Blurred Lines: Musical Expertise in the History of American Copyright Litigation

Dissertation

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Abstract

In March 2015, a jury awarded Marvin Gaye’s estate nearly $7.4 million, finding that Robin Thicke and Pharrell Williams infringed on Gaye's 1977 song, “Got to Give It Up,” with their own 2013 hit, “Blurred Lines.” The highly publicized federal copyright lawsuit has raised concerns about the ramifications of this outcome for the legal protection of music and the future of artistic creativity. The question underlying this case, as in much of federal copyright litigation, involves negotiating the putative similarities and differences between expressive works. Although the court system has developed methods designed to assist triers of fact in such legal analysis, the unpredictable outcomes of these cases illuminate the problematics of this task. Triers of fact may hear testimony from expert witnesses, whose specialized knowledge, skill, and experience is intended to inform the decision-making process. The results of such testimony, however, are not only insistently variable, but they also reflect unsettled debates over how, and by whom, musical identity can best be defined. Given this situation, how should we understand the historical and contemporary role of the musical expert witness in American music copyright litigation?

Drawing on research methods from musicological and legal scholarship, the present dissertation examines extant court records and judicial opinions of prominent
cases chronologically from their origins in the mid-nineteenth century through to recently-decided lawsuits. In situating the role of the musical expert in the context of the legal similarity inquiry and considering their contributions to it, the study reveals the essential role that experts have historically played. It then recasts contemporary problems with case outcomes as a result of the similarity inquiry itself and looks to expert testimony as one potential area of reform.

Such study of musical expertise sheds light on the courtroom as a forum for musical experts, particularly contemporary musicologists, and elucidates their understudied, yet often significant, relationship to the American judicial system. It is through a greater understanding of this role that musicologists should be better equipped to assist courts in resolving the blurred lines that separate, and bind together, so many works of music.
Dedication

For my mentors.
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Introduction

In March 2015, a jury awarded Marvin Gaye’s estate nearly $7.4 million, finding that Robin Thicke and Pharrell Williams infringed on Gaye's 1977 song, “Got to Give It Up,” with their own 2013 hit, “Blurred Lines.” The highly publicized federal copyright lawsuit has drawn the attention of diverse scholars, legal practitioners, pop culture buffs, and others, all concerned about the ramifications of this outcome for the legal protection of music and the future of artistic creativity in the commercial music industry. Some of their concerns stem from musical comparisons conducted in the course of litigation, which revealed perceptible musical similarity in the rhythmic profiles and instrumentation of both songs, but almost none in their melodies or harmonies.

The question underlying this case, as in so much of the history of federal copyright litigation, involves negotiating the putative similarities and differences between expressive works. In this legal context, expressive works, such as music, are treated as

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2 Bruno Nettl has called for a scholarly approach to musicology that accounted for music “at all times, in all places and in all senses . . . from many vantage points, [such as] linguistic, biological, psychological, philosophical, historical, anthropological, theological and even legal.” Bruno Nettl, "Music," Grove Music Online, Oxford Music Online (Oxford University Press), last accessed February 24, 2016, http://www.oxfordmusiconline.com.proxy.lib.ohio-state.edu/subscriber/article/grove/music/40476 (emphasis added). This call has been echoed by other scholars who recognize the significance of a legal awareness regarding music. See Anthony Seeger, “Ethnomusicology and Music Law,” Ethnomusicology 36 (1992), 345 (“we should add a course on entertainment law to our ethnomusicology curricula”).
intellectual property over which a copyright holder has limited rights of control. Transgressions of these rights, which lead to copyright infringement claims, expose the shared boundary between the works at issue as contested space, in which lines between lawful commonality and unlawful appropriation are blurred. Although the court system has developed methods designed to assist triers of fact\(^*\) in the legal analysis of similarity, the unpredictable and inconsistent outcomes of these cases illuminate the problematics of this task.

Triers of fact may hear testimony\(^*\)\(^3\) from expert witnesses, whose specialized knowledge, skill, and experience is intended to inform the decision-making process. Like real property surveyors who demarcate divisions in land ownership,\(^4\) experts in copyright cases serve what can be characterized as “intellectual property surveyors.” They do not make the final legal determination about whether property rights have been infringed, but rather, in a prior step, set out to survey the contested boundaries between works so that final legal determinations can be made.\(^5\) Unlike real property surveyors who locate discrete dividing lines between land, however, expert witnesses in intellectual property cases locate markers of similarity and difference in the more abstract boundary spaces shared by expressive works. As courts have recognized since the nineteenth century, these expert contributions can be as partial and mystifying as they are helpful.

\(^{3}\) See Appendix A.


\(^{5}\) Williams, “Land Surveys,” 16 (discussing boundary resolution), 113 (discussing the role of the surveyor in boundary disputes).
Such issues, and judicial efforts toward their resolution, are nowhere more apparent than in copyright cases about music. Since the first music copyright cases heard in the nineteenth century, courts have consistently welcomed the detailed, systematic analyses presented by musical experts that are intended to elucidate matters of creative process, stylistic idiom, and musical structure. The results of such testimony, however, are not only insistently variable, but also reflect unsettled debates over how and by whom musical identity can best be defined. Given this situation, how should we understand the historical and contemporary role of the musical expert witness in American music copyright litigation?

The present dissertation aims to address that question by tracing musical expertise through the history of copyright litigation. Drawing on research methods from musicological and legal scholarship, it examines extant court records and judicial opinions of prominent cases chronologically from the mid-nineteenth century, with the first music copyright cases, through to recently-decided lawsuits. It situates the role of the expert in the context of the legal similarity inquiry and considers their evolving contributions to it. This history then recasts contemporary problems with case outcomes as a result of the similarity inquiry itself and proposes a change in the scope of expert testimony as one point of potential copyright reform.
Interdisciplinary Challenges

A historical discussion of musical expertise invites interaction between the fields of music and law, each representing a rich body of knowledge. Despite enduring scholarly interest in intellectual property laws, music copyright history remains insufficiently explored. Typically, historians offer only broad, policy-centric accounts of intellectual property and copyright that accord to music, as to other categories of expressive works, modest amounts of attention.\(^6\) Research that does address music copyright in a more focused way is more likely to emphasize only a few cases or statutory provisions,\(^7\) or to paint music industry history with broad strokes while devoting relatively little attention to the legal details of historic cases.\(^8\)

One possible explanation for this state of scholarship lies in the respective disciplinary preoccupations of researchers. Non-legal scholars tend to focus on the philosophical or sociocultural underpinnings of copyright, authorship, and ownership, including policy-driven issues of power relations,\(^9\) piracy, and appropriation, rather than

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\(^7\) See, e.g., Gary Rosen, *Unfair to Genius: The Strange and Litigious Career of Ira B. Arnstein* (New York: Oxford University, 2012) (focusing on Ira Arnstein’s nine copyright cases); see also Guilame Laroche, “Striking Similarities: Toward a Quantitative Measure of Melodic Copyright Infringement,” *Integral* 25 (2011), 58 (noting that his study of eighteen cases worked with the largest data set of any study he had encountered).


on the practical implications of those concerns for litigation or jurisprudence. Only occasionally do such studies focus on music directly, instead tending to group music together with all other categories of expressive works. Legal scholars, by contrast, focus on currently relevant issues and their proposed solutions, while rarely sifting issues of history, cultural context, or analytical technique. To that end, they have written extensively on the contours of the similarity inquiry that is central to legal copyright infringement analysis. Given that the shared objective of most legal scholarship is to influence future legal practice, jurisprudence, and scholarship, it commonly excludes close examination of older cases because they lack modern-day pertinence, having been superseded by more recent decisions or statutes. Legal scholarship specific to the past and present role of musical experts is sparse and focuses on legal, rather than musicological, questions.


In addition to the overarching lack of a cross-disciplinary discourse and emphasis on current issues, scholars rarely examine these issues through any properly musicological lens. Few scholars outside legal scholarship, let alone inside it, have commented on problems specific to the legal structure of music copyright litigation, preferring to foreground musical borrowing and creativity or distinctions, left unclarified, between composition and performance. While musical experts may be mentioned in this research, it seems that few non-legal scholars have seriously considered what musical experts actually do, and those that have tend to focus on a few cases as a means to extrapolate broad claims regarding the status and methods of courtroom music-theoretical analyses.

For copyright scholars in any field, irregularities in source material make difficult any sustained exploration into the history of music copyright law. The obscurity and inaccessibility of court-related sources are compounded by the variable preservation of those sources, much of which is informed by intimidating procedural terminology. Expert documents may appear in court records but, until recently, contributions have rarely been

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16 See Appendix C for a more detailed discussion of source material.
identified with any clarity on dockets.* Instead, researchers must scour the frequently incomplete, non-indexed depositions,* reports, and trial transcripts archived by courts. Sometimes, there may be few or no extant historical records at all to shed light on an expert’s role within the litigation process, even as extant records and judicial opinions make evident the musical experts’ consistent participation in it.

The result of this complexity is that scholars, judges, attorneys, experts, and others comment on the same basic issue in divergent ways. Legal and non-legal scholars may be asking many of the same questions, but their underlying epistemologies, methods, and source materials promote distinctively different orientations that rarely bridge disciplines. The present study seeks to cross these disciplinary boundaries and to provide a historical narrative that speaks to legal and musical audiences alike. In giving structure to the history of musical expertise, it simultaneously directs attention to questions of musical style and analytical technique as to shifts in federal evidence and copyright laws and the litigation strategies surrounding experts.

Different readers will bring distinct perspectives and goals to the reading of this dissertation. Given the technical language of federal copyright law on the one hand, and music theory on the other hand, a bi-disciplinary glossary has been included to acquaint the reader with some of the foundational terms and concepts of both disciplines.17 In addition, a blended citation format has been implemented, based on elements of the Bluebook (commonly used for legal scholarship) and the Chicago Manual of Style

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17 See Appendix A. Asterisks appear next to the first occurrence of a term that is included in the glossary.
(commonly used in the Humanities), so as to accommodate a dual legal-musical readership.

**Dissertation Overview**

Rather than providing a comprehensive review of hundreds of music copyright infringement claims for which there survives some degree of documentation, the present dissertation offers structure and narrative to a complex of people, music, events, and the documents that memorialize them. It examines key cases across American music copyright history that were heard in various district and appellate courts,\(^\text{18}\) most prominently those cases in the Southern District of New York and its appellate court, the Second Circuit,\(^\text{19}\) and the Central District of California and its appellate court, the Ninth Circuit.\(^\text{20}\) The study unfolds across seven chapters, beginning with a discussion of the nature of expertise and continuing with a chronological narrative of significant music copyright cases. Each historical chapter discusses musical expertise in relation to the precedential development of federal copyright law, specifically the evolution of the similarity inquiry to which musical experts contribute. The analysis of each case is

\[\text{\textsuperscript{18}}\text{ See Appendix B for a list of cases referenced in this dissertation.}\]
limited to a discussion of expert contributions to infringement issues, excluding the sometimes lengthy and complex damages issues litigated in many cases. Chapter divisions are established by historically significant cases and shifts in federal statute.

Chapter One models expertise in the fields of law and music as a threshold matter for understanding the role that experts play. Regarding law, the chapter presents a history of expertise in the American judicial system,* summarizing fundamental problems with the involvement of expert witnesses in litigation, and reviews the federal statutory and common law regarding their admissibility. Despite all that judicial and legislative bodies have sought to manage experts who contribute to the litigation process, the establishment of expertise and the kinds of evidence to be presented remains at the discretion of the judge based on the context of a particular case.21 In both disciplines, musical expertise may be understood to refer to a person’s ability, based on his or her specialized skill, knowledge, and experience, to discern musical facts and evidence according to the context of the case.

In music, expertise is controlled by institutional norms, training, and peer review. As applied to music copyright litigation, an expert might be anyone with recognized skill or knowledge in music, from a composer or performer to an academically-credentialed musicologist. In the new millennium, there has been the development of what has been called forensic musicology, which seems to place emphasis on implemented practical courtroom skills rather than the prior academic achievements of individuals willing to offer their skills as expert witnesses. This budding sub-specialty has new, and potentially

21 See Chapter 1 below.
far-reaching, implications for the meaning of musical-legal expertise and the public relevance of the field of musicology.

Chapter Two begins the historical narrative by placing copyright protections for music in the broader history of American intellectual property law and outlining a history of musical expertise in the nineteenth century. During these foundational years of copyright, litigation involved only sheet music. The biggest challenges facing courts in that era were to define the fundamental principles of copyright, to establish a formalized means to determine whether alleged musical copying met the legal definition of infringement, and whether that should be the same for other expressive works or specific to musical compositions. In these early cases, courts turned to musical experts for assistance in analyzing similarity between the pieces of music at issue. Experts did this primarily by locating note-for-note melodic congruence, with limited review of musical style according to stylistic resemblances between the music at issue and prior compositions. At this time, experts were permitted to share their conclusions regarding whether any similarity constituted illegal copying. The decisions for these cases reveal strong judicial reliance on expert contributions.

Through the early twentieth century, courts continued to implement the legal procedures established in the prior century. Judges became increasingly interested, however, in matters of access to competing works and in the relationship between musical experts and non-expert lay listeners. Chapter Three explores cases ranging from the 1909 Copyright Act through 1945 to examine the ways in which early twentieth century courts understood copyright infringement analysis and the role of experts. Shifts
in expert analytical techniques reveal increasingly sophisticated music-theoretical comparisons that emphasized the interrelatedness of melody, formal structure, and style, and their theoretical status as more indicative of congruent similarity than more seemingly basic features, such as key or tempo. These analyses were met with growing judicial skepticism regarding expert partiality and the extent of analytical sophistication necessary for evaluating similarity.

Chapter Four continues the narrative through the middle of the twentieth century, focusing primarily on two cases that codified a legal system for evaluating similarity: *Arnstein v. Porter*, decided by the Second Circuit in 1946, and *Sid & Marty Krofft Television Productions, Inc. v. McDonald’s Corp.*, decided in 1977 by the Ninth Circuit.22 *Arnstein* introduced a judicial test that welcomed expert analysis, but prevented experts from commenting on the ultimate issue of infringement; instead, such determinations were relegated to the fact-driven evaluations of non-expert jurors. In a later attempt to refine *Arnstein*, the *Krofft* court introduced a new layer of complexity by narrowing expert analyses to the non-protectable musical idea as distinguished from non-expert comparisons of its protectable expression. Although to the *Krofft* court this division appeared to be a mere refinement of the *Arnstein* test, the judgment had the effect of creating a new test that further limited the influence of musical experts. Together, these cases shifted the decision regarding similarity from judges to jurors, exacerbating issues with unpredictable outcomes of each case. The decisions also legally reduced the clarity that musical experts could offer to triers of fact.

22 See Chapter 4 below for detailed discussion and citations to *Arnstein* and *Krofft*. 
From the enactment of the 1976 Copyright Act to the close of the twentieth century, courts struggled to apply, and later refine, the Arnstein and Krofft tests. Chapter Five addresses cases dating to this period. These cases still included the contributions of experts, who offer pedagogical clarifications of musical style and compositional process in addition to their increasingly sophisticated and abstract analyses. The peculiar constraints of legal similarity analysis, however, largely prevented them from having any measurable impact on the outcome of each case. This was particularly true for Ninth Circuit, where experts appear to have struggled to adapt their analytical techniques in ways that met legal notions of the ineffable musical idea. Despite, and because of, the continuities and innovations among experts, cases during this time could be said to serve as much to have intensified, as to have resolved, the problems with Arnstein and Krofft.

Chapter Six explores cases decided in the first fifteen years of the twenty-first century, which reflect enduring problems with copyright litigation and the shrinking influence of musical experts. In these cases, musical experts have cultivated three analytical trends that contextualize the nature of musical similarity in different ways. Experts have offered continuations of techniques used in earlier cases by presenting analyses and graphs recently referred to as “standard musicological procedure.” These more theoretically-rooted analyses have been opposed by more holistic analyses that emphasize cultural context and broad musical resemblance over traditional notions of musical congruence. Meanwhile, some experts have introduced innovative techniques that incorporate digital waveform analysis as a more precise means for sonic comparison that reaches beyond the conceptual and technical limits of western music notation. These
techniques have raised tensions among musical experts, which appear to be contributing to a decreasing reliance on them in the articulation of case outcomes.

Chapter Seven applies this history of musical expertise to a discussion of contemporary issues in music copyright litigation, particularly as they relate to the role of expert witnesses. It demonstrates that musical experts have been essential to copyright litigation and locates the source of unpredictable and inconsistent decision-making with the similarity inquiry rather than any formulation of similarity analysis or the roles that parties, witnesses, or triers of fact play. The dissertation concludes with a discussion of the relationship between experts and the court, and its impact on the future copyright litigation.

**Negotiating the Blurred Lines of Musical Identity**

In its historical and critical narrative of musical expertise, the present dissertation offers structure to the ways in which the American judicial system, and its musical expert witnesses, have historically approached the imagined property lines surrounding music. It reveals broad, shifting conceptions of music as intellectual property, what rights holders may expect to enforce, and how courts interpret the laws protecting those rights. This study draws attention to issues of the effectiveness of the federal copyright system, as well as to problems in its litigation process and potential areas of reform. This study exposes legal, ethical, and musicological dimensions to musical expertise that have yet to be fully explored.
More specifically, the present study draws attention to the ways in which musical experts have responded to these issues. In this way, it sheds light on the courtroom as a public forum for musical experts, particularly contemporary musicologists, and elucidates their understudied, yet often significant, relationship to litigation. As experts, musicologists serve a long-standing function by promoting a judicial system acutely aware of music theory, creative process, and the implications of copyright protection for musicians. In so doing, their contributions do not simply negotiate musical boundaries to assess similarity, but they also serve to refine understandings of musical identity and relationships between pieces of music in a legal context. It is through a better understanding of this role, provided in the present dissertation through historical study, that musicologists will be equipped to assist courts in resolving the contested boundaries, or the blurred lines, that separate and join so many works of music.
Chapter 1: What is Expertise?

In 1946, at the height of Tin Pan Alley, irascible composer-plaintiff Ira Arnstein sued American songbook composer Cole Porter for copyright infringement, claiming that Porter had illegally copied several of Arnstein’s previously copyrighted songs. The last of five comparable cases, Arnstein v. Porter marks a turning point in American copyright law, particularly for music. The Second Circuit’s decision on appeal set out a procedure for finding legal similarity, and ultimately infringement, that relied in part on expert testimony: ²³

If there is evidence of access and similarities exist, then the trier of the facts must determine whether the similarities are sufficient to prove copying. On this issue, analysis (‘dissection’) is relevant, and the testimony of experts may be received to aid the trier of the facts. *** Expert testimony of musicians may also be received, but it will in no way be controlling on the issue of illicit copying, and should be utilized only to assist in determining the reactions of lay auditors.

This expert analysis was intended not to determine the ultimate question of infringement, but rather to provide assistance to triers of fact in making that decision. Because this particular case dealt with music, witnesses fulfilling this function would need to have musical expertise, but, in the future, the legal procedure would apply to all copyrightable works.

Although the court had outlined a procedure for legally determining infringement, however, it did not elaborate on what it meant to be an expert. While the Second Circuit’s invocation of expert testimony undoubtedly referred to the specialized kind of witness already used in a variety of cases, this situation raises threshold questions about the nature of expertise whose role in copyright was partially defined by *Arnstein*. Thus, before understanding the role that experts play in copyright litigation, both historically and contemporaneously, it is first necessary to identify what an expert is, or what establishes his or her expertise.

Both statutory and common law regarding evidence establish the procedures for the admissibility of expert testimony based on the witness’s qualifications. Scholars of evidence law have studied the place of the expert witness in court, considering the admissibility of experts and the evidence they can introduce, as well as the general benefits and risks of expert testimony to legal proceedings. In general, a witness may be admitted as an expert where his or her specialized skill, qualification, or experience is recognized by the court as offering a technical perspective to evaluating the evidence at issue. Since the nineteenth century, however, courts, scholars, and legal commentators have critiqued the use of expert witnesses, noting the often partisan and confusing nature of expert testimony.

While existing law and legal scholarship offer structure to the legal nature of expertise, the field of music does not. To date, there has been little musical scholarship on the foundations of expertise in music. Nonetheless, musicological historiography reveals that music communities rely on similarly contextualized bases for recognizing expertise,
according to the skill, education, and experience of an expert to evaluate musical evidence.

Where legal and musical experts overlap, however, there is conceptual space for a wide range of expertise that could be admissible, depending on the court and the case. This variance experts can be seen across the history of copyright litigation, with performers and composers to academic theorists and historians having been admitted as expert witnesses. Each musical expert offers his or her own expertise within the field of music and contributes different kinds of evidence, with varying effects.

The expert analysis required by Arnstein, however, called for a specialized kind of expertise. As musicologist Dr. Robert Walser noted in his deposition given as part of

Swirsky v. Carey:24

Q. Is there something different between analyzing music for a copyright case and analyzing music as a musicologist?
A. Oh yes, definitely.
Q. Really. Tell me the differences.
A. When you are analyzing music for a book or an article, you are doing it in order to make a contribution to an already ongoing scholarly conversation. You are responding to what other people have done in their scholarship, and you are trying to refine the methodology, proposing insights, and your analytical techniques are guided by those goals, the goals of the discipline of musicology.
Q. Okay, what do you do as an expert in a copyright infringement case?
A. I think it’s unusual for experts in music to do that because it’s unusual for an expert in music copyright infringement case to be an academic musicologist, so that when I come to these cases, I’m always—I’m often responding to analyses that don’t proceed in the way that academic analyses proceed. And I’m also responding to the legal context that may be quite different from the academic context.

24 Swirsky v. Carey, 226 F. Supp.2d 1224, 1225 (C.D. Cal. 2002), Walser Dep. 35. See Chapter 6 below for a more detailed discussion of the case and Dr. Walser’s contributions.
Dr. Walser’s explanation regarding his perceived role as a musical expert witness illuminates disconnects between expertise, and its goals, required by copyright law and expertise as it is recognized in music. Thus, where music and law overlap in federal copyright infringement cases, there is an even narrower kind of musicological expertise required. Musical experts are expected to conduct specialized analyses that diverge from their cultivated skills, often their credentialed education, and sometimes even their musical experiences. The criteria for academic and legal expertise may be similar, that is, specialized skill, education, and experience, whose recognition is contingent on the context of the case, but the requirements of expert testimony are more particularized.

In recent years, there has been a rise in the subspecialty of forensic musicology, referring to individuals who have cultivated this specialized skill and who serve as musical experts in copyright infringement cases, among other legal duties. Although it is beginning to be recognized by legal and musicological communities, almost no academic scholarship has been produced by forensic musicologists that outlines its methods, goals, or even what constitutes expertise. Its practitioners do more to provide testimony than to offer academic study of expertise or issues with music copyright litigation examined through a musicological lens.

For all that evidence law appears to offer procedural thresholds to admitting expert witnesses, the nature of expertise in federal copyright cases involving music remains unclear. The means for establishing expertise in both fields, which are typically fact specific and contingent on the needs of the situation, make definitive divisions between musical experts and non-experts nearly impossible. Virtually no scholarship to
date has systematically analyzed musical expertise. It is instead more a matter of recognition from previously established musical experts, received through review and credentials.

**Expertise in American Law**

Federal evidence law regulates the procedures for admitting a witness as an expert as well as the kinds of evidence the expert may present.25 It applies to all federal legal proceedings, including copyright litigation. While a comprehensive study of the evolution of evidence law concerning expert testimony, although potentially revealing, would prove cumbersome, a review of the history and key sources of expert testimony offers an illustration of the legal conception of expertise. These sources show a long history of expert testimony but also reveal that defining expertise remains subject to the court’s discretion.

**An Early History of Experts**

“An intelligent evaluation of facts is often difficult or impossible without the application of some scientific, technical, or other specialized knowledge. The most common source of this knowledge is the expert witness.”26 These specialized witnesses

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provide relevant technical knowledge to legal proceedings and to answer questions that ordinary triers of fact are otherwise ill-equipped to understand. This knowledge is subject to regulations regarding the admissibility of the witness as an expert and the kinds of evidence that he or she may present. The use of expert witnesses dates to early British legal practice. By the late nineteenth century, experts were common witnesses, but their use was increasingly criticized for being partisan and confusing. As a result of twentieth century attempts to standardize evidence and resolve these kinds of issues, which culminated in the Federal Rules of Evidence were enacted and later interpreted by the Supreme Court.

Although the first recorded use of a modern expert witness dates to early seventeenth century England, judicial reliance on individuals with specialized knowledge began much earlier. Fourteenth-century courts initially determined the nature of expertise, as well as the admissibility of expert testimony, on the grounds of general relevance of evidence. The concept of an expert witness derived from the idea of a “special jury,” where jurors were required to have particular qualifications in order to make decisions, as separate from a “mixed jury” of guild members and merchants, or a “jury of matrons.” Here, instead of witnesses providing the jury with special

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29 Wigmore, § 1.3 at 8; see also L. Hand, “Historical and Practical Considerations,” 40-43.
information, as a modern expert witness might do, the jurors were the ones to bring expertise to court.

This self-informing jury practice faded over time in favor of more passive, non-expert jurors, and along with it came the rise of non-partisan expert “advisors” to the court. In these cases, there was no special process for distinguishing an expert from a non-expert, and no differentiation between the kinds of technical, specialized evidence presented by an expert as separate from any other kind of admissible evidence, including that which a non-expert, or lay, witness might present. The court simply needed to determine whether the evidence was relevant. As attorneys became increasingly strategic and adversarial through the eighteenth and nineteenth centuries, however, they began to call their own advisors with such special knowledge. It around this time that the laws surrounding expert testimony developed.

Through the nineteenth century, as attorneys took greater control over the production of evidence, experts grew increasingly common. They also became a favorite point of critique for courts and legal commentators, often because of a perceived failure on the experts’ part to provide objective, clarifying evidence. In 1857, a Supreme Court opinion lambasted expert witnesses for being as “effective in producing obscurity and error as in the elucidation of truth.” By the turn of the century, legal scholars, practitioners, and journalistic commentators had raised issues about the effectiveness of expert testimony, from their allegedly biased service as “hired guns” to their specialized

knowledge appearing to do more to confuse jurors than aid them.\textsuperscript{32} As one commentator wrote, “If there is any kind of testimony that is not only of no value, but even worse than that, it is . . . that of . . . experts.”\textsuperscript{33} Another critic claimed that expert testimony “is the subject of everybody’s sneer, and the object of everybody’s decision. It has become a newspaper jest. The public has no confidence in expert testimony.”\textsuperscript{34}

Critics of expert witnesses identified partisan bias as “probably the most frequent complaint of all against the expert witness.”\textsuperscript{35} By virtue of being retained by one party or the other, intentional or unintentional partiality on the part of experts often impacted the content of evidence they presented. While some commentators recognized that there could be legitimate differences of expert opinion due to differing methods and interpretations,\textsuperscript{36} there was still the possibility that such disagreements resulted from the expert’s ethical and financial allegiance to the party that retained him. As commentators noted, the court was all too often “entertained with the sad spectacle of two sets of experts giving solemn testimony in direct contradiction to each other.”\textsuperscript{37} The contradictory testimony that resulted from these expert confrontations created a similarly common complaint within the legal community. Beyond these main complaints, other

\textsuperscript{32} See Wigmore, § 1.3 at 11.
\textsuperscript{33} Wigmore, §1.3 at 11 (citation omitted). Frost’s discussion centered on medical experts, but the criticism is relevant across all manner of experts.
\textsuperscript{36} See Mnookin, “Idealizing Science,” 776.
commentators pointed toward the “loose way in which the trial court admit[ted]” expert testimony and the hypothetical questions attorneys often posed to experts in court.39

In his 1901 article, Judge Learned Hand laid out the legal contours of expert testimony, summarized contemporary criticisms of it, and proposed solutions intended to restore a sense of objectivity to expertise. He noted that experts could offer testimony regarding their inferences and opinions, whereas lay witnesses were limited to presenting their own experiences.40 “The expert is in effect not telling of facts at all, but of uniform physical rules, natural laws or general principles, which the jury must apply to the facts.”41 Thus, experts did not simply present observations or facts, but rather provided information with which triers of fact could interpret the evidence presented. The use of expert testimony was not without its problems, however, as Judge L. Hand summarized:42

The serious objections [to experts] are, first, that the expert becomes a hired champion of one side; second, that he is the subject of examination and cross-examination and of contradiction by other experts. . . . The main difficulty, the fatal difficulty, is, however, still further to seek, and lies in the logical fulfillment of the expert’s position, as witness and not as adviser of the jury. The result is that the ordinary means successful to aid the jury in getting at the fact is, aid, instead of that, in confusing them.

