SEEING IS BELIEVING: THE ONGOING SIGNIFICANCE OF SYMBOLIC REPRESENTATIONS OF MUSICAL WORKS IN COPYRIGHT INFRINGEMENT DISPUTES

CHARLES CRONIN*

INTRODUCTION

Roughly a thousand years ago, music in the West was communicated exclusively orally.[1] Toward the end of the first millennium, the Roman Church's interest in establishing its authority throughout Christendom led to the development of music literacy — "the great[est] watershed in musical development."[2] Using visual symbols ("neumes") to indicate the contours of melodies to be sung to specific liturgical texts, the Church established uniformity of practice

* B.M. Oberlin; J.D. American University; M.A., Ph.D. Stanford; MIMS, Berkeley; lecturer in law, University of Southern California, ccronin@law.usc.edu. Sincere thanks to Prof. Kristelia Garcia of the University of Colorado Law School, and the participants in the lively music and copyright conference she organized there March 2017.

1. *See* 1 RICHARD TARUSKIN, THE OXFORD HISTORY OF WESTERN MUSIC 1–45 (2009).
2. *Id.* at 1.

among monastic orders throughout Europe.[3] The Church ensured thereby that all monastic orders would be literally "on the same page" as their Roman brethren while chanting Latin liturgical texts.[4]

Visible symbols enabled not only the recording of musical information for plainchant, but also eventually the creation of more complex works. In oral transmission, music is conveyed only over time; in visible notation music is also represented in space, which allows authors and performers greater control than otherwise over the elements comprising it, like melody and rhythm. Accordingly, the evolution of music notation has been roughly coincident with the developing intricacy of musical works over centuries.

Early neumatic notation that provided only general melodic profiles evolved into diastematic neumes that more precisely indicated the intervals between sung pitches.[5] Later, mensural notation indicating the relative length of notes was a natural outgrowth of—and a necessity for performing—another advancement, polyphony, in which two or more lines are performed simultaneously.[6] Accordingly, the early development of notation tracks the evolution of the fundamental elements of Western music: melody, harmony, and rhythm.

Over centuries music notation became increasingly a means to record not only purely musical information, but also guidance for performing works. By the end of the nineteenth century, musicians like Richard Strauss and Gustav Mahler, using words and musical symbols, qualified virtually every pitch of their voluminous scores with performance instructions.[7]

Through the first half of the twentieth century dissemination of both serious and popular works of music was mainly effected through scores or "sheet music."[8] The development of audio recording and broadcasting technologies at that time, however, gradually lessened the importance of scores for distribution, particularly for popular works.[9] During the latter half of the century, audio recording

3. *Id*. at 207.

4. *See id*. (the four simplest neume-like symbols are still used in Catholic liturgical books). *See also* WILLI APEL, THE NOTATION OF POLYPHONIC MUSIC, 900–1600 88 (4th ed. 1953).

5. *See* THE OXFORD COMPANION TO MUSIC (Alison Latham ed., 2002).

6. *See* Ian D. Bent et al., *Notation*, GROVE MUSIC ONLINE (JAN. 20, 2001), https://doi.org/10.1093/gmo/9781561592630.article.20114 [https://perma.cc/UHD8-9ET9].

7. *See, e.g.*, Gustav Mahler, *Symphony No. 1 in D Major (Titan)*, N. Y. PHILHARMONIC, http://archives.nyphil.org/index.php/artifact/d629e8eb-d756-41d1-bf8d-7ad5d2c13cfc/full view#page/4/mode/2up (last visited Feb. 24, 2018) [https://perma.cc/8SWX-JHJW].

8. "Sheet music" refers to a publication of a single musical number, typically a popular song, in which the accompaniment is reduced to a single instrument, often a piano or guitar. *See* Nicholas Tawa, *Sheet music*, GROVE MUSIC ONLINE (Jan. 31, 2014), https://doi.org/10.1093/gmo/9781561592630.article.A2257275 [https://perma.cc/AAG8-YCHG].

9. *See* Charles Cronin, *I Hear America Suing: Music Copyright Infringement in the Era of Electronic Sound*, 66 HASTINGS L.J. 1187, 1213–15 (2015) (noting that these technologies played a steadily expanding role in the authorship of primary musical elements like melody and harmony as well as secondary elements like timbre, volume, tempo, and duration).

technology gradually not only eviscerated the sheet music market, but also radically changed how most popular music is created.[10]

By the 1960s and 70s, audio recording machinery that could capture sound very accurately had become easy to operate, and universally available at low cost.[11] By the end of the century, digital technologies further provided consumers not only essentially cost-free, high-quality audio recording software, but also a virtually limitless repertory of electronically produced sounds.[12] These audio technologies have enabled virtually anyone to create a musical work, just as digital video technologies have capacitated anyone to create a movie. However, because the primary purposes of these technologies are to record and produce *sound*, the appeal of works created using these technologies tends to lie more in sonic/performance elements, rather than more purely musical ones.

Advances in sound production and recording technologies have democratized the creation of popular music, but the near universal adoption of them implicates limitations of pre-literate musical traditions. Musicians who assemble works in a purely linear fashion from sequences of recorded sounds cannot access the space, or long-range perspective, of visual representations that enable the creation of more musically complex works.

To some degree, changing technologies have always affected both the creation and the content of musical works.[13] Should this change in content, and specifically an increased focus on sound, style, and performance elements, in popular works today modify how we evaluate claims of copyright infringement involving these works? Many commentators have asserted that courts' long-standing focus on similarities of melody, harmony, and rhythm in determining infringement is an obsolete vestige of a bygone era in which popular music was created and distributed through scores.[14]

Part I of this Article addresses how technologies have affected the creation and copyrightable content of musical works, and how these changes have influenced adjudication of, and commentary on, recent music copyright infringement disputes. It argues that while the relative significance of constituent elements of popular music has

10. *Id*.

11. *See* Steve Schoenherr, *Recording Technology History*, AUDIO ENGINEERING SOC'Y (July 6, 2005), http://www.aes-media.org/historical/html/recording.technology.history/notes.html [https://perma.cc/4CU4-B6C7].

12. *Id*. *See also* EDUARDO R. MIRANDA, COMPUTER SOUND SYNTHESIS FOR THE ELECTRONIC MUSICIAN (1998) (providing technical information about the production of synthesized sound, and an overview of the capabilities of various software programs enabling such production).

13. *See, e.g.*, CRAIG H. ROELL, THE PIANO IN AMERICA, 1890–1940 (1991) (observing how new technologies like the phonograph and player piano made musical works ubiquitous but also risked trivializing them).

14. *See infra* note 39.

changed significantly since the Tin Pan Alley era of sheet music publishing in the early twentieth century, what constitutes protectable expression for musical works has not. A consistent understanding of the protectable scope of musical numbers—whether a liturgical chant, a symphony by Mahler, or a hip-hop song —should therefore be based upon the long-established view of melody, harmony, and rhythm as *sine quibus non* of musical works.

Part II discusses music notation's ongoing significance in informing our understanding of the musical quotient of a work, while Part III considers the essential question of what constitutes a copyrightable work of music. Part IV concludes by reiterating the recommendation that copyright protection should be limited to the melody, harmony, rhythms, and words of popular songs, all of which can be precisely communicated through visual notation.

I. TECHNOLOGY AND MUSIC

A. Creation, Distribution, and Enjoyment of Works of Music

Technological developments have always influenced not only how expressive works in various genres are created, but also, particularly for works of the performing arts, their content. Ballet choreography, for instance, was significantly affected by the development of the toe shoe early in the nineteenth century.[15] Likewise, the pitch and dynamic ranges of works written for the piano broadened as a result of enhancements to this instrument during the same century.[16]

In the twentieth century, recording and communication technologies particularly influenced the production and consumption of dramatic works and popular music.[17] Technologies for capturing moving images and sounds similarly weakened their prior dependence upon live performances for widespread distribution.[18] As these recording technologies became increasingly accessible, the pool of potential authors of dramatic works grew apace.

Today, anyone can record, manipulate, and disseminate original moving images and sound. We have, moreover, access to vast stores of such images and sounds that we can readily incorporate into works of our own. This capacity, however, makes ambiguous the legally

15. *See* JANICE BARRINGER & SARAH SCHLESINGER, THE POINTE BOOK: SHOES, TRAINING, AND TECHNIQUE 2–6 (2004) (tracing the evolution of the pointe shoe to an earlier mechanical device that hoisted dancers off their feet using wires, to make them appear airborne).

16. *See generally* EDWIN M. GOOD, GIRAFFES, BLACK DRAGONS, AND OTHER PIANOS: A TECHNOLOGICAL HISTORY FROM CHRISTOFORI TO THE MODERN CONCERT GRAND (2d ed. 2002).

17. *See generally* DAVID SUISMAN, SELLING SOUNDS: THE COMMERCIAL REVOLUTION IN AMERICAN MUSIC (2009).

18. *See generally* WHEELER DIXON & GWENDOLYN FOSTER, A SHORT HISTORY OF FILM (2d ed. 2013).

protectable status of works so created. Many such creations are realizations of underlying works that have been documented in visible symbols like written words, music, or dance notation. Many others, however, as exemplified, for instance, by millions of YouTube postings, are recorded performances of otherwise undocumented original expression of the performer. For works produced exclusively using recording and communication technologies, it is, therefore, difficult to separate original content protectable as a dramatic work from performances protectable as audio-visual works.[19]

The same is true for works of popular music that have been created and fixed by songwriters/performers almost entirely as sound.[20] Before the era of recorded sound—and even into its early decades—popular songwriters, like composers of serious works, documented their works using music notation and written words.[21] Not surprisingly, both serious and popular musical works tended to be more akin than are those in these essentially antipodal genres today.[22]

Long before the era of audio recording and broadcasting, many who lived in rural locations, from which they rarely ventured, were familiar with major symphonic and operatic works, not to mention popular songs of their time. Without access to symphony orchestras, opera companies, or even professional musicians, residents of provincial locations may never have heard these works performed by the instrumental and vocal forces for which they were written. They could, and did, however, often become more intimately familiar with them by reading, playing, and singing their scores, typically at the piano.[23]

Audio recording, amplification, and broadcasting technologies made it possible for anyone anywhere to hear performances of serious and popular musical works, which used the instrumental and vocal

19. The U.S. Copyright Office instructs those registering works that contain more than one type of authorship to select the registration category corresponding to the work's predominant material. *See Help: Type of Work*, U.S. COPYRIGHT OFF., https://www.copyright.gov/eco/help-type.html (last visited Feb. 24, 2018) (registrations for musical works that are joined with a registration for a sound recording, however, are always to be registered using the sound recording category, regardless of the relative importance of the recorded performance and the underlying musical work) [https://perma.cc/5SZ5-AM85]; *See* DIXON & FOSTER, *supra* note 18.

20. *See* GOOD, *supra* note 16 (songwriters often initially write the words or "lyrics" of these songs).

21. *See generally* RUSSELL SANJEK & DAVID SANJEK, AMERICAN POPULAR MUSIC BUSINESS IN THE 20TH CENTURY (1988).

22. Film scores, like those of John Williams, are an example of popular music still created in the same manner, and sharing many of the same musical conventions, as serious works from the late Romantic era at the end of the nineteenth century.

23. Franz Liszt, for instance, created solo piano arrangements of all nine of Beethoven's symphonies, in part to accommodate music lovers without access to orchestral performances. *See* ALESSANDRA COMINI, THE CHANGING IMAGE OF BEETHOVEN: A STUDY IN MYTHMAKING 221 (1987).

forces their authors intended. While these technologies have fostered more passive consumption of musical performances—particularly of serious works—they ultimately also enabled many individuals without formal music training to become creators and performers—particularly of popular works.[24] Some creators of popular music have attempted to create works in serious genres, with typically embarrassing results.

B. Copyright

Audio technology's democratization of popular songwriting has mostly eliminated the once independent roles of creators and performers of popular music.[25] As the following discussion indicates, it has also led to greater collaboration among performers in the creation of new songs. These developments have been increasingly relevant in music copyright infringement disputes in which defendants support assertions of independent creation based on this collaborative approach.

In the well-known copyright dispute from the 1970s, the publisher of "He's So Fine," a hit from the 1960s, claimed George Harrison's "My Sweet Lord" (1970) infringed upon it.[26] "He's So Fine" had saturated the pop music space in the early 1960s and there was no question that Harrison had had an opportunity to hear it before creating his song. Harrison claimed, however, that he created his song without any influence of the earlier work, a contention he attempted to establish with evidence of the collaborative authorship of his work.[27]

"My Sweet Lord" was the product of a recorded jam session among several musicians initiated by Harrison's musical and verbal noodling.

We regard Harrison as the author—and original copyright owner—of the song, but given the improvisatory nature of such jam sessions, it is impossible to tease apart the musical contributions of the various collaborators to the work in its final form.[28] What is known from the recorded session is that while all the musicians with whom

24. *See* Graham Reid, *Paul McCartney Goes Classical (1993): An Oratorio for Everyman*, ELSEWHERE (Nov. 20, 2007), https://www.elsewhere.co.nz/absoluteelsewhere/476/paul-mccartney-goes-classical-1993-an-oratorio-for-everyman/ (noting that McCartney's musical contributions in *Liverpool Oratorio* were limited to what he sang to a musician he hired, who arranged his ideas in a coherent score) [https://perma.cc/T74M-MW6U].

25. *See generally* LARRY STARR & CHRISTOPHER WATERMAN, AMERICAN POPULAR MUSIC: FROM MINSTRELSY TO MP3 (2003).

26. Bright Tunes Music Corp. v. Harrisongs Music, Ltd., 420 F. Supp. 177 (S.D.N.Y. 1976).

27. *Id*. at 179.

28. *See id*. at 179 n.8 (Harrison didn't regard the content of the song as stable, but rather something that changed with each performance of it); *Richard Owens Obituary*, N.Y. TIMES (Nov. 26, 2015) (Owen was, perhaps, an exceptionally qualified judge for this dispute given that he was a highly educated musician, and author of nine operas).

Harrison was playing were likely familiar with Ronald Mack's "He's So Fine," none of them identified it while cobbling together "My Sweet Lord."[29]

The infringement claim against Harrison is widely known not only because of the defendant's fame, but also because of the court's singular finding of unconscious infringement by Harrison.[30] Despite Harrison's reliable testimony about his creative process, because he (and, presumably, members of his musical cohort) had had prior access to the plaintiff's work, the court found independent creation an insufficient defense given the musical commonalities of the two songs.[31]

In the 1980s the Bee Gees, a popular band at the time, were embroiled in a dispute factually similar to the 1970s litigation involving George Harrison.[32] Ronald Selle, an amateur musician with a garage band, claimed the Bee Gees' 1977 hit "How Deep Is Your Love" infringed "Let it End," a song he had created and performed some years earlier. As in the Harrison dispute, the music, and particularly the principal melody, of the Bee Gees' song was strikingly similar to that of the complaining work, and a jury found the band liable for infringement. The Seventh Circuit ultimately affirmed the trial court's exceptional rejection of this verdict.[33]

Like Harrison, the Bee Gees provided convincing evidence that they created their number using audio recordings of their collaborative improvisation that involved no reference to the plaintiff's work.[34] The Bee Gees' song is arguably as musically similar to Selle's, as Harrison's is to Ronald Mack's.[35] While Mack's song had been broadcast all over the world, Selle's number had not been heard beyond a few small venues in Chicago where Selle had performed it. In overturning the jury's verdict of infringement, the court gave greater weight to the improbability that the Bee Gees had been exposed to the plaintiff's song than to the striking similarities between the two works.[36]

These two cases suggest how the use of audio recording technology, rather than notation to create and fix a musical work, may affect a work's content. Songwriters working with music notation typically work alone, whereas those who assemble songs from

29. *See Bright Tunes*, 420 F. Supp. at 179.

30. *See id.* at 180 (suggesting that despite solid evidence of Harrison's creation of his song through improvisation, the motivic material with which he was working had been already used by the plaintiffs and was lodged in Harrison's unconscious).

31. *Id.*

32. Selle v. Gibb, 567 F. Supp. 1173 (N.D. Ill. 1983), *aff'd*, 741 F.2d 896 (7th Cir. 1984).

33. *Id.*

34. *Id.* at 1176 (noting that the Bee Gees brothers recounting of their compositional approach was corroborated by other members of the band's entourage).

35. Clips of sound recordings, and portions of the notation for these works are posted at the Music Copyright Infringement Resource, http://mcir.usc.edu/cases/Pages/default.html [https://perma.cc/W53W-WCWQ].

36. *Selle*, 741 F.2d at 901.

recorded improvised performances work as a small group. We naturally ascribe to the songwriter working alone all the original expression in his works. It is more difficult to ascribe authorship in songs created by several authors whose contributions are fixed using recorded performances.[37] Moreover, the content of songs created in this fashion is limited to expression that its authors themselves are capable of performing. On the other hand, while a songwriter who uses notation typically limits the musical scope of a composition to performable content, the expression in his song is not limited by what *he* is capable of performing.[38]

The evolution of sound recording technologies has dramatically altered the creation and content of popular music since the mid-twentieth century. More recently, the evolution and accessibility of synthesized sound technology has fostered the creation of popular works whose appeal may depend as much upon the author's selection, arrangement, and manipulation of sounds, as on the recording of a particular performer. Robert Brauneis has observed a fundamental change resulting from popular songwriters'/performers' reliance upon audio recording and synthetic sound producing technologies:

> [C]ommercially important popular recordings are not viewed by either creators or consumers merely as veridic or figurative representations of performances that occurred at a particular time and place. Rather, they are aesthetic objects in their own right, and their creators employ and combine both performance and nonperformance techniques, in various degrees and at various points in the production process, to create them.[39]

Digital sound technologies provide access to an unlimited range of sounds and means of manipulating them. They have led to the development of stables of audible prefabricated musical building blocks, like percussion tracks and chord progressions, that songwriters commonly "loop" under their own melodies and words;[40] software programs like "Band in a Box" even generate melodies.[41]

Although audio recording, and later synthesized sound, technologies have profoundly affected the creation and content of popular songs, courts entertaining copyright disputes involving these

37. *See infra* note 60.

38. *See* U.S. COPYRIGHT OFF., *supra* note 19 and accompanying text.

39. Robert Brauneis, *Musical Work Copyright for the Era of Digital Sound Technology: Looking Beyond Composition and Performance*, 17 TUL. J. TECH. & INTELL. PROP. 1, 3 (2014).

40. *See, e.g.*, Michael Walker, *Computer Software That Can Turn You Into a Songwriter*, N.Y. TIMES (Apr. 2, 2006), https://nyti.ms/2sRiydB (describing how GarageBand software enables users to "cobble together a song using nothing other than the program's digital instruments") [https://perma.cc/S7NG-3GNW].

41. *See Band-in-a-Box*, PG MUSIC, http://www.pgmusic.com/bbmac.htm (last visited Feb. 24, 2018) [https://perma.cc/5C9S-28H5].

works still resort to the conception of authorship applicable to the Tin Pan Alley era in which songwriters created and recorded popular songs in visible notation with little, if any, input from performers. Copyright and popular music commentators have criticized the judiciary's ongoing reliance on this colorably outdated paradigm.[42] They have suggested that it conflicts with Congress's intention in the 1976 Copyright Act that permits registration of a musical work that has been fixed only as an audio recording.[43] They have noted that the Copyright Act does not define "musical work," and that the persistent emphasis the judiciary places on melody, harmony, and rhythm reflects "Nimmer's narrow view of what constitutes protectable musical expression."[44]

Critics of the judiciary's almost exclusive focus on melody, harmony, and rhythm in adjudicating music copyright infringement disputes have claimed it unfairly marginalizes performers not credited as songwriters but who contribute timbres and other sonic and stylistic attributes to the musical work the visual representation of which is elusive.[45] They have suggested, moreover, that notated scores are not musical works per se, but are rather "series of instructions" by which performers reproduce musical works.[46]

Since the mid-twentieth century the roles of creators and performers of popular songs have been fused, and the appeal of these works now depends significantly upon recorded performances. It is reasonable, therefore, to question the understanding of the scope of copyright protection for works of music as essentially limited to words, and three musical elements that can be recorded in visible symbols. As Olufunmilayo Arewa observes, "notational representations have the potential to level musical differences and potentially make different types of music appear to be more similar than might otherwise be the case."[47]

Notation is not capable of recording all the musical information conveyed in a performance of a work of music. The question, therefore, is whether notation can capture *enough* information as to avert the deleterious potential consequence identified by Professor Arewa. The answer to this inquiry depends on our understanding of the efficacy

42. *See, e.g.*, Alan Korn, *Issues Facing Legal Practitioners in Measuring Substantiality of Contemporary Musical Expression*, 6 J. MARSHALL REV. INTELL. PROP. L. 489 (2007); Jon Caramanica, *A Verdict Based on an Old Way of Making Music,* N.Y. TIMES, March 12, 2015, at C1.

43. *See infra* note 71 and accompanying text.

44. Korn, *supra* note 42, at 490.

45. *See* Gabriel Jacob Fleet, *What's in a Song: Copyright's Unfair Treatment of Record Producers and Side Musicians,* 61 VAND. L. REV. 1235 (2008).

46. *See, e.g.*, Olufunmilayo B. Arewa, *A Musical Work is a Set of Instructions*, 52 HOUS. L. REV. 467 (2014).

47. *Id*. at 496.

of notation to embody works of music, and the more fundamental question of what constitutes a musical work.

II. MUSIC SCORES

A. Visible Instantiations of Works Created and Distributed as Sound

Given that most popular music today is created, performed, distributed, and consumed without any reliance on music notation,[48] how do we account for the ongoing significance of notation for creators of new works of serious music, as well as performers of serious music and popular songs from the Tin Pan Alley era and earlier?[49] Even contemporary composers like Philip Glass, whose minimalist compositions often emphasize static sounds rather than motivic and rhythmic development, still use traditional Western music notation to create and fix their works.[50] Performances of classical instrumental music, whether of a solo or ensemble work, rely utterly on the performers' ability to read notation; musicians performing without scores have memorized a work's music, not its sound.[51]

Even if today's audio recording and digital sound production technologies had been available in the eighteenth and nineteenth centuries, our ability to enjoy the great works of the Common Practice period would still only be possible because their creators' recorded their works in musical scores.[52] Even preternaturally gifted composers like Mozart and Beethoven relied on visual notation, not only in recording, but also as an aid in drafting, complex works. Accordingly, musicologists pore over holograph scores because the emendations and experimentations they contain often reveal insights into the

48. *See generally* LARRY STARR & CHRISTOPHER WATERMAN, AMERICAN POPULAR MUSIC (4th ed. 2017).

49. *See, e.g.*, PHILIP FURIA & LAURIE PATTERSON, THE AMERICAN SONG BOOK: THE TIN PAN ALLEY ERA (2015).

50. *See, e.g.*, Thomas Micchelli, *Out of the Blue: Philip Glass, Robert Wilson and "Einstein on the Beach,"* HYPERALLERGIC (Aug. 19, 2012), https://hyperallergic.com/55658/out-of-the-blue-philip-glass-robert-wilson-and-einstein-on-the-beach/ (illustrated with a page from Glass's autograph score for his opera) [https://perma.cc/NUU2-QUM4].

51. Braille scores are haptic analogues of visual scores that enable visually impaired musicians to read music notation. Unless one is only singing from a Braille score, however, one has to memorize incrementally the information in the score, shifting one's hands between the score and the instrument one is playing. Given this limitation, some visually impaired instrumentalists learn musical works by listening to recorded performances of them. These recordings are broken down into portions that can be memorized, a learning technique that is used, for example, by Nobuyuki Tsujii, a Japanese concert pianist. *See* Arewa, *supra* note 46, at 513.

52. The Common Practice period refers to music from approximately 1550 up to 1900. *See* CHARLES BURKHART & WILLIAM ROTHSTEIN, ANTHOLOGY FOR MUSICAL ANALYSIS: THE COMMON PRACTICE PERIOD (2014).

composers' thoughts and methods that are not apparent from printed scores.[53]

Sound is relatively unimportant to compositional methods of great musicians, some who often created music without recourse to sounds produced by musical instruments. Mozart, for example, composed while riding in carriages,[54] and Beethoven wrote some of his most profound works when he was deaf.[55] Bach did not specify instrumentation for his *Art of the Fugue,* which he likely conceived more as a pedagogical resource than a work to be performed and heard.[56]

Music notation continues to be vitally significant at least for the relatively small contingent of musicians who create and perform works of serious music, mainly because it is visible. Vision is the most highly developed of our senses, which enables us to perceive and comprehend more complex information than does audition, touch, etc.[57] This capacity, in turn, makes possible the creation, understanding, and performance of musical works that would not be possible otherwise.

It is, for instance, much easier to demonstrate to musically literate students, rather than those who do not read music, the structural conventions of the classical sonata form.[58] This is because one can do so using notation that allows students mentally to juggle disparate visible musical indicia of the sonata form far more efficiently and effectively than one could relying on purely aural representations of them.

For the same reason, experts in music infringement cases attempting to establish or disprove similarity, invariably present to courts and juries visual representations of the works at issue.[59] These representations are often "dumbed down" versions of music scores. Rather than using standard notation, these visual representations

53. *See, e.g.*, DOUGLAS JOHNSON ET AL., THE BEETHOVEN SKETCHBOOKS: HISTORY, RECONSTRUCTION, INVENTORY (1985).

54. *See* ROSAMOND E. M. HARDING, ANATOMY OF INSPIRATION (1967) (noting that Mozart kept music paper in a compartment of his carriage for jotting and elaborating new melodies).

55. *See* BARRY COOPER, BEETHOVEN (MASTER MUSICIANS) 339 (2008) (noting that Beethoven was far too deaf to conduct the premiere of his Ninth Symphony).

56. *See* ANATOLY P. MILKA & ESTI SHEINBERG, RETHINKING J.S. BACH'S THE ART OF FUGUE, (Esti Sheinberg trans., 2015).

57. *See* VOLKER BOEHME-NEßLER, PICTORIAL LAW: MODERN LAW AND THE POWER OF PICTURES 74 (Martina Birkhoff & Lindsay Gasser trans., 2011) (suggesting that sight climbed to the "top of the hierarchy of the senses" during the Renaissance, with the invention of the printing press).

58. *See generally* CHARLES ROSEN, SONATA FORMS (1980) (broadly exploring the protean nature of sonata form).

59. *See* Robert J. S. Cason & Daniel Müllensiefen, *Singing from the Same Sheet: Computational Melodic Similarity Measurement and Copyright Law,* 26 INT'L. REV. L. COMPUTERS & TECH. 25, 28 (2012) (noting that "a graphical image depicting notes connected by lines on two staff notation systems is the only written information that musically non-literate courts have with which to judge [a] case").

typically also employ colors, numbers, and other graphical elements with which musically illiterate judges and juries may be more comfortable.[60] But these hybrid visual representations are used for the same purpose as scores: to enable the reader's swifter and more comprehensible understanding of musical works than is possible from their sonic reifications alone.[61]

B. Notation and Authorship of Works of Music vis-à-vis Other Genres of Expression

Generally speaking, there is little ambiguity about the authorship of works of music conceived, and initially fixed, in symbolic notation. This is because, for practical reasons, individuals work alone in creating original musical works using notation.[62] Popular songwriters reliance on recorded and electronically generated sound, on the other hand, tends to foster collaboration and improvisation that results in more diffuse authorship. Like creations built from Tinker Toy or Lego Blocks, musical works are now assembled from preexisting sounds deployed by several participants, none of whom needs to understand underlying structural principles by which musical elements are held together.

Today, audiences for popular music are like those for mainstream movies in that they tend to ascribe more value to the participation of particular performers than to that of a specific director or producer with overarching authority for the work. Audiences for the mid-brow *Bridesmaids*, for instance, are more likely to attribute its appeal to actress Melissa McCarthy's show-stopping performance rather than the work of director Paul Feig. [63] On the other hand, despite the fact the higher-brow *Silence* (2016) featured well-known actors, audiences are more likely to attribute its significance and appeal to the work of its director Martin Scorsese rather than to its performers.[64]

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60. *See id.* at n.6 ("Variants of this approach include the colour-coding of pitches, the inclusion of timing information by lengthening the note symbols to rectangle, or the replacement of musical notation by numbers and symbols").

61. Litigants typically challenge the accuracy of musical evidence offered by the opponent, whether in aural or visible formats. *See, e.g.,* Third Brief on Cross Appeal of Plaintiffs-Appellants-Cross-Appellees at 9–14, Williams v. Gaye, No. 15-56880 (9th Cir. 2017) (arguing that the opinions offered by the Gayes' experts were impermissible at trial because they were based upon not only the musical information contained in the sheet music deposit copy of "Got To Give It Up," but also the sound recording of the song).

62. Composers of vocal music, whether serious or popular, typically work with an independent wordsmith. When such collaboration is ongoing and productive the authorship becomes blurred in the public's mind, as reflected in pairs of names we attribute their works without necessarily knowing the specific contribution of each author, *e.g.*, "Lerner & Lowe;" "Gilbert & Sullivan;" "Rogers & Hammerstein."

63. BRIDESMAIDS (Universal Pictures 2011).

64. SILENCE (Paramount Pictures 2016). Manohla Dargis' review is typical in its emphasis on Scorsese's direction and cinematography. *See* Manohla Dargis, *Review: When Questions and Prayers Go Unanswered,* N.Y. TIMES, Dec. 22, 2016, at C10.

Similarly, we attribute musical works, including popular songs, which have been created by individual authors using notation, to those creators, and not to the performers of these works.[65] Today individual performers—or bands—typically are the putative authors of the works they perform. This melding of creation and performance, however, has tended to produce works in which more of the economic value and appeal of a song lies in a particular performance of it rather than in its underlying musical expression.

In fact, for many popular songs the original expression that can be attributed to a specific author is mainly verbal. Authors/performers of popular songs may be musically, but are not verbally, illiterate. Their autograph "scores" therefore, typically contain nothing but words.[66] These exclusively verbal "scores," however, indicate an ongoing reliance on visual symbols even by musically illiterate songwriters/performers. The written text serves not only as an *aide-memoire* to the unwritten accompanying melodic content, but also as a schema with which the songwriter can improvise more efficiently and effectively with the song's structure than if working exclusively with aural expression.[67]

The significance of visible symbolic representations is not limited to the creation and communication of musical works. Authors of literary genres could employ the audio recording and synthetic sound technologies that songwriters routinely use to create new works. But even today, writers of drama and poetry, whose appeal depends to a greater extent than fiction and non-fiction on performances, rely exclusively upon visual media to create and document their expression. They use word processing technology, just as contemporary art music composers use digital notation software, and their methodology has remained fundamentally visually oriented.[68]

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65. *See infra* note 89 and accompanying text.

66. An image of Michael Jackson's handwritten lyrics for "Beat It" sold for $ 60,000 in 2009. *See $60k Beat It Lyrics Put Jackson in the Autographs Big League*, PAUL FRASER COLLECTIBLES (Nov. 27, 2009), http://www.paulfrasercollectibles.com/section.asp?docid=1191&catid=78&n=170110 [https://perma.cc/NCY9-W4MJ]. There is no score for Bruce Springsteen's hit "Born to Run"; his handwritten lyrics, however, were sold recently for nearly $ 200,000. *See* Allan Kozinn, *Springsteen's Handwritten Lyrics to 'Born to Run' Sell for $197,000*, N.Y. TIMES (Dec. 6, 2013, 11:13 AM), http://artsbeat.blogs.nytimes.com/2013/12/06/springsteens-handwritten-lyrics-to-born-to-run-sell-for-197000 [https://perma.cc/RNU2-YQYN]. The only authorial vestige of Madonna Ciccone's hit "Rain" is her jottings of its lyrics. *See 175: Madonna Handwritten Lyrics to "Rain"*, LIVEAUCTIONEERS, http://www.liveauctioneers.com/item/428754 (last visited Feb. 24, 2018) [https://perma.cc/AS9B-LHH9].

67. The verbal texts of operas (libretti) and sacred works serve a similar purpose. The dramatic structure of an opera, for instance, is largely determined by its libretto, and the meter, rhyme scheme, etc. of the words inform the music of individual numbers within the work.

68. In the Middle Ages, prior to the development of the printing press, many poetic works, heroic sagas, etc. were disseminated orally. Karl Reichl has observed, however, that "[w]ithout the storage mechanism of writing… narratives of heroic sagas and other major events drifted ever further from their historical basis over the course of centuries, and

The extent to which the appeal of a work relies upon performance depends upon both the genre of expression and the particular work within that genre. The appeal of a novel depends not at all upon a particular silent reader. However, the appeal of poetry that was written with the intention that it be heard, while typically valued even when read silently, depends to a greater extent on a mediating performer.

Music copyright expert Jamie Lund has observed that performers comprise the audience for *musical* works whereas the larger, passive, lay audience is that for recorded *performances* of them.[69] This is significant because courts apply a single "Lay Listener" test which "prejudices outcomes because it incorrectly targets lay jurors [as the audience for music compositions] rather than musical performers."[70] Lund has also determined that audiences for recorded performances of popular music find more impressionable certain attributes associated with a particular performance rather than musical elements of the separable underlying work.[71]

Lund's understanding of a two-tiered audience for musical works also applies to dramatic and choreographic works. Unlike today's popular songwriters, playwrights, screenwriters, and choreographers typically do not perform their works.[72] Even when the appeal of a performance of one of their works depends largely on the skill and creativity of the performers, we still attribute their authorship entirely to the playwright or choreographer.

For example, we regard George Balanchine as the author of his ballets, and not the dancers—despite their potentially significant interpretive contributions—on which they depend entirely for their transmission to the public.[73] This is because we recognize Balanchine as ultimately responsible for synthesizing movement, gesture, and music into a structurally coherent and original work. And, like authors

gradually reshaped the material quite radically, so that it is no longer possible to decide which version of the legend is authentic, or to ascribe a particular feature of the saga to a particular source." KARL REICHL, MEDIEVAL ORAL LITERATURE 313 (2012).

69. *See* Jamie Lund, *Fixing Music Copyright*, 79 BROOK. L. REV. 61, 63 (2013) (before the era of sound recording and broadcasting the dichotomy between audiences of performers, and those of passive listeners, was less pronounced because, for many people, it was only possible to hear musical works by actually playing them).

70. *Id.*

71. *See* Jamie Lund, *An Empirical Examination of the Lay Listener Test in Music Composition Copyright Infringement*, 11 VA. SPORTS & ENT. L.J. 137 (2011) (documenting the results of her experiment involving 178 test subjects, which revealed that "lay listeners" were likely to find songs musical similar when they were performed similarly).

72. There are, of course, exceptions to this trend, like Orson Welles and Woody Allen who have written, directed, and acted in their films. Many dancers have performed in works they have choreographed, and many ballet dancers have gravitated towards choreography at the end of their typically brief careers as performers.

73. *See generally* TERRY TEACHOUT, ALL IN THE DANCES: A BRIEF LIFE OF GEORGE BALANCHINE (2004).

of serious works of music, choreographers rely upon visible symbols to improvise and document their expression.[74]

While most popular songwriters today do not use music notation, their songs, once captured in audio recordings, can be "reverse engineered" and rendered as scores.[75] The audio recording, however, contains two separately protectable works: the underlying musical work and a recorded performance of it.[76] For music infringement disputes involving works created as audio recordings, this blended fixation raises the question which elements of the audio recording comprise the musical work.

III. MUSICAL WORKS

Over time, the contents of musical works have continuously changed in response to evolving tastes, and also to the technologies by which these works are created, rendered and consumed. This ongoing evolvement, however, should not alter our fundamental conception of a musical work. The compositional elements of musical works haven't changed over time; it is rather authors' deployment of them that has fluctuated.

Robert Brauneis has considered whether the shift in popular songs today, in the relative significance of various compositional elements they embody, and the widespread use of recording technology and pre-existing recorded sounds, should inform the adjudication of copyright infringement claims.[77] Professor Brauneis wonders: "Is the notation approach a valid method to distinguish between composition and performance elements of sound recordings? Any use of such a method seems to fly in the face of Congress's fundamental decision in the 1976 Act to discard the notation requirement."[78]

But, Congress ultimately left to the Register of Copyrights the discretion to "permit deposit of phonorecords rather than notated copies of musical compositions."[79] The Register's subsequent relaxation of the notation requirement harmonizes with Congress's

74. *See* ANN HUTCHINSON GUEST, CHOREOGRAPHICS: A COMPARISON OF DANCE NOTATION SYSTEMS FROM THE FIFTEENTH CENTURY TO THE PRESENT (1989) (reviewing history of various symbolic systems of recording dance choreography).

75. The sheet music of Marvin Gaye's "Got to Give it Up" submitted to the Copyright Office in the 1970s was created by a literate musician from Gaye's recorded performance of the song. Skilled musicians can "reverse engineer" at least simple works by listening to them repeatedly. Today, however, software like ScoreCloud enables the creation of sheet music directly from performance information, without an intermediary literate musician. *See* SCORECLOUD, http://scorecloud.com (last visited Feb. 24, 2018) [https://perma.cc/2FVM-2RNA].

76. *See* Copyright Act of 1976, 17 U.S.C. § 102 (2018).

77. *See* Brauneis, *supra* note 39.

78. *See id*. at 39.

79. MARY BETH PETERS, GENERAL GUIDE TO THE COPYRIGHT ACT OF 1976 § 11.4 (1977), https://www.copyright.gov/reports/guide-to-copyright.pdf [https://perma.cc/LNZ4-3RC8].

wish to encourage non-obligatory registration, by accommodating the increasingly widespread use, by non-literate musicians, of an inexpensive and democratizing medium by which to fix popular songs.[80] Even literary works may now be fixed and protected entirely in audio formats.[81] Accordingly, this accommodation does not appear to imply any shift in the legislature or judiciary's longstanding view of melody, harmony, and rhythm as the *sine quibus non* of protectable musical expression.

In his critique of the existing framework for evaluating music copyright infringement claims, Aaron Keyt has suggested that the increased emphasis in popular music on elements like timbre and spatial organization may lead to their protection, but only if these elements are structurally significant.[82] He notes that "[i]n order to be protected, different musical elements [like timbre] may have to be used in a more specific way than others," and that even unique combinations of instruments should not be protectable because of the possibility of one author pre-empting too broad an area.[83]

Keyt correctly implies that there is a spectrum along which musical elements fall, ranging from sound/performance-oriented elements at one end to purely musical elements at the other. One might identify these poles as the *how* and the *what* of music. Melody, for instance, lies on the *what* end of the spectrum, whereas dynamics lie on the *how* side. Melody tells us *what* notes to perform while dynamics tell us *how* to perform those notes.

This spectrum indicates also that there is hierarchy among elements used in the creation of original musical works. The significance of dynamics, instrumentation, tempos, and even the key of a song depends entirely upon its more purely musical elements like melody and harmony. Imagine a music score containing dynamic, tempo, time signature, key, slurring, instrumentation markings, and perhaps even a verbal text, but no indications of pitch, rhythm, or harmony. This score is meaningless because, apart from the words, it provides no information about *what* to perform.

Most music scores contain information about both *what* and *how* to perform. Over the past few centuries authors of both serious and popular works increasingly have tended to provide more *how* information in an effort to control, to the extent possible, the manner in which their works are disseminated through performances.[84]

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80. *See id*. at § 11.1.

81. *See generally Form TX*, U.S. COPYRIGHT OFFICE, (2012), https://www.copyright.gov/forms/formtx.pdf [https://perma.cc/WD77-WQNT].

82. Aaron Keyt, *An Improved Framework for Music Plagiarism Litigation,* 76 CAL. L. REV. 421, 432 (1988).

83. *Id*. at 433.

84. *See* BENT, *supra* note **6** (identifying the score of Mahler's "Titan" Symphony as an example of a composer indicating in great detail not only what, but also how, to perform).

Authors of much, if not most, of today's popular music are also the principal performers of these works, which are created and fixed as audio recordings. A consequence of this trend has been a significant rebalancing of the relative importance of musical versus sound/performance elements to the appeal of a song.

For example, a great deal of the appeal of "Got to Give it Up," which Marvin Gaye fixed in recorded sound, stems from Gaye's performance of it.[85] The potential appeal of any "cover" performance of the song, therefore, will depend more upon the performer's ability to imitate the style and sound of Gaye's performance rather than to render precisely the words and musical information contained in the sheet music.[86] On the other hand, a song like "Anything Goes," which Cole Porter fixed in symbolic notation but did not publicly perform or record, has been performed by hundreds of singers who have arguably enriched the song by applying to it their individual styles.[87]

Musical works, like dramatic and choreographic works, are broadly distributed through performances, yet we tend not to ascribe authorial credit to intermediaries who interpret and render these works.[88] A performer who improvises a *cadenza* while playing a Mozart concerto, or one who riffs on a well-known tune with imaginative melodic and harmonic variations while performing a jazz number, is an author of protectable expression that can be recorded in visual notation, even if his work keys off the expression of another.[89] If, however, a performer does not contribute appreciably to the melodic, harmonic, rhythmic, or verbal quotients of a song, his addition is not of protectable musical expression, but rather a performance style that is protected once fixed in a sound recording.[90]

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85. A complete copy of the sheet music of "Got to Give it Up" is contained in the Declaration of Donna Stockett, Williams v. Gaye, No. 06004 (C.D. Cal. 2014), http://mcir.usc.edu/inplay/Documents/WilliamsCopyrightRegistration.pdf [https://perma.cc/NP32-XH9J].

86. *E.g.*, nathaliemaingo, *Got To Give It Up – Justin Timberlake*, YOUTUBE (Oct. 18, 2008), https://www.youtube.com/watch?v=7qbwl2otbxo [https://perma.cc/XFC9-3C9U].

87. Since Porter wrote the song in 1932, performers as diverse as Frank Sinatra, Ella Fitzgerald, and Rod Stewart, have recorded it. *See Night and Day (song)*, WIKIPEDIA, https://en.wikipedia.org/wiki/Night_and_Day_(song) (last visited Feb. 24, 2018) [https://perma.cc/BBQ4-M8KS].

88. When a performer brings exceptional training and skill to their intermediation, we may say the performer "owns" the work. Very few dancers can creditably perform the role of Giselle, and very few pianists can perform a concerto by Chopin. Accordingly, when we link such performers with particular works ("Osipova's *Giselle*", "Kissin's *Chopin E minor*") we perceive them as ideally rendering ("seminal performance") but not adding to, the works they perform. By the same token, because everyone can read literary works, we do not ascribe similar "ownership" to those who record their reading aloud of novels and poetry.

89. *See Cadenza*, OXFORD DICTIONARY OF MUSIC (2d ed. 2006) (a concerto *cadenza* is a section interpolated at the ends of movements, in which the soloist is given an opportunity to improvise on earlier heard themes, often in a virtuosic fashion).

90. *See* DAVID NIMMER & MELVIN NIMMER, NIMMER ON COPYRIGHT § 2.10 (2017) (copyright protection extends to the specific sound recording in which a style is used in performing the recorded work).

This leads to another significant observation by Keyt, namely that musical works are not works of *sound*: "composers do not *create* sounds at all; they create only musical structures which are revealed through sound."[91] Copyrightable expression in musical works, therefore, is based upon "what the sounds do, how they are used, rather than what they are in acoustical terms."[92]

Like performers who create sounds that communicate musical works, dancers create movements conveying choreographic works and actors embody characters delineated in dramatic works. It is challenging to parse the authorship of performing art works because of the contributions of these intermediaries, but in other genres of expression, like literary works and works of visual arts, one also finds a hierarchy of significance among compositional elements.

Just as notes are more essential than dynamics or timbre in a musical work, words are more essential than punctuation and inflection conveyed by italics, etc. in literary works. Likewise, the underlying drawing or "cartoon" of a painting, fresco, etc., is usually more essential to the expression in the work than particular media, colors, and textures in which the work is rendered.[93] Accordingly, apprentices in the workshops of master painters were typically tasked with "filling in" portions of these drawings sketched by the master.[94] Similarly, when even prominent musicians create orchestral versions of works by others, we still regard the composer of the original work as the primary author of the subsequent orchestration.[95]

The contents of works in all genres of authorial expression constantly change, but the genres themselves do not. Both a balloon animal by Jeff Koons and a monumental bronze by Henry Moore are sculptural works; both a pop song by Justin Timberlake and a concerto by Milton Babbitt are musical works.[96] There is a hierarchy of

91. Keyt, *supra* note 82, at 437.

92. *Id*. at 436.

93. Art historians are, therefore, particularly enthusiastic when previously unknown underdrawings are discovered in well-known paintings, often through use of infra-red reflectography. *See, e.g.*, Luke Syson & Rachel Billinge, *Leonard da Vinci's Use of Underdrawing the 'Virgin of the Rocks' in the National Gallery and 'St. Jerome' in the Vatican*, 147 THE BURLINGTON MAG. 450 (2005).

94. *See* UNA D'ELIA, PAINTING IN THE RENAISSANCE 11 (2009) (noting that assistants sometimes painted full paintings, following the design of the master who then signed the work).

95. For example, we regard Bach and Brahms as the primary authors of Arnold Schoenberg's and Eugene Ormandy's orchestrations of some of their works, which hew closely to the structure, melody, harmony, and rhythm of the underlying music. On the other hand, when a second composer uses a portion (typically melody) of another's work as a springboard from which to create an original composition that entirely transforms the borrowed portion, we regard the second composer as the primary author of this work. *E.g.*, JOHANNES BRAHMS, VARIATIONS AND FUGUE ON A THEME BY HANDEL (1861).

96. *See* Elaine Barkin et al., *Milton Babbitt*, GROVE MUSIC ONLINE (Jan. 20, 2001), http://www.oxfordmusiconline.com/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000001645 (Milton Babbitt (1916–2011) was an American

expressive significance in the elements comprising both the sculptural and musical works that we must acknowledge to establish a coherent and uniform copyright regime for works in these, and all other, genres. Koons' balloon sculpture may be more valuable than Moore's bronze, but should be accorded minimal copyright protection given its derivative and conceptual nature. Likewise, the fact that Timberlake's song is more economically valuable than Babbitt's concerto doesn't change the fact that, relative to the concerto, it contains minimal protectable original musical expression.

CONCLUSION

A. The Potential of MIDI Scores and Sound Files

The widely criticized verdict finding Robin Thicke and Pharrell Williams liable for infringement in the "Blurred Lines" dispute has brought to the fore a question that has been simmering for some time.[97] Should determinations of similarity of popular songs today be based on comparisons of musical elements beyond melody, harmony, and rhythm, and including components associated more with performance and sound, like timbre, tempo, style, and dynamics? [98] In 2004, the Ninth Circuit waded into this murky issue positing:

> [m]usic is comprised of a large array of elements, some combination of which is protectable by copyright . . . There is no one magical combination of these factors that will automatically substantiate a musical infringement suit . . . So long as the plaintiff can demonstrate, through … some or all of these elements . . . that the similarity was "substantial" and to "protected elements" . . . .[99]

Jamie Lund has observed, however, that the disposition favoring the plaintiff in this case was ultimately based on evaluation of the

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mathematician and musician who championed Arnold Schoenberg's "Twelve-Tone" compositional technique) [https://perma.cc/YG73-4UKC].

97. *See* Williams v. Bridgeport Music, Inc., 2015 WL 4479500 (C.D. Cal.). On October 6, 2017 the Ninth Circuit held oral arguments in Williams and Thicke's appeal of the District Court's judgment, a full recording of which is available here: https://www.ca9.uscourts.gov/media/view_video.php?pk_vid=0000012297 [https://perma.cc/35YV-39N9]. Perhaps the sharpest and most efficient encapsulation of the dispute occurred in the exchange (~56:00 in the recording) between Judge Jacqueline Nguyen and Kathleen Sullivan, who represented Williams and Thicke, as they ponder whether allowing jurors in music copyright infringement disputes to hear recordings of the songs at issue would introduce unprotectable elements associated with performances, rather than the underlying musical works, thereby confusing jurors and compromising their evaluation of *musical* similarity.

98. *See* Lund, *supra* note 71, at 143 n.20 (identifying writings by several commentators who have criticized as obsolete the judiciary's long-standing conception of what constitutes a musical work).

99. Swirsky v. Carey, 376 F.3d 841, 849 (9th Cir. 2004).

similarities of fundamental musical elements of rhythm, harmony, and melody.[100] Moreover, she notes, no court has approvingly cited the Ninth Circuit's dicta, or sustained a finding of substantial similarity on performance factors such as tempo and orchestration.[101]

Courts increasingly have, however, indicated that protectable musical expression may extend beyond melody alone. Joseph Fishman chronicles this evolution in case law, beginning with a dispute in the early 1990s in which the court suggested that original harmonic progressions as well as melodies might be protectable.[102] By 2015, Fishman notes, the expanding view of protectable music expression led a court to conclude "that a work could infringe merely by copying a work's percussion," which the court identified as the song's "driving groove" or "backbone."[103]

Many have suggested that because sonic and performance-oriented elements have become so prominent in popular songs, these elements should be considered among those evaluated for similarity in adjudicating infringement disputes.[104] This is an untenable notion, however, in that it implies a false assumption that our basic conception of what constitutes a musical work has changed.

The content of musical works, and specifically the emphasis placed on various musical parameters, constantly evolves over time and across musical genres. This evolution doesn't change our fundamental idea of what constitutes a musical work; a thirteenth-century motet, a nineteenth-century concerto, a twentieth-century Beatles song – we consider such dissimilar pieces all to be musical works. The same is true in other media. For instance, twentieth-century artists like Mark Rothko emphasized compositional elements radically different from those accentuated by Old Masters like Rembrandt.[105] The paintings of both artists, however, are works of visual art, and their eligibility for copyright protection is based upon the same standard of originality.[106]

Broadening the scope of musical elements to be evaluated for infringing similarity, to include sounds and performance components,

100. *See* Lund, *supra* note 71, at 143.

101. *Id*.

102. *See* Joseph Fishman, *Music as a Matter of Law*, 131 HARV. L. REV. 1861, 1887 (2018).

103. *Id*. at 1889.

104. *See, e.g.*, Jon Caramanica, *A Verdict Based on an Old Way of Making Music,* N.Y. TIMES, March 12, 2015, at C1 (Caramanica dwells on the obvious fact that the creation and content of popular music are different today from those of earlier eras, but offers no reason why this development should change our perception of protectable musical expression. He lards his discussion with mumbo jumbo like "skronk" and "hyphy", implying that whatever is indicated by such cabalistic terminology somehow indicates protectable expression).

105. *See generally* ANNA C. CHAVE, MARK ROTHKO: SUBJECTS IN ABSTRACTION 20 (1989).

106. Of course, Rembrandt's paintings are in the public domain, but if they were not, they would likely enjoy "thicker" copyright protection than Rothko's. This is because Rembrandt's representational works emphasize drawings unique to Rembrandt whereas Rothko's abstract works feature generic geometric shapes and colors that cannot be monopolized.

would lead to deleterious monopolization of sonic and stylistic elements that copyright was never intended to protect. Melodies, harmonies, and rhythms can be precisely and consistently expressed through symbolic notation. Moreover, pitches, durations, and harmonies are invariable; "quarter note middle C," for instance, always indicates the same frequency held for the same relative length regardless *how* it is sounded. The *how* elements of performance may result in different timbres and volumes, but the pitch itself, and its relative duration, remain constant.

Dynamics, tempos, articulations, instrumentations, etc., on the other hand, are much more fluid musical elements. One performer's *pianissimo* will be another's *mezzo forte;* one's *adagio* will be another's *andante;* one's *staccato* will be another's *portamento,* and one's oboe will be another's violin. Because elements of music performance/sound are so indeterminate we cannot perceive and identify these elements in performances as precisely as we can invariable elements like rhythm, pitch, and harmony.

Moreover, performance/sound elements distort listeners' ability to perceive basic musical elements in performances. From her study of lay listeners' perceptions of similarity between musical works, Jamie Lund found that they were "significantly affected by varying the performance elements of tempo, key signature, orchestration, and style, because listeners do not naturally perceive those elements separately, but hear the mixture of all elements as a whole."[107] The result of this distortion, Lund notes, is that "a typical listener is unable to hear past the performance of a music composition sufficiently to make an internally valid and reliable assessment of substantial similarity."[108]

Copyright protects not only musical works, but also performances of them fixed in sound recordings.[109] The fact that Congress established separate protection for sound recordings may indicate that the protected content of such a recording is not identical to that of the musical work as performed and fixed in the recording.[110]

This raises the question Robert Brauneis has articulated, whether there is a "clear way of isolating a subset of features within a musical sound recording that constituted the musical composition and separating them from performance features."[111] This Article has argued that symbolic music notation provides an ideal mechanism by which to isolate music compositional elements, particularly melody,

107. *See* Brauneis, *supra* note 39, at 45.
108. *See* Lund, *supra* note 71, at 173.
109. *See id*.
110. *See* Brauneis, *supra* note 39, at 31 (Robert Brauneis makes this observation in his larger discussion of the difficulty of separating compositional and performance elements in musical works).
111. *See id*., at 32.

harmony, and rhythm, that are at the core of protectable musical expression.

Once these elements are isolated, however, only literate musicians are capable of determining similarity between the musical information contained in a score. Accordingly, courts and juries have long relied upon hearing performances of disputed works in adjudicating music infringement cases. These performances have, predictably, resulted in charges of distortion of the underlying music being performed.[112] MIDI technology, however, averts this liability by enabling mechanically produced performances and recordings of the essential musical information recorded in visual symbols.[113] In fact, MIDI renditions of works might eliminate, or at least diminish, the role of musical experts in infringement disputes. This is possible because even the musical content of songs that are created and fixed entirely as sound can be extracted and rendered in visual symbols that MIDI software can transform into audio files that are entirely free of attributes of human performances.[114]

B. Back to the Future

In the earliest music copyright infringement cases in the United States from the middle of the nineteenth century, the plaintiff typically claimed that the defendant had republished without authorization a complete musical work.[115] At that time musical works were distributed as scores, and courts decided these disputes based upon comparisons of the musical content revealed in these scores.[116] Works found to be infringing were essentially competing publications that consumers might substitute for those of the plaintiffs'.[117]

In an era in which popular music has come to be distributed mainly through audio recordings, there has been an ever-increasing number of infringement claims based upon allegations of insignificant

112. *See* HARDING, *supra* note 54.

113. *See* PETER MANNING, MIDI (2017) *in* ALISON LATHAM, OXFORD COMPANION TO MUSIC (2017) (MIDI is the acronym for "musical instrument digital interface," which is a standardized protocol by which musical information is relayed between devices like synthesizers, keyboards, and audio signal-processing devices).

114. In this respect MIDI files are akin to the perforated paper rolls, and tined cylinders, by which mechanical performances by once-popular player pianos and music boxes respectively were produced. *See generally* ARTHUR ORD-HUME, CLOCKWORK MUSIC: AN ILLUSTRATED HISTORY OF MECHANICAL MUSICAL INSTRUMENTS FROM THE MUSIC BOX TO THE PIANOLA, FROM AUTOMATON LADY VIRGINAL PLAYERS TO ORCHESTRION (1973).

115. The Music Copyright Infringement Resource offers documentation for these early cases. *See Cases*, MUSIC COPYRIGHT INFRINGEMENT RESOURCE, http://mcir.usc.edu/cases/Pages/default.html (last visited Feb. 24, 2018) [https://perma.cc/PQ85-YG8R].

116. *See id.* (between 1844 and 1900, only five judicial opinions dealing with music copyright infringement disputes were promulgated in the United States).

117. The competing work was typically even published under the same title as the complaining work. *See id.*

musical similarities.[118] In some cases plaintiffs have alleged infringement based merely on the use of a common word or phrase or, as in the "Blurred Lines" dispute, the style and sound of a recorded performance.[119]

The purpose of U.S. copyright protection is to protect original expression to the extent that protection spurs, rather than inhibits, innovation. The scope and term of copyright protection, as promulgated by legislation and case law, have expanded inexorably over the past two centuries, partly in response to new technologies for the creation, reproduction, and distribution of information.[120]

There appears to be little question, however, that music copyright infringement case law, and the "Blurred Lines" dispute in particular, has distorted the equilibrium between the rights of copyright holders and musicians who – like their progenitors – invariably base innovative expression upon existing musical genres and ideas. In fact, one might even argue that a musician's borrowing from an existing work typically benefits both authors. History supports this notion: for example, very few people today would know of Anton Diabelli's *Waltz* had not Beethoven used it as the basis for his *33 Variations;* likewise Nicolò Paganini's *24th Caprice*, borrowed wholesale by many composers since its publication in the early nineteenth century.[121] And, ironically, mere allegations of copying in "Blurred Lines," based on little more than stylistic commonalities, boosted sales of recordings of Marvin Gaye's song.[122] Perhaps justice would be best served if Gaye's heirs were to hand over a portion of the profit from these sales to the "Blurred Lines" authors, whose invocation of Gaye's style generated them.

118. *See* Cronin, *supra* note 9, at 1192 (noting that between 1950 and 2000, U.S. courts issued more than twice the number of opinions in this area than they did between 1900 and 1950; and since 2000, over half the number of opinions published between 1950 and 2000).

119. Many such disputes, like those against Ariana Grande (verbal similarity) and Bruno Mars (stylistic similarity) are documented in the "InPlay" segment of the Music Copyright Infringement Resource. *See InPlay*, MUSIC COPYRIGHT INFRINGEMENT RESOURCE, http://mcir.usc.edu/inplay/Pages/default.html (last visited Feb. 24, 2018) [https://perma.cc/B4GK-Z4A8].

120. *See* Robin A. Moore, *Fair Use and Innovation Policy*, 82 N.Y.U. L. REV. 944 (2007) (discussing the conflicting economic interests of copyright owners, and developers of technologies that enhance access to copyrighted works).

121. *See* Stephen Hough, *On the Art of Variation: Why Paganini's Theme is so Popular*, THE GUARDIAN (July 5, 2013, 6:36 AM), https://www.theguardian.com/music/2013/jul/05/how-paganini-became-pop (chronicling musicians' use of Paganini's theme from 1817 through the late-twentieth century) [https://perma.cc/4E83-BAPQ].

122. *See* Keith Caulfield, *Billboard 200 Chart Moves: Marvin Gaye Sales Up 246% After 'Blurred Lines' Trial,* BILLBOARD (Mar. 20, 2015), http://www.billboard.com/articles/columns/chart-beat/6509353/marvin-gaye-got-to-give-it-up-sales [https://perma.cc/Q7JM-6QEL].