,” Vimeo video.

<sup>42</sup> David J. Burn, *Leuven Chansonnier : Study* (Antwerp: Davidsfonds Uitgevers, 2017), 11.

<sup>43</sup> Burn, *Leuven Chansonnier: Study*, 13-31.

condition.<sup>44</sup> Burn points out that three of the five currently known songbooks from the Loire Valley have been rebound and all (except for the Leuven Chansonnier) are missing pages.<sup>45</sup> The Leuven Chansonnier contains forty-nine French songs (forty-three *rondeaux* and six *virelais*) and one Latin work, all by Franco Flemish composers such as Johannes Ockeghem, Antoine Busnoys, and Gilles Binchois.<sup>46</sup> While thirty-eight of the pieces were previously known from other sources, the other twelve were previously unknown.<sup>47</sup>

The Chansonnier is too small to have been used for performance. David Burn suggests that instead it was likely intended for an individual to read or contemplate the pieces privately.<sup>48</sup> One clue to the manuscript's original owner is an illuminated coat-of-arms on the front inner flyleaf associated with the House of Savoy.<sup>49</sup> However, there is evidence to suggest that the arms were not a part of the book's original decoration.<sup>50</sup> While the true owner is not known, perhaps the coat-of-arms could still prove useful in finding them. To ensure that the Leuven Chansonnier could be easily studied, performed, and viewed, the Alamire Foundation used the Digital Lab to take high quality digital images so that it could be made available digitally on IDEM in April 2017 and through a published facsimile edition in September 2017.<sup>51</sup>

In contrast to the British Library's Digitised Manuscripts site, I found that IDEM is well optimized for modern screens. The content is well centered on the screen and is organized so that most of it can be accessed with minimal scrolling. For the digitized Leuven Chansonnier, there are various paratexts to examine. Particularly the metadata, the list of information regarding the look, origin, and content of the manuscript. For each manuscript, IDEM has information regarding manuscript label, holding institution, shelfmark, format, category, content, authors/composers, language, origin, date range, support, folios, size, miniatures, and bibliographic orientation.<sup>52</sup> Each of these elements is labeled with text in a different color of font (dark orange to match the Alamire logo) and are spaced vertically for

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<sup>44</sup> Burn, *Leuven Chansonnier: Study*, 30.

<sup>45</sup> Burn, *Leuven Chansonnier: Study*, 30.

<sup>46</sup> Burn, *Leuven Chansonnier: Study*, 35.

<sup>47</sup> Burn, *Leuven Chansonnier: Study*, 36-45.

<sup>48</sup> Burn, *Leuven Chansonnier: Study*, 13.

<sup>49</sup> Burn, *Leuven Chansonnier: Study*, 29.

<sup>50</sup> Burn, *Leuven Chansonnier: Study*, 29.

<sup>51</sup> Sigrid Somers, "New Documentary Offers Unique Look into Leuven Chansonnier and Research by the Alamire Foundation," trans. Shana Michiels, *KU Leuven*, August 26, 2020, <https://nieuws.kuleuven.be/en/content/2020/new-documentary-offers-unique-look-into-leuven-chansonnier-and-research-by-the-alamire-foundation>.

<sup>52</sup> "B-AF-ms-1 [Leuven Chansonnier]," IDEM: Integrated Database for Early Music, accessed July 29, 2021, <https://www.idemdatabase.org/items/show/166>.

easy reading. Each manuscript also features two thumbnail images that can be used to further identify the manuscript. Users can either click on these images or the link at the bottom of the page to go to the image viewer and view the fully digitized manuscript. The bottom of the page also features a link for “More Metadata” which leads to CollectiveAccess, one of the databases that will be integrated with IDEM in the future.<sup>53</sup>

The Alamire Foundation acknowledges the importance of these paratextual elements in IDEM and clarifies that “The database core is surrounded by interrelated sub-databases that will eventually contain information about every aspect of the manuscripts and books concerned, including their physical characteristics, their content and illumination, as well as recordings, editions and so-called 'fake-similes' (adapted versions of the original images, facilitating performance from the original notation).”<sup>54</sup> Currently, however, these interrelated sub-databases have yet to be fully implemented into the core database. This makes the “archaeology” of the current project more limited but illustrates how some of these online resources will continue to develop and change in the future. IDEM, once finished, will ideally allow for a more dynamic user experience. It is encouraging to see that the Alamire Foundation’s IDEM is public about their intention to continue to evolve and adapt well into the future. Indeed, if digitizations are more than images, then such flexibility and forward thinking should be an integral part of other digitization efforts.

The expressed mission of IDEM is not solely research and the intended users are not only musicologists and researchers in the humanities.<sup>55</sup> Rather the end goal is “providing material that enables the consultation of manuscript and printed sources from multiple perspectives and at different levels.”<sup>56</sup> To do so, IDEM has been created to hopefully become an “online, freely accessible platform and tool for the preservation, study and valorisation of the music heritage of the Low Countries.”<sup>57</sup> While the result may be that these images are often used for research, IDEM and the Alamire Foundation acknowledge that their database also serves as an interface for important items of musical heritage and should be treated as such.

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<sup>53</sup> “CollectiveAccess,” IDEM: Integrated Database for Early Music, Alamire Foundation, accessed July 27, 2021, <https://idemdatabase.org/collectiveaccess>.

<sup>54</sup> “Home,” IDEM.

<sup>55</sup> “Home,” IDEM.

<sup>56</sup> “Home,” IDEM; Burn, *Leuven Chansonnier: Study*, 8-9.

<sup>57</sup> “Home,” IDEM.

## Heritage and the Alamire Foundation

Another way in which the digitized early music manuscripts by the Alamire Foundation differ from those at the British Library, is how the Foundation and IDEM approach “heritage.” It was noted in chapter 3 that the British Library, despite using funds for cultural heritage and treating the Purcell manuscripts as national and cultural heritage, appears to avoid referring to them directly as “heritage” on the website or promotional materials. The Alamire Foundation, on the other hand, clearly states that the manuscripts and books that they digitize and work with are musical heritage.<sup>58</sup> The Alamire Foundation and the other institutions that it is involved with such as CEMPER make it very clear that they are a part of the heritage industry, the industry responsible for preserving and presenting heritage to the broader public.<sup>59</sup>

Alongside preservation and accessibility, a notable goal of the Alamire Foundation and IDEM is “valorisation,” or creating value for these heritage items. Heritage does not intrinsically have meaning or value; these characteristics are imparted upon it and must be practiced.<sup>60</sup> The Alamire Foundation does not rely on one method but rather several different methods of valorization which also act as preservation methods, such as facsimiles, performance, and digitization.<sup>61</sup> The Foundation also does not limit its activities and mission to Belgium or even just Europe. For example, the Leuven Chansonnier has received some attention in the United States, as well, as seen by the *Chicago Tonight* news segment referenced earlier. Shortly after the digitized edition was made available, the manuscript was brought to the Morgan Library in New York on June 11, 2017 to be exhibited.<sup>62</sup> Information about the digitized manuscript was also shared to the official account of the Government of Flanders, Belgium in the USA.<sup>63</sup> The manuscript has become not only an “ideal ambassador for Franco-Flemish polyphony” but also a new tool to use to increase awareness of the work that the Alamire Foundation does for preserving and promoting musical heritage to audiences outside of academia.<sup>64</sup>

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<sup>58</sup> “History,” Alamire Foundation.

<sup>59</sup> Stuart Hall, “Whose Heritage? Un-settling ‘The Heritage’, Re-imagining the Postnation,” in *The Politics of Heritage: The Legacies of Race*, ed. Jo Littler and Roshi Naidoo, (London: Routledge, 2005), 21.

<sup>60</sup> Laurajane Smith, *Uses of Heritage*, (London: Routledge, Taylor & Francis Group, 2006), 11-13.

<sup>61</sup> Somers, “New documentary.”

<sup>62</sup> Somers, “New documentary.”

<sup>63</sup> Flanders in the USA, “Newly discovered polyphony - The Leuven Chansonnier In 2015, a music manuscript in private possession was brought to the Alamire Foundation,” Facebook, July 15, 2017, <https://www.facebook.com/FlandersHouse.NewYork/photos/newly-discovered-polyphony-the-leuven-chansonnier-in-2015-a-music-manuscript-in-/10159070841305088/>.

<sup>64</sup> Burn, *Leuven Chansonnier: Study*, 8-9; “Leuven Chansonnier,” Vimeo video.

In the forward to the *Leuven Chansonnier: Study*, David Burn and Bart Demuyt state that “while digital resources are in principal open to all, they nonetheless in practice often remain forbiddingly unapproachable to non-experts.”<sup>65</sup> The Alamire Foundation has set out to make early musical heritage from the Low Countries more broadly accessible through their efforts to provide more historical context and additional information through metadata and integrated databases.<sup>66</sup> For example, IDEM is planned to someday include “recordings, modern editions, and reference-tools for understanding earlier notations and their associated conventions.”<sup>67</sup> This will greatly aid in making the database more appealing and useful for broader audiences, while still also being usable for researchers.

As aptly stated by Burn, “Digitization is not simply photography, and not an end in itself.”<sup>68</sup> This statement similarly reflects the views of Zdeněk Uhlíř stated in the introduction of this thesis.<sup>69</sup> Digitization is far more than simply images, particularly when it concerns items of musical heritage. At the same time, Burn states that “digital engagement with sources alone masks important aspects of their materiality, such as the effect of their variable sizes on their functions and the experience of reading them as books.”<sup>70</sup> While digital sources may not have the same materiality as a physical manuscript, digital sources arguably have their own new type of materiality that can be interacted with in new and different ways.<sup>71</sup> The future plans of IDEM to create a more dynamic database will only further explore the possibilities of digital materiality.

## **IDEM and Sustainability**

When IDEM was started in 2014 with funding from the Hercules Foundation the central database was developed by LIBIS.<sup>72</sup> LIBIS is affiliated with the KU Leuven Libraries and offers various services and web applications for heritage and education organizations.<sup>73</sup> The infrastructure of the IDEM project consisted of several LIBIS products such as Teneo,

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<sup>65</sup> Burn, *Leuven Chansonnier: Study*, 8-9.

<sup>66</sup> Burn, *Leuven Chansonnier: Study*, 8-9; “Home,” IDEM.

<sup>67</sup> Burn, *Leuven Chansonnier: Study*, 8-9.

<sup>68</sup> David Burn, email message to author, April 27, 2021.

<sup>69</sup> Zdeněk Uhlíř, “Digitization is Not Only Making Images: Manuscript Studies and Digital Processing of Manuscripts,” *Knygotyra* 51 (2008): 159, <https://doi.org/10.15388/kn.v51i0.7895>.

<sup>70</sup> Burn, *Leuven Chansonnier: Study*, 8.

<sup>71</sup> Fiona Cameron, “Beyond the Cult of the Replicant: Museums and Historical Digital Objects—Traditional Concerns, New Discourses,” in *Theorizing Digital Cultural Heritage: A Critical Discourse*, eds. Fiona Cameron and Sarah Kenderdine, (Cambridge, MA: The MIT Press, 2007), 57-58.

<sup>72</sup> “IDEM - Integrated Database for Early Music,” Praktijkvoorbeelden Heron, LIBIS, accessed July 17, 2021, [http://www.libis.be/alamirefoundation\\_idem/](http://www.libis.be/alamirefoundation_idem/).

<sup>73</sup> “Over LIBIS,” LIBIS: Into Info, accessed July 14, 2021, <http://www.libis.be/libis/over-libis>.

Omeka, and CollectiveAccess.<sup>74</sup> It also uses the Mirador image viewer, an open source application developed by Stanford University, Universität Leipzig, Princeton University and Harvard University.<sup>75</sup> This image viewer allows for deep zoom, analysis, and annotation of digital images.<sup>76</sup> It is also compliant with the International Image Interoperability Framework (IIIF) and provides a clear display of the metadata that accompanies each digitization.<sup>77</sup> One major advantage of the Mirador viewer is that it also allows for users to compare images side by side, even images from different items and institutions.<sup>78</sup> Not only does the image viewer greatly improve the user experience of IDEM, but LIBIS has also integrated it with Teneo, their preservation service.<sup>79</sup>

Teneo is an “e-depot” used for the storage and preservation of digital objects. It advertises that it complies with international standards for digital preservation and that the files are stored and backed up on multiple carriers and locations.<sup>80</sup> It also includes persistent identification where each object is assigned a unique code or identifier that should allow it to be located in the long term.<sup>81</sup> These types of identifiers have existed before digital materials in the form of International Standard Book Numbers (ISBN), International Standard Serial Numbers (ISSN), and International Standard Music Numbers (ISMN).<sup>82</sup> While URLs (Uniform Resource Locators) are often used to identify and located web-based digital materials, URLs and the content that they point to can frequently change.<sup>83</sup> Thus, persistent identifiers were developed for digital materials to prevent them from becoming inaccessible. One example of this is DOIs (Digital Object Identifiers) which have become frequently used by academic journals and ebooks.<sup>84</sup>

While Teneo is responsible for the preservation and security of IDEM’s digital materials, Omeka, is the web publishing platform that is responsible for the layout and features of the website.<sup>85</sup> While the preservation of the digital materials and the sustainability

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<sup>74</sup> “Teneo: Preservatie van Digitale Bestanden,” Lias, LIBIS: Into Info, accessed July 17, 2021, <http://www.libis.be/teneo/>.

<sup>75</sup> “Introducing Mirador 3: The Next Generation Image Comparison Viewer,” *Stanford Libraries Blog*, May 2, 2019, <https://library.stanford.edu/blogs/stanford-libraries-blog/2019/05/introducing-mirador-3-next-generation-image-comparison-viewer>.

<sup>76</sup> “Introducing Mirador 3.”

<sup>77</sup> “Introducing Mirador 3.”

<sup>78</sup> “Introducing Mirador 3.”

<sup>79</sup> “Mirador (IIIF),” LIBIS: Into Info, accessed July 18, 2021, <http://www.libis.be/mirador-iiif-en/>.

<sup>80</sup> “IDEM - Integrated Database for Early Music,” *Praktijkvoorbeelden Heron*.

<sup>81</sup> Ross Harvey and Jaye Weatherburn, *Preserving Digital Materials*, (Lanham, Maryland: Rowman & Littlefield), 83-84.

<sup>82</sup> Harvey and Weatherburn, *Preserving Digital Materials*, 83.

<sup>83</sup> Harvey and Weatherburn, *Preserving Digital Materials*, 83.

<sup>84</sup> Harvey and Weatherburn, *Preserving Digital Materials*, 84.

<sup>85</sup> “IDEM - Integrated Database for Early Music,” *Praktijkvoorbeelden Heron*.

of these efforts are important, the appearance and usability of the website is also critically important. As stressed previously, this serves as the interface between the designer and the reader to further contextualize and transmit the digitized sources. Overall, IDEM has found a balance between simplicity, usability, and aesthetics. It is clear, easily readable, and very user-friendly. The simplicity and attention to detail are likely due to the database being quite small, with only 72 digitized manuscripts and books. Where larger online archives might struggle with sorting and dividing information in a way that is not overwhelming or confusing to users, on IDEM, all the digitized sources can be listed on one page. These sources are sorted by the repository where the physical sources are located.<sup>86</sup> Alternatively, users can also sort by category: polyphony, plainchant, or carillon.

Finally, there is also the CollectiveAccess database, a secondary database for storing additional metadata and research materials. The expressed mission of the website stated on the homepage is first and foremost to be “an interdisciplinary, multifaceted database of manuscripts and printed books that are relevant to the Alamire Foundation's research and activities.”<sup>87</sup> Currently, the database is still in the early phases of its construction and will include links to connected databases and additional resources such as transcriptions, translations, and recordings.<sup>88</sup> There are two sets of metadata for the digitized manuscripts: a basic set which would be available on IDEM and then a more detailed set that will be available on CollectiveAccess.<sup>89</sup> As stated previously, the metadata collected for IDEM is far very detailed and entries for the manuscripts are standardized so that there are no manuscripts with significantly more or less information available.

Overall, IDEM has a clearly defined plan to ensure that their digitizations are digitally preserved and that these practices are sustainable. Much of the work of designing and ensuring preservation is done by LIBIS, rather than the Alamire Foundation itself, which allows for the Foundation to focus on research, exhibitions, and other events that they arrange. There also are plans to continue to update and evolve the website as it grows, thus perhaps suggesting that the database will be able to keep up with changing technologies. The biggest concern appears to be funding, since there are no steady streams of funds, as well as time and manpower.<sup>90</sup> Even if some parts of the website design and preservation are taken

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<sup>86</sup> “Browse & Search,” IDEM: Integrated Database for Early Music, Alamire Foundation, accessed July 27, 2021, <https://idemdatabase.org/search>.

<sup>87</sup> “Home,” IDEM.

<sup>88</sup> David Burn, email message to author, May 19, 2021.

<sup>89</sup> David Burn, email message to author, May 18, 2021; “CollectiveAccess,” IDEM.

<sup>90</sup> David Burn, email message to author, April 27, 2021.

care of by a third party, many of the aspects of the database, such as the metadata, require the involvement of individuals who are very familiar with the manuscripts in question.

## **The Two Case Studies**

The two case studies examined in this thesis are not only representative of examples of digital early music heritage, but also of the institutions that created and promoted them. In contrast to the Alamire Foundation, the British Library is a much larger organization that cares for vast collections of books and manuscripts that are not musical or cultural heritage. Still, both institutions function to preserve and promote national heritage, although the British Library also has items from other heritages in its collections. Both institutions have also been working to digitize their collections and are concerned with sustainability and longevity of these digitizations. However, there are many notable differences between how the digitizations by the Alamire Foundation and the British Library are treated and intended to be used.

For example, as previously discussed, one of the main goals of the Alamire Foundation is to make IDEM more accessible to those outside of musicology and academia. The Digitised Manuscripts website, on the other hand, is more directed towards scholars and researchers. For example, on the “About” page of the Digitised Manuscripts website, there are brief descriptions of some of the various collections of digitized manuscripts available on the website. These summaries include statements such as “providing access to all who would like to do research on them,” and “these manuscripts were chosen based on their importance for current research.”<sup>91</sup> While some features such as the Treasures Gallery and Timeline are meant for the more general public, the digitizations on this database appear to be primarily intended for researchers.

Another key difference noticed between the collections was the presentation of the databases and the quality of the metadata. The metadata elements for the digitizations on IDEM is very detailed and tailored specifically to early music, while the metadata on Digitised Manuscripts is much more general, as seen in figure 3.

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<sup>91</sup> “About,” Digitised Manuscripts, The British Library, accessed July 5, 2021, <https://www.bl.uk/manuscripts/About.aspx>.

IDEM	Digitised Manuscripts
Manuscript Label	Date
Holding institution	Title
Shelfmark	Content
Format (general)	Languages
Format (specific)	Physical Description
Category	Ownership
Content	Bibliography
Authors/composers	
Language	
Origin (country/region)	
Origin (city/location)	
Date range	
Support	
Folios	
Size	
Miniatures	
Bibliographical orientation	

Figure 3 – A comparison of the manuscript metadata elements on the Alamire Foundation’s IDEM and the British Library’s Digitised Manuscripts database

However, the metadata elements on the Digitised Manuscripts website are also capable of encompassing multiple elements. For instance, details such as “support,” “parchment,” “folios,” and “size,” which are all individual elements on IDEM, could all be considered to be a part of the “physical description” descriptive element on Digitised Manuscripts. Ultimately it is a matter of differing design and layout choices. These choices, however, can be very influential in how the web page is received and understood.

It is possible that IDEM's smaller and more focused collections have allowed for them to spend more time on each individual item, thus allowing for more meticulous and standardized metadata. Meanwhile, Digitised Manuscripts contains a vast collection of many different types of manuscripts from the early Middle Ages to the eighteenth century. To put

the same amount of effort into a collection of digitizations as large as the British Library would take an exceptional amount of time and manpower. Even the Alamire Foundation had to determine what metadata could be gathered quickly and what would have to wait.<sup>92</sup> Rather, this highlights the advantages and disadvantages of having institutions of different sizes and roles work towards digitizing their collections. IDEM is also designed by a separate company (LIBIS) with products that claim to be easily adaptable and updated to match the institution's needs and technological advances.<sup>93</sup> Meanwhile, the British Library is largely in charge of its own services and infrastructure.<sup>94</sup>

Ultimately, the two institutions and their digitizations appear to have different end goals. While both are utilizing digitization as a method of preservation and increasing access and visibility of their collections, the British Library's Digitised Manuscripts website is more geared towards research, while the Alamire Foundation's IDEM is dedicated to both aiding research and reaching audiences beyond academics and researchers. The Alamire Foundation also dedicates a considerable amount of resources to performing and researching these materials themselves. While the British Library appears to be behind on adapting to changing technologies, the Alamire Foundation are looking forward to investing in new and progressive technologies such as virtual reality.<sup>95</sup>

There are many new possibilities for digital early music heritage, such as the Reflectance Transformation Imaging, three-dimensional imaging, and virtual reality.<sup>96</sup> For example, the Virtual Music Heritage project in Tours, France has been making strides in raising awareness to early musical heritage through interactive exhibits that make use of sound spatialization and three-dimensional imaging to recreate early modern sights and sounds.<sup>97</sup> Technology rapidly changes and it can be difficult to anticipate how things will change and when. Digitizations as they are currently known may only be the beginning. It would be beneficial to begin reflecting upon the current state of digitization and digital archives and how they both reflect on the present and influence the future.

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<sup>92</sup> David Burn, email message to author, April 27, 2021.

<sup>93</sup> "IDEM - Integrated Database for Early Music," *Praktijkvoorbeelden Heron*.

<sup>94</sup> Mia Ridge, "Mia Ridge (British Library) - IIF British Library Viewer and Manifest," *Towards a National Collection*, July 7, 2021, YouTube video, 3:42, <https://www.youtube.com/watch?v=-IHQJYJUYVs>.

<sup>95</sup> *Leuven?! Unveiling a Creative City in 8 Stories*, 143.

<sup>96</sup> Bill Endres, *Digitizing Medieval Manuscripts*, (Leeds: Arc Humanities Press, 2019), 7-46.

<sup>97</sup> "About Us," *Virtual Music Heritage*, accessed July 9, 2021, <https://virtual-music-heritage.fr/about-us/>.

## Conclusion

As a result of the COVID-19 pandemic, many musicologists and other researchers have had to rely heavily upon digital media and digitizations. With many archives and libraries rendered inaccessible, the availability and prevalence of digitized sources was not only useful but necessary. Through these digitizations, it was possible to continue researching and performing even from home. In this thesis, I shed light on how digitizations of early music manuscripts can be examined to better understand current perceptions about musical heritage and history. To do so I examined the sustainability, current practices, and background of two case studies: the digitized Leuven Chansonnier, held by the Alamire Foundation, and two Purcell manuscripts, R.M. 20.h.8 and the Purcell-Draghi manuscript (MS Mus. 1), both held by the British Library.

In chapter 1 I addressed the history and context of the concept of “heritage” so that it could be better situated within the field of musicology. I illustrated that heritage is very difficult to define and has changed definitions and connotations over many years. Generally, however, it is defined as a “fabrication” or “mental construct” that gives significance to things from the past to serve the purposes of the present.<sup>1</sup> Originally, “heritage” and its conservation primarily concerned tangible artifacts, such as architecture and physical objects.<sup>2</sup> Later, it would come to also encompass intangible objects such as traditions and music.<sup>3</sup> While heritage can be problematic, due to its tendency to “selectively forget” and “upgrade” history, it is also something that can benefit societies as a source of identity and stability.<sup>4</sup> This also means that heritage can play a role in nationalism and perpetuating colonialism by favoring some histories over others, so it must be approached cautiously. I did find that there have been many efforts to try to find a solution to the Eurocentrism in the heritage industry and heritage studies.<sup>5</sup>

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<sup>1</sup> William Logan, Máiréad Nic Craith, and Ullrich Kockel. “The New Heritage Studies: Origins and Evolution, Problems and Prospects,” in *A Companion to Heritage Studies*, eds. William Logan, Máiréad Nic Craith, and Ullrich Kockel, (West Sussex, UK: Wiley-Blackwell, 2015), 1; David Lowenthal, “Fabricating Heritage,” *History and Memory* 1, no. 10 (1998): 5-24, <https://www.jstor.org/stable/25681018>.

<sup>2</sup> Logan, Nic Craith, and Kockel. “The New Heritage Studies,” 2.

<sup>3</sup> Barley Norton and Naomi Matsumoto, “Introduction: Historical and Ethnographic Perspectives on Music as Heritage,” in *Music as Heritage Historical and Ethnographic Perspectives*, eds. Barley Norton and Naomi Matsumoto (London: Routledge, 2019), 1-2.

<sup>4</sup> Lowenthal, “Fabricating Heritage,” 11-12.

<sup>5</sup> Logan, Nic Craith, and Kockel, “The New Heritage Studies,” 18.

In chapter 2 I discussed the unique advantages and challenges of dealing with early musical heritage in the digital age. Digitization has many benefits and potentials to improve, but it also requires a considerable amount of work and funding to sustain.<sup>6</sup> I also addressed the discussions regarding whether digital objects have their own type of materiality and how scholars such as Mak argue that the digital page can be examined in similar ways to their analogue counterparts. In this chapter I also described my methodology, which is based on Mak's "Archaeology of a Digitization" in which she suggests performing an "archaeology" or "excavation" of digitizations to discuss the ways that these objects are created, treated, and circulated.<sup>7</sup> While Mak used this method to examine Early English Books Online, I was able to illustrate how Bonnie Mak's "archaeology" method of exploring the materiality and ability of digitizations to transmit ideas is just as applicable to musicology as it is to literary studies.<sup>8</sup>

In the following two chapters I found that through excavating the layers of paratexts and epitexts in the form of web pages, metadata, newspapers, and documentaries I found that it is possible to dig up information and piece it together to realize the contexts and processes that these digitizations of early music manuscripts are created in. By looking at not only the information within sources but the sources themselves and the circumstances under which they were created and preserved, we are able to better understand the world they existed in. I found that the institutions involved, the British Library and Alamire Foundation, played major roles as agents of these digitizations and the ways that they were presented and promoted through the institutions' websites and media. Both case studies illustrated institutions that sought to use their digitizations as ways to not only aid research but also to promote British and Franco-Flemish national heritage.

R.M. 20.h.8 and the Purcell-Draghi manuscript were used by the British Library to draw attention to Henry Purcell as one of the "greatest English composers" who could stand alongside other "great" composers.<sup>9</sup> A further examination of the context of these Purcell autograph digitizations revealed that there was still a focus on the classical music canon and "great men" in the library's promotional and educational materials. These digitizations highlighted that even in digital form, musical heritage is used to serve political agendas. It is

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<sup>6</sup> Kevin Bradley, "Defining Digital Sustainability," *Library Trends* 56, no. 1 (Summer 2007): 148-163, doi:10.1353/lib.2007.0044.

<sup>7</sup> Bonnie Mak, "Archaeology of a Digitization," *Journal of the Association for Information Science and Technology* 65, no. 8 (2014): 1515, <https://doi.org/10.1002/asi.23061>

<sup>8</sup> Mak, "Archaeology of a Digitization," 1515-1526.

<sup>9</sup> Robert Thompson, *The Glory of the Temple and the Stage: Henry Purcell (1659-1695)*, (London: The British Library, 1995), 5.

also worth considering how digitized musical heritage is influenced by and perpetuates certain status quos, such as the classical music canon.

The Leuven Chansonnier was also digitized with the intention of promoting a specific national heritage, although Franco-Flemish rather than British. However, the Alamire Foundation's specific focus is on musical heritage from the Low Countries, while the British Library holds much larger collections that include other heritages. The Alamire Foundation used the publicity around the discovery and digitizations of the Leuven Chansonnier to draw more attention to their online platforms and make the case that early music heritage should be made available and understandable to the public as well as researchers.<sup>10</sup> In chapter 1, it was discussed how the access to and ability to enjoy heritage is considered to be a human right.<sup>11</sup> Do institutions who are a part of the heritage industry have an obligation to make heritage available digitally so that it can be more easily accessed? What responsibilities do these institutions hold for the ways that they use and portray digital heritage? These are just some of the questions that have been brought up by this archaeology and can potentially be answered through future archaeologies.

There are many possible directions for future research. My aim was to illustrate that the "archaeology" method proposed by Bonnie Mak could also be applied to musicology and other fields outside of literary studies. For example, this method could also be potentially useful for medieval and early modern studies, which also have increasingly come to use digitized books and manuscripts. This method can be applied to other digitizations of manuscripts or books, as well as other institutions. For example, how would the Bibliothèque nationale de France compare to the British Library in its treatment of digitized early music heritage? It would be fascinating to apply this method to projects that involve other types of digital early musical heritage such as the Virtual Music Heritage project in Tours, which deals with the performance, architecture, and acoustics of early music heritage rather than manuscripts.<sup>12</sup> Furthermore, it would be worthwhile to consider how digitization and digital media are used to preserve and promote non-European and non-Western musical heritages.

Digitizations and digital sources are becoming more relied upon than ever before. These technologies are incredibly useful and have encouraged so much innovation in musicology and other fields. It is so fortunate that these online resources are often so easily

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<sup>10</sup> David J. Burn, *Leuven Chansonnier: Study* (Antwerp: Davidsfonds Uitgevers, 2017), 8-9.

<sup>11</sup> "The Destruction of Cultural Heritage is a Violation of Human Rights – UN Special Rapporteur," News, United Nations Human Rights Office of the High Commissioner, March 4, 2016, <https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?Newsid=17151&Langid=E>.

<sup>12</sup> "About Us," Virtual Music Heritage, accessed July 9, 2021, <https://virtual-music-heritage.fr/about-us/>.

accessible and for free. However, the information portrayed by these digitizations are not the only things that can be studied. The process that institutions undertake to of create, contextualize, and promote digitizations is also a subject that deserves more attention, particularly in musicology. By performing these archaeologies I aim to highlight that digitizations are more than just digital images, but are representations of musical heritage that can be further examined and discussed for how they reflect upon current perceptions about the past.

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