Judge L. Hand also presented a solution to these problems by introducing neutral, court-appointed experts to serve as a kind of “advisory tribunal,”43 harkening back to older court practices. This way, experts could present “those general truths, applicable to the

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40 L. Hand, “Historical and Practical Considerations,” 44-45. See also Haack, “The Expert Witness,” 46 (noting that experts were exempt from the standing “opinion rule” at the time of L. Hand’s article).
41 L. Hand, “Historical and Practical Considerations,” 51.
42 L. Hand, “Historical and Practical Considerations,” 52.
43 L. Hand, “Historical and Practical Considerations,” 56.
issue, which they may treat as final and decisive,” presumably with little hindrance from partisan bias.

**Treating Expertise**

As Judge L. Hand explained, the “rise of expert testimony [was] no more than the gradual recognition of such testimony, amid the gradual definition of rules of evidence.” By the turn of the twentieth century, expert witnesses had earned a reputation for being relevant to judicial inquiries, but also highly problematic. Legal scholars, practitioners, and courts conceived of expertise as dependent on the relevant qualifications of the expert and the court’s discretion. That discretion was broad, and left largely undefined until courts established common law precedent that structured the admissibility of experts.

Treatises published during this time compiled common law precedents and contemporary critiques regarding experts. These sources, some of which continue to be revised and published, offered concise explanations regarding the legal contours of the role of experts. Although “no standards exist by which to determine the qualifications of an expert witness,” an expert is nonetheless defined as “a person who is skilled or experienced or has knowledge in a trade or art or calling may be qualified to testify as an

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44 L. Hand, “Historical and Practical Considerations,” 55.
45 L. Hand, “Historical and Practical Considerations,” 51.

48 Encycl., 524.

49 Encycl., 532.

50 Encycl., 533; Rogers, “Expert Testimony,” 60 (an expert must “qualify himself [for the court] before being permitted to state his opinion or conclusions”).

51 Encycl., 535-37.

issue “is not a question of whether persons skilled in the arts can differentiate the two works . . . but of whether the ordinary reasonable man would do so.”

In effect, legal criteria for expertise by the early twentieth century were imprecise and easily met: any person who could demonstrate sufficient skill in an art relevant to the facts of a case could serve as an expert witness. Existing provisions did not include a solution to critiques of expert partiality or objectivity. The breadth of these laws was both a strength and a weakness for courts, permitting a wide variety of individuals and skills to be available as the evidence of each case required.

**Admissibility of Evidence**

“The testimony of experts is admissible upon questions and as to subjects within the range of their specialities which are too recondite to be properly comprehended and weighed by ordinary observers and reasoners.” Thus, by the early twentieth century, experts were expected to answer questions relevant to their expertise, but courts should “not allow an expert to answer absurd and useless questions” presented by attorneys. While “[o]rdinarily a witness is called for the purpose of deposing to facts only, and is not permitted to express his opinion upon a particular question. . . [but] the rule which permits experts to give their opinions in evidence is an exception this rule.”

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54 *Encycl.*, 520-21.

55 *Encycl.*, 524.

56 *Encycl.*, 521.
witnesses share factual testimony, experts may serve a more influential role to the court, offering their skill, knowledge, and experience to the court in making its final decisions. Their testimony, however, is limited to “matters beyond the scope of the common knowledge of the jury and ordinary witnesses.”

Judicial criteria for the admissibility of experts and their testimony was codified by the Supreme Court in *Frye v. United States* in 1923, which applied specifically to scientific testimony most commonly given by medical doctors and forensic scientists. The ruling required “general acceptance” of the expert’s method in order for the testimony to be admissible:

Just when a scientific principle or discovery crosses the line between the experimental and demonstrative stages is difficult to define. Somewhere in this twilight zone the evidential force of the principle must be recognized, and while courts will go a long way in admitting expert testimony deduced from a well-recognized scientific principle or discovery, the thing from the deduction is made must be sufficiently established to have gained general acceptance in the field in which it belongs.

In the case, which challenged the validity of the systolic blood pressure deception test, the expert test was found not to be generally accepted by “physiological and psychological authorities,” and the testimony based on the test was inadmissible. For all that courts applied the test, they did not offer a method for determining the boundary between “experimental” and “demonstrative” stages of the method. Instead, it relied on the determinations within the relevant field for determining expertise; that is, generally

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57 *Encycl.*, 526.
58 293 F. 1013, 1014 (D.C. Cir. 1923).
59 *Frye*, 293 F. at 1014 (emphasis added).
60 *Frye*, 293 F. at 1014.
61 *Frye*, 293 F. at 1014.
accepted by other experts.\textsuperscript{62} Despite its pitfalls, the \textit{Frye} test became the rarely-cited but influential standard for managing expert testimony; when read narrowly, it applied only to novel forms of evidence and specifically scientific evidence.\textsuperscript{63}

The Federal Rules of Evidence and the \textit{Daubert} Trilogy

By the mid-twentieth century, legal conceptions of expertise remained the same as it was earlier in the century. The problems with expert testimony were “nothing new,”\textsuperscript{64} but received greater legislative and judicial regulation through the introduction of uniform rules. In 1942, the National Conference of Commissioners on Uniform State Laws came together to produce model rules for the management of evidence, the final draft of which was published in 1953.\textsuperscript{65} Twelve years later, an advisory committee was formed to draft a federal code. In 1975, after years of scholarly and professional calls for uniform rules of evidence and eleven years of congressional deliberation,\textsuperscript{66} Congress enacted the Federal Rules of Evidence (FRE).

“Neither the academic and judicial codifiers nor congressional adopters anticipated or even acknowledged the revolutionary nature of the changes proposed,”\textsuperscript{67}

\textsuperscript{62} See also Mnookin, “Idealizing Science,” 764.
\textsuperscript{63} Haack, “The Expert Witness,” 48.
\textsuperscript{65} Bernstein, “Jury Evaluation,” 261. The Uniform Rules of Evidence were only adopted in full in Iowa, and partially only in California and New Jersey.
\textsuperscript{67} Bernstein, “Jury Evaluation,” 259.
particularly for expert witnesses. While the introduction of these uniform rules served to standardize the admission of evidence in federal cases and to clarify contested areas of evidence law, they initially did little more to define the nature of expertise. Section 7 of the FRE specifically addressed opinion evidence presented by witnesses, with rules 702 through 706 regulating the admissibility of expert testimony.

Under 702, admissibility is a function of the source of the evidence, that is, the qualifications of the expert, as well as the nature of the question requiring expert knowledge. Reinforcing tradition established by decades of practice and commentary, expert witnesses could be called when necessary.\(^68\)

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise.

Rule 702 applied to all expert testimony, and is therefore governed by principles of FRE 104(a), which required that the court decide preliminary questions, including whether a witness is qualified, as part of the admissibility process.\(^69\) The relationship between these rules reinforced the court’s discretion with regard to admissibility without providing a strict standard.

Rule 702 made no mention of the Frye test, instead providing a set of criteria by which to establish an expert as qualified and credible, such that he could present opinion evidence. There was no requirement that the methods be “generally accepted.” Initially,

\(^68\) Public Law 93-595 Jan. 2 1975, Rule 702.
\(^69\) Public Law 93-595 Jan. 2 1975, Rule 104(a) (“Questions of admissibility generally. Preliminary questions concerning the qualification of a person to be a witness, the existence of a privilege, or the admissibility of evidence shall be determined by the court, subject to the provisions of subdivision (b). In making its determination it is not bound by the rules of evidence except those with respect to privileges”).
courts disagreed on the relationship between Rule 702 and the *Frye* test, as they struggled to decide if one superseded the other.\(^{70}\) In 1993, however, the Supreme Court offered a solution in *Daubert v. Merrell Dow Pharmaceuticals, Inc.* The unanimous decision galvanized the application of the FRE for the admission of scientific expert testimony.\(^{71}\) The court urged judges to conduct preliminary inquiries into the extent of expertise of the witness and the methods they used to arrive at their testimony. It outlined factors related to Rule 702 that courts should consider regarding the reliability of evidence introduced by experts.

In *Daubert*, two families of parents and minor children sued a pharmaceutical company responsible for marketing the drug, Bendectin, alleging that pre-natal ingestion of the drug caused birth defects in the children.\(^{72}\) The appeal hinged on the petitioners’ introduction of expert evidence demonstrating that Bendectin could cause birth defects. The evidence derived from methodologies not generally accepted within the scientific community at the time, thereby raising a question as to its admissibility. Thus, under the *Frye* test, the evidence would have been inadmissible. The Supreme Court noted, however, that the evidence was introduced under the FRE, which did not require

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\(^{72}\) *Daubert*, 509 U.S. at 579.
acceptance as a prerequisite to admissibility. Instead, the Supreme Court introduced a new inquiry:

faced with a proffer of expert scientific testimony, then, the trial judge must determine at the outset . . . whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact at issue. This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue. . . . Many factors will bear on the inquiry, and we do not presume to set out a definitive checklist or test. But some general observations are appropriate.

The checklist included four “considerations,” or factors, that the Court believed would be “[o]rdinarily” relevant, including 1) whether the expert’s theory or technique could and had been tested; 2) whether the theory or technique had been subject to peer review; 3) whether an accepted error rate was applicable; and 4) whether the method was generally accepted in the field.

Ultimately, the Supreme Court remanded* the case to the Ninth Circuit to consider the new model. In effect, the Daubert factors broadened the scope of the court’s discretion from what it had according to the Frye test. Although it offered seemingly more concrete criteria, the decision placed discretion to determine relevance and credibility of expert testimony in the hands of the court, rather than on the specialized acceptance of other experts within the field. The decision also left two open questions:

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73 See Daubert, 509 U.S. at 588-89 ("Given the [FRE’s] permissive backdrop and their inclusion of a specific rule on expert testimony that does not mention 'general acceptance,' the assertion that the Rules somehow assimilated Frye is unconvincing. Frye made 'general acceptance' the exclusive test for admitting expert testimony. That austere standard, absent from, and incompatible with, the Federal Rules of Evidence, should not be applied in federal trials").
74 Daubert, 509 U.S. at 592-93. There is a vast scholarly literature evaluating these factors. See, e.g., Haack, “The Expert Witness,” 51-52.
75 See Daubert, 509 U.S. at 592-94.
76 Daubert, 509 U.S. at 592-93.
first, how to reconcile the court’s focus on an expert’s “principles and methodology, not on . . . conclusions,” with the call for judges to decide whether the “methodology properly can be applied to the facts in issue;”77 and second, the extent of application of the factors to non-scientific testimony.

The Court addressed the seemingly incongruous instructions in Daubert, between method (in the abstract prior to consideration of its application) and conclusion, with the requirement that judges evaluate the expert’s applicability of the method, in General Electric Co. v. Joiner.78 Here, electrician Robert Joiner was diagnosed with lung cancer and sued General Electric Company (GE), alleging that the disease was a result of workplace exposure to polychlorinated biphenyls (PCBs), electrical transformers, and dielectric fluid. To make his case, Joiner used deposition testimony from expert witnesses based on laboratory animal and epidemiological studies to show the relationship between his exposure to the toxins and his cancer diagnosis.79 The district court* excluded the testimony and granted summary judgement* to GE, reasoning that the expert’s application of his method was suspect, and therefore inadmissible. The Eleventh Circuit reversed,*80 in a decision that was subsequently reversed by the Supreme Court. In its majority opinion, the Court noted that “conclusions and methodology are not entirely distinct from one another. . . . A court may conclude that there is simply too great an analytical gap between the data and the opinion proffered.”81 In this decision, the Court

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77 Daubert, 509 U.S at 593; see also David S. Caudill and Lewis H. LaRue, No Magic Wand: The Idealization of Science in Law (Lanham: Rowman & Littlefield, 2006), 8 (citing Daubert).
78 522 U.S. 136 (1997); see also Caudill and LaRue, No Magic Wand, 8-9.
79 522 U.S. at 136-44; see also Caudill and LaRue, No Magic Wand, 9.
80 78 F.3d 524 (11th Cir. 1996).
81 522 U.S. at 146; see also Caudill and LaRue, No Magic Wand, 9.
brought together the seemingly incongruous statements of Daubert, resolving that a trial judge should consider both the expert’s method and its application when determining admissibility.

The Court would address non-scientific expert testimony two years later, in Kumho Tire Co. v. Carmichael. It is at this point that all experts fell under the explicit rule of evidence law. In this products liability case involving a tire blowout, Carmichael offered testimony from a tire failure analyst as expert evidence regarding a manufacturing defect in the tire. Kumho Tire Company challenged the evidence as lacking scientific methodology.

In its unanimous decision that the evidence was admissible, the Supreme Court reinforced Daubert, noting that a court’s “‘gatekeeping’ obligation, requiring an inquiry into both relevance and reliability, applies not only to ‘scientific’ testimony, but to all expert testimony.” As the court explained:

[W]e can neither rule out nor rule in, for all cases and all time, the applicability of the factors mentioned in Daubert, nor can we now do so for subsets of cases categorized by category of expert or kind of evidence. . . . Indeed, those factors do not necessarily apply even in every instance in which the reliability of scientific testimony is challenged, it might not be surprising in a particular case, for example, that a claim made by a scientific witness has never been the subject of peer review, for the particular application of it at issue may never previously have interested any scientist. Nor, on the other hand, does the presence of Daubert’s general acceptance factor help show that an expert’s testimony is reliable when the discipline itself lacks reliability.

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83 Kumho Tire, 526 U.S. at 137.
84 Kumho Tire, 526 U.S. at 137.
85 Kumho Tire, 526 U.S. at 137.
86 Kumho Tire, 526 U.S. at 150.
In addition to establishing the applicability of the *Daubert* factors to all types of expert witnesses, the court established that not all of the factors were always relevant to the specific nature of the expert testimony. Again, the Supreme Court left determinations of the relevancy of each factor, and thus the admissibility of the witness as an expert, to the court’s discretion. In effect, *Kumho Tire* further broadened courts’ power to determine the nature of expertise by affording courts further control over the admissibility of expert testimony.

Rule 702 was amended in the 2000 Amendment to the FRE, which incorporated additional factors that derived from *Daubert* and *Kumho Tire*. The newly-amended rule retained its original language, but now also included new language to offer greater clarity to the introduction of expert testimony: “if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliable to the facts of the case.” Without any procedural instructions for their application, however, courts were still afforded “substantial discretion” in applying each factor based on Rule 104(a).

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88 See, e.g., *Kumho Tire*, 526 U.S. 137, 149 (1999) (holding that the *Daubert* factors were applicable on a case-by-case basis for non-scientific testimony). “An opinion from an expert who is not a scientist should receive the same degree of scrutiny for reliability as an opinion from an expert who purports to be a scientist.” FRE 702 Comm. Notes (citing *See Watkins v. Telsmith, Inc.*, 121 F.3d 984, 991 (5th Cir. 1997) (“[I]t seems exactly backwards that experts who purport to rely on general engineering principles and practical experience might escape screening by the district court simply by stating that their conclusions were not reached by any particular method or technique.”)).
89 Fed. R. Evid. 702.
In addition to the factors present in the rule, the committee note indicates that the factors introduced by *Daubert* were non-exclusive and that courts might also consider factors such as:91

(1) Whether experts are proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for purposes of testifying.

(2) Whether the expert has unjustifiably extrapolated from an accepted premise to an unfounded conclusion.

(3) Whether the expert has adequately accounted for obvious alternative explanations.

(4) Whether the expert is being as careful as he would be in his regular professional work outside his paid litigation consulting.

(5) Whether the field of expertise claimed by the expert is known to reach reliable results for the type of opinion the expert would give.

These additional factors were likely intended to provide further guidance in relevancy determinations made by trial courts. As the Committee noted, however, “[o]ther factors may also be relevant.”92 Thus, the long and non-exclusive list of factors tacitly recognized that courts still had substantial discretion to admit expert evidence, while recommending that courts err on the side of admitting experts.93

In 2011, the Supreme Court introduced a linguistic “restyling” of the FRE, which adjusted Rule 702 but did not significantly change its content:94

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:

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93 Fed. R. Evid. 702 Comm. Notes to 2000 Amendment (“[a] review of the case law after Daubert shows that the rejection of expert testimony is the exception rather than the rule”).
94 Fed. R. Evid. 702.
(a) the expert’s scientific, technical, or other specialized knowledge will help the
trier of fact to understand the evidence or to determine a fact in issue;

(b) the testimony is based on sufficient facts or data;

(c) the testimony is the product of reliable principles and methods; and

(d) the expert has reliably applied the principles and methods to the facts of the
case.

While the FRE allow courts to address the idiosyncrasies of each case and expert, they make for a troublingly broad application. Even if there is “no need for academic training” for an individual to qualify as an expert, there is also “no need for a license” nor “practical experience”—only one of the following will likely suffice.95 This discretion opens space for discourse and a variety of applied methods, but also causes evidence presented by experts to increase the unpredictability and subjectivity of the outcome of the case.

Other Federal Rules for Experts

Three additional Federal Rules of Evidence in Section 7 provide structure to expert testimony in federal litigation. FRE 703 establishes the grounds on which experts may base their testimony, which qualifies the relationship of expert testimony to hearsay* rules and further distinguishes expert from non-expert witnesses; FRE 704 governs expert opinions on ultimate issues in lawsuits; and FRE 706 provides for court-appointed experts, in keeping with Judge L. Hand’s suggestions in the early twentieth century.

95 Wigmore, 2015 Supp., §§ 3.7(b) & (c).
These additional rules offer clarification to the limits of expert testimony and attempt to resolve common issues identified with it.

In its most recent formulation, Rule 703 permits experts to base their testimony on three sources: observations, existing practice or methods, and existing data. The text of the rule provides.\textsuperscript{96}

An expert may base an opinion on facts or data in the case that the expert has been made aware of or personally observed. If experts in the particular field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted. But if the facts or data would otherwise be inadmissible, the proponent of the opinion may disclose them to the jury only if their probative value in helping the jury evaluate the opinion substantially outweighs their prejudicial effect.

This rule predominantly resolves issues with rules that guard against the use of hearsay, which otherwise would have rendered much of expert testimony inadmissible.\textsuperscript{97} “The amendment covers facts or data that cannot be admitted for any purpose other than to assist the jury to evaluate the expert’s opinion.”\textsuperscript{98} Thus, an expert may present specialized data, such as survey evidence, to ground his or her conclusions and assist the jury, although such evidence would be found inadmissible if introduced by a non-expert.

Rule 704 governs expert opinions on ultimate issues of fact. Prior to the enactment of the FRE, common law precedent restricted experts from commenting on ultimate issues of fact. The prohibition on these statements was “unduly restrictive, difficult of application, and generally served only to deprive the trier of fact of useful information.”\textsuperscript{99} In its current formulation, the rule states simply that “[a]n opinion is not

\textsuperscript{96} Fed. R. Evid. 703 and accompanying Advisory Comm. Notes.
\textsuperscript{97} For Federal Rules governing hearsay, see Fed. R. Evid. Section 8.
\textsuperscript{98} Fed. R. Evid. 703 Advisory Comm. Notes 2000 Amendment.
objectionable just because it embraces an ultimate issue."\textsuperscript{100} While experts could still be prevented from commenting on ultimate issues by other laws, as would become the case for copyright law in the mid-twentieth century,\textsuperscript{101} the FRE removed any broad limitation.

Rule 706 attempts to resolve some of the lingering problems with expert witnesses by providing a procedure for admitting and questioning a court-appointed expert. As the rule provides,\textsuperscript{102}

On a party’s motion or on its own, the court may order the parties to show cause why expert witnesses should not be appointed and may ask the parties to submit nominations. The court may appoint any expert that the parties agree on and any of its own choosing. But the court may only appoint someone who consents to act. The retention of a court-appointed expert does not limit either party from calling their own experts,\textsuperscript{103} and affords both parties the ability to depose, examine, and cross-examine that expert.\textsuperscript{104} Thus, the rule attempts to reduce inescapable problems of partisanship and bias, as well as those stemming from applying the Daubert criteria, through calling what would be treated by the court as a neutral witness.\textsuperscript{105}

While these additional rules do not define the nature of expertise, they do offer structure and process to the application of expertise. In this way, these rules inform the practicalities of expertise. The rules also reinforce the court’s powerful discretion in

\textsuperscript{100} Fed. R. Evid. 704(a). Part (b) provides an exception for criminal cases which is not germane to the discussion of civil copyright litigation in the present dissertation.
\textsuperscript{101} See Chapter 4 below.
\textsuperscript{102} Fed. R. Evid. 706(a).
\textsuperscript{103} Fed. R. Evid. 706(e).
\textsuperscript{104} Fed. R. Evid. 706(b)(1)-(4).
\textsuperscript{105} Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 593-94 (1993) (urging judges to “also be mindful” of using a court-appointed witness to review expert admissibility); see also Joe S. Cecil and Thomas E. Willging, “Accepting Daubert’s Invitation: Defining a Role for Court-Appointed Experts in Assessing Scientific Validity,” Emory Law Journal 43 (Summer 1994), 995.
reviewing the admissibility of party-chosen experts, as well as in admitting its own experts.

Modern Scholarship on Expertise in Evidence and Copyright Law

Laws regulating the introduction and use of expert testimony, as well as the increase in specialized knowledge relevant to litigation, have led to a vast scholarly terrain in evidence law. Thousands of treatises, law review articles, and bar association journal articles, are devoted to problems with aspects of expert witness selection, admission, and compensation, as well as the impact of the Federal Rules of Civil Procedure on the use of experts. Although the majority of scholarship on expert witnesses in federal copyright litigation relies on evidence law to define the nature of the expert, many recent law review and bar association journal articles problematize existing tests for determining infringement that rely to varying extents on the role of the expert in the litigation process. Copyright treatises offer citations and syntheses of case decisions that outline the process for admitting and using expert testimony. Unlike their early

twentieth century counterparts, they also highlight some of the inherent problems with expert witnesses identified by evidence law specialists.  

Since the introduction of expert witnesses to legal practice, evidence law has constructed the nature of the expert witness to be contingent on the court’s discretion, whose evaluation follows criteria recently established by the Supreme Court. To make these determinations, each court relies on the facts and issues of the case as well as the expert’s qualifications. The legal nature of expertise, therefore, is dependent on an individual’s ability, defined by his or her skill, education, and experience, to discern evidence in the case, which itself is contingent on the facts of the case and the needs of the court.

**Expertise in Music**

Establishing a witness as an expert based on his or her knowledge, skill, or experience, can be influenced by notions of expertise held among members of the witness’s field. In this way, determining mastery of specialized knowledge or skill can be dependent on the criteria of already recognized experts who make up the field. Thus, courts often rely, to varying extents, on the self-regulation of professional and academic fields in determining qualifications for expertise.

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109 Patry § 9:79 (on the use and misuse of experts: “[u]nfortunately, in the advocacy context of litigation, experts, egged on by those who pay them, are rarely concerned with being helpful to the trier of fact. Their principal goal is to satisfy those who pay them, and as a result, they invariably go well beyond the helpful stage and plunge full bore into offering opinions on legal questions”).
In music, a diverse field in which expertise is highly defined by specialized skill, training, and knowledge, expertise is equally as contextualized as in law. Across musical authors, composers, performers, critics, and scholars, the institution of university credentials, particularly the Ph.D. or D.M.A. degree, has served as one objective marker of expertise. These academic credentials indicate mastery of higher education, which mirror the requirements of expertise in law. As evidence law indicates, a lack of credentials does not necessarily bar a person from serving as an expert. Rather, individuals with sufficiently proven skill could prove to be considered experts in the field of music.

In particular, musicology appears to have been silent about expertise within its own field, as well as the narrower expertise required by music copyright litigation. In recent years, however, a new term has arisen to describe musical experts. The term, forensic musicology,110 refers to a professional practice among a group of individuals who are called as expert witnesses, an act that requires what Dr. Walser recognized as its own specialized kind of musicological expertise.111 This group of mostly academically credentialed expert witnesses nonetheless embodies musical expertise without presenting any legal or musicological understanding of expertise itself.

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110 The term “forensic,” when associated with musical experts, has been used since the earliest music copyright cases, but is not a common term until the twenty-first century. See Chapter 2 below.
Expertise and Notions of Virtuosity among Musicians

Unlike in law, there is no established standard or criteria in the field of music that divide an expert from a non-expert, or amateur musician. Instead, emphasis is placed on demonstrated skill and musicianship. Although these traits are evaluated according to notions of virtuosity, they nonetheless shed light on some of the same issues raised in identifying musical expertise.

A performer who consistently demonstrates excellence in his or her performances based on critical application of exceptional musicianship and technical skill might be recognized as a “virtuoso.” While conceptions of virtuosity are aesthetically variable, for the purposes of this study, a virtuoso might be identified as a performer or composer who possesses extraordinary skill. The recognition of a virtuoso is contingent on the criteria established by relevant members, or even experts, of the field. Such recognition might come from general audiences, but also from “critics, colleagues, and institutions who judge the quality of performances and performers in the relevant domain.” Virtuosity may exist outside the realm of academia, however it is also possible to achieve virtuosic status and possess academic credentials in music.

114 Howard, “Virtuosity.”
115 Howard, “Virtuosity,” 49.
Thus, notions of virtuosity are built on many of the same principles as expertise and face some of the same issues. In the field of music, extraordinary skill, education, experience distinguish members of the community, the recognition of which is contingent on the discretion of already-identified experts in that field. How these experts distinguish between virtuosi and non-virtuosi, as with experts and non-experts remains a perennial issue.

**Expertise in Musicology**

Musicologists, broadly defined to encompass scholars of music history, theory, and culture, are often treated as experts in the fields of music and law alike. Despite not defining expertise within the field explicitly, the historiographical record of musicology may be understood to embody the criteria for expertise of the discipline. These sources emphasize the development of generally accepted research methodologies, their progenitors, and their results, suggesting that mastery of these methods and the detailed knowledge that comes from them, often recognized by university credentials, defines musicological expertise.

Grove Music Online provides the most comprehensive historiography and summary of major methods for musicology.\(^\text{116}\) Although musicology may be understood

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most simply as a systematic “scholarly study of music”\textsuperscript{117} dating at least back to ancient
Greece, but the modern academic discipline did not exist until the mid-nineteenth
century, or coincidentally, around the same time as the rise of music copyright litigation
in America. Nineteenth-century musicologists relied on eighteenth-century models of
musical study to establish the scope of their discipline until the publication of Guido
Adler’s “Umfang, Methode und Ziel der Musikwissenschaft” in 1885.\textsuperscript{118} Musicology
took root in America by the late nineteenth century, marked by the publication of J.S.
Dwight’s \textit{Journal of Music} and the work of Lowell Mason and Beethoven biographer
A.W. Thayer.\textsuperscript{119} By the mid-twentieth century, Hans-Heinz Dräger had modified Adler’s
codification of the discipline, incorporating contemporary changes to music culture over
the preceding 75 years.\textsuperscript{120} An explosion of new research questions and methodologies in
the late twentieth century vastly expanded the scope of musicology. As a result,
musicology began to incorporate greater influences from other disciplines, including
political science, gender studies, and cultural theory.\textsuperscript{121}

\textsuperscript{117} Grove, “Musicology.” Duckles and Pasler note that the term “musicology” may refer to a method, a
body of knowledge with music as its object of investigation, or a study of music as process as opposed to
product. For the purposes of this document, musicology is treated more as a discipline defined by its
methods and body of knowledge.

\textsuperscript{118} This article, published in the first issue of \textit{Vierteljahresschrift für Musikwissenschaft}, outlined and
distinguished historical and systematic areas of independent music study. For Adler, Musicology was “the
historical field (the history of music arranged by epochs, peoples, empires, countries, provinces, towns,
schools, individual artists)” including studies of notation, groupings of musical forms, compositional
practice and norms special to each “epoch,” which Adler referred to as “Laws,” and musical instruments,
and “the systematic field (tabulation of the chief laws applicable to the various branches of music)”
including investigations of harmony, rhythm, melody, aesthetics, psychology of music, and music
education itself. Grove, “Musicology.”

\textsuperscript{119} Grove, “Musicology.”

\textsuperscript{120} Grove, “Musicology.”

\textsuperscript{121} Grove, “Musicology.”
Thus, a scholar who has earned a Ph.D. in musicology, who presents research questions resolved by its methods and body of knowledge, may be said to be a musicologist. Much like a legal expertise, musicological expertise is understood to involve skills beyond that of an ordinary person. Thus, musicological expertise is largely a matter of training in music theory and its analytical techniques, study of historical and contemporary of musical styles and compositional processes, as well as critical and cultural theories that serve as lenses through which to interpret music. In keeping with these tenents, the first American Ph.D. in musicology was awarded at Cornell in 1932, with a large number of Ph.D.s being awarded since 1945.\textsuperscript{122} The American Musicological Society, one of the first scholarly organizations of its kind, was founded just two years later, in 1934.\textsuperscript{123} The establishment of credentials within the field and a scholarly-professional organization establish a community of experts, at least within musicology, that defines expertise. These credentials have been reinforced through presentations at scholarly conferences and through publication.

In the twenty-first century, musicologists recognize their own specialized expertise through a highly diverse field of research interests that fall within the purview of the discipline. These interests narrow the scholar’s knowledge beyond that which is implied by his or her academic credentials. A recent survey of the American Musicological Society Member Directory revealed over 1,000 self-identified areas of research expertise within the field, many of which coincide with sub-disciplines of

\textsuperscript{122} Grove, “Musicology.”
musicology identified in Grove.\textsuperscript{124} Research areas are defined principally by period, geographic region or nationality, composers, style or genre, cultural theory and method broadly conceived, textual studies, systematic studies, including music theory and cognition, and organology. Topics range from broad, common designations, like “opera” or “romantic music,” to more niche areas, like “wizard rock” and “Hanns Eisler.”\textsuperscript{125} Furthermore, variations across similar terms, for example the designations “Latin America,” “musics of Latin America,” and “Latin@ studies,” shed light on the subtle distinctions drawn by scholars with overlapping research subjects.

Together, this variety highlights a diversity of available research materials and methods to musicologists. It also signals that although each musicologist possesses what would be considered an expert knowledge of music theory and history, individual scholars cultivate their own specialized expertise within the discipline. The broad orientation of musicologists toward a scholarly study of music, and their rigorous training, nonetheless provide solid foundation for expert qualifications within the realm of music copyright litigation. Notions of musicological training that establish expertise, and the specialties of many contemporary musicologists, however, do not necessarily align with the requirements of legal expertise.

\textsuperscript{124} Grove, “Musicology.” Subject Headings for discipline include historical method, theoretical and analytical method, textual criticism, archival research, lexicography and terminology, organology, iconography, performing practice, aesthetics and criticism, sociomusicology, psychology and hearing, gender and sexuality studies, and national traditions.

\textsuperscript{125} Database for the American Musicological Society Member Directory, Robert Judd, email message to author with attachment, March 7, 2016.
Forensic Musicology

Within the discipline, education, skill, and experience are usually treated as indicators of expertise. Such expertise is often distinguished by subspecialty so that a musicologist would be considered an expert not simply in music, but specifically in music composed during the seventeenth century or in music that exemplifies characteristics of Romanticism, for example. In this way, the research and training of a musicologist indicates his or her expertise, but also his or her own professional stake, in a given body of material or set of analytical techniques or interpretive methods.

As Dr. Walser described in his deposition, such academic research exists somewhat separated from the requirements of musical expertise in the context of music copyright litigation. In this context, musical expertise requires its own kind of specialized skill and knowledge that is easily met by musicological training, but does not necessarily align or exploit the diverse specializations and scholarly goals within the field. As a result, any musicologist is likely capable to conduct similarity analysis for a music copyright infringement case and could be admitted by the court as an expert regardless of his or her own research interests, or stake, as an expert on the particular music at issue.

While there has not proven to be a scholarly musicological effort dedicated to constructing legal-musical, or “forensic,” expertise in the discipline broadly defined or in the narrower legal context, at least in the past decade, there has been a development in what has been called forensic musicology. Although notions of forensic music analysis...
seems to have been introduced as early as the 1990s, the term refers to a sub-discipline has been used to refer not simply to trained and credentialed musicologists, but to any individual with specialized skill, knowledge, or experience in music willing to offer their services as an expert witness. While the term is only recently becoming recognized by musicologists, as well as legal scholars, to date forensic musicologists have produced little, if any, scholarly research regarding their role within copyright litigation.

For all that the term forensic musicology has been applied to expert witnesses, its relationship to expertise has not been fully explored or analyzed. The term seems to imply its own specialized expertise within music necessary to conduct analyses for courts. Nonetheless, there is no recognized research interest or methodology common to forensic musicology, nor any stake in producing testimony that best represents any musicology or the music at issue, despite recommendations made by music theorists and audio engineers and references made by expert witnesses to “standard musicological procedures.” Thus, the term offers little clarity to understanding musical expertise at

131 See Chapter 7 below.
this stage and will not be broadly applied in this dissertation, except where experts self-identify as forensic musicologists in court records.

**Sources of Expertise**

The nature of expertise is a threshold question to any study of the role of musical expertise as it has been cultivated through judicial decisions. The legal and musical sources of expertise, and the rules that govern expert witnesses, together reveal an issue that is simply understood, but remains problematic. A musical expert is someone who has developed the skills or knowledge to discern musical evidence beyond the capabilities of an ordinary person. The means of acquiring such skill or knowledge, of ascertaining whether it has been acquired, and of judging its relevance, however, is contingent on the context and the circumstances of the case and the expert.

While legal scholars and practitioners have carefully constructed the terrain of expertise as best they can, those in music has yet to do the same. Evidence law, by itself and as applied in copyright infringement cases, relies on the court’s discretion to admit a witness based on that witness’s specialized qualifications. Those qualifications are not objectively defined, and courts may rely on constructions of expertise in the witness’s discipline as a guide for discerning legal expertise.

Without the same amount of procedural structure, musical determinations of expertise arrive at similarly imprecise conclusions. As a discipline, musicology has not explored concepts of expertise, let alone its application in copyright infringement. The
few scholars that have explored aspects of expert testimony have focused on analytical techniques used to discern musical evidence relevant to legal similarity, but without addressing the nature of expertise itself.\textsuperscript{132} The recent projection of a field of forensic musicology by certain individuals does little to fill this void, instead focusing on the practical offering of expert testimony rather than discussion of its disciplinary contours.

“The qualifications of an expert are like the pedestal for a statue—the more imposing, the nobler the subject above it appears.”\textsuperscript{133} The nature of expertise, and the admissibility of expert witnesses in litigation, is largely defined by variable qualifications and methodologies according to the needs of each case and court. Expertise is individualized and contextual, both within the expert’s field and legally. As applied to federal copyright law, such ambiguity offers a comfortable breadth to courts by avoiding more rigid limits on future court decisions. But it is in this ambiguity that questions arise regarding the role that an expert may play, or should play, in the copyright litigation process.

\textsuperscript{132} See Introduction above.
\textsuperscript{133} Louis Nizer, \textit{My Life in Court} (Garden City: Doubleday 1962), 274.
Chapter 2: The Foundations of Music Copyright Law

The U.S. Copyright Act was first passed in 1790, rooted in European conceptions of intellectual property and developing market economies. The Act derived its power from the “Science Clause” of the Constitution, which established rights for creators to control information presented as their own original, expressive works. After its passage, creators could enforce limited rights to control the distribution of the original, expressive works they produce, or their intellectual property. Among those rights was a fourteen-year period where the copyright holder could control the “printing, reprinting, publishing, and vending” of a protected book, map, or chart, with an additional fourteen-year period for renewal.

134 Intellectual property rights, including rights of creators to control copying their expressive works, derive directly from Enlightenment thought. Legal copy-right was first manifested in 1710 with the British Statute of Anne that granted a monopoly on copying writings for a limited fourteen-year period plus renewal. By the end of the century, in 1791 and 1793, the French National Assembly enacted laws that granted creators control over the copying, distribution, and sales of their works lasting for the life of the author. See Ronald S. Rosen, Music and Copyright (Oxford: Oxford University Press, 2008), 5-6.
138 Copyright Act of 1790, 1 Statutes at Large 124 § 1 (1790).
139 Copyright Act of 1790, 1 Statutes at Large 124 § 1 (1790).
Music did not receive legal protection until the first major revision of the Copyright Act, which was enacted in 1831. Among its revisions, the 1831 Act afforded musical authors the same protections as were accorded to books, maps, engravings, prints and other reproducible expressive works. These “musical compositions,” taking the form of published sheet music thought to embody less tangible musical sound, did not receive any individualized provision for controlling live performance, let alone nascent recording technology that would only appear later in the century. Instead, courts tasked with enforcing these new rights for musical compositions treated them identically to other expressive works.

Shortly after enactment, however, legal issues began to be raised about the extent of rights protection for copyrightable music. These actions marked the start of federal music copyright litigation. The cases that ensued during this century show courts struggling to define a legal process by which the contours of copyright infringement could be determined, especially for music. By the middle of the century, courts settled on similarity as the central inquiry for infringement cases as applied to all protectable works. Thus, a piece of music, or any other copyrightable work, was believed to have infringed on another work if the two pieces were sufficiently similar as to indicate copying.

Attorneys and courts turned to the technical skill and knowledge of musical experts, typically avocational or professional performers, composers, and music publishing company clerks, to offer more systematic, seemingly well-informed comparisons to clarify the subtle distinctions between musical works. Thus, these experts

were almost always called in these early cases, but there seems to be little standardization as to their contributions. Usually, such experts performed the two pieces of music at issue to provide an aural means of comparison for triers of fact or provided explanations of fundamental music theory. More significantly, experts conducted analytical comparisons based on the printed text of the music and offered their own conclusions as to whether the similarity amounted to copying. The lack of common law precedent for conducting infringement analysis posed a problem for reaching equitable decisions across cases and for managing the kind and purpose of evidence presented by experts.

Even with a judicial lack of functional means to ensure legal uniformity across cases, trends began to develop in the role that musical experts played. During the nineteenth century, cases involved then-popular musical styles, from music typically played in parlors or theaters to band music. Most experts filled the role of surveyors, casting the legal-musical similarity inquiry as locating the extent of musical congruence, thereby marking features of the shared musical boundaries between pieces at issue and clarifying the blurred line between commonality and infringement. In keeping with the melocentric style of the music, experts did this predominantly through note-for-note melodic comparison conducted often separate from the harmonic and formal dimensions of the song. The analytical techniques they used often correlated to their party affiliation, with plaintiff’s experts attempting to prove congruence, while defendant’s experts often recast congruence as a matter of stylistic commonality by showing resemblance between the music at issue and prior compositions. Although the contributions of musical experts

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were not necessarily determinative in any case, their influence on the outcome of each case is explicit in some case opinions.

Experts Perform Live in Court

One of the earliest functions that musical experts fulfilled was performative. Initially, experts serving this function were principally retained to sing, or play, in the courtroom so that triers of fact might aurally compare the music at issue. While these witnesses did little to control the final decision in each case, they carried the heavy burden of performance decisions that had an implicit influence on the ways in which the court heard the music. In the absence of readily available recordings, these live courtroom performances were the only means outside of sheet music examination that courts at this time could conduct musical comparisons.

The first case to explicitly include a music performance at trial is Reed v. Carusi, which was decided in 1845 by then-circuit Judge Roger Taney. In this case, the court struggled to establish a method for conducting a legal investigation of music copyright infringement and for determining damages in the event infringement was identified. Although not recorded in extant court documents, at least one musical expert

143 Reed v. Carusi, 20 F.Cas. 431 (C.C.Md. 1845); Patry on Copyright § 9:175 (marking Reed v. Carusi as the first American copyright case to address substantial similarity). Taney would later go on to become Chief Justice of the Supreme Court and to pen the infamous 1857 Dred Scott v. Sanford decision. It is important to note, however, that Millett v. Snowden, which addressed “The Cot beneath the Hill,” predates Reed as the first copyright case to address music. See 17 F.Cas. 374, No. 9600 (C.C.S.D. New York 1844).

performer was introduced as a witness, who offered his performance of the two songs at issue live in court.

The case resulted from competing claims over the rights to musical settings of the popular English poem, “The Old Arm Chair.”\textsuperscript{145} The litigation involved a web of poets, composers, and bandleaders over nearly a decade of interaction.\textsuperscript{146} Eliza Cook composed the poem in 1838 and it was first set to music by composer Henry Russell the following year. Russell’s setting has been said to be most popular American setting of the song, likely due in part to his undertaking a U.S. tour. In December 1842, Boston publishers Oakes and Swan obtained the copyright to the song, which was ultimately assigned to George P. Reed, the plaintiff. The problem arose because Marine Band leader Samuel Carusi, the defendant, had already obtained copyright for his setting of Cook’s poem to the music of the song “New England”\textsuperscript{147} two months earlier, in October 1842. Although it would seem that Carusi’s pre-dating copyright registration gave him the legal upper-hand, it was Reed who filed the complaint in 1844. The fact that Reed, rather than Carusi, filed suit, coupled with the fact that one of Carusi’s compositions appeared in Reed’s 1840 publication catalog, suggests that the case might have been a strategic attempt to begin refining music copyright law or a direct attempt at market control by Reed.\textsuperscript{148}

Although the motivation for initiating the lawsuit remains unclear, litigation commenced in 1844 under Section 7 of the 1831 Copyright Act, with Reed alleging that

\textsuperscript{145} For a discussion of “The Old Arm Chair” and nineteenth century parlor songs, see Caroline Moseley, “The Old Arm Chair: A Study in Popular Music Taste,” \textit{The Journal of American Culture} 4 (Winter 1981), 177-82.

\textsuperscript{146} See McCormick, “George P. Reed,” 5.

\textsuperscript{147} Carusi also held copyright for this song.

\textsuperscript{148} See McCormick, “George P. Reed,” 5.
Carusi published against Reed’s copyright “with varying design” and “with intent to evade the law.” Reed sought $2,000 in damages based on the “one-copy, one-dollar” statutory damages formula established in the 1831 Act. Carusi replied by claiming that Reed’s version was unoriginal, instead being based on earlier airs, and that the two pieces at bar were ultimately different. The jury awarded Reed only $200, to be divided evenly between Reed and the federal government.

The opinion made no reference to experts, nor does it show any explicit influence from their testimony, and extant records do not include any sheet music or written comparisons conducted by experts. Likewise, the opinion offers no explicit musical analysis or comparison. Extant sources nonetheless indicate that musical experts participated in the trial. In his memoirs, defense attorney William Frederick Frick noted that there was “a great deal of learned musical testimony and forensic discussion.”

Among these experts was John Cole, described as a professional singer but also a music publisher, who was introduced by Reed and required to sing the two songs to the jury, so that they could judge whether the songs were similar or not. The performance was allegedly made “in the gravest manner, under direction of the Chief Justice, to intone the two songs successively in open court.” Frick described the performance:

the appearance of the singer, the lamentable monotonous cadence of both airs, the pathos of the words . . . together with the singular and varied expressions of pleasure or disapprobation on the faces of the musical dilettanti present, produced by Mr. Cole’s emphatic rendering of the songs, would, under any other

149 Reed, 20 F. Cas. at 431.
150 McCormick, “George P. Reed,” 13 (quoting William F. Frick). In 1846, however, then-President James K. Polk pardoned Carusi’s debt to the government.
151 McCormick, “George P. Reed,” 12-13. Frick does not elaborate regarding the content of the testimony or discussion and extant records do not provide any further information. See also Patry on Copyright § 9:80 (discussing the role of forensic experts in music copyright cases).
152 McCormick, “George P. Reed,” 13 (quoting William Frederick Frick).
circumstances, have created in the crowd of bystanders irresistible laughter and confusion. But the Chief Justice, with that power peculiarly his own, of restraining almost by a glance the slightest breach of decorum in his Court, overawed and repressed every demonstration of disrespect by the placid and dignified attention which he bestowed throughout upon Mr. Cole’s musical efforts.

At the time of performance, Frick claimed that he objected to this evidence on grounds that it violated courtroom decorum. Taney overruled the objection, finding the performance to be a “novel species of evidence.” Frick nonetheless expressed concern that such a performance could not have occurred “in any other Court without inducing some, at least, of the listeners to forget and violate the customary rules of judicial decorum.”

The validity of Frick’s interpretation of the gravitas by which Cole’s performance was treated in court is impossible to confirm, but his concern regarding music performances in court and the novelty of the evidence are significant. By extending copyright to protect this new category of expressive works, courts were faced with finding new ways to determine similarity between works of music, made more challenging by the specialized literacy required to examine sheet music and the intangible nature of music itself. Judge Taney’s admission and allegedly serious interest in the evidence suggests at least that experts had an important role in music copyright infringement cases. The extent to which the performance influenced the decisions of the jurors remains undetermined.

Although the particulars of Cole’s performance were not preserved, the court likely heard two songs that beyond the lyrics were by no means identical, but that bore a

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155 McCormick, “George P. Reed,” 13 (quoting William Frederick Frick).
certain amount of musical congruence, as seen below in Figure 1. While Reed (Russell)’s version is in E-flat and in common time and Carusi’s is in D-major and in 2/4, the two melodies follow similar trajectories in pitch, rhythm, and phrasing.

Figure 1: First Pages of Reed (L) and Carusi (R), “The Old Arm Chair”

Likewise, the accompaniments both feature simple, slurred broken chords featuring similarly-voiced triadic harmonies. When considered in the context of court performance one after the other in court coupled with “forensic discussion” likely pointing toward

156 Sheet music was not retained with the case file. See “Reed v. Carusi,” Music Copyright Infringement Resource, last accessed January 28, 2016, http://meir.usc.edu/cases/Before1900/Pages/reedcarusi.html.
these kinds of musical comparisons and the factual circumstances surrounding the lawsuit, the jury’s finding of illegal similarity becomes plausible.

Despite limited extant records indicating the role of experts, Reed established a pattern of employing experts early in the history of music copyright litigation that continues into the present day. In particular, the practice of experts like Cole performing music in court to aid aural comparison continued even through the rise of mechanical recording. Even with the introduction of recorded excerpts for demonstrations, courtroom performances would endure as one of the central functions of musical experts.

**Experts Conduct Analysis of Similarity**

Live performance in the courtroom provided a practical means for triers of fact to compare the music at issue, but the experts’ own analyses of the music would provide a specialized comparison that reached levels of depth not necessarily perceptible by non-experts. In addition to offering definitions and performances, arguably the central function of the experts within copyright litigation was established in the earliest cases: conducting analytical comparisons between the pieces of music at issue to advise the court regarding similarity.

Shortly after Reed v. Carusi, courts began to admit evidence presented by musical experts who conduct comparative analyses of the music at issue. These analyses approached musical comparisons based primarily on melodic congruence, specifically focusing on pitch relationships despite rhythmic discrepancies, and paid less attention to matters of harmony or formal structure. It would not be until later in the century that
experts paid any significant attention to relationship of the music at issue to prior compositions or stylistic idioms.

**Analysis in the Nineteenth Century**

A few years after *Reed*, in 1850, the court in *Jollie v. Jaques* reinforced the establishment of similarity as the core legal inquiry for copyright infringement cases. The court described similarity between two works as the “basis for inquiry,”[^157] evaluated according to a substantiality standard to distinguish lawful commonality from unlawful appropriation.[^158] The lawsuit, as in *Reed*’s litigation, involved a pair of competing arrangements, only this time for a popular German dance song. George Loder, the musical director of Burton’s Theater, had arranged “Röschen Polka” for piano with the title, “The Serious Family Polka,” and then granted copyright for the song to music publisher and instrument seller Samuel Jollie.[^159] Upon finding the competing sheet music, Jollie sued John and James Jaques for arranging and publishing the same polka under the same title. The brothers claimed that their arrangement was an original, protectable adaptation of the polka. Moreover, they denied Jollie’s copyright claim, instead arguing that his version was unoriginal and merely a reproduction of the “Röschen Polka.” While the case raised procedural issues regarding the delivery of


[^158]: This approach reflects developing jurisprudence regarding a test for copyright infringement. See Emerson v. Davies, 8 F. Cas. 615, 622 (C.C.D. Mass. 1845) (“resemblances in those parts and pages are so close, so full, so uniform and striking, as fairly to lead to the conclusion that the one is a substantial copy of the other, or mainly borrowed from it. In short, that there is a substantial identity between them” (emphasis added)).

[^159]: Jollie, 13 F. Cas. at 910.
copies as a prerequisite for copyright, the substantive issue in the case was whether “The Serious Family Polka” was even an original musical composition within the meaning of the statute such that it was eligible for copyright protection.\textsuperscript{160}

To make its decision, the court relied on analysis from at least three expert witnesses whose party affiliation, if any, is not confirmed in extant records. Among existing expert depositions, one expert addressed the cultural history of the music at issue; the other two experts gave depositions compared the melodies and instrumentation of the two versions. The comparative analysis presented by these latter two experts, who identified similarity through analysis of musical congruence, proved to be most significant to the court.

According to expert witness Johann Munck, who served as a teacher, composer, and band leader in New York City,\textsuperscript{161}

Loder’s Polka is a substantial copy of a piece of music by a German composer called the ‘Röschen Polka,’ which has been played by various bands in the City of New York for some time antecedent to Mr. Loder’s production thereof and deponent has himself seen the same in a book belonging to Mr. Weise a leader of a Band German Musicians, and that the said Loder has made no change in the melody whatever and had added no original matter to the Composition and had made no new combination of the materials of said original air but has merely adapted the old melody to the piano-forte.

Without outlining any of his analytical method or specific points of musical similarity, Munck’s deposition only presented his summary conclusions regarding the extent of similarity between the two songs at issue. He couched his discussion in his awareness of contemporary German band music repertory.

\textsuperscript{160} Jollie, 13 F. Cas. at 910.
\textsuperscript{161} Jollie v. Jaques, Munck Dep., 1-3. Record Group 21; Record Entry NY-213; National Archives ID 749265; Circuit Court Southern District of New York; Equity Case Files 1846-1877, Box #5; “Jollie v. Jaques.”
In contrast, Charles H. Dibble, who served as a clerk at William Hall and Son music publisher, offered a more specific analytical discussion.\textsuperscript{162} The court reporter noted that Dibble was “acquainted with music practically and theoretically” and that he had “examined the several polkas published by Samuel E. Jollie”\textsuperscript{163} involved in the case. Dibble’s analysis was then summarized as describing the polkas being “different in their arrangement and that the one published by the above defendants [the Jaques brothers] contains several bars of matter not contained in that published by the above plaintiff [Jollie].”\textsuperscript{164}

This introduction and analytical summary, which served to establish Dibble’s credibility, was also used in music teacher George H. Curtis’s deposition, likely for the same purpose. Curtis’s deposition, however, included a bar-by-bar explanation of where the two songs differed. His deposition focused mostly on musical congruence according to melodic pitch, which he referred to as “notes,” and overarching harmonic relationships, while not addressing their relationship to rhythm and meter.\textsuperscript{165}

[the one] published by the defendants is written in the key of A Major, the plaintiff being written in the Key of G Major; the first, third, fourth, the first half of the fifth, seventh, and sixteenth bars of the said Editions differ in the arrangement of the treble and bass notes of each bar as may be seen by inspection.

That in the second part the first third and fifth bars differ in the arrangement of the bass notes and the second fourth and sixth bars differ in the arrangement of the treble notes and the Seventh has of the same part differ in the arrangement of both treble and bass notes.

\textsuperscript{162} Jollie v. Jaques, Dibble Dep. 1.
\textsuperscript{163} Jollie v. Jaques, Dibble Dep. 1.
\textsuperscript{164} Jollie v. Jaques, Dibble Dep. 1-2. Dibble also claimed that Munck performed the Jaques brothers’ polka two weeks before Jollie’s polka was published.
\textsuperscript{165} Jollie v. Jaques, Curtis Dep., 1-3.
And deponent further says that the portion marked Trio in the Edition published by defendants containing Eight bars is different in every respect from the same part of the Polka published by complainant [the plaintiff, Jollie].

And deponent further says that he finds an examination that to the finalie of the Polka in question published by defendants are added Eight bars of original music not found in any portion of the Polka published by complainant. That the new music bears no similarity or affinity to the melody of the preceding part & differs entirely in arrangement therefrom.

And deponent further says that he has compared the Polka published by complainant with a piece of music known as the Roschen Polka & that by such comparison the former appears to have been substantially copied in melody from the later: the only difference being that in the piece of music deponent saw was arranged for the clarionet while the same melody appears in the Polka published by complainant arranged for the Piano forte: which change is not attended with the slighted difficulty and is susceptible of being accomplished by any person able to transpose music in a very short space of time.[sic]

Unlike the other expert reports, Curtis’s analysis appears almost verbatim into the court’s decision. After a recitation of the contours of the new copyright provisions as well as the procedural issues in the case, the court turned to Jollie’s infringement claim. It presented both Jollie and the Jaques brothers’ arguments and then introduces Curtis’s analysis:166

It is further shown by an expert, who had examined and compared the two pieces of music, that the one published by the defendants is not only written in a different key, but that the first, third, fourth, fifth, seventh and sixteenth bars of the first part of the two editions, differ in the arrangement of the treble and bass notes of each bar; that in the second part, the first, third and fifth bars differ in the arrangement of the bass notes, the second, fourth and sixth bars in the arrangement of the treble notes, and the seventh bar in the arrangement of both treble and bass notes; that the portion marked trio in the defendant's edition, containing eight bars, is different in all respects from the same part of the polka published by the plaintiff; that to the finale of the defendants' polka are added eight bars of original matter not found in any portion of the plaintiff's edition; that the music of his edition is, in the melody, taken substantially from the ‘Roschen Polka,’ the only difference being that the latter was arranged for the clarionet, and the former, by Loder, for the piano-forte; and that the adaptation to one

166 Jollie, 13 F. Cas. at 910.
instrument of the music composed for another, requires but an inferior degree of skill, and can be readily accomplished by any person practised in the transfer of music. [sic]

The opinion concluded by applying the facts and expert testimony to find that the Jaques brothers prevailed because the two arrangements appeared to be substantially similar. In its heavy reliance on experts, namely on Curtis’s deposition, the Jollie court demonstrated the significant role that musical experts played. By providing their technical analysis, experts contextualized musical comparisons at issue in the case according to congruence revelatory of copying rather than mere stylistic commonality or resemblance. Their specific facts provided the basis for the decision.

The analytical technique applied in Jollie privileged melody, emphasizing pitch comparisons. As the court explained, “[t]he original air requires genius for its construction; but a mere mechanic in music, it is said, can make the adaptation or accompaniment.”167 Here, the court relied on melody, or “the original air,” as the central source of copyright-protectable material to determine whether the alleged copy rose to the conceptual level of legal infringement.168 The court avoided the experts’ discussions of style and originality in the context of polka music, choosing instead to focus on the two melodies as the “genius” behind the music, with minimal judicial treatment of the accompaniment, or “bass notes,” that “a mere mechanic” could have allegedly provided.169

167 Jollie, 13 F. Cas. at 910.
168 The intricate legal issues discussed in the Jollie decision have proven to be significant for the copyright tradition. Conceptually, the decision introduced “originality” as a criterion for copyright analyses that would continue late into the twentieth century. See Shapiro, Bernstein & Co. v. Jerry Vogel Music Co., 73 F. Supp. 165 (1947).
169 Jollie, 13 F. Cas. at 910.
The process outlined in the *Jollie* decision, which relied heavily on expert analysis, laid a foundation for detailed musical analysis in subsequent cases as the purview of musical experts whose contributions should inform the court before it makes any final legal determination.\(^{170}\) The next published music copyright decision after *Jollie* did not appear in the historical record for nearly thirty years. It is very likely that other copyright claims were raised during this period that were either unpublished or settled out of court, as the majority of such claims are treated still today.

By 1878, the case of *Blume v. Spear* was decided, which revealed an expansion in reliance on experts as well as in their analytical techniques.\(^{171}\) With an issue and fact pattern similar to the cases that preceded it, the *Blume* court dealt with competing claims to rights control over a popular domestic song. Building on *Jollie* and other copyright cases, the main issue in *Blume* regarded the degree of similarity necessary to constitute infringement. Songwriter Fannie Beane composed “My Own Sweet Darling, Colleen Dhas Machree” and granted the copyright to publisher Frederick Blume. In 1877, Blume claimed that defendant Frederick Spear stole the song and retitled it “Call Me Back Again.” As part of the defendant’s argument, he introduced “Sweet Spirit Hear My Prayer” to argue that Blume’s “My Own Sweet Darling” was based on prior compositions.

To support their arguments, both parties relied on a surprisingly large number of experts to offer their comparisons and analyses regarding similarity. Most notably, Blume

\(^{170}\) See, e.g., Cooper v. James, 213 F. 871, 872 (N.D. Ga. 1914) (citing *Jollie*) (“The musical composition contemplated by the statute must, doubtless, be substantially a new and original work, and not a copy of a piece already produced, with additions and variations, which a writer of music with experience and skill might readily make.”) (decision hinging on alto parts composed for songs in “The Sacred Harp”).

introduced music professor Sigismond Lasar, who taught at the Packer Collegiate Institute in Brooklyn. In his deposition, Lasar claimed that he had examined a number of melodies “in the line of discovering plagiarisms,” offering what appears to be one of the earliest references to serving as a professional expert witness. Lasar’s deposition addressed issues of melodic similarity primarily during direct examination, using similar analytical techniques to those used by experts in Jollie. Treating musical similarity as a function of musical congruence, Lasar indicated which measures were “identical” or “nearly so.” He also discussed issues of rhythmic similarity and non-chord tones in the melody during cross-examination, first between the songs at issue and then between “My Own Sweet Darling” and “Sweet Spirit.”

To visually demonstrate his analysis and explanatory testimony, Lasar’s deposition included a comparison chart, as shown below in Figure 2. In this chart, the three melodies were removed from their formal contexts, transposed to the same key and then aligned in tandem. Unique features of each melody were written in black, while overlapping pitches were notated in red. The chart served as a visual representation of Lasar’s discussion of melody, harmony and rhythm. Its graphic depiction exploited the contrast created by the red ink by also writing song titles, measure numbers, and lyrics minimally relevant to the comparison in red ink. Thus, the more red a viewer saw, the more similarity it was assumed that he or she could perceive.

172 Lasar Dep. 1. Record Group 21; Record Entry NY -213; National Archives ID 749265; Circuit Court Southern District of New York; Equity Case Files 1876-1907, Box #400; “Blume v. Spear.”
175 Blume v. Spear, Lasar Dep. 5-6.
Even setting aside Lasar’s apparently partisan strategy, the red notation provides a striking visual marker of similarity for pitch. The coloration does not seem to account for other similarities, such as rhythm, meter, or harmony. Thus, the chart might have been

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deceiving to a non-expert viewer who could not adequately compare rhythm in the context of different meters simply by looking at the charts.

Extending his analysis beyond the music as it appeared in notation, Lasar drew attention to the melodic figure that appears in the second measure of “Sweet Spirit,” and “Colleen,” which Lasar identified as being of “Scottish derivation.”

A. the four notes proper in the second measure of the song of Sweet Spirit, & C. Q. Can you tell us anything about these four notes as they appear in musical compositions?”
A. They are usually known as a peculiar Scottish derivation. . . . appearing everywhere in ordinary street or minstrel songs, and they have no special identity.[sic]

As a result, Lasar argued, the overlap in this four-note figure was insignificant to copyright because it was common to Scottish music, and therefore being unoriginal and not legally protectable. This portion of the analysis required expert knowledge regarding musical borrowing and compositional process not readily apparent in the sheet music.

Blume also introduced composer, arranger, and accompanist Charles Pratt, who also applied many of the same analytical techniques as Lasar and the experts in Jollie. Pratt had previously corrected the printer’s copy of Blume’s song, so by the time of trial he was “very familiar with it.” It is possible that Pratt’s familiarity with Plaintiff’s song created at least some partisan bias in his analysis, but there is no record of the court pursuing this concern.

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178 Blume v. Spear, Pratt Dep. 1.
179 Blume v. Spear, Pratt Dep. 9.
180 Blume v. Spear, Pratt Dep. 2.
Like Lasar’s deposition, Pratt’s deposition included a black-and-red melodic comparison chart, shown below in Figure 3. Pratt’s chart differed not only in that it shows the two songs at issue, but also in the notational scheme. The red notes highlight points of dissimilarity and red lines drawn between offset similarities in pitch. The effect is slightly different, and perhaps less visually striking, for a judge likely ill-equipped to read sheet music. He seems to have used this chart for his analysis to conclude that not only were the two songs “substantially identical,” but that “the former [Call Me Back Again] was either copied from the latter [Colleen Dhas Machree], or more likely was either copied from the memory of some person.”

In addition to Pratt’s analysis, the court records include a series of nearly identical affidavits* from music experts, mostly composers and teachers, all agreeing with Pratt. The list includes affidavits signed by J. Hazen Ross, James J. Freeman, James O’Neil, Joseph P. Skelley, Charles Puemer, Anthony Baris, and Charles Cappa. These affidavits lent credibility to Pratt’s work, but they offer little in the way of independent expert analysis. None of the expert documents outline the experts’ analytical techniques, but it is likely that the similarity they identified referred more to pitch than harmony or rhythm.

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181 Blume v. Spear, Pratt Dep. 5.
182 Blume v. Spear, J. Hazen Ross Aff. 1.; James J. Freeman Aff. 1; James O’Neil Aff. 1; Joseph P. Skelley Aff. 1; Joseph P. Skelley Aff. 1; Charles Puemer Aff. 1; Anthony Baris Aff. 1; Charles Cappa Aff. 1. The list reflects the order in which the documents appear in the extant case file.
Figure 3: Blume v. Spear, First Page of Comparison Chart, Charles Pratt\textsuperscript{183}

\textsuperscript{183} Blume v. Spear, “Comparison Chart,” Pratt Dep.
In opposition, Spear called Harrison Milliard, a composer “thoroughly versed in the knowledge of music and harmony.” Unsurprisingly given his party affiliation, Milliard arrived at the opposite conclusion of Blume’s experts. Milliard did not explicitly outline his comparative analysis in prose or shown graphically in a chart. Instead, he emphasized the relationship of the music at issue to prior compositions, thereby arguing that the similarities were not significant to infringement decisions:

I find that the music of [“Call Me Back Again”]—which in some respects is similar as far as portions of the melody go, differs materially and substantially from the music and melody of the other two, especially as to the arrangement of the accompaniment.

The prelude for the piano is entirely different in composition and such resemblances as may be found are only in a few bars of the melody which are repeated several times during the composition.

This similarity of idea is a thing which is of almost daily occurrence and it is difficult to determine who originates any given musical phrase, as even the bars of music claimed as identical by the several musicians whose affidavits I have read in connection with plaintiffs papers are almost identical with ‘Sweet Spirit Hear My Prayer,’ written by Wallace and made popular in 1861.

I often find musical phrases which I believe have been originated by me and first used in some of my popular songs introduced and used in other songs by musical composers, but I do not think they in any way detract from the merit of my songs or in any way inspire them if the songs are sold under different titles and subjects, differing from those which I have originally published.

According to Milliard, the similarities that Blume’s experts identified were irrelevant to finding infringement because such similarity reflected musical borrowing that was, in his opinion, common to the compositional process. As a result, that material would be considered not protectable. This discussion also recast Lasar’s dismissal of the similarity based the material “of Scottish derivation,” as being more relevant to the comparison.

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184 Blume v. Spear, Milliard Dep. 1.
185 Blume v. Spear, Milliard Dep. 2-3.
Millard’s deposition also presented a critique of Lasar and Pratt’s analytical technique, which emphasized melodic pitch similarity out of the context of the rest of the music and over a comparison of the accompaniment.

Additionally, the defense introduced testimony from composer Clark Evans and a generalized “expert on music,” Paul Steinhagen.\textsuperscript{186} Both experts presented similar findings to Milliard, giving nearly identical depositions. Evans and Steinhagen reinforced Milliard’s argument by stating that the similarities between the songs appear in well-known published songs, therefore the similarity is acceptable borrowing, not illegal infringement. “A few bars of the melody in each resemble each other but these bars are almost identical with bars found in the well-known songs published more than twenty years ago, ‘Sweet Spirit, Hear My Prayer.’[sic]”\textsuperscript{187} Although melody was the main focus of their deposition, Evans and Steinhagen also addressed the arrangement and accompaniment, without specifying what musical relationships they meant. They both “compared the two pieces of music hereto annexed called ‘My Own Sweet Darling Coleen Dhas Machree’ marked ‘B’ and ‘Call Me Back Again,’ marked ‘C’—and [the experts] find that they differ materially in the prelude for the piano and in the arrangement of the accompaniment and in other respects.”\textsuperscript{188}

The partisan strategy behind these expert analyses is apparent. Given that Milliard, Evans, and Steinhagen were retained by Spear, their affiliation with the defendant likely motivated them to cast the inherent melodic similarities as unoriginal prior art, and then to draw attention to differences in other parts of the song, most notably

\textsuperscript{186} Blume v. Spear, Steinhagen Dep. 1; Evans Dep. 1.
\textsuperscript{187} Blume v. Spear, Steinhagen Dep. 1-2; Evans Dep 1-2.
\textsuperscript{188} Blume v. Spear, Steinhagen Dep. 1-2; Evans Dep. 1-2.
the arrangement and accompaniment. The argument also presented a new dimension to infringement analysis that separated similarity from misappropriation. According to the defendant and his experts, similarity did not demonstrate infringement automatically; rather, similarity had to be specific to protectable elements of the plaintiff’s music.\textsuperscript{189}

The defendants’ strategy ultimately proved to be unsuccessful because the court found that the “two pieces [we]re substantially the same.”\textsuperscript{190} The element most legally significant to the opinion, however, was its reinforcement of the point at which similarities between two pieces of music were relevant and “substantial” enough to constitute infringement.\textsuperscript{191} As the court noted:\textsuperscript{192}

Upon the question of infringement there is not much room for doubt. The theme or melody of the music is substantially the same in the copyrighted and the alleged infringing pieces. The measure of the former is followed in the latter, and is somewhat peculiar. When played by a competent musician, they appear to be really the same. There are variations, but they are so placed as to indicate that the former was taken deliberately, rather than that the latter was a new piece.

The decision also began to account for unlawful appropriation without introducing it as a separate legal inquiry from similarity. The court made an oblique reference to examining “variations” of the melody as presented and discussed by the experts, which were “so placed as to indicate that the former was taken deliberately, rather than that the latter was a new piece.”\textsuperscript{193} This “deliberate” copying introduced an intent to infringe as opposed to similarity resulting from common compositional process within the stylistic idiom.

\textsuperscript{190} \textit{Blume}, 30 F. at 628.
\textsuperscript{191} See \textit{Blume}, 30 F. at 628.
\textsuperscript{192} \textit{Blume}, 30 F. at 628.
\textsuperscript{193} \textit{Blume}, 30 F. at 628.
Nonetheless, the court formalistically interpreted similarity as the legal inquiry, without introducing its own practical approach given the facts of the lawsuit and the nature of each party’s argument.194 The presence of musical experts nonetheless highlights period conceptions of musical similarity as fact specific and their disagreements point toward the subjectivity of interpreting it in a legal context.

The *Blume* decision offers little guidance regarding the influence that experts had on the decision or the precise role that they played. Without an explicit reference to experts, or even a clear correlation between their reports and the court’s decision, it is unclear the extent to which the court relied on experts or made its own comparisons in reaching the final outcome of the case. It is also unclear how the quantity experts, particularly on the plaintiff’s behalf, impacted the court’s decision. Extant records nevertheless offer a glimpse into the ways that experts did serve the court by lending their specialized skill and knowledge to the arguments of both parties.

Unlike *Jollie*, where the court explicitly examined pieces of sheet music rather than performances of them, the opinion in *Blume* offers no such musical analysis. In so doing, the opinion obscured the detailed comparative analytical process conducted by the experts preserved in extant court records. It likewise does not address the disagreements between experts for opposing parties or the large quantity of experts hired for the case. The *Blume* decision does suggest that courts considered comparative analysis of the songs and prior compositions where applicable to be the appropriate method for

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determining infringement and claimed that the method was applied to some extent. Thus, although the court did not explicitly outline the context of musical similarity in its opinion, that similarity was nonetheless contextualized by musical experts.

While the *Jollie* and *Blume* decisions do little to define the role of experts, extant court records do suggest that they played an essential role. To varying extents, experts conducted close analyses of musical similarity, moving note by note in search of musical congruence. Their comparisons were primarily focused on melody, with rhythm and harmony serving as secondary considerations; only some experts provided even limited discussions of style, originality, and musical borrowing not immediately apparent in the sheet music. These analyses led to expert conclusions regarding similarity, but experts occasionally used these conclusions to extrapolate regarding the ultimate issue of infringement in the case. Whether cited directly or merely contributing on the court’s reasoning, experts played an essential role by informing the judge’s final decision.

**Limiting Expert Contributions in Copyright Cases**

By 1898, substantial similarity analysis developing over the past fifty years had become ingrained in legal practice for music copyright litigation. Other issues relevant to copyright protection, such as questions about prior compositions, the limits of copyright protection, the copyright registration process, and the extent of each right afforded copyright holders for works considered to be obscene, were also being litigated. Although these cases could have integrated expert testimony, there is little indication that experts had a significant role in these cases.
The opinion in *Broder v. Zeno Mauvais Music Co.*, for example, applied similarity doctrine, but the decision ultimately dispensed with detailed legal discussion and musical analysis.\(^{195}\) It shows no explicit influence from expert witnesses, or even that experts were called by either party or the court. Instead, the complaint hinged on unauthorized reproduction of songs and the final decision rested on the protectability of songs due to its lyrical content. Contemporary courts had interpreted the intent of the copyright statute, and the Constitution, to extend protection only to works reasonably consistent with its purpose—that is, to “promote the progress of science and the useful arts.”\(^{196}\) According to nineteenth-century courts, materials considered illicit or immoral were viewed as inconsistent with this intent, and thus did not receive copyright protection.\(^{197}\) *Broder* centered on competing claims to the same popular minstrel song, but the lyrical content of the plaintiff’s song, which included the word “hottest,” the case was dismissed without any reliance on expert analysis.\(^{198}\)

While experts could have been part of the litigation process, potentially offering testimony regarding stylistic idioms of popular song and minstrelsy, there is little indication that they were present or played a significant role in the court’s decision. Instead, the court in *Broder* relied on copyright jurisprudence to decide to dismiss the case. Thus, by the end the nineteenth century, practical limitations were already being

\(^{195}\) *Broder v. Zeno Mauvais Music Co.*, 88 F.74, 74 (C.C.N.D. Cal. 1898).


\(^{197}\) *Broder*, 88 F. at 74.

\(^{198}\) *Broder*, 88 F. at 74. The word “hottest,” which was too said to be “obscene,” with what the court described as “an indelicate and vulgar meaning,” to merit copyright enforcement. The 1856 Copyright Act had placed a content-based restriction that limited copyright protection to “composition[s] designed or suited for public representation.” Copyright Act of 1856, 11 Sat. 138 (1856). The court in *Martinetti v. Maguire* construed the statutory language to refer to moral suitability of a work. 16 Fed. Cas. 920 (C.C. Cal. 1867). This interpretation would be superseded, and then removed from the 1909 Copyright Act. See also Mitchell Bros. Film Group v. Cinema Adult Theater, 604 F.2d 852, 855 n.4 (5th Cir. 1979).
established around expert witnesses, with the court focusing expert attention on measuring similarity and resolving the ultimate legal issues on its own.

**Toward the Twentieth Century**

The foundations of American music copyright litigation are in formalistic legal procedure established during the nineteenth century centered on legal-musical similarity. Courts during this period set out fundamental principles that they interpreted from statutory copyright law. Decided just two years after *Blume*, for example, in an 1880 case involving copyright protections for a book outlining a system for accounting, the Supreme Court emphasized that copyright protections extended only to the expression of ideas, not the ideas themselves—or in that case, to the published text of the book but not its underlying method.\(^{199}\) Although the principle does not appear to be foregrounded in music copyright cases during this century, it would have significant implications in the next century.\(^ {200}\)

Ostensibly more pressing for the role of musical experts during this period, the court defined infringement by substantial similarity between two expressive works as relevant legal standard. Nineteenth-century courts lacked a practical process for making such determinations, which had the effect of precluding any consistency of judicial decision-making between one case and another. As music copyright cases demonstrated,

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\(^{200}\) See also Chapter 4 (discussing the idea-expression divide applied to similarity analysis in *Krofft*).
finding substantial similarity in order to determine infringement was indeed a fact-specific endeavor.

Among the missing elements to this legal procedure were guidelines for the role of experts. These witnesses had few, if any, constraints on their analyses, conclusions, or the scope of their testimony. In court, they could use these analyses to comment on similarity, but they could also comment on ultimate determinations regarding infringement. In some cases, the court quoted directly from an expert report; in other cases, the court could have just as easily ignored expert analysis entirely. Despite a lack of procedure guiding them, the participation of expert witnesses in early music copyright litigation appears to be significant. The extent to which expert contributions should impact the outcome of each case, however, was left to future courts.

\[^{201}\text{The relative absence of musicologists or music theorists at this time is likely due in large part to the nascent nature of the disciplines in America. See Chapter 1 above.}\]
Copyright cases decided in the nineteenth century featured courts developing a formal model for determining copyright infringement that centered on evaluating similarity. It applied to all copyrightable works, including music. Judges in music copyright cases often relied on the contributions of musical experts, usually composers or band leaders, who provided analytical comparisons that primarily identified melodic congruence. In so doing, their analyses contextualized the nature of the lawsuit in fact-specific ways and the ways in which the court understood musical similarity.

By the turn of the twentieth century, the United States was poised for a major overhaul of federal copyright law. The Supreme Court’s 1908 decision in *White-Smith Music Publishing Co. v. Apollo Co.*, 202 a copyright case regarding the protectability of player piano rolls, contributed one reason to reconsider its requirements for copyright protection. Congress enacted the third major revision of federal copyright law in the following year, which notably shifted from listing types of protectable works to categories of protectable works.203 Additionally, the new regime introduced categories of unpublished works accepted for registration,204 the statutory term was established at the

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202 209 U.S. 1 (1908).
203 Copyright Act of 1909, 35 Stat. 1075, § 5 (superseded 1976) [hereinafter Copyright Act of 1909]. The second major revision occurred in 1870 but had no specific revision impacting only music.
204 Copyright Act of 1909 § 2.
time of publication, and the term of renewal was doubled from fourteen to twenty-eight years.  

Specifically for music, the 1909 Act attempted to account for new technologies that allowed music to be reliably reproduced in radically new ways. The 1909 Act notably introduced a compulsory license system that allowed the use of a copyrighted work by someone other than the copyright holder, provided that the user paid a modest fee to the copyright holder. In particular, compulsory licensing allowed musicians to make recordings of copyrighted works without the holder’s explicit consent. The compulsory license scheme extended legal protection, and thus extrinsic incentive, to sheet music composers from recording artists and venues that played those recordings. This licensing system did not, however, provide a protection to the recording artist. Recordings, still relatively in their infancy at the time of the 1909 Act, were not protectable independent of any proffered sheet music. They instead constituted mechanical performances, which fell under already protected performance rights of the copyright holder.  

In order for authors to receive protection, the 1909 Act held required compliance with the formalities system. Securing valid registration entailed creators meeting formal

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205 Copyright Act of 1909 § 23.
206 See, e.g., White-Smith Publishing Co. v. Apollo Co., 209 U.S. 1 (1908) (piano rolls not considered copies of musical compositions because they did not provide “a written or printed record in intelligible notation,” therefore recording artists were not required to pay royalties to composers); Herbert v. Shanley, 242 U.S. 591 (1917) (music copyright holders had right to compensation for public performance of their musical composition, even at venues where there was no admission charge).
207 See Copyright Act of 1909 § 115.
requirements of publication, notice, registration, and deposit.\textsuperscript{209} Even with the introduction of recording technology as a new medium of documenting music, this copyright formalities system still required that new musical works on record must be published with a copyright notice. Musical works transmitted orally or captured on record could only become eligible through transcription, deposited in the copyright office with the label “not reproduced for sale.”\textsuperscript{210} Although these revisions had significant implications for the federal copyright system, it did very little to impact the role of experts in litigation directly.

Although the 1909 Act did not necessarily stimulate a rise in music copyright litigation, early-twentieth century courts heard an increasing number of federal copyright claims, particularly in the Southern District of New York and its appellate court,* the Second Circuit. This rise in litigation coincided with the meteoric rise of music recordings and Tin Pan Alley composers churning out song after song in hopes of achieving, and maintaining, commercial success.\textsuperscript{211} Most cases involved at least one musical expert, and more often than not a musical expert was retained by each party. While expert contributions at this time reflected much of the same music-theoretical understandings as they had in the nineteenth century, their analytical techniques grew increasingly sophisticated and tailored to distinguishing commonality from copying.

\begin{footnotesize}
\textsuperscript{209} See Copyright Act of 1909 §§ 11-18.
\textsuperscript{210} Copyright Act, 1909 § 11.
\end{footnotesize}
During this period, shifts in legal theory motivated judges to begin seeking functional procedures for finding infringement, and specifically for understanding the legal contours of similarity. The influence of this conceptual change likely contributed to an increasing judicial interest in conceiving of similarity analysis in more systematic terms. This led to questions about the role that experts, and non-experts, should play in this new legal analysis.

The Role of Experts in Judge Learned Hand’s Courts

Although most courts in the first half of the twentieth century relied on musical experts to provide analytical comparisons, some judges with musical training preferred to conduct such analyses on their own. The notable example is then-district court Judge Learned Hand, who completed his own analyses following many of the same analytical techniques as the experts themselves. Judge L. Hand still received expert analytical evidence presented at trial, but also conducted his own analysis, which served as a powerful check on the ways in which experts could strategically frame musical similarity.

“Music meant a great deal” to Judge L. Hand, and he has been said to have particularly enjoyed writing copyright decisions, in part because of his interest in musical

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212 Contrasting legal formalism, legal realism as it rose in the 1920s and 1930s was predicated on desires for a systematic, reliable way to predict the outcome of legal questions. Proponents drew greater influence from judicial hunches and motivations on the application of relevant law. See Gary Aichele, *Legal Realism and Twentieth Century American Jurisprudence* (1990), 58; see also Kalman, *Legal Realism at Yale* (Chapel Hill: University of North Carolina, 1986), 6. For legal formalism, see Kalman, *Legal Realism*, 3-11.

creativity and in part due to the “intellectual challenges” that such cases presented. In both *Hein v. Harris*, and *Haas v. Leo Feist*, Judge L. Hand “re[lied] upon such musical sense as [he had]” to conduct his own analyses in addition to those produced by experts. Judge L. Hand’s opinions reflect the judge-centered nature of copyright infringement inquiries of the time. The opinions also signal mounting issues in similarity analysis, particularly with the relationship between experts and non-expert listeners.

The first district-court copyright case Judge L. Hand heard shortly after joining the bench was *Hein v. Harris*. In this case, plaintiff composers Silvio Hein and Marie Cahill sued publisher Charles K. Harris to enforce their rights for the song, “The Arab Love Song,” the chorus from which they claimed Harris had violated with his song, “I Think I Hear a Woodpecker Knocking at My Family Tree.” In response, Harris alleged that the chorus melody imitated a variety of similar songs, not simply the plaintiffs’ song.

While court records indicate the participation of experts, these documents provide only summaries of their comparisons and generalized stylistic discussions of ragtime and contemporary popular music more broadly. No extant trial transcript reflects any more detailed musical discourse. The plaintiffs relied on a comparison chart prepared by Silvio Hein, shown in Figure 4 below.

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215 175 F.875 (C.C.S.D.N.Y. 1910), aff’d 183 Fed. 107 (2d Cir. 1910).
217 *Haas*, 234 F. at 105.
218 Gunther, 270. See also *Hein*, 175 F. at 875.
219 *Hein*, 175 F. at 875.
220 *Hein*, 175 F. at 875.
Figure 4: *Hein v. Harris, Comparison Chart*\(^{221}\)

\(^{221}\) Hein v. Harris, Saddler Dep. 1. Record Group 21; National Archives and Records Administration Kansas City; USDC Southern District of New York, Equity Case Files, Box #137, No. 5-77; “Hein v. Harris.”
Similar to charts used in *Blume v. Spear*, the chart isolated and aligned the two melodies at issue, transposed to the same key, and used black and red ink. Unlike the charts in *Blume*, the red ink does not indicate similarity, but simply appears to differentiate between the two songs. While the red ink may not have conveyed the same information regarding similarity, it could have played off judicial expectations that red signaled musical congruence to warp perceptions of similarity.

Conversely, the defendants employed Stephen Jones, a “specialist in ‘rag-time’ music,” who compared the two songs and found that they had nothing but the commonest kind of jingle strung together, and both of such poor composition even as ‘rag-time’ music that it would be foolish to claim for either of them any unique, peculiar or extraordinary merit as musical compositions; that poor as both songs are in the opinion of the deponent that they are unlike in theme, melody, arrangement, and construction, and except for a few notes placed here and there, no resemblance or similarity exists such as appears in other ‘rag-time’ compositions. That they are like many other songs on the market in which any old kind of music is published for the sale of the lyrics.

Jones’s analysis emphasized theme, melody, arrangement, and construction, which contextualized melodic congruence in ways that made such congruence more compelling evidence of similarity.

Expert musicians Charles Hirst, Harry De Costa, Thomas Clark, and Frank Saddler, each identified as composers, arrangers, and performers, followed the common

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222 See Chapter 2 above.
223 Hein v. Harris, Jones Dep 1.
224 Hein v. Harris, Jones Dep 1.
225 DeCosta wrote of ragtime music that there is “nothing original, unique, extraordinary or original in this trashy stuff, which no real musician recognizes as real music.” Hein v. Harris, DeCosta Dep. 1.
226 Clark stated that ragtime was “usually turned out by such composers in general who know no music and who simply pick out one finger at a time, and are known as ‘one finger musicians,’ and who cannot arrange their own music, but engage real musicians to patch up their so-called compositions. That all ragtime music, particularly of this grade, has no musical value.” Hein v. Harris, Clark Dep. 1.
defense that recast musical congruence as reflecting unoriginal musical resemblance rather than copying. They confirmed Jones’s analysis that the two songs were similar, but concluded that neither song was protectable because of their close resemblance to each other and to prior compositions. Hirst reinforced Jones’s analysis, for example, also drawing comparisons between “Arab Love Song” and “Bon Bon Buddy,” “The Glow-Worm” and “The Mobile Prince,” and finally to “other coon songs almost innumerable,”²²⁷ to suggest that the songs lacked originality. The other experts reinforced this opinion, making disparaging value statements regarding ragtime music and a perceived lack of originality across songs that the experts afforded to it.²²⁸

Instead of focusing solely on the stylistic idioms and perceived aesthetic value of ragtime like other experts, Saddler’s deposition contextualized discussion of stylistic comparisons with theoretical discussion of musical composition. He argued that the commonality between the two songs reached broadly to “all popular songs,” of which there were “but four or five different styles. There are but two modes, major and minor, and the fact that both songs are in the same mode cannot be musically considered a similarity, and the terming of a minor key is not proper classification when it should be minor mode.”²²⁹ Even without offering greater explanation as to the “four or five different styles” to which Saddler referred, his deposition contributed a music-theoretical

²²⁷ Hein v. Harris, Hirst Dep. 1. The list of similar songs was central to the defendant’s argument. Hein, 184 F. at 875.
²²⁸ For a discussion of ragtime style and overlap with contemporary popular genres, see e.g., Peter van der Merwe, Origins of the Popular Style: The Antecedents of Twentieth Century Popular Music (Oxford: Clarendon Press, 1989), 277-86.
understanding that disqualified certain kinds of musical congruence, such as key or stylistic convention, as non-indicative of similarity for legal purposes.

Together, the defendant’s witnesses emphasized their genre classification of the songs as indicative of stylistic idiom and relationship to prior compositions, as well as the alleged lack of musical value which would have been irrelevant to, yet likely influential on, the court. In his decision, however, Judge L. Hand conducted his own comparison of “Arab Love Song,” and “I Think I Hear a Woodpecker Knocking at My Family Tree”:

I have no difficulty in finding that the defendant's song is an infringement of the complainant’s. They are written in the same measure, called ‘common time,’ and each is in the minor mode. It is true that the keys are different; but this is a distinction which is of no consequence to the ears of all but those especially skilled in music, and, indeed, even among persons skilled in music the power to distinguish two keys when they are not played in immediate juxtaposition is by no means universal. If the melody of the defendant's chorus be transposed into the key of three flats, it exhibits an almost exact reproduction of the complainant's melody. Each consists of 17 bars, of which the first, second, third, fourth, and fifth are alike, almost note for note. The quantity of the notes is not precisely similar; but when they are played in succession it would take the ear of a person skilled in music to distinguish between them. The sixth bar of the defendant's melody is unlike that of the complainant's; but even this difference is not great, and justifies an inference that the change may have been colorable. The seventh bars are likewise unlike. The eighth and ninth, upon the other hand, have a striking similarity. The tenth, eleventh, and twelfth in each melody are repetitions of the second, third, and fourth, and are therefore duplicates. The fourteenth,

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230 Judges had been recently prevented from accounting for the artistic value of expressive works when making copyright decisions. See Bleistein v. Donaldson Lithographing Co., 188 U.S. 239, 251-52 (1903) (“t would be a dangerous undertaking for persons trained only to the law to constitute themselves final judges of the worth of pictorial illustrations, outside of the narrowest and most obvious limits. At the one extreme, some works of genius would be sure to miss appreciation. Their very novelty would make them repulsive until the public had learned the new language in which their author spoke. It may be more than doubted, for instance, whether the etchings of Goya or the paintings of Manet would have been sure of protection when seen for the first time. At the other end, copyright would be denied to pictures which appealed to a public less educated than the judge. Yet if they command the interest of any public, they have a commercial value,—it would be bold to say that they have not an aesthetic and educational value,—and the taste of any public is not to be treated with contempt. It is an ultimate fact for the moment, whatever may be our hopes for a change”).

231 Hein, 175 Fed. at 875.
fifteenth, sixteenth, and seventeenth are quite dissimilar. Therefore, out of a total of 17 bars, the first 13 are substantially the same in each song; and whether or not the defendant, as he alleges, had never heard the complainant's song, when he wrote his chorus, the chorus certainly is an infringement, and the complainant under his copyright is entitled to protection.

Judge L. Hand’s own analysis relied on melodic congruence as well as theoretical models of musical similarity that eschewed differences in key as seemingly superficial red herrings of musical similarity. His transposition of the melodies into the same key reflected the increasing sophistication of analytical techniques used by experts at the time, which emphasized intervallic relationships in a melody as more representative of musical originality than pitch determined by key. This analysis led Judge L. Hand to a decision in favor of the plaintiffs with less reliance on musical experts. It is likely that the expert analyses still presented at least some influence on the Judge’s own musical analysis, if not his legal analysis and decision in the case.

*Haas v. Leo Feist*, which Judge L. Hand decided six years later, involved a similar analytical process but revealed a more significant role of experts. Similar to other music copyright cases, this case involved composer Harry Haas suing Leo Feist Company over his song, “You Will Never Know How Much I Really Cared.” Haas and Cahalin alleged that the defendant’s song, “I Didn’t Raise My Boy to be a Soldier” was similar to their own. Extant records for the case include an unattributed comparison chart that continues the analytical techniques used by experts in earlier cases. The chart, shown below in Figure 5, employs yet another manifestation of the two-color format, similar to

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233 *Haas*, 234 F. at 106.
Lasar’s chart in *Blume v. Spear* in its strategic use of red to mark more than similarities in notation with title and measure numbers.

Figure 5: *Haas v. Leo Feist, Comparison Chart*\(^{234}\)

\(^{234}\) Record Group 21; USDC Southern District of New York; Equity Case Files, Box # 446; “Hass v. Leo Feist.”
The chart is accompanied by an unusual “Detailed Comparison of Two Songs” document, which identified “Complainant’s song designated as ‘A,’ Defendant’s song designated as ‘B’” and outlined in brief statements which measures are similar. For example, “1st bar of ‘B’ similar to 1st half of ‘A’./2nd, 3rd, 4th, and 5th bars of ‘B’ similar to 2nd and 3rd bars of ‘A’.” The chart used vocabulary such as “exactly the same,” “practically the same,” “exactly like,” “exactly similar,” “identical,” and “similar,” to note congruences, and “different,” “dissimilar,” “entirely dissimilar,” to refer to generic differences between the songs. For all these distinctions, the comparison rarely indicates the musical dimension to which each comparison statement referred; that is, it almost never distinguishes melody as opposed to harmony or rhythm. The exceptions are where comparison statements identify “notes,” which presumably refer to melody, and where “progression” is used, the statement presumably refers to harmony. Overall, the language of this accompanying document added complexity to the comparison chart by introducing degrees of similarity, from entirely dissimilar to identical, to refer to what amounts to melodic congruence.

At trial, the defendants introduced the comparison chart shown in Figure 5 above and showed it to composer and conductor Lee Orean Smith. During his testimony,
Smith reiterated that he did not prepare the chart, but that he would use it to explain
similarities for the court.\textsuperscript{240} Although prompted to provide a close comparative analysis
by ASCAP defense attorney Nathan Burkan, Judge L. Hand stopped Smith’s
examination, instead wanting him to focus on simultaneous performances of the two
melodies on piano, played by Smith, and violin, played by an unnamed witness.\textsuperscript{241} Only
after this performance did Smith’s direct examination delve into discussions of melodic
similarities, and only during cross examination did Smith address matters of rhythm and
meter.\textsuperscript{242}

The defendants also called Abner Greenberg, a performer in “music houses” who
later chose to become a lawyer.\textsuperscript{243} Greenberg’s examination did not emphasize his dual
legal and musical qualifications, and he instead presented analysis typical of any other
contemporary musical expert. During his examination, Greenberg confirmed that he had
“made a comparison of the two songs bar by bar with a view of ascertaining points of
similarity and points of dissimilarity.”\textsuperscript{244} In keeping with Smith’s discussion of meter,
Greenberg then offered the following explanation:\textsuperscript{245}

I find upon examination of these two songs that the A song [“You Never Can Tell
How Much I Really Cared”] is a chorus in 16 bars. I find upon examination of B
[“I Never Wanted My Boy To Be A Soldier”] that that is a chorus of 32 bars. The
B is written in what is called 2/4 time, double time. The A is written in common

\textsuperscript{240} Haas v. Leo Feist Tr. 173, examination of Lee Orean Smith 2. During cross-examination, Smith
indicated that he did not create the chart. Tr. 180.
\textsuperscript{241} Haas v. Leo Feist Tr. 173-175 (Judge L. Hand on a bar-by-bar discussion of the comparison chart:
“[t]hat can be seen by a mere inspection. I do not thing this is of any consequence.”). The defendant’s
melody was performed on piano and Plaintiff’s melody on the violin. There is no indication that timbral
differences were significant to the court.
\textsuperscript{242} Haas v. Leo Feist Tr. 187-88.
\textsuperscript{243} Haas v. Leo Feist Tr. 56. Plaintiffs questioned Greenberg’s qualifications as an expert.
\textsuperscript{244} Haas v. Leo Feist Tr. 60.
\textsuperscript{245} Haas v. Leo Feist Tr. 60.
time, so that if we play the chorus of A in double time we should have substantially the same length as the B.

Here, Greenberg established metrical difference as superficial to evaluating legal similarity. As he would later explain in his testimony, “As to the ear there would be absolutely no difference [between the songs]. It would be the same progression as it was before, but only as to the time it would make it sort of a dancing two-step 2/4 melody; that is all.”

His discussion continued to the melody and accompaniment, offering comparisons that emphasized melodic congruence that were reinforced through a live demonstration at the piano.

Unlike his decision in *Hein v. Harris*, Judge L. Hand’s opinion does not outline his own analysis, although it does mention the conclusions he drew about the music. It is likely that he used many of the same techniques, however, including a melocentric focus and analysis that privileged pitch and interval relationships over its rhythmic context. Instead, he simply established that the defendant’s “piracy of the chorus seems to me sufficiently established for a finding.” This inference was based at least in part on “such musical sense as [he] ha[d]. . . . If the choruses be transposed into the same key and played in the same time, their similarities become at once apparent.” Although the general thrust of the opinion dealt with damage allocation, not musical analysis, Judge L. Hand’s introductory statement regarding infringement is revealing. Not only does it show the Judge relying on his own “musical sense” to conduct his own comparisons, but

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246 Haas v. Leo Feist Tr. 62.
247 See Haas v. Leo Feist Tr. 70-75.
249 *Haas*, 234 F. at 107.
250 See *Haas*, 234 F. at 107.
it also reflects an accumulating understanding among experts and the Judge that key and meter were non-indicative of similarity for infringement purposes. As applied to the case, although the two songs appeared different on the sheet music, synchronizing their meter and transposing to the same key revealed remarkably similar choruses.

In these early twentieth-century decisions, Judge L. Hand relied on his own analytical comparisons, but it is doubtful that his reasoning was unaffected by musical experts called by both plaintiffs and defendants. At trial, musical experts presented increasingly sophisticated musical comparisons that accounted for meter and key as not indicative of underlying similarity, particularly for melodies. This distinction between matters of melody and rhythm from key and meter are reflected in Judge L. Hand’s decisions and his own analyses. Thus, although Judge L. Hand’s musical training presented a powerful check on musical expertise and the potential partiality of individual experts, he did not completely ignore their testimony.

Judge L. Hand’s discussion in these cases also referred to the “trained ear,”251 drawing what would become a significant distinction between trained and untrained musical ears, or a nascent legal distinction between experts and non-experts. As in Hein v. Harris, Judge L. Hand noted similarities and differences between songs that would not necessarily be perceptible without musical training. “If the choruses be transposed into the same key and played in the same time, their similarities become at once apparent. In certain of the bars, only a trained ear can distinguish them, and their form and rhythm is quite the same.”252 In these statements, Judge L. Hand broke ground on building a role

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251 Hein v. Harris, 175 F. at 875; Haas, 234 F. at 107.
252 Hein, 175 F. at 875 (emphasis added).
for expert witnesses by distinguishing them, their perceptions, and their expertise more broadly, from non-expert lay listeners. More significantly, Judge L. Hand indicated that the subtle, and at times unperceivable, similarities and differences, between pieces of music identifiable by experts may not be relevant to infringement determinations.

The Second Circuit Contributions

Cases that reached the Second Circuit, principally from the Southern District of New York, dealt with many of the same legal similarity issues as in the lower court. In *Edward B. Marks v. Leo Feist*, as well as other contemporaneous cases, expert witnesses had a strong influence on the court’s final infringement decisions.253 This case involved two rival publishing companies, with Marks seeking an injunction against Leo Feist from publishing and selling “Wedding Dance Waltz” which allegedly infringed on “Swanee River Moon.”254

The expert, who is unnamed but directly referenced by the court in its opinion, identified “a similarity of tone succession with respect to 5 or 6 bars, but [said] the rhythm and accent are entirely different.”255 Here, the expert criticized the common analytical technique of separating musical elements used by experts, noting that focusing on any one dimension of music to the exclusion of the context provided by the other dimensions would create false similarities. “If any one plays the notes, not as they are

253 290 F.959 (2d. Cir. 1923).
254 *Marks*, 290 F. at 959.
255 *Marks*, 290 F. at 960
written, but gives these notes equal values, suppressing the real effect that should be
given to the base accompaniments, he will produce a result of similarity.[sic]”
Thus, the identification of musical congruence based primarily on pitch, without accounting for
rhythm or harmonic structure, could result in finding false similarities and inadequately
represented the music at issue.

Despite the expert’s critique of common analytical techniques that he believed
were contextualizing similarity in ways that disserved the music at issue, his statements
did not stop the court from continuing to rely on such techniques. The court’s decision
noted that “appellant’s composition comprises 450 bars of music . . . . 6 bars of this are
[allegedly] infringed by the appellee’s composition.”

Although the opinion delved into
music theory and criticism to discuss the limited “combination of tones” possible “in a
popular song,” thereby resulting in an expected amount of similarity between two songs,
it ultimately relied on close comparison analyzed by the expert.

Regardless of the sources of evidence presented at trial, the Marks decision also
reinforced the threshold standard for similarity constituting infringement as
“substantial.” This term, which had its roots in nineteenth century copyright precedent

256 Marks, 290 F. at 960.
257 Marks, 290 F. at 959.
258 Marks, 290 F. at 960 (“Musical signs available for combinations are about 13 in number. They are tones
produced by striking in succession the white and black keys as they are found on the keyboard of the piano.
It is called the chromatic scale. In a popular song, the composer must write a composition arranging
combinations of these tones limited by the range of the ordinary voice and by the skill of the ordinary
player. To be successful, it must be a combination of tones that can be played as well as sung by almost any
one. Necessarily, within these limits, there will be found some similarity of tone succession. Even different
results may be obtained by varying the accent and tempo. An acceptable affidavit in the record of an expert
in music says that, as to the two compositions here in question, there is a similarity of tone succession with
respect to 5 or 6 bars, but says the rhythm and accent are entirely different, and unless there be a similarity
of rhythm in the two, no one who plays the two compositions as they are written, can confuse one with the
other”).
259 Marks, 290 F. at 959.
and had been used to apply to music since *Jollie v. Jaques*,\(^{260}\) indicated that copyright infringement could not be proven based on a few points of congruence. Although the distinction between substantial and insubstantial congruence remained the subjective determination of the judge, in *Marks*, six measures of similar melodic material in a composition of 450 measures in length did not constitute infringement.\(^{261}\)

After his appointment to the Second Circuit appellate bench in 1924, Judge L. Hand continued to cultivate copyright jurisprudence outside works of music as well. In *Nichols v. Universal Pictures Corp.*, playwright Anne Nichols claimed that the plot of her play, *Abie’s Irish Rose*, was infringed by the movie produced by Universal Pictures, *The Cohens and the Kellys*.\(^{262}\) Both the play and the movie featured a humorous plot of a marriage across period ethnic and religious boundaries that went against the wishes of their respective families. In Nichols’s play, it was a Jewish man marrying an Irish Catholic woman against the wishes of their fathers; in the movie, it was an Irish man marrying a Jewish woman from a feuding family.\(^{263}\)

On appeal, the Second Circuit affirmed* the district court’s decision in favor of the defendant. In his opinion, Judge L. Hand offered reasoning for his decision of no infringement despite the similarity by distinguishing between the fundamental, not protectable ideas for a copyrightable work, and the actual, and protectable, expression of

\(^{260}\) See Chapter 2 above.
\(^{261}\) *Marks*, 290 F. at 959.
\(^{262}\) *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 120 (2d Cir. 1930).
\(^{263}\) *Nichols*, 45 F.2d at 120.
those ideas specific to the copyrightable work. As Judge L. Hand explained, for any given work there are\textsuperscript{264} 

a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the play is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the playwright could prevent the use of his “ideas,” to which, apart from their expression, his property is never extended.

Judge L. Hand recognized “[n]obody has ever been able to fix that boundary [between idea and expression], and nobody ever can.”\textsuperscript{265} For Nichols, the similarities between the two works at issue were more a matter of idea than expression, therefore the similarities did not touch copyrightable material on which Nichols’ rights could be infringed.\textsuperscript{266} This divide would loom large over copyright jurisprudence, especially with its implications for similarity analysis, and marked the subjective nature of the decision-making process.

\textit{Nichols} is also significant because of Judge L. Hand’s characterization and skepticism regarding expert testimony. At the end of the opinion, Judge L. Hand railed against the complications created by experts and called for their eventual total exclusion from infringement analysis:\textsuperscript{267} 

We cannot approve the length of the record, which was due chiefly to the use of expert witnesses. Argument is argument whether in the box or at the bar, and its proper place is the last. The testimony of an expert upon such issues, especially his cross-examination, greatly extends the trial and contributes nothing which cannot be better heard after the evidence is all submitted. It ought not to be allowed at all; and while its admission is not a ground for reversal, it cumbers the case and tends to confusion, for the more the court is led into the intricacies of

\textsuperscript{264}\textit{Nichols}, 45 F.2d at 121.

\textsuperscript{265}\textit{Nichols}, 45 F.2d at 121.


\textsuperscript{267}45 F.2d at 123.
dramatic craftsmanship, the less likely it is to stand upon the firmer, if more naive, ground of its considered impressions upon its own perusal. We hope that in this class of cases such evidence may in the future be entirely excluded, and the case confined to the actual issues; that is, whether the defendant copied it, so far as the supposed infringement is identical.

In addition to accusing experts of confusing the court and wasting its time, the decision suggested that experts had very little, if any, role to play in the “actual issues” of copyright. This growing judicial skepticism toward experts and the overextension of their technical skill to copyright decisions would prove influential on later decisions in the Second Circuit’s codification of similarity analysis, with significant impact on the future contributions of expert witnesses.

Ira Arnstein and the Role of Musical Experts

Pianist-composer Ira Arnstein, a Russian immigrant to New York, emerged amidst the increasingly competitive, and increasingly litigious, commercial music industry in the early twentieth century. Arnstein’s career trajectory was unusual, with his greater fame as a belligerent and mentally unstable litigant than as a marginal composer.268 His lawsuits against more notable Tin Pan Alley composers and publishing companies constitute a collection of at least five separate lawsuits, in which over fifty defendants and over sixty songs were named under nearly the same complaint: that his music was stolen by another, usually more successful, composer. Arnstein became known for biased presentations and live music demonstrations in court, as well as antics that

268 Gary Rosen has conducted an extensive study of Arnstein’s life and career, with special attention to his legal experiences. See generally Gary Rosen, Unfair to Genius (Oxford: Oxford, 2012).
pushed the boundaries of courtroom etiquette and the boundaries of admissibly truthful and unbiased evidence.\textsuperscript{269} As Dr. Sigmund Spaeth, who was called routinely as a musical expert in these cases, explained:\textsuperscript{270}

\begin{quote}
[t]he king of musical litigants is unquestionably Ira B. Arnstein, who has spent the greater part of his adult life in trying to prove that most of the hit songs of modern times have been stolen from him, attacking the biggest names in popular music and timing his activities with rare commercial perspicacity.
\end{quote}

The evidence and decisions from the Arnstein cases reveal changes in attorney strategy and legal procedure for music copyright litigation, with significant implications for the role that musical experts played. These cases also signal simultaneous shifts in the nature of expertise. Musical experts at this time began to be retained in more than one case, giving experts the opportunity to refine their analytical techniques to best suit the perceived needs of each case. Experts who had not served in multiple court cases likewise carried with them an increased credibility over experts who had served in more than one case. Whether experts were called in one case or in many, their analytical techniques continued to grow increasingly sophisticated.

The second of these cases, \textit{Arnstein v. Edward B. Marks Music Corp.}, highlighted the court dealing with the admission and application of expert testimony.\textsuperscript{271} In \textit{Edward B. Marks}, Arnstein claimed that his copyrighted song, “The Russian Gypsy Valse,” later retitled “I Love You Madly,” was allegedly copied by Emery Deutsch and Arthur Altman, employees of Edward B. Marks Music Corporation, in their control of Jack

\begin{footnotes}
\textsuperscript{269} See Gary Rosen, \textit{Unfair}, 127-36 (discussing Arnstein v. E.B. Marks (argument between Mauro-Cottone and Spaeth about “adding extra notes”; Arnstein v. Twentieth Cent. Fox (Arnstein serving as his own expert witness, manipulating presentation of his song)).

\textsuperscript{270} Gary Rosen, \textit{Unfair}, 119 (quoting Spaeth).

\textsuperscript{271} The first case is \textit{Arnstein v. Shilkret}. See generally Gary Rosen, \textit{Unfair}.\end{footnotes}
Lawrence’s “Play, Fiddle, Play.” Although the defendants acknowledged that another employee, L. Wolfe Gilbert, saw a version of Arnstein’s song as it was submitted to the publisher, they denied receiving a copy of it.

At trial, Arnstein had requested Leonard Liebling, then editor of the *Musical Courier*, to serve as his expert witness, but Liebling refused due to contractual obligations. Instead, Arnstein presented his own analysis at trial, aided by two violinists, Aaron Fastobsky and Simon Mogilanisky. Unlike Cole’s “grave” performance of each song in turn in *Reed v. Carusi*, Arnstein directed the violinists to play selections from each song with little regard to faithful performance of the sheet music. The violinists, for example, played the principal melody of “I Love You Madly” blended with parts of its accompaniment against the principal melody of “Play, Fiddle, Play” to create a nine-note sequence of identical pitches. Arnstein also called two more experts, New York synagogue organist-composer Dr. Melchiorre Mauro-Cottone and associated cantor Isidore Weinstock, who likewise performed key phrases from both songs to demonstrate their similarity.

In contrast, the defendants introduced popular music critic and music appreciation specialist Dr. Sigmund Spaeth, who was better known at the time as the “Tune Detective.” During his direct examination, Dr. Spaeth responded to Arnstein’s violin

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273 Arnstein v. Edward B. Marks Music Corp., 82 F.2d 275, 275-76 (2d Cir. 1936).
276 Reed v. Carusi, 20 F.Cas. 431 (C.C.Md. 1845).
277 Gary Rosen, *Unfair*, 129. Rosen cites to Jack Lawrence’s website, which is no longer accessible.
279 Arnstein v. Edward B. Marks Tr. 133-35.
demonstration and manipulation of the music at issue, testifying that musical similarity involved more than note-for-note comparisons.\footnote{Arnstein v. Edward B. Marks J.A. 149.}

Q: Doctor, let me ask you this: Is it musicianly to take broken bars, irrespective of the musical content or the completeness of the theme or phrase, and compare them note for note to determine whether there is similarity?
A: That is not a fair way of making comparisons. Music runs phrases.

Thus, Dr. Spaeth described his analytical technique as determining “a melodic parallel through an absolute sequence of tones. By an absolute sequence I mean note for note and identity of at least we will say five, six, eight or nine notes in a row.”\footnote{Arnstein v. Edward B. Marks J.A. 143} Although this technique continued a growing tradition of identifying and quantifying melodic congruence, Dr. Spaeth sought to extend analysis in ways that emphasized the relevance of phrasing and formal structure. Nonetheless, when he was recalled, Dr. Spaeth was prompted to provide a simplistic analysis identifying rhythmic and melodic congruence in both songs, thereby deviating from his proposed analytical technique that incorporated matters of musical form.\footnote{Arnstein v. Edward B. Marks J.A. 269.}

Dr. Spaeth also fielded questions regarding the difference between the similarities as they appeared on the sheet music, and thus protected by copyright, and similarities that could be perceived when the songs were heard. These questions called on Dr. Spaeth to distinguish not only manifestations of music as property, but also musical similarities as they could be perceived by either experts or non-experts ill-equipped to read western notation. On both direct and cross examination, Dr. Spaeth noted that musical similarity
could be heard, but he did not clarify by whom-- “[i]t all depends on the ear.” To this end, Dr. Spaeth demonstrated comparisons of musical phrases in court, drawing both from the songs at bar as well as other songs with similar melodic constructions. On recall, Dr. Spaeth was questioned regarding the faithfulness to the sheet music of the performative style in which the plaintiff’s witnesses performed the songs.

The court also heard testimony from composer Dr. Albert G. Robyn, who reinforced concepts of “stock phrases” and musical gestures as not indicative of copying, as well as musical “design,” which can be interpreted to refer to formal structure. Dr. Robyn’s testimony bolstered Dr. Spaeth’s formal analysis by explaining that it provided context to the melodic comparisons that dominated discussions of musical similarity. Together, the two experts hired by the defendants sought to undermine Arnstein’s analysis by imposing formal context on his cobbled together comparisons of pitch sequences. While these techniques may reflect Dr. Robyn and Dr. Spaeth’s partisan affiliation, their calls for a multidimensional approach to analysis arguably offered a more faithful comparison of the music as it was printed.

The district court, with Judge Foster Symes presiding, found the evidence overwhelmingly in favor of the defendants. Judge L. Hand affirmed the decision on appeal to the Second Circuit, at which time he presented his own analysis like one expected to have been provided by a musical expert. Rather than dwelling on note-by-

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285 See Arnstein v. Edward B. Marks J.A. 180-82. At the time of trial, Robyn was advanced in his years but a lively witness: “Q. And will you please tell the Court what your experience in the field of music has been? A. Well I have been writing since I was about eight. Q. That is about how many years. A. I am afraid to tell you. I would let you figure it up. I was born in 1857. Now figure it up.” J.A. 179.
Note comparisons, Judge L. Hand emphasized his hierarchical approach that disregarded key and emphasized phrasing.\textsuperscript{287}

The first phrase of the infringing chorus consists of the same four notes as the first phrase of the copyrighted song; that particular sequence can be found in several earlier musical pieces and its spontaneous reproduction should be no cause for suspicion. The second phrase of the chorus has no resemblance whatever to the next phrase of the song, but if one takes some notes of the treble in the accompaniment, moves them to the melody, raises them an octave, and cuts short the resulting melodic phrase, an identity can be made to appear. When the two songs are played the phrases show no resemblance, at least to the untrained ear. To a mind already set to find piracy, this of course seems proof strong as Holy Writ, but it is really of no significance. A plagiarist might of course work in that way, seizing a sequence from the middle of a phrase in an accompaniment as a happy theme; but Altman was scarcely the man for that; his gifts were very limited, and to attribute to him the ingenuity and penetration so to truncate and modify, and thus really to create a melody out of other elements, is harder than to suppose that the extremely simple theme should have occurred to him out of his own mind. True, it is the themes which catch the popular fancy, but their invention is not where musical genius lies, as is apparent in the work of all the great masters. . . . These songs were both written in the key of B-flat; the seven notes available do not admit of so many agreeable permutations that we need be amazed at the re-appearance of old themes, even though the identity extend through a sequence of twelve notes. The rest of the chorus follows a very simple and well-known pattern, and is derived for the most part from the two phrases we have just discussed, which account for the first four measures. The first sixteen measures, all substantially alike, are followed by eight measures, concededly original, and the chorus concludes with a repetition of the first eight. The verse follows the chorus closely enough not to require any separate discussion; indeed, there are larger differences than between the song and the chorus.

Judge L. Hand’s emphasis on phrasing, despite his quantitative pitch comparisons, reinforced his judicial push away from what had come to be regarded as simplistic melodic congruence to considering music more holistically, as well as a likely influence from Dr. Spaeth’s testimony. Although Judge L. Hand still relied on such compositions,

\textsuperscript{287} Arnstein v. Edward B. Marks Music Corp., 82 F.2d 275, 277 (2d Cir. 1936).
there is a greater emphasis in this opinion on large-scale compositional construction and its impact on melodic similarity.

Judge L. Hand’s decision in *Arnstein v. Edward B. Marks* was also significant because it reflected a legal trend toward including access as an element of legal copyright infringement analysis separate from similarity. Whether the defendant came into contact with the plaintiff’s allegedly infringed composition allowed courts to begin distinguishing between similarity caused by copying and similarity caused by coincidental “independent reproduction,”[288] or what would later become known as subconscious copying.[289]

Arnstein next took on Broadcast Music, Incorporated (BMI), alleging infringement of eight separate songs whose copyright was assigned to BMI by their composers.[290] Embracing the growing legal tension between expert and lay listener, one of Arnstein’s arguments was to suggest that Arnstein’s claim that Dominguez’s song, “Frenesi,” pitted against Arnstein’s “Soldiers of Zion,” would sound identical to an expert despite the songs sounding different to non-expert listeners.[291] Composers, Arnstein claimed, “always add two notes or three notes in order to cover up”[292] whether they had copied.

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[289] *Arnstein v. Edward B. Marks Music Corp.*, 82 F.3d 275, 276 (2d Cir. 1936). The issue of access had been addressed by courts in the Second Circuit as early as *Simonton v. Gordon*, 12 F.2d 116 (S.D.N.Y. 1925), and was a growing issue among members of the bench. See, e.g., Amy B. Cohen, “Masking Copyright Decisionmaking: The Meaninglessness of Substantial Similarity,” *U.C. Davis Law Review* 20 (Summer 1987), 729 n.34. See Chapter 4 below for its codification into the Second Circuit approach, or *Arnstein* test, for copyright infringement.
[290] *Arnstein v. Broadcast Music, Inc.*, 137 F.3d 410 (2d. Cir. 1943) [hereinafter *BMI*]. Arnstein had submitted eleven songs to BMI, eight of which became the objects of the lawsuit. Rosen, 207.
Although the court rendered Arnstein’s complaints unsuccessful, Judge Augustus
Hand’s decision called into question the techniques by which similarity should be
determined.\textsuperscript{293} In his attempt to find copying based on Arnstein’s allegations, Judge A.
Hand noted that “similarities between these songs cannot be readily detected by the lay
ear, nor by the effect of the composition as a whole, [it] can only be discovered by what
Judge Hough aptly called ‘dissection.’”\textsuperscript{294} In this context, dissection referred to the
comparative analysis usually conducted by experts. Judge A. Hand challenged the
application of such “[t]echnical analysis,” finding it to be “not the proper approach to a
solution; it must be more ingenuous, more like that of a spectator, who would rely upon
the complex of his impressions.”\textsuperscript{295}

In this decision, Judge A. Hand expressed a foundational question for the legal
similarity inquiry according to contemporary dialogue among judges in the Second
Circuit: whether infringement should be based on a totalizing perception of the music at
issue according to non-expert lay listeners, or whether it should be based on the technical
comparisons conducted by expert witnesses that influence the final decision of the court.
While this question may have seemed to turn on jurisprudence and public policy
regarding copyright, it had implications for the analytical techniques used by experts and,
more broadly, their role in the legal process. Although previous courts had relied heavily

\begin{footnotesize}
\textsuperscript{293} BMI, 137 F.3d at 412 (citing Arnstein v. Edward B. Marks Music Corp., 82 F.2d 275, 275 (2d Cir.
1936)). For more information on the relationship between A. and cousin L. Hand, see Jeffrey Brandon

\textsuperscript{294} BMI, 137 F.3d at 412.

\textsuperscript{295} BMI 137 F.3d at 412 (citing Nichols v. Universal Pictures Corp., 45 F.2d 119, 123 (2d. Cir. 1930)).
\end{footnotesize}
on the role of experts in this respect, Judge A. Hand drew significant attention to lay
listener perceptions, which for him should be juxtaposed against experts. 296

Arnstein’s lawsuit against Twentieth Century Fox was decided in August of the
same year. 297 Compared to some of Arnstein’s other cases, Arnstein v. Twentieth Century
Fox Film Corp. seems routine: Arnstein sued titans of the popular music and film
industry with a flimsy case that his compositional genius and copyright registration had
been exploited. Nonetheless, the case contributes to a broader musical-legal climate
surrounding music copyright infringement lawsuits in the Southern District of New York.
In Arnstein v. Twentieth Century Fox Film Corp., Arnstein alleged that his song,
“Kalamazoo,” was infringed on by Harry Warren’s hit song, “I Got A Gal in
Kalamazoo,” as featured in the movie, Orchestra Wives. 298 In an unusual strategic effort,
Arnstein requested a jury trial; but the defendants’ motion for a non-jury trial transfer was
granted. 299 At the bench trial, Arnstein argued that similarity between the songs extended
to the title, lyrics, and music of his song.

Finding a lack of proof for access or similarity, the district court dismissed the
complaint. 300 In particular, the opinion focused on Arnstein, serving as his own expert
witness in this case, who presented an “ingenious manipulation of his composition.” 301

From moving melodic figures between voices to swapping phrases into a new order,

296 The lay listener-expert dissection problem would be addressed three years later in the last of the
Arnstein cases, Arnstein v. Porter. See Chapter 4 below.
298 Twentieth Century Fox, 52 F. Supp. at 114.
299 Arnstein v. Twentieth Century Fox Film Corp, 3 F.R.D. 58 (S.D.N.Y. 1943).
300 Twentieth Century Fox, 52 F. Supp. at 115.
301 Twentieth Century Fox, 52 F. Supp. at 115.
Arnstein tried to prove that the songs were musically similar. As the court reaffirmed, “similarity cannot be established in this manner.”302

In the wake of Arnstein’s cases against BMI and Twentieth Century Fox, courts dealing with music copyright infringement were challenged to decide the best way to divide similarity from illicit copying. Courts struggled to establish the extent to which evidence provided by an expert should influence the court’s final decision, raising questions about the extent to which the sheet music comparative analysis of experts as opposed to the aural perceptions of lay listeners should influence the court’s decision regarding infringement.

The Role of Experts and Lay Listeners in Copyright Infringement Inquiry

Other cases of music copyright infringement began occurring nationwide, especially in California, likely because of the burgeoning film industry. Judges across the country, in the Second Circuit and beyond, continued to emphasize close comparative analysis and quantitative charts presented by experts and used in Second Circuit cases.303 While some courts placed greater emphasis on the perceptions of the average listener, others continued to trust expert analyses.

In Hirsch v. Paramount Pictures, for example, plaintiff Hortense Hirsch sued defendant Paramount Pictures for its alleged infringement of eight measures of the

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302 Twentieth Century Fox, 52 F. Supp. at 115.
303 Allen v. Walt Disney. Record Group 21; U.S.D.C. Southern District of New York; Equity Case Files, Box # 29; “Allen v. Walt Disney.”
popular song, “Lady of Love,” in the film, “Two for Twilight,” under the new title, “Without a Word of Warning.” The court ultimately found for the defendant corporation based on relationship to prior compositions, access, and similarity grounds, thus deciding that the two songs were different enough not to constitute infringement.

The Hirsch opinion relied heavily on the advice of experts presented by both parties, who included prominent art-music composer, Sigmund Romberg. Although the opinion referenced a written illustration not retained in the court records to demonstrate the difference between the two melodies at issue, it also described the two songs as being heard “both in recorded form and on the piano in the courtroom,” clarifying that during the live performance, the two songs “were played in the same key and tempo.”

Here, the court addressed, and then dismissed, discernable differences created by live performance. Despite the court’s effort to dispel concerns of stylistic flexibility, any perceived differences could have afforded an advantage to the party who presented the witness.

Meanwhile, in the Second Circuit, in Allen v. Walt Disney, plaintiff Thomas Allen representing his eponymous publishing company sued Walt Disney, claiming that a song he published in his “Intercollegiate Song Book, Eastern Edition”—“Old Eli” a song composed and performed at Yale University—was infringed by Frank Churchill’s “Some Day My Prince Will Come” as it was heard in animated production of “Snow White and

306 Hirsch, 17 F. Supp. at 816.
308 Hirsch, 17 F. Supp. at 816.
the Seven Dwarfs.”\textsuperscript{309} In its decision, the court discussed expert testimony and the charts the experts presented at length, establishing that such evidence was seemingly irreconcilable across parties and against non-expert perceptions:\textsuperscript{310}

Much of the testimony was extremely intricate musically. It would not be of any avail for me to analyse\textsuperscript{sic} or set forth the various analytical theories advanced by each. Suffice to say that complainant's witnesses testified that there was similarity in many things in the compositions; that both had the same pattern; the same harmonic structure; the same melodic embellishments; the same theme; and that the melodic contour was practically the same with a few differences. One of complainant's expert witnesses (Baron) said that out of thirty-two notes, twenty-five were identical. This same witness stated that the impression he got was of great similarity of treatment of an idea for a length of time; that there was great resemblance because there is identity of the two melodies.

The other main expert witness for the complainant (Savino) came to the same conclusion. He said, in addition, that the eight bars of the theme are almost identical and that the repeat in each case is the same, neither raised nor lowered; and that twenty-five out of thirty-two notes are substantially similar.

The respondents, on the other hand, dispute these claims of similarity between the two songs, and produced two experts of at least equal prominence in the music world. They, by their testimony, I am convinced, have sustained largely the contention of the respondents that while there may be some resemblance between the two pieces, it is only a natural similarity which one finds in most music of this type, and that there is nothing unique or strange in this similarity, no more than what one might expect; that there is no substantial similarity or identity between the two; that they are substantially different in form and character, and when played, sound differently both to the ear of the musician and to the ear of the average person.

Although the court recounted the expert analyses of the sheet music, the court described the importance of the aural perception of musical similarity by distinguishing between “the ear of the musician and . . . the ear of the average person.”\textsuperscript{311} To this end, the court also noted the extremely “intricate” nature of expert analysis and in so doing

\begin{footnotesize}
\textsuperscript{309} Allen v. Walt Disney, 41 F. Supp. 134, 135 (S.D.N.Y. 1941).
\end{footnotesize}
reinforced this distinction of musical expertise from non-expert listeners.\textsuperscript{312} Regardless of the difference or inevitable confusion created by such intricate analyses, it was the musical experts that seemed to influence the court’s decision, making a point to address “every salient point” presented by both parties, regardless of “sharp conflicts” between them.\textsuperscript{313} Ultimately relying on his “own musical sense,” however, the court found for the defendant.

Other courts emphasized the importance of non-expert lay listener perceptions, especially when the differences between pieces of music were purportedly obvious. In Carew v. R.K.O. Radio Pictures,\textsuperscript{314} plaintiff Evelyn Carew sued defendant composer Jerome Brainan, along with music industry corporations responsible for publishing and distributing the song, for infringing on her copyright of the “lyrics, music, musical theme”\textsuperscript{315} of her “Chatterbox” with his own by the same name. Brainan prevailed on a motion to dismiss,* with the court indicating that the only similarity between the two pieces of music was the title.\textsuperscript{316} In an opinion drafted by Judge Leon Yankwich, the court relied on precedent for a similarity standard as established in Blume v. Spear,\textsuperscript{317} Marks v.

\textsuperscript{312} Later in its opinion, the court further reinforces this distinction by seeming to confuse tempo and meter: “[t]he same applies to the second, that is, the tempo. Complainant's composition was originally written in march time, while respondents' in waltz time.” Allen v. Walt Disney, 41 F. Supp. 134, 138 (S.D.N.Y. 1941).
\textsuperscript{313} Allen v. Walt Disney, 41 F. Supp. 134, 140 (S.D.N.Y. 1941).
\textsuperscript{315} Carew v. R.K.O., Complaint, 5. Record Group 21; USDC Southern District of New York; Equity Case Files, Boxes # 160-61; “Carew v. R.K.O Pictures.”
\textsuperscript{316} Carew, 43 F. Supp. at 200.
\textsuperscript{317} 30 F. 629 (C.C. 1887) (citing as source of similarity standard).
Leo Feist, Arnstein v. Edward B. Marks Music Corp., and Hirsch v. Paramount Pictures to demonstrate that Carew failed to prove similarity.

Beyond the shared title of “Chatterbox,” Carew’s argument relied on the testimony of two expert witnesses who stated that the two pieces shared a common melodic motive. Dr. Albert Sirmay, a musical editor and advisor for Chappell and Company who assisted in arranging Brainan’s song, served as an expert witness. In addition to offering explanations of the relationship to melody and theme, Dr. Sirmay responded to questions comparing the two pieces note-by-note both melodically and rhythmically, finding similarity only in three notes. Dr. Sirmay indicated that the songs were mostly dissimilar, responding to the question “[h]ave you found any similarity in melody between these two compositions?” with “[n]ot the slightest.” Extant records do not indicate that Dr. Sirmay prepared any comparison chart, instead offering his “written opinion” that outlined in prose a lack of similarity between the pieces.

The court recognized the same dissimilarity, but instead of basing its reasoning on expert analyses, the court turned to the “average” listener.

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318 290 F. 959, 960 (2d Cir. 1923) (citing as source of boundaries for musical creativity and variety in musical composition).
319 82 F.2d 275, 277 (2d Cir. 1936) (citing for source that emphasize lay listener identification of thematic material as significant to copyright infringement decisions).
323 Carew v. R.K.O. Radio Pictures, Sirmay Dep., 7 (“Theme represents the main idea of a composition; melody could be called the whole length of the composition. The theme is the outstanding part of the melody. . . . [A] theme represents only one melody”).
325 Carew v. R.K.O. Radio Pictures Sirmay Dep. 20. The written opinion is not included with the court records.
326 Carew, 43 F. Supp. 199 at 202 (emphasis added).
[e]ven if it be conceded that there is a similarity in the motive, that in itself would not be sufficient to warrant a finding of infringement. As to that, however, I may say that the playing of the particular motive carried no idea of similarity to my ear. And one of the experts admitted that the only similarity lay in the use of two of the three notes, in reverse order. The ordinary words of the English language, used by the average person, amount to ordinary speech. The same words, woven into poetic speech by a Keats or Shelley, or any other great poet, sound like the most poetic words in the English language. Certainly, before we find plagiarism in a song, we should be able to find some substantial part in it, which can be traced to and discerned by the ordinary listener in the composition which it is claimed to infringe.

The court continued to emphasize the “average person” and the “ordinary listener” as presenting a more significant opinion regarding similarity to that of the expert.

“Ultimately, it is not the dissection to which a musical composition might be submitted under the microscopic eye of a musician which is the criterion of similarity, but the impression which the pirated song or phrase would carry to the average ear.” Here, a court outside the Second Circuit raised similar concerns regarding the role that experts should play in final determinations regarding infringement.

**The Problem with Experts and Non-experts**

While mounting precedent since the nineteenth century pointed toward the significant influence of expert testimony, by the 1940s, courts raised more functionalist jurisprudential questions about the role of experts in the litigation process and in relation to non-expert, ordinary, or lay, listeners. At the same time, musical experts were adapting their role as surveyors, offering testimony based on increasingly sophisticated analytical

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327 Carew, 43 F. Supp. 199 at 200-01.
techniques. Rather than melocentric bar-by-bar comparisons, experts began to integrate phrasing and formal structure to contextualize musical similarity that might be indicative of copying rather than compositional commonality. They also problematized transposition and metrical shifts as not indicative of musical similarity.

In many cases, these statements proved influential on judges and the opinions that resolved each case, but not always. By the mid-twentieth century, an increasing number of opinions cast expert testimony as alienating or unhelpful to the ultimate determination of copyright infringement, indicating their “intricate” and “conflicting” nature. Instead, as opinions introduced by Judge L. Hand demonstrate, judges ultimately relied on their own sensibilities regarding musical comparisons, sometimes irrespective of expert analyses.

This judicial approach to expert testimony served to heighten increasing conceptual divisions between musical experts and non-experts. Judges, in the Second Circuit and beyond, raised questions regarding the individuals best equipped to determine infringement. Although many judges had relied on experts, many judges were simultaneously concerned about the perceptions of non-expert lay listeners. The process these judges were poised to introduce would have significant consequences for the relationship between experts and non-experts.
Chapter 4: Arnstein, Krofft, and the Narrowing Role of Expertise

Ira Arnstein’s many lawsuits against Tin Pan Alley, carrying on between 1928 and 1946, pressured the Southern District of New York and the Second Circuit to codify a systematic legal analysis for copyright infringement.328 By Arnstein’s final lawsuit, which was filed against Cole Porter, the Second Circuit was poised to codify a functional legal procedure for finding similarity that disaggregated it into copying and unlawful, or improper, appropriation. By recasting this question of law* as a question of fact* to be ultimately resolved by a jury, the Arnstein v. Porter decision would bring about major changes in copyright litigation, with specific consequences for the roles of experts and non-experts.

During the mid-twentieth century, the Southern District of New York, and other courts beginning to hear music copyright cases, would struggle to apply the Arnstein test consistently. By 1977, in Sid and Marty Krofft Television Productions, Inc. v. McDonald’s Corp., the Ninth Circuit had introduced a second legal test that, in seeking to refine the Arnstein test, superimposed new criteria on copying and improper appropriation. These new legal tests for similarity analysis constrained expert analyses to

producing analytical “dissections” of the music at issue that assessed copying and prevented them from commenting on matters of improper appropriation.

The legal structure of these tests had the effect of narrowing the scope of influence that experts could have on a given case. Expert analytical techniques continued early twentieth century trends toward sophistication during this time, with growing emphasis on formal structure situating melocentric comparisons, which had two main results. On the one hand, these techniques responded to the call in the new legal tests for analysis that “dissected” music; on the other hand, as experts reached new levels of technical sophistication, their analyses undoubtedly grew increasingly mystifying to non-expert jurors.

Arnstein’s Last Stand

In early 1945, on the heels of lawsuits against BMI and Twentieth Century Fox, Arnstein filed his final copyright lawsuit. This time, Arnstein sued Cole Porter, accusing the famed composer of infringing Arnstein’s copyright with Porter’s “Night and Day,” “What Is This Thing Called Love?,” “Begin the Beguine,” “I Love You,” “You’d Be So Nice to Come Home To,” “My Heart Belongs to Daddy,” and “Don’t Fence Me In.” Matching each one of Porter’s songs with one of his own, Arnstein strategically

332 See Arnstein, 154 F.2d at 467 (“Night and Day” paired with “I Love You Madly,” “Twilight Waltz,” and “Broadway Music”; “What Is This Thing Called Love?,” paired with “Twilight Waltz” and “Broadway Music”; “Begin the Beguine” with “The Lord is My Shepherd,” “A Mother’s Prayer,” and “A Song of
demanded a jury trial and damages of $1 million from Porter in compensation for his accused copyright violations.

Both parties’ strategies embraced contemporaneous legal emphasis in the Second Circuit on a defendant’s alleged access to a plaintiff’s work as a critical element of copyright infringement. According to Arnstein, Porter’s commercial success was a result of “wholesale pirating” of Arnstein’s music, with dubious accusations as to Porter’s access. In his deposition, Arnstein alleged that Porter “had stooges right along to follow me, watch me, and live in the same apartment with me,’ and that [Arnstein’s] room had been ransacked on several occasions.” In response, Porter did not deny Arnstein’s earlier copyright claims or the similarities between the claimed songs. Instead, he focused on his purported lack of any access to Arnstein’s songs, and thus any unlawful appropriation.

At trial, both parties called experts to comment on similarity and their understanding of non-expert lay listener perceptions of similarity, as well as whether that similarity evinced copying. Experts presented a dynamic discussion of musical composition and analysis, using both visual charts placed on an easel for all present to

David”; “I Love You” with “La Priere”; “You’d Be So Nice to Come Home To” with “Sadness Overwhelms My Soul”; “My Heart Belongs to Daddy” with “A Mother’s Prayer”; and “Don’t Fence Me In” with “A Modern Messiah”).


334 Arnstein, 154 F.2d at 467.

335 Arnstein, 154 F.2d at 467.

336 Arnstein Tr. 12, 18 (Baldwin); Tr. 2 (Taylor).

337 Arnstein Tr. 79 (Baldwin).
view, verbal explanations of music theory and composition, and aural demonstrations of phrases and themes from the songs at issue. The explicit influence on the court, however, seemed to be overshadowed by the courts’ frustration with Arnstein’s repeated lawsuits.

As plaintiff, Arnstein relied primarily on retired organ professor Samuel A. Baldwin to serve as expert. In his protracted examination, Baldwin chose analytical techniques to show that despite an apparent lack of melodic congruence between each set of paired songs, these dissimilarities were inconsequential when compared to the underlying harmonic and formal similarities he had located to make each song pair seem alike. For example, Baldwin drew attention to the similarity in “the chord line,” or harmonic progression, between Arnstein’s claimed “Modern Messiah” and Porter’s “Don’t Fence Me In.” From this similar harmonic progression, Baldwin was able to analytically remove what he called “changing notes,” thereby analytically reducing the music to what he called the “theme.” Without these ornaments, the remaining theme became generic, being one “which is practically identical that a thousand

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338 Extant records do not distinguish what the board was, nor does it describe specifically how the charts were arranged. These charts are not included in the court records, however. This same board is also referred to as an “easel.” *Arnstein* Tr. 81 (Baldwin).
339 *Arnstein* Tr. 3-4 (Baldwin).
340 *Arnstein* Tr. 4 (Baldwin). Based on his later definition, Baldwin appears to use “changing note” to refer to neighbor tone: “By a changing note we mean a note which leaves the regular note of the harmony of the chord and comes back again. Some call it an appoggiatura. . . it is nothing but an ornament.” During later cross examination, Dr. Spaeth railed against the term “changing notes.” See *Arnstein* Tr. 3-5, 11-12 (Spaeth).
341 *Arnstein* Tr. 4 (Baldwin). Based on his later definition, Baldwin appears to use “changing note” to refer to neighbor tone: “By a changing note we mean a note which leaves the regular note of the harmony of the chord and comes back again. Some call it an appoggiatura. . . it is nothing but an ornament.” During later cross examination, Dr. Spaeth railed against the term “changing notes.” See *Arnstein* Tr. 3-5, 11-12 (Spaeth).
composers could invent. We find such similarities always.”  

To demonstrate his point, Baldwin explained a series of comparison charts to the court, pointing at each non-chord tone and each note of the theme:  

Here (indicating), you see, he doesn’t go directly to A. Mr. Arnstein, he has [an] A. Then he has to fill that in there, and he needs the notes. Here we have a similarity (indicating). That is a very characteristic theme—a portion of his melody and here it is (indicating). Don’t you see?  

In his comparison, Baldwin excluded ornamental non-chord tones, treating these as embellishments on the main theme that did little more than purportedly disguise the underlying theme.  

Baldwin’s demonstration was aided by a Mr. Sapiro, who performed excerpts from the sheet music exhibits and Baldwin’s charts. “I hope I can make you hear, but you see what I mean,” he promised, relying on live performance to direct the court’s attention to the particular musical elements Baldwin wanted it to see in the charts. By focusing on a reduced, structural melodic line, Baldwin supported Arnstein’s argument that apparent dissimilarities were merely a way of concealing musical material that was substantially similar enough to indicate copying. Upon a question regarding non-expert listeners detecting similarity that he pointed out, Baldwin responded that he couldn’t “account for the average listener, because there are lots of them who listen but do not hear music.” For the same question of detecting similarity by musically trained

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342 Arnstein Tr. 5 (Baldwin).
343 Arnstein Tr. 5 (Baldwin).
344 Arnstein Tr. 8-9 (Baldwin).
345 Arnstein Tr. 6 (Baldwin).
346 Arnstein Tr. 12 Baldwin).
listeners, he responded “oh yes, of course. . . the eye sees the similarity as well as the ear hearing it. Any musician would pick it up.”

As they argued, these similarities showed that Porter copied the theme and then “disguise[d] it” through melodic, as well as rhythmic, variation:

I could sit down and play you a dozen different ways of developing that theme and not use Mr. Porter’s at all, but I won’t take the time. Then, again, if one were disposed to copy a piece, he could disguise it absolutely by a change of rhythm—by rhythm we mean the relationship of tones with respect to duration, that is long or short. Here is the rhythm which you will all know (pounding on table). That is the tune. . . I could play you a theme that you all know, and you would not recognize it, by changing the rhythm.

During cross-examination, defense attorneys challenged Baldwin’s analysis by systematically drawing attention to deficiencies in his arguments according to the melodic, harmonic, rhythmic, and metrical construction of the themes in question. This line of questioning was predicated on analysis that integrated musical elements and placed them in the broader context of musical form, in this case, the “popular song idiom” and 32-bar AABA song form. This questioning served to undermine Baldwin’s analysis, and his credibility by exposing biased analytical manipulations of Porter’s music.

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347 Arnstein Tr. 13 (Baldwin).
348 Arnstein Tr. 11 (Baldwin). Baldwin proceeded with a demonstration using the theme from “The Star Spangled Banner.”
349 See, e.g., Arnstein Tr. 38-63 (Baldwin). For a discussion of Cole Porter’s style as analyzed in songs not addressed in this case, see Forte, “American Popular Ballad,” 117-46.
350 During examination, the court stated that “[i]f it be that Mr. Porter copied some other work and did not copy from the plaintiff, why, then the plaintiff could not recover.” Arnstein Tr. 63 (Baldwin).
Baldwin also contended that the similarities he found were not merely a matter of common compositional models, but rather because of deliberate copying:

a thousand composers can get the same idea like that (indicating), that first part of it. But in composition it makes an expansion of a musical idea; you go from one to the other. You may write two measures, then you write two more, then you write four more, then you may write eight more. Now, no two composers would ever, not in the history of the art as I know it... precisely the same for four measures. In the next four it would be different.

Over the course of his testimony, Baldwin explained a notion of creative process where composers could use up to four similar measures with another composer’s music before “coming under suspicion” of copying, because “you have a limited number of notes, but there are millions of combinations.” As he attempted to demonstrate, the alleged similarities between Arnstein’s and Porter’s songs amounted to more than the allegedly permissible four measures.

Conversely, the defendant called Dr. Spaeth alongside music critic Dr. Deems Taylor, who were by then routine music experts. Although records of Dr. Spaeth’s testimony are incomplete, his cross-examination clarified the relationship between melody and harmony according to music theory, and the extent of musical variation possible based on a series of up to eight notes. Spaeth hypothesized that there were as

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351 Baldwin presented an extended discussion of repetition in AABA 32-bar song form during his examination and makes a comparison of repeated musical material to Robert Schumann. See *Arnstein* Tr. 96-97 (Baldwin).
352 *Arnstein* Tr. 10-11 (Baldwin).
353 *Arnstein* Baldwin Tr. 19 Baldwin).
354 Only an excerpt of Dr. Spaeth’s cross-examination exists in the court records. During cross-examination, Spaeth established that he had “worked many times on such cases,” and that he had never lost a case. *Arnstein* Tr. 8-9 (Spaeth).
355 The defense also called Dr. Albert Sirmay, who served as a musical expert in other cases including *Hirsch* v. Paramount Pictures, but who served as a regular witness due to his close relationship with Porter. See *Arnstein* Tr. 1-2 (Sirmay).
356 See, e.g., *Arnstein* Tr. 18 (Spaeth).
many as “478 million and some thousand,” possible combinations of the twelve notes in the chromatic scale.\textsuperscript{357} This testimony highlighted the melocentric emphasis on pitch comparisons typical of expert analyses during this time, but it also pushed for a more contextualized approach to such comparisons. His testimony undoubtedly applied these theoretical concepts to each set of paired songs at issue in the case.

For the majority of Dr. Spaeth’s cross-examination, the plaintiff’s attorneys attempted to impeach him not because of unsound testimony, but rather by constructing a reputation of him as a “a fraud, a musical trickster and a cheat,”\textsuperscript{358} based on Arnstein’s accusations\textsuperscript{359} and a separately settled defamation lawsuit brought by Dr. Spaeth against Warner Brothers for producing a movie with a crooked character allegedly based on Dr. Spaeth’s “Tune Detective” persona.\textsuperscript{360}

Following the techniques used by experts before him, Dr. Taylor’s testimony embraced both musical congruence and resemblance. His analysis began by demonstrating a lack of melodic congruence,\textsuperscript{361} and then analogized differences between Arnstein’s and Porter’s songs to prior compositions:\textsuperscript{362}

The only striking similarity occurs in the first two measures of both songs in which both employ the device of a leap downward. In Mr. Arnstein’s case it is a leap of an octave and in Mr. Porter’s case it is a leap down of a major seventh. It is a device commonly used. Wagner in his ‘Tristan and Isolde’ and Tchaikovsky’s song ‘None But The Lonely Heart’ have exactly the same interval.

\textsuperscript{357} Arnstein Tr. 8 (Spaeth).
\textsuperscript{358} Arnstein Tr. 24 (Spaeth).
\textsuperscript{359} Arnstein Tr. 23 (Spaeth).
\textsuperscript{360} Arnstein Tr. 24-39 (Spaeth).
\textsuperscript{361} Arnstein Tr. 3 (Taylor). Records Group 21 National Archives and Records Administration Kansas City USDC Southern District of New York Equity Case Files Box 5977 “Arnstein v. Porter.”
\textsuperscript{362} Arnstein Tr. 3 (Taylor).
Although Dr. Taylor would later revise his discussion of melodic leaps,\textsuperscript{363} the analogy to western art music served to undermine Baldwin’s analysis by casting the leap as unoriginal, and therefore, not protectable and irrelevant to copyright infringement.

Dr. Taylor’s re-direct and re-cross-examination included a line of questioning that addressed his ethical motivation for taking the stand in the case. Dr. Taylor indicated that, serving as then-president of ASCAP, he needed to contribute his opinion regarding “a completely baseless attack on a very talented composer and one which if successful could be brought against practically every successful composer, publisher or author in this country.”\textsuperscript{364} Thus, Dr. Taylor’s goal was to protect “Cole Porter in particular,”\textsuperscript{365} but also composers more generally, by offering his expertise in hopes of influencing a result that he found favorable. In one of the only explicit statements regarding the ethnical duties of the musical expert, Dr. Taylor recognized the impact his expertise could make on the court, its decision, and future copyright litigation.

For all that the musical experts seemed to offer a critical dialogue to the case, the district court paid no expressed attention. Instead, presiding Judge Caffey relied on Arnstein’s litigious reputation to present an opinion that summarily outlined the issues, forms of relief, and then determined:\textsuperscript{366}

\begin{quote}
If time were available, I would deal with all the phases concerning each kind of relief sought. But my work growing out of the recent motion term is too pressing and voluminous to permit me to go further now. I have gathered all the files in five cases tried in this court wherein plaintiff sued for judgment in an action relating to music or copyrights on musical compositions. The size of the files
\end{quote}

\begin{footnotes}
\item[363] Arnstein Tr. 6-7 (Taylor).
\item[364] Arnstein Tr. 19 (Taylor).
\item[365] Arnstein Tr. 18-19 (Taylor).
\end{footnotes}
warns me that several weeks would be needed in order to go through all the
details. I feel bound to go to other cases in which decisions have been reserved.

Without wanting “to go further,” the Judge dispensed with assessing musical similarity to
dispose of the case swiftly.\(^{367}\) Instead, in a legal gesture that would bring about change in
similarity analysis, Judge Caffey granted summary judgement in favor of Porter to
dismiss the action.

The *Arnstein* Test

On appeal, the Second Circuit remanded Judge Caffey’s decision based on
improper decision-making. The issue before the three-judge panel, consisting of Judges
Frank, L. Hand, and Clark, was whether there was the “slightest doubt” as to the facts
applied in the district court opinion, which legally framed the appeal around questions of
fact.\(^{368}\) This emphasis on factual inquiries, coupled with the court’s skepticism regarding
evidentiary inquiries and disapproval with Judge Caffey’s seemingly biased decision
against Arnstein, drove the opinion.\(^{369}\) Contemporary jurisprudence regarding the roles of
experts and non-experts, most notably discussed in previous opinions written by
concurring Judge L. Hand, along with growing skepticism toward experts, undoubtedly
impacted the decision.

\(^{367}\) See also Shyamkrishna Balganesh, “The Questionable Origins of Copyright Infringement Analysis,”
*University of Pennsylvania Law School* (2016) (forthcoming), 13-14. For Arnstein’s reputation in previous
lawsuits, see Chapter 3 above.

\(^{368}\) See Balganesh, “Questionable Origins,” 14 (“The effect of this framing is crucial to appreciate, since it
indelibly merged the factual and legal issues involved in the case”).

\(^{369}\) See also Balganesh, “Questionable Origins,” 15-19.
Writing for the majority, Judge Frank codified a functional process for deciding infringement that galvanized the fact-driven approach and considered the role that experts and non-experts, or what he called “ordinary lay hearers,” would play in the inquiry. For judges, and more specifically experts, the decision effectively limited expert control over the outcome of the case, leaving it instead in the hands of juries. With the new test, a court should follow a two-step process. First, the court should identify valid copyright registration. Next, the court should determine improper appropriation, which involved its own two-prong process that disaggregated copying into two separate inquiries: “(a) that defendant copied from plaintiff’s copyrighted work and (b) that the copying (assuming it to be proved) went to [sic] far as to constitute improper appropriation.” To prove (a), a plaintiff might present direct evidence of copying through the defendant’s admission or circumstantial evidence, “usually evidence of access—from which the trier of the facts may reasonably infer copying,” plus evidence of similarity based on close comparison of the works at issue. “If there is evidence of access and similarities exist,” only then the court move to (b), whether the copying was sufficient to be considered improper appropriation. This determination, which turned on witness credibility and perception, was now the provenance of the jury, rather than the judge.

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370 Judge L. Hand joined the majority but deliberately did not write the opinion, despite his previous experience and interest in copyright law. Gerald Gunther, Learned Hand: The Man and the Judge (Oxford: Oxford University, 2011), 269; see also Balganesh, “Questionable Origins,” 9.
371 Arnstein v. Porter, 154 F.2d 465, 468 (2d Cir. 1946).
372 See generally Balganesh, “Questionable Origins,” for a discussion of Frank’s personal legal theory and skepticism regarding summary judgment proceedings.
373 Arnstein v. Porter, 154 F.2d 465, 468 (2d Cir. 1946).
374 Arnstein, 154 F.2d at 468. “Circumstantial evidence” has come to be known as “access plus similarity” or “non-literal copying.”
375 Arnstein, 154 F.2d at 468.
376 Arnstein, 154 F.2d at 469.
The legal disaggregation of what was simply “similarity” into copying and improper appropriation invited contributions from both non-expert lay listeners and musical experts, each serving a different function:

analysis (‘dissection’) is relevant, and the testimony of experts may be received to aid the trier of the facts. If evidence of access is absent, the similarities must be so striking as to preclude the possibility that plaintiff and defendant independently arrived at the same result. If copying is established, then only does there arise the second issue, that of illicit copying (unlawful appropriation). On that issue . . . the test is the response of the ordinary lay hearer; accordingly, on that issue, ‘dissection’ and expert testimony are irrelevant.

Here, the court established that expert witnesses could only contribute analytical dissection to the issue of copying while non-expert lay listeners would determine whether that copying was sufficient to be considered infringement based on their perception of an ordinary listener. Experts could no longer comment on the issue of whether the similarity amounted to improper appropriation, or evaluate the legal extent of any congruence they identified. Instead, they could only contribute what has been called “probative similarity,” or the evaluation of similarity based on close comparisons. This new division simultaneously reinforced the intricate analyses presented by experts and the need to consider the full context of music surrounding it. In so doing, the opinion encapsulated decades of expert testimony and judicial opinions, but also reinforced the unpredictable nature of copyright litigation.

377 Arnstein, 154 F.2d at 468 (citations omitted).
The Relationship between Expert and Lay Listeners

Judge Frank’s opinion created a stark division between experts and non-expert lay listeners, continuing a discussion that had been brewing in the Second Circuit:\textsuperscript{379}

At the trial, plaintiff may play, or cause to be played, the pieces in such manner that they may seem to a jury to be inexcusably alike, in terms of the way in which lay listeners of such music would be likely to react. The plaintiff may call witnesses whose testimony may aid the jury in reaching its conclusion as to the responses of such audiences. Expert testimony of musicians may also be received, but it will in no way be controlling on the issue of illicit copying, and should be utilized only to assist in determining the reactions of lay auditors. The impression made on the refined ears of musical experts or their views as to the musical excellence of plaintiff's or defendant's works are utterly immaterial on the issue of misappropriation; for the views of such persons are caviar to the general—and plaintiff's and defendant's compositions are not caviar.

The opinion explicitly pointed to economic rationales driving federal copyright to justify the distinction, which highlighted an apparent need to constrain experts:\textsuperscript{380}

The proper criterion on [the issue of improper appropriation] is not an analytic or other comparison of the respective musical compositions as they appear on paper or in the judgment of trained musicians. The plaintiff's legally protected interest is not, as such, his reputation as a musician but his interest in the potential financial returns from his compositions which derive from the lay public's approbation of his efforts. The question, therefore, is whether defendant took from plaintiff's works so much of what is pleasing to the ears of lay listeners, who comprise the audience for whom such popular music is composed, that defendant wrongfully appropriated something which belongs to the plaintiff.

According to the majority, because copyright protects “financial returns” received by the copyright holder for the protected work, it was necessary, according to the court, to consider the perceptions of the primarily lay-listener audience likely to provide those returns. In this way, the distinctions drawn by experts between two musical works could,

\textsuperscript{379} Arnstein, 154 F.2d at 473 (citations omitted).
\textsuperscript{380} Arnstein, 154 F.2d at 473 (citations omitted).
or could not, be relevant to the economic status of song sales, and profits, as well as the perceptions of lay listeners who composed the work’s paying audience. While those distinctions may be perceptible by lay listeners, it is equally plausible that they would be only perceptible to trained eyes and ears, thereby having comparatively little economic effect on the music.  

Additionally, Judge Frank’s decision was likely influenced by his own theoretical conceptions of music as much as concerns for establishing functional procedures for finding infringement and guarding against partial judicial decisions. In an article written two years after the opinion, Judge Frank analogized the decisions made by judges and music performers. He used the example of a hypothetical melody as a metaphor in his argument regarding intuitive “hunches” that could not be broken down into analytical perceptions.

The gestaltist’s favorite illustration is a melody: a melody does not result from the summation of its parts; thus to analyze a melody is to destroy it. It is a basic, primary unit. The melody, a pattern, determines the function of the notes, its parts; the notes, the parts, do not determine the melody.

Judge Frank’s metaphor reveals the perspective regarding music from which he likely approached the Arnstein decision, and provides a clue to his perspective underlying the role of musical experts. If a melody must be perceived as a whole, then expert “dissection” could not be the sole, or even decisive, evidence for determining copyright

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infringement. Instead, the ultimate decision regarding infringement was one that “a [non-expert] jury is peculiarly fitted to determine.”

**The Dissent and Problems Dividing Experts and Lay Listeners**

In contrast, the dissenting opinion in *Arnstein* characterized the court’s limitations on expert testimony as having an “anti-intellectual and book-burning nature.”

Brimming with thematic turns of phrase, the dissent railed against the majority opinion’s to rely so heavily on lay listener perceptions. It presented the division of similarity from improper appropriation as one of the fundamental problems with the new legal test:

I find nowhere any suggestion of two steps in adjudication of this issue, one of finding copyright which may be approached with musical intelligence and assistance of experts, and another that of illicit copying which must be approached with complete ignorance; nor do I see how rationally there can be any such difference, even if a jury—the now chosen instrument of musical detection—could be expected to separate those issues and the evidence accordingly.

The dissent also found problems with limiting experts and ultimately relying on non-expert jurors, which the dissent found to have suspect qualifications:

the judicial eardrum may be peculiarly insensitive after long years of listening to the ‘beat, beat, beat’ (I find myself plagiarizing from defendant and thus in danger of my brothers’ doom) of sound upon it, though perhaps no more so than the ordinary citizen juror—even if tone deafness is made a disqualification for jury service.

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384 *Arnstein*, 154 F.2d at 473.
385 *Arnstein*, 154 F.2d at 478 (Clark, J., dissenting).
386 *Arnstein*, 154 F.2d at 476 n.1 (Clark, J., dissenting).
387 *Arnstein*, 154 F.2d at 476 (Clark, J., dissenting). Clark’s reference is to the opening lyrics to Porter’s “Night and Day” (“Like the beat, beat, beat of the tom tom/When the jungle shadows fall”).
The core of the dissent’s concern, however, was more a matter of the balance between lay and expert evidence. Relying on Stewart Macpherson’s contemporaneously published *Form in Music* as a learned treatise to justify the application of “the intellect,” referring to expert dissection, “as well as the emotions,” referring to lay listener perception, the dissenting opinion noted that both are necessary for “a just appreciation of music.” If jurors were to disregard expert dissection when making their decision, as the new test required, this balance was disturbed.

The Second Circuit remanded the case and sent its newly-minted process for identifying copyright infringement back to the district court. With Porter’s “Night and Day” set to be released only a few months later, Porter’s attorneys pushed to expedite the trial on remand. The remand trial itself lived up to the reputation of other Arnstein cases that came before it as “farcical,” as a result of Arnstein’s unusual, “far-fetched and abstruse” litigation strategy. After only two hours of jury deliberations, the jury unsurprisingly found in favor of Porter.

**Applying *Arnstein v. Porter***

After *Arnstein*, a plaintiff would make a *prima facie* infringement case by proving three elements: ownership of a valid copyright, that the defendant copied, and

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that the copying occurred to an extent that it could be considered illegal. District courts, particularly the Southern District of New York, soon discovered the challenges of applying the new test. Despite the radical changes it had on similarity analysis, the actual functions of musical experts in litigation appeared to have changed little, apart from being no longer able to comment on infringement. Their analyses continued to privilege melody and pitch comparisons, in the increasingly sophisticated context of harmony, rhythm, and formal structure. They continued to reinforce these musical dimensions as more indicative of musical similarity than key, tempo, meter, and ornamentation. During this period, there is also a rise in testimony regarding prior composition and musical style that correlates with the codification of access.

Although the *Arnstein* decision has come to be known for introducing what is generically referred to as “substantial similarity” analysis, the term derived not from *Arnstein*, but from previous cases dating back to the nineteenth century, as well as another music copyright case decided by the same panel of judges less than a week later. In that case, *Heim v. Universal Pictures*, the applied the new procedure for evaluating similarity.392 The case dealt with Hungarian composer Heim’s copyright infringement claim against Universal Pictures, claiming that the chorus of his song, “Ma Este Meg Boldog Vagyok,” was infringed by a verse of the song, “Perhaps,” as it appeared in the movie, *Nice Girl*. To meet the access requirement, Heim claimed that Universal had access to his song because it was used in a Hungarian movie. Universal rebutted the

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392 154 F.2d 480, 484 (2d Cir. 1946).
argument by demonstrating that both works drew on Antonin Dvorak’s composition, *Humoresque*.  

The district court found for Universal on grounds that Heim’s evidence of access was “contradictory and untrustworthy,” despite applying the newly-minted *Arnstein* test and a finding that the works were indeed similar. The Second Circuit, represented by the same three-panel court as in *Arnstein*, affirmed the decision. Writing for the majority again, Judge Frank’s reasoning was that Heim’s music lacked of originality despite the clear similarity between the works at issue. There was no mention on appeal as to the lack of a jury, which Judge Frank justified later only as the court not reaching the final step in the *Arnstein* test.

Two years after *Arnstein*, the Southern District of New York grappled with the alleged infringement of calypso songs carried into the popular music market. In *Baron v. Leo Feist*, plaintiff Maurice Baron sued publisher Leo Feist, Paul Baron, Jeri Sullavan and Morey Amsterdam claiming that their hit song, “Rum and Coca-Cola,” infringed on his “L’Année Passée,” one of twelve songs in his collection, “Calypso Songs of the West Indies.”

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393 *Heim*, 154 F.2d at 482-84.
395 *Heim*, 154 F.2d at 484. The court refers to experts detecting “substantial similarity,” which is the genesis of the term as it is used in subsequent opinions and scholarship to refer to the inquiry established in *Arnstein*. The term itself has been proven to be deficient. See Alan Latman, “‘Probative Similarity’ as Proof of Copying: Toward Dispelling Some Myths in Copyright Infringement,” *Columbia Law Review* 90 (1990), 1188-89.
396 Letter from Jerome N. Frank to Charles E. Clark on Heim v. Universal, Feb. 2, 1946 (cited in Balganesh, “The Questionable Origins,” 57). Frank’s reasoning for excluding the jury should have applied to *Arnstein* as well, which did not reach the issue of unlawful appropriation, either. Balganesh argues that this contradiction highlights the particularized nature of *Arnstein v. Porter*.
Belasco and professional singer Massie Patterson approached him to make a sheet music collection of Belasco’s music. In late 1942, professional Calypso singer Rupert Westmore Grant claimed he wrote the lyrics to “Rum and Coca-Cola” based on a melody he had recently learned from one of Belasco’s cousins, Cyril Monrose—the melody for which was called “L’Année Passée.” Belasco claimed that the melody was composed as early as 1906. Baron transcribed and arranged the songs, including “L’Année Passée,” and the song was copyrighted as part of the collection.

Conversely, defendant Paul Baron claimed that his song came from two preexisting Spanish melodies that he allegedly had heard many times while in Spain but had never seen on sheet music. Entertainer Morey Amsterdam claimed that he heard the lyrics, “rum and coca-cola kill the yankee soldier” once during a month-long visit to Trinidad. He subsequently brought the lyrics to Jeri Sullavan, a New York night club performer, to be sung to the tune, “It Ain’t Gonna Rain No More.” Sullavan, in turn, brought the lyrics to Paul Baron, who set them to music. Although the plaintiff’s song was copyrighted, the defendants claimed that the song was an unprotected folk tune and therefore the copyright was limited to Baron’s arguably original arrangement of the melody.

University of Kansas, 1991), 125-30; Louis Nizer, My Life in Court (Garden City: Doubleday, 1961), 233-86 (Nizer served as Plaintiff’s attorney for the case).

398 Baron, 78 F. Supp. at 688. At trial, Grant would recognize Plaintiff’s music and lyrics as being the “L’Année Passée” that he used as the basis for “Rum and Coca-Cola.”

399 Baron, 78 F. Supp. at 688.

400 Baron, 78 F. Supp. at 688-89. The two songs were “Si Formas Tuvieran Mis Pensamientos” and “King Jaja.”

401 Baron, 78 F. Supp. at 688.

Twenty-eight witnesses were called at trial, including university music professors Norman Lockwood and Dr. Spaeth to serve as experts.\textsuperscript{403} Composer and popular music arranger Lockwood, called on behalf of the plaintiff, presented a comparison chart not retained in extant court records, but that was said to have placed the two melodies in tandem on it, with red lines connecting similarities and blue lines marking differences.\textsuperscript{404} In his testimony, Lockwood drew attention to a repeated weak suspension and chromatic harmony that appeared in both songs, associating these musical features with calypso style.\textsuperscript{405} As Lockwood noted, both songs had repeated use of weak suspensions typical of calypso, and similarly uncommon resolutions of chromatic harmonies, which he contended were unusual and therefore indicative of “Rum and Coca Cola” being copied.\textsuperscript{406} He also provided the court with a quantitative summary of the amount of similarity according melodic, harmonic, and rhythmic congruence.\textsuperscript{407}

In the course of his examination, Lockwood also introduced a solfege*-based chart, which Dr. Spaeth challenged for neglecting rhythmic duration and confusing lay listeners in ways that notational charts would not be.\textsuperscript{408} Although the chart itself was not kept with the court records, it was described in Dr. Spaeth’s critique of its detail:\textsuperscript{409}

\begin{quote}
there are actual mistakes in it, mistakes in putting down the two tunes in the sol-lah-fah system, and also because the use of the sol-fah system in this case does not in any way represent the actual tunes. It is a picture, and a picture would impress anyone who cannot read notes with an apparent similarity, a very considerable similarity. However, since there is no indication whatever, first of
\end{quote}

\begin{footnotes}
\item[403] Nizer, \textit{My Life}, 235.
\item[404] Nizer, \textit{My Life}, 258.
\item[405] Baron v. Leo Feist Tr. 538-40 (Lockwood). Spaeth addressed the same point regarding rhythm in Tr. 794-95 (Spaeth).
\item[406] Nizer, \textit{My Life}, 259.
\item[407] Nizer, \textit{My Life}, 259.
\item[408] Baron v. Leo Feist Tr. 738-39 (Spaeth). The chart is not included in extant court records.
\item[409] Baron v. Leo Feist Tr. 738 (Spaeth).
\end{footnotes}
all, of key which—these happen to be the same—but there is no indication of what the key is, and if I were asked to sing every one of these from the chart I could sing this one in one key and this in another key... And there is no indication of the length of any notes. So there is no indication whatever of the length of the notes; there is no indication of the actual pitch of the notes.

More than describing the chart, Dr. Spaeth also indicated its shortcomings: the lack of key or rhythmic indication to distinguish a set of pitches as a particular melody. It is likely that the chart format was strategic on Lockwood’s part to focus the court’s attention on obvious melodic similarities by abstracting pitch information into an easily perceptible format for non-experts. Regardless of motive, the solfege-melody-only format that strayed from general practice of black-and-red notation. As a result, the experts and the parties engaged in a bitter confrontation regarding the validity of each expert’s technique and conclusions.

In his discussion of his own analysis for the defendants, summarized in a no-longer-extant comparison chart that supposedly used red lines to mark parallels between the two songs, Dr. Spaeth focused on the melodic structure of the two songs, in terms of pitch, rhythm, and phrasing. The majority of his testimony, however, was directed toward rebutting Mr. Lockwood’s analysis for the plaintiff.

Both parties called additional musical experts whose backgrounds were diverse but relevant to establishing admissible expertise. Experts included John Tasker Howard, then head librarian of the New York Public Library American Music Collection, and

410 See, e.g., Baron v. Leo Feist Tr. 760-74 (Spaeth).
411 See also Nizer, My Life, 248-49.
412 Baron v. Leo Feist Tr. 747 (Spaeth).
413 Reynolds suggests that in Baron, Spaeth “seems” to have originated many of the methods used by later experts, but this dissertation proves that Spaeth’s methods are more of a continuation of practices used for nearly a century. See Reynolds, “Music analysis,” 130; Chapter 3.
physician Dr. Walter Merrick, who had studied music with Belasco and who had established himself as an avocational “expert on calypso music.”414 In an unusual legal strategy, plaintiff Maurice Baron was also admitted at trial as his own expert witness to present his own comparison of the songs and explanation of his compositional model.415 Thus, the plaintiff explained both his compositional process and demonstrated the similarity between the two songs through charts and live demonstration at the piano.

The depth of musical-theoretical discussion concerned presiding Judge Simon Rifkind, who complained at trial that416

we are going much further into the theory of the structure of music than most of the cases I am familiar with in this field pretend to go. However, I am wondering whether we are beginning an innovation—which may be useful—which is beyond the confines of previous adjudication.

While the intense, abstract discussion of music theory between Dr. Spaeth and Lockwood effectively dissected the music at issue and challenged the credibility of each other’s analyses, this discussion occurred at the risk of alienating the non-expert court. In his opinion, Judge Rifkind suggested that there might be a limit to the contributions of experts and theoretical analyses, which Dr. Spaeth and Lockwood had crossed, but that notion, along with notions of legal-musical innovation, was not fully realized.417

Despite the court’s challenges with expert testimony, its approach to making the final decision relied on the Arnstein test, particularly in its limited influence from expert witnesses. The court first considered Maurice Baron’s valid copyright registration, then

414 Baron, 78 F. Supp. at 690; Nizer, My Life, 258.
416 Nizer, My Life, 236 (quoting Rifkind, J.).
took into account Baron, Sullivan, and Amsterdam’s access as well as expert testimony that identified the high level of similarity between the two songs. Although the experts’ analyses, no matter how confusing, supported a finding of unlawful appropriation, it was “lay analysis and evaluation”\(^\text{418}\) that proved infringement.

Ultimately, the court found for Maurice Baron on grounds that his copyright registration was valid and that there was close similarity—a decision that was later affirmed by the Second Circuit.\(^\text{419}\) The district court opinion explicitly addressed the issue of expert partiality, thereby challenging the value of their contributions:\(^\text{420}\)

> experts for each side demonstrated, in their *zealous partisanship*, the doubtful function of the expert as an aid to the court in this class of litigation . . . the differing qualities of the testimony made the resolution of most of the issues of fact comparatively easy. The music itself lent itself quite readily to lay analysis and evaluation.

The “zealous partisanship” to which the court referred likely resulted not simply from disagreements about similarity, but from a more sophisticated discourse over comparison charts not retained in the court records. The juxtaposition of the manner in which the court approached expert and lay evaluations, from the confusion and suspicion with which it viewed experts and the trust with which it viewed lay listeners, highlights the problems courts faced in applying the *Arnstein* test and balancing the divide between experts and non-experts.

Decided only three years after Baron, in *Jones v. Supreme Music*, Selina Jones claimed that her song, “Just An Old Fashioned Mother and Dad” was infringed by

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\(^{418}\) Baron, 78 F. Supp. at 687.  
\(^{419}\) Baron v. Leo Feist, 173 F.2d 288 (2d Cir. 1949).  
\(^{420}\) Baron, 78 F. Supp. at 686-87 (emphasis added).
Francis Craig’s song, “Near You,” which was published by Supreme Music Corporation. After establishing that Craig could not have had access to Jones’s song, which was not published or widely disseminated, the court turned to its similarity analysis. On that issue, the court relied on its own consideration of the songs to determine unlawful appropriation, but took into consideration the similarity identified by the experts, including now-routine experts Dr. Taylor and John Tasker Howard. In particular, Dr. Taylor’s analysis proceeded phrase-by-phrase to show a lack of melodic and harmonic resemblance according to contour, rather than a lack of note-for-note consecutive congruence. His testimony also served to explain music-theoretical concepts for the court, specifically focusing on the lack of indication of musical difference that tempo and embellishment had in contrast to structural melodies and repetition. Like earlier decisions, the opinion replicated a detailed dissection of the songs that drew directly on expert analysis but also considered the aural perceptions of non-expert listeners.

Northern Music Corp. v. King Record Distributing likewise followed the Arnstein test as binding legal authority, but read the decision as creating two separate approaches to addressing similarity to compare rather than as a two-step process. The case arose

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422 Jones, 101 F. Supp. at 992.
424 Jones v. Supreme Music Corp. Tr. 9-16 (Taylor).
425 Jones v. Supreme Music Corp. Tr. 46-55 (Taylor). Taylor’s explanations were confined to American popular music as he understood it.
out of an infringement claim made by Northern Music Corporation, the assignee for “Tonight He Sailed Again,” against King Records for creating and distributing records and sheet music for “I Love You, Yes I Do.” This claim dealt specifically with the chorus of the two songs, rather than the songs in their entirety.

Musical experts heard in court included big band arranger Joseph Xavier Burke, John Tasker Howard, and BMI editor and defense attorney Milton Rettenberg. In particular, Burke’s analysis included a comparison of the music at issue by “type,” or style, of which he explained that “songs are typified according to whether they are rhythm songs, blues songs, ballads, waltzes, polkas, romantic ballads, historical ballads, [or] outright jazz tunes.” Identifying the songs at issue as love ballads, Burke then compared the music based on formal structure, melody, and rhythm. Burke also sought to demonstrate his comparison, which the court found concerning because it “had no way of perpetuating it for the purposes of the record.” Despite the court’s astute anxiety that sheet music could not capture the musical elements that Burke would demonstrate, he permitted the performance to continue. Serving as an expert witness, Rettenberg presented a recording of his performance of the music for comparison.

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428 N. Music, 105 F. Supp. at 393.
429 N. Music Corp. v. King Record Distrib. Co. Tr. 149, 153 (Burke). Records Group 21 National Archives and Records Administration Kansas City USDC Southern District of New York Equity Case Files Box 700835 “Northern Music Corp. v. King Record Distributing Co.” Burke served as arranger for Glenn Miller and Jimmy Dorsey, among others. Burke’s testimony addressed both “type,” referring to genre or style, and “construction,” referring to melody, harmony, rhythm, and form.
430 N. Music Corp. v. King Record Distrib. Co. Tr. 377ff.
431 N. Music Corp. v. King Record Distrib. Co. Tr. 646ff.
432 N. Music Corp. v. King Record Distrib. Co. Tr. 154 (Burke).
433 N. Music Corp. v. King Record Distrib. Co. Tr. 154-60 (Burke). Burke also prepared a comparison chart that was not retained in the court records but which followed the technique of reproducing the melodies at issue in tandem and marking points of similarity. See Tr. 174 (Burke).
434 N. Music Corp. v. King Record Distrib. Co. Tr. 162 (Burke).
435 N. Music Corp. v. King Record Distrib. Co. Tr. 277 (Rettenberg).
which the court “endured on trial ‘with patience and fortitude.’”\textsuperscript{436} While the recording seemed to resolve the court’s short-term concerns, it was not retained in extant court records and therefore contributed to issues of reproducing musical performance in the court record.

The opinion is revealing both for expert analyses as well as for the court’s interpretation of \textit{Arnstein}. Although the court was bound by \textit{Arnstein}, it was nevertheless entitled to read this decision in the context of \textit{Hirsch v. Paramount Pictures},\textsuperscript{437} which emphasized the contributions of non-expert listeners:\textsuperscript{438}

Expert testimony has been offered by both sides. Much of it is in conflict. While it has been of some help, we rely on the only other test available to a judge, who is a musical layman, namely- whether there is a resemblance noticeable to the average hearer.

As a result, the court’s decision turned not on expert analyses at all, but rather exclusively on its own perception of resemblance as a non-expert. Despite this reasoning, the decision still included an extensive discussion of formal, rhythmic, and melodic comparison of the music at issue to contextualize the nature of the conflict.\textsuperscript{439} As the court explained, “[t]echnically analyzed, a musical composition is made up of rhythm, harmony and melody,”\textsuperscript{440} from which originality can be ascertained primarily through melodic comparison. “It is in the arrangement or succession of musical notes, which are the fingerprints of the composition, and establish its identity.”\textsuperscript{441} This model of musical

\textsuperscript{437} 17 F. Supp. 816 (S.D.N.Y. 1937); see Chapter 3 above.
\textsuperscript{438} N. Music Corp., 105 F. Supp. at 397 (citing \textit{Hirsch} (outlining the “average hearer” test that relies on lay listeners rather than experts)).
\textsuperscript{439} N. Music Corp., 105 F. Supp. at 397-98.
\textsuperscript{440} N. Music Corp., 105 F. Supp. at 400.
\textsuperscript{441} N. Music Corp., 105 F. Supp. at 400.
composition contributed to a growing legal approach to musical infringement that principally considered these four musical dimensions to analyze and locate similarity and originality.

**Beyond the Second Circuit: Seventh Circuit**

As music copyright infringement cases swept the nation, other circuit court panels looked to the Second Circuit and the *Arnstein* test for persuasive authority to resolve the challenges of determining copyright infringement, only to discover that the test was problematic. In 1958, for example, the Seventh Circuit heard its first case to address issues of access and substantial similarity. In *Cholvin v. B&F Music Co.*, a lack of direct evidence of copying led plaintiffs Homer Cholvin and Norman Stade to sue defendant Kaczmarek. They alleged that Kaczmarek infringed on the melody of their then-popular song, “When the Sun Bids the Sky Goodnight,” with his own song, “While We Dream,” the rights for which were acquired by B&F Music in 1953. While Kaczmarek regularly listened to the radio, he could not read music, therefore it would have been impossible for Cholvin and Strade to prove that Kaczmarek directly copied from their sheet music even if he had access.

At trial, the plaintiffs endeavored to prove similarity. The court received testimony on similarity from experts John Bach, an arranger, James Baumann, a teacher

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442 253 F.2d 102 (7th Cir. 1958). See also Patry on Copyright § 9:215 (summarizing *Cholvin*).
443 253 F.2d 102 (7th Cir. 1958).
and organist at the Milwaukee Art Institute,\textsuperscript{444} and Harold Barlow, identified as a “music plagiarism expert”\textsuperscript{445} but also a noted writer about music.\textsuperscript{446} Barlow’s testimony explicitly described the comparison chart he used to graphically represent his analysis, shown below in Figure 6, and what it should convey to the court:\textsuperscript{447}

A comparison chart is a chart I make showing note for note a visual comparison of the songs in question, usually by signifying notes in duplication for the lay eye in red, so that these duplications may easily be seen. * * * Therefore the redder the page looks to the lay eye, it is to be presumed the more similar are the two songs in question.

While Barlow prepared the chart, all three experts relied on it to make their comparisons in court indicating the similarity of the two songs. No complaint regarding the format of the chart, which showed Barlow’s retention of the original meter and rhythm but spaced the two songs so that similar pitches aligned, is recorded in extant court records. Although the chart served to direct the attention of the court as to what Barlow intended them to see, and presumably hear, the fact that the other musical experts accepted the chart sheds light on the collegial relationships between the individual witnesses retained. Unlike in previous cases where experts contested one another’s charts and analytical techniques, the musical experts presumably evaluated Barlow’s chart and found it to be an equitable representation of the music, which outweighed any benefit to creating additional, and likely more partial, analytical diagrams.

\textsuperscript{444} Cholvin v. B&F Music Co. Tr. 121. Records Group 21 National Archives and Records Administration Chicago USDC Chicago, Civil Transcripts Case 55C771 Box C-236 “Cholvin v. B&F Music.”
\textsuperscript{445} Cholvin v. B&F Music Co. Tr. 83 (Barlow) (identifying and establishing credibility of Harold Barlow).
\textsuperscript{446} Barlow authored “A Dictionary of Musical Themes” and “A Dictionary of Vocal Themes.” Cholvin, Tr. 84; see also Harold Barlow and Sam Morgenstern, \textit{A Dictionary of Musical Themes} (New York: Crown, 1948); Harold Barlow and Sam Morgenstern, \textit{A Dictionary of Vocal Themes} (New York: Crown, 1950).
\textsuperscript{447} Cholvin v. B&F Music Co. Tr. 83-85 (Barlow).
Figure 6: *Cholvin v. B&F Music, Comparison Chart, Harold Barlow*[^448]

Much of the expert testimony in this case involved a search for melodic congruences as they appeared in the sheet music, but Barlow’s discussion extended

Beyond this analytical technique. During his examination, Barlow outlined his procedure for conducting a more reductive analysis that eliminated non-essential musical material before comparing the melodies. As he described: “In the problem of associating one song with another, one should reduce the song to its skeleton without the folderol,”

by which he probably meant ornamentation. This analytical technique continued a trend among experts to focus on musical elements indicative of similarity to the exclusion of non-indicative features of legal-musical similarity, including key, tempo, meter, and ornamentation.

Despite testimony that the songs were similar, the trial court determined that B&F, specifically Kaczmarek, did not infringe on Cholvin’s song. On appeal, the Seventh Circuit affirmed. While the appellate decision hinged on the plaintiffs’ “latitude” during cross-examination regarding royalties and fees rather than on the similarity inquiry, the Seventh Circuit court also reviewed the trial court’s consideration of access and similarity evidence. With regard to the expert testimony received, the appellate court applied precedent directly quoted from Arnstein to conclude that the expert testimony heard was not clearly erroneous.

Unlike the Second Circuit, which appeared to take a more qualitative approach to applying expert testimony, the Seventh Circuit quantitatively distilled testimony from its experts to percentages. In Cholvin, for example, the appellate court noted that “Plaintiffs’ expert testified that fifty percent of the defendants’ composition was exactly like

\[449\] Cholvin v. B&F Music Co. Tr. 89 (Barlow). Immediately after this explanation, Barlow applies his method and proceeds to sing the. See Tr. 89-90 (Barlow).

\[450\] See Cholvin v. B&F Music, 253 F.2d 102, 103 (7th Cir. 1958).
plaintiffs’. The defendants’ expert testified that the works were alike a shade less than fifty percent.”

In another case, Withol v. Wells, the court introduced similar percentage evidence regarding the extent of similarity between two works:

> Plaintiff contends, apparently without dispute, ‘taking note for note, the soprano scores reckon 80.95% identical, the alto scores 69.84% identical and the bass scores 59.96% identical.’ Plaintiff does not claim that defendant copied the tenor score of the copyrighted work.

Although this approach to expert testimony is a plausible interpretation of Arnstein, it introduced another layer of interpretation on the part of the court to quantify expert dissection. For this court, quantitative summaries seemed to provide a more objective formula for distinguishing between similarity and illegal copying, despite the values deriving from what were fundamentally non-objective expert analyses.

Through the middle of twentieth century, the Seventh Circuit maintained its restraint on expert testimony, but did not universally apply the percentages interpretation. In Packson v. Jobete Music, for example, Packson Music Publishing, headed by Lorenzo Pack, sued Motown Record Corporation and Jobete Music Company. Pack alleged that the first two measures of his unpublished “I’m Afraid” were infringed by Motown’s hit, “Baby Love,” made popular by the Supremes. The case was dismissed, with the court finding “the two compositions have an entirely different structure, melodic line,

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451 Cholvin, 253 F.2d at 103.
452 Wihtol v. Wells, 231 F.2d 550, 552 (7th Cir. 1956).
accompaniment and lyric. The two compositions do not sound alike upon a playing of the melody lines alone, the melody lines with the respective accompaniments as written or in vocal rendition.”

In his affidavit, music publishing mogul Robert Silverman separately analyzed each element of “I’m Afraid” and “Baby Love,” including the melody, formal structure and harmony, as well as tempo and lyrics. To support his conclusion that there was “no correlation” between the two songs in any of these respects, Silverman prepared a comparison chart, shown below as Figure 7, containing the first eight bars of “Baby Love,” “I’m Afraid,” “Till The End of Time,” as well as the original on which it was based, Chopin’s “Polonaise 46,” plus two more popular songs, “Dancing Cheek to Cheek,” and “It Might As Well Be Spring.” Each melody was transposed into the same key and into duple meter.

Appearing to dispense with color-based differentiations used in earlier charts like this one, Silverman’s chart used circles and arrows to draw attention to similarities. In addition to comparing the two songs at issue, Silverman included below other songs with similar motivic structure with the effect of arguing that the melodic similarity is unoriginal, or as the court wrote, “common to music literature.” While not as visually

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458 Silverman’s Affidavit alleges that he used red marks on the chart. Packson v. Jobete Music Silverman Aff. 5.
striking, the arrows convey a similar idea even to viewers who could not read music; that there was a fair amount of similarity.

Figure 7: *Packston v. Jobete Music, Comparison Chart, Robert Silverman*\textsuperscript{460}

\textsuperscript{460} Packson v. Jobete Music Comparison Chart.
Although the *Packson* case did not explicitly cite to *Arnstein*, the court’s method reflected a bifurcated approach to similarity that included both the Silverman’s dissection and the court’s non-expert perceptions of the recordings. The case was ultimately dismissed, with the court reasoning that the songs were “dissimilar in every material respect,” save the two-note hook.

**Beyond the Second Circuit: Ninth Circuit**

Other circuits responded similarly as copyright cases arose regarding music, looking closely to the Second Circuit’s *Arnstein* approach for guidance. Initially, courts in the Ninth Circuit also applied the *Arnstein* test and relied on expert witnesses to offer facts without commenting on their application to ultimate issues in the case. In *Overman v. Loesser*, for example, Robert E. Overman sued Frank Loesser over his commercially successful song, “On a Slow Boat to China,” which Overman claimed infringed on his song, “Wonderful You.” Overman claimed that he and lyricist Betty Hawes received copyright on “Wonderful You” in 1947, a year before Loesser received copyright for “On a Slow Boat to China.” While Overman attempted to prove access based on this timeline, as well as the strained melodic similarity between the two songs, Loesser claimed that he composed “Slow Boat” in 1945 and merely sought copyright and

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461 See *Packson v. Jobete Music Findings of Fact*.
462 *Overman v. Loesser*, 205 F.2d 521, 521 (9th Cir. 1953).
publication later. Although the trial court, proceeding without a jury, found infringement based on both access and similarity, Loesser ultimately prevailed on appeal due to a difference of evidentiary standard.\footnote{Overman, 205 F.2d at 522-23 ("Appellant challenges the court's findings as clearly erroneous. He bases his attack upon the ground that the court reached its decision by applying an incorrect theory of the law, namely, the court's finding that 'Slow Boat' was composed prior to 'Wonderful You' was based upon a mere preponderance of the evidence, whereas, in appellant's view, prior composition may prevail as a defense only when proved by evidence that is 'clear and convincing or beyond reasonable doubt' in the circumstance where there is evidence of 'access' by the defendant to the allegedly infringed song and 'similarity' between the involved songs").}

On appeal, the court reinforced the limits of expert testimony to discrete facts, excluding opinions on the significance of these facts to findings of unlawful appropriation. Overman challenged a question raised at trial to his expert, who was unnamed in the opinion,\footnote{Trial transcript is not included in extant records. See Boxes 1383-84. Records Group 21 National Archives and Records Administration Riverside, Records of the District Court of the United States for the Southern District of California Central Division, Civil Cases, Boxes 1383-84, "Overman v. Loesser."} regarding the possibility of independent composition of the two songs. Loesser’s attorney objected on grounds that the question “call[ed] for the opinion of the witness on a matter not the subject of expert testimony, [that it is] argumentative and invades the province of the court,”\footnote{Overman, 205 F.2d at 524.} and the court sustained. The Ninth Circuit agreed with the trial court’s decision, stating that “[i]t was a matter of the court’s discretion and we think it took the more desirable course by confining the expert’s opinion to definite facts in the case, rather than receiving his application of them.”\footnote{Overman, 205 F.2d at 524.}

Here, both the district and appellate courts reinforced limitations on experts to exclusively providing facts and details of probative similarity. In this way, the court sought to “confine” the expert testimony in ways that may have seemed more systematic
and analytical, thus seemingly more objective and less partisan. Far from offering an opinion regarding infringement, experts served only as surveyors marking the similarities between pieces of music.

**Krofft and the Ninth Circuit’s “New Dimension”**

For much of the mid-twentieth century, music copyright cases relied directly on the *Arnstein* test for its disaggregation of copying from unlawful appropriation and in its bifurcated factual approach to similarity that involved both experts and non-expert evaluations. But in 1970s, the Ninth Circuit introduced its own methods. By the 1970s, copyright cases heard in the Ninth Circuit gave rise to new formulations of infringement analysis, leading to the codification of two separate tests. Neither case directly involved music as the expressive work at issue, but the legal analyses would apply to future music copyright litigation.

The first test, commonly called the “total concept and feel test,” originated in a case involving the sentiments and images printed on greeting cards.467 Decided in 1970 on appeal, the Ninth Circuit found judicially-evaluated similarity in the “total concept and feel” of the greeting cards, despite differences in the images and the sentiments being fundamentally not protectable. The court defined this process as referring to the

467 Roth Greeting Cards v. United Card Co., 429 F.2d 1106 (9th Cir. 1970).
“combination of the art work conveying a particular mood with a particular message.”\textsuperscript{468}
This test diverged from the reliance on experts and non-experts in \textit{Arnstein}.

Seven years later, in 1977, the Ninth Circuit presented another new legal test claiming to refine the \textit{Arnstein} procedure that, in effect, diverged into a new test. While not dealing with music itself, \textit{Sid and Marty Krofft v. McDonalds} has significant implications for music copyright litigation. In \textit{Sid & Marty Krofft}, the creators of the children’s television show, “H.R. Pufnstuf,” Sid and Marty Krofft Television Productions, Inc., sued McDonald’s Corporation for allegedly infringing on copyrighted episodes, characters, and merchandising as it appeared in the “McDonaldland” advertising campaign.\textsuperscript{469} Although Krofft licensed the use of its H.R. Pufnstuf characters for toys and other merchandise, it had not extended a license to McDonald’s, and Krofft sued despite their request.\textsuperscript{470} The District Court found in favor of Krofft and granted a jury award for damages, which McDonald’s appealed.\textsuperscript{471}

On appeal, the Ninth Circuit reviewed the process for determining infringement and defined the parameters of substantial similarity analysis based on their interpretation of \textit{Arnstein}.\textsuperscript{472} Dissatisfied by the current test based on concerns that the combination of ownership, access, and substantial similarity leading to infringement would impermissibly broaden copyright protections, the \textit{Krofft} court superimposed “the classic distinction between an ‘idea’ and the ‘expression’ of that idea,” onto similarity analysis,

\begin{itemize}
\item \textsuperscript{468} \textit{Roth}, 429 F.2d at 1110.
\item \textsuperscript{469} \textit{Sid & Marty Krofft Television Product., Inc.}, 562 F.2d 1157, 1161 (9th Cir. 1977).
\item \textsuperscript{470} \textit{Krofft}, 562 F.2d at 1161.
\item \textsuperscript{471} \textit{Krofft}, 562 F.2d at 1161.
\item \textsuperscript{472} \textit{Roth}, 429 F.2d at 1106.
\end{itemize}
giving the test what it called “a new dimension.” The *Krofft* court read the *Arnstein* court’s concept of copying as separate from improper appropriation as “not itself an infringement,” thus they “must be suggesting copying merely of the work’s idea, which is not protected by copyright.” Therefore, according to the *Krofft* court, “[t]he real task in a copyright infringement action . . . is to determine whether there has been copying of the expression of an idea rather than just the idea itself,” reaching the level of unlawful appropriation as described in *Arnstein*. Although the court claimed it was “not resurrecting the *Arnstein* approach,” in effect, the court introduced a familiar two-step inquiry that retained a divide in the second step between experts and non-experts.

The court introduced what has come to be known as the “intrinsic/extrinsic test,” in which similarity must be found “not only of the general ideas but of the expressions of those ideas as well.” This required a two-step process, with the first step being the establishment of valid copyright registration. Second, to prove similarity, the court would follow a two-prong evaluation: first, an “extrinsic test” would be conducted based on “specific criteria which can be listed and analyzed [including] the type of artwork involved, the materials used, the subject matter and the setting for the subject.” This inquiry would be conducted through analytic dissection familiar and “appropriate” to expert witnesses. The second prong, the “intrinsic test,” evaluated substantial similarity of the expression of ideas, which was considered “necessarily more subtle and complex,”

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474 *Krofft*, 562 F.2d at 1165.
475 *Krofft*, 562 F.2d at 1163.
476 Sid & Marty Krofft Television Product., Inc., 562 F.2d 1157, 1163 (9th Cir. 1977).
477 *Krofft*, 562 F.2d at 1163.
478 *Krofft*, 562 F.2d at 1163.
is made more ad hoc based on “the response of the ordinary reasonable person.” This test “is intrinsic because it does not depend on the type of external criteria and analysis which marks the extrinsic test.” In a further distinction from Arnstein, Krofft established that without this two-prong finding of similarity, no amount of proof of access could lead to an infringement finding. Where the two tests both revealed similarity, then improper appropriation, now referred to as “substantial similarity,” was proved.

In the context of the Krofft case, because McDonald’s admitted to having copied H.R. Pufnstuf in so far as it was a “fantasy land with diverse and fanciful characters in action,” the extrinsic test did not apply. As a result, experts were not consulted and McDonald’s attempt to distinguish individual characters through a kind of dissection was not considered. Instead, the court emphasized the intrinsic, holistic perceptions of average viewers on which the district court had relied. Ultimately, the Krofft court affirmed the decision regarding infringement, finding that the district court’s evaluation of substantial similarity between the H.R. Pufnstuf and McDonaldland characters was not clearly erroneous. The new “intrinsic/extrinsic” test not only had implications for infringement by foregrounding the idea-expression divide, but it also redefined the relationship between experts and lay listeners as well as between experts and the court.

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479 Krofft, 562 F.2d at 1165.
480 Krofft, 562 F.2d at 1164.
481 Sid & Marty Krofft Television Product., Inc., 562 F.2d 1157, 1165 (9th Cir. 1977).
The Legacy of *Arnstein* and *Krofft*

Far from achieving its goal, *Krofft* instead introduced new layers of complexity to the *Arnstein* test through the overlay of the idea-expression divide. In so doing, *Krofft* adapted the *Arnstein* test for similarity analysis, but conflated analysis of fundamental ideas with *Arnstein’s* access-plus-probative-similarity on the one hand and analysis of expression with improper appropriation or substantial similarity on the other. In its arguably flawed interpretation of *Arnstein*, *Krofft* thus created a qualitative distinction between copying and illegal copying based on the aspects of the expressive work that should be considered.\(^{482}\) In contrast, *Arnstein* had settled on a matter of degree, or the point at which the line between lawful commonality and unlawful appropriation had been metaphorically crossed.

Together, the *Arnstein* and *Krofft* decisions reveal judicial skepticism toward the contributions of experts, which resulted in constraining their role and privileging non-expert jurors instead. In theory, experts employed under either test should contribute to decisions regarding copying-in-fact, but not the subsequent decisions regarding unlawful appropriation. In practice, however, this limitation did more to create questions regarding the role of experts, and their relationship to non-expert lay listeners, than to answer them.

Despite legal limitations on the questions to which experts may contribute, neither decision commented on the expert’s analytical techniques or offered recommendations for analytical criteria in assessing similarity. This silence prudently left expert analysis to

the experts, but it also did very little to reduce opportunities for partisan analyses. It likewise did little to reduce the influence or confusion from sophisticated, abstract analyses about which the Second Circuit had grown suspicious. Instead, it merely created a legal procedure to constrain the contributions of experts to matters of probative similarity.

Both tests ultimately redirected the final determination of infringement from judges to jurors, reflecting a legal shift from a question of law to a question of fact. This shift legally recast the similarity inquiry as a question of fact, thereby reinforcing the fact-specific nature of each case that had challenged courts since the nineteenth century. It likewise ensured that the decisions would continue to be unpredictable, due in large part to the jury-centric nature of the decision, as well as inconsistent, due to differing judicial tests across circuits and the specific nature of comparisons between the works at issue.

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Chapter 5: Late-Century Experts and the Problems with *Arnstein* and *Krofft*

After the *Arnstein-Krofft* circuit split,\textsuperscript{484} courts struggled to apply the new tests, with problems manifesting not only in judicial interpretation, but also in the divide between expert and non-expert witnesses and the role each one played. This new role had reduced the scope of expert contributions by legally retaining their presence in the fact-driven similarity process, but removing any ability to draw expound on matters of copying or infringement. These limitations were especially felt by experts in the Ninth Circuit, where their analyses were further limited to an analytical dissection of each legally-conceived underlying musical idea, not the music as it might be heard or represented on sheet music.

For musical analyses, the mid-century circuit split led to inconsistencies in the techniques that experts used and the analyses they produced. Experts serving in the Second Circuit continued to use many of the same analytical techniques from mid-century cases, but their contributions in the late century grew increasingly theoretical and sophisticated. In the Ninth Circuit, experts limited to locating and analyzing underlying musical ideas turned to increasingly sophisticated, abstract, and reductive techniques that separated their analyses from the music at issue and the holistic comparisons made by

\textsuperscript{484} See Chapter 4 above.
jurors. This variability undoubtedly contributed to overarching problems with the unpredictability and inconsistency in litigation.

As a result, late-century music copyright cases reflect a consistent presence of musical experts, but analytical shifts in the ways that they carried out their role surveying music. Increasingly sophisticated analyses, and growing tensions between experts retained by opposing parties, undoubtedly caused confusion and alienation among non-expert jurors. Thus, while the introduction of mid-century tests may have had the effect of limiting partisan influence from experts or judges, the result was a highly subjective jury-centric legal landscape to which experts contributed very little substance.

During this period, courts in other circuits continued looking to the Arnstein and Krofft decisions for guidance, but soon discovered problems with each decision’s test. While some courts still adopted Krofft or Arnstein in their totality, others tried to resolve the apparent issues. These refinements recognized the subjective whims of non-expert jurors and sought reforms that limited the content that jurors evaluated and, in at least one circuit, the minimum qualifications of non-experts through the institution of an “intended audience.” While these refinements attempted to manage the subjectivity and unpredictability created by non-expert jurors, they did very little to resolve underlying problems with the similarity inquiry or to restore the influence that experts could have on the outcome of each case.
Statutory Reforms in Evidence and Copyright

The contemporaneous passage of the Federal Rules of Evidence (FRE) and major revisions in statutory copyright law presented a new legal landscape in which copyright litigation existed. In the 1971 Sound Recording Act, Congress extended federal copyright protection to sound recordings as fixed “writings” of music.485 Five years later, Congress also enacted the 1976 Copyright Act, which overhauled the federal copyright system in play since 1909. The new Act extended the duration of copyright protection from twenty-eight years plus a twenty-eight-year extension to much longer durations, depending on the kind of author.486 It altered the system for categorizing expressive works into non-exclusive categories, which included a new, separate copyright for sound recordings.487 It also partially eliminated the formalities system for works copyrighted after 1978, notably replacing the “publication” formality, which for music referred to sheet music, with the requirement of “fixation” in a tangible medium, including sound recordings. By eliminating the formalities system for works copyrighted after 1976, copyright registration was now voluntary; however, copyright holders would need to register and deposit copies of the work before filing an infringement suit.488

487 1976 Act, § 102(a). The categories included “literary works; musical works, including any accompanying words; dramatic works; pantomimes and choreographic works; pictorial, graphic and sculptural works; motion pictures and other audiovisual works; sound recordings; and architectural works” (enumeration omitted).
488 1976 Act § 408.
codified principles previously established only through judicial precedent, most notably, the fair use doctrine and the idea-expression divide.

These statutory reforms shaped the legal landscape in which music copyright litigation proceeded, most notably in that copyright holders could obtain protection for music captured on sound recordings on their own, separate from any protection obtained for sheet music. Although Congress had the opportunity to resolve the circuit split between Arnstein and Krofft, it remained silent in the 1976 Act. This silence left courts, and parties employing experts, to interpret and apply existing infringement tests.

The Second Circuit and Applying Arnstein

Late twentieth-century music copyright cases heard in the Second Circuit revealed enduring problems with the Arnstein test, particularly in managing the separation of copying and improper appropriation. While the routine presence of experts suggested that they were a strategic necessity, their influence on the outcome of the case remained limited and inconsistent between cases. This is likely in part due to other factors to the Arnstein test, particularly concepts of access and subconscious copying that were being judicially developed, but also likely in part due to the nature of the analytical that musical experts produced.

490 1976 Act § 102(b). See Chapter 3 above for the origins of the idea-expression divide.
491 See Chapter 4 above.
Offering analytical dissection, experts employed analytical techniques that separated music principally by melody, harmony, rhythm, and form, rather than considering it holistically, which was now the domain of non-expert jurors. Despite this analytical abstraction, new prose explanations and trial testimony created an opportunity for experts to explain the application of their analyses without explicitly commenting on the final infringement issue. At the same time, however, these explanations created the opportunity for experts to confront one another in more esoteric dialogues regarding music theory that likely did more to alienate jurors than to undermine expert credibility or establish the primacy of any expert’s evidence.

In *Bright Tunes Music Corp. v. Harrisongs Music, Ltd.*, for example, the court strictly applied the *Arnstein* test to find that Beatles guitarist George Harrison’s “My Sweet Lord” infringed on “He’s So Fine,” made famous in a recording by The Chiffons. The case turned on the repetition of two phrases to create the melody, which experts and the court labeled motives A and B, respectively. While decisive issues in the case dealt with compositional process, specifically access and notions of subconscious copying, that left George Harrison at fault in the case, the case exemplified the role that experts could play in the similarity inquiry.

At trial, both parties introduced testimony from experts. The plaintiffs introduced Manhattan School of Music professor, David Greitzer. Harold Barlow, who had served as

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492 *Arnstein v. Porter*, 154 F.2d 465, 468 (2d Cir. 1946).
494 *Bright Tunes*, 420 F. Supp. at 177.
495 *Bright Tunes*, 420 F. Supp. at 177.
an expert for what the court described as “long in the field,” offered testimony for the defendants, along with ethnomusicologist Dr. David Butler. Extant expert reports and testimony demonstrated that the structural melodic motives in both songs were identical, but whether or not these motives were even subject matter for an infringement complaint became an issue.

Testifying on behalf of the plaintiffs, Greitzer presented a report that used a variety of notational schemes to convey different kinds of analytical information. The first page, which contains Greitzer’s analytical diagrams, is shown below in Figure 8. Rather than aligning the two melodies in tandem as many experts had done before, and in contrast to Barlow’s report, Greitzer presented the two motives at issue and described them in prose. This strategy implied the melodic congruence of the motives to foreground the idea of close copying. He also included a separate harmonic analysis using roman numerals,* a simplistic “umbrella” diagram to show formal structure, with alphabetic designations to indicate the use of each motive. While Greitzer’s diagram strategy separated each fundamental musical element, thereby making it easier to discuss the similarities with respect to each element, the symbolic, reductive diagrams were more abstract and separate from the music performed or presented on sheet music. For all that Greitzer included prose explanations of his analysis to explain his graphs, his system of music-theoretical symbols and separated musical elements undoubtedly alienated or confused jurors unfamiliar with them.

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496 *Bright Tunes*, 420 F. Supp. at 180 n.11.
Figure 8: Bright Tunes v. Harrisongs, Expert Report, David Greitzer\textsuperscript{497}

\textsuperscript{497} David Greitzer Expert Report; Bright Tunes v. Harrisongs J.A. 1033.
On cross examination, the defendants attempted to discredit Greitzer’s identification of a similar motive by contending the motives themselves were not protectable:

Q. Is it fair to say, Mr. Greitzer, from the testimony you have given here, that the presence of that motive in He’s So Fine and My Sweet Lord would not in and of itself suggest to you that there has been a copying in this case?
A. The presence of the motive itself, no, sir, but--

Greitzer attempted to redirect the court’s attention toward motive B and to emphasize the grace note as a unique feature of both songs, thereby indicative of copying. He also noted the relationship between the ascending melodic trajectory of Motive A in relationship to the descending melodic trajectory of Motive B.

Called by the defendants, Barlow attempted to reinforce the argument that the motives were unoriginal and therefore could have been independently created regardless of access, and that differences in the treatment of the motives resulted in different compositional effects, thereby leading to similarity that did not constitute improper appropriation. Barlow’s report applied the technique he had used in previous cases, which contrasted Greitzer’s more cursory report.

Barlow’s representation of the two melodic motives aligned them in context of the larger melody and each other, shown in Figures 9 and 10 below, contrasted Greitzer’s representation as well as his analysis. At first, in Chart I shown below in Figure 9, Barlow presented the melodies with the pitches and motives identified.

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499 Bright Tunes v. Harrisongs Tr. 96-97 (Greitzer).
Then, in Chart IV shown below in Figure 10, Barlow indicated where congruent melodic pitches aligned and provided a quantitative analysis of that similarity. Unlike earlier comparison charts that used coloration or circles and lines to indicate individual note similarities but in keeping with his own analytical techniques, Barlow’s charts drew comparisons with bold lines at the beginning of long stretches of similar melodies. This notational method was less visually striking and required viewers to interpret the chart more closely.

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Figure 10: Bright Tunes v. Harrisongs, Expert Report, Harold Barlow Chart 4

The report nonetheless seems to retain a link to notated music that had legally served to embody the music for decades. Alphabetic designations served to bridge the expert-non-expert gap by assisting jurors and the court to read the notation. This strategically retained what appeared to be a reliable representation of the music as embodied in pre-interpreted notation.

The defendants also retained Dr. Butler to introduce its strategic arguments regarding prior compositions and originality. Instead of offering musical-theoretical analysis, Dr. Butler provided context on musical style in the songs, locating both songs in the tradition of gospel music, taking an approach to similarity that emphasized the context of musical resemblance. He focused specifically on the relationship between spirituals and gospel, as well as stereotypical melodic patterns and their improvisatory use. In his comparisons, Dr. Butler contended that “both are based on spiritual and traditional gospel material or music derived from those.” Dr. Butler used his identification of pentatonicism, *syncopation,* and repetitious formal structure in each motive to associate the musical material at issue with “African American music traditions,” specifically gospel. Any chart or performance he may have used has not been retained in extant court records.

Both Barlow and Dr. Butler extended their analyses to include prior compositions, in order to emphasize the unoriginal nature of the two motives. This strategy reflected a long tradition among experts usually retained by the defendants that relied on prior art.

502 See Bright Tunes v. Harrisongs Tr. 486-90 (Butler).
503 Bright Tunes v. Harrisongs Tr. 493 (Butler).
504 Bright Tunes v. Harrisongs Tr. 494 (Butler).
rather than dissimilarity. Barlow cited songs such as “San Fernando Valley,” “Pagan Love Song,” “If I Had a Hammer,” and “Kind of a Drag.” Using this style-based context for discussion, Dr. Butler also introduced recordings of similar manifestations of motives A and B in gospel music, thereby reinforcing the argument that the material was fundamentally unoriginal and thus not protectable.

In the aggregate, expert testimony proposed that the motives were nearly identical melodically, rhythmically, and in their repetitious use compositionally, that there was a potential for this not to constitute copyright infringement due to the size of the unit of copied material and the stylistic conventions embraced by the songs’ composers. In its opinion, the court settled on the melodic, rhythmic, and formal similarity, appearing to disregard any discussion of musical style. It even included music notation for each motive in footnotes to the opinion, shown below in Figures 11 through 13. Each motive was transposed from its original key, but were based on motives as identified in expert reports shown in Figures 8 through 13. This is one of the only instances of music notation appearing directly in a court opinion and marks the significant influence of experts and musical discussion on the court.

505 Bright Tunes v. Harrisongs Tr. 435-44 (Barlow).
In an unusual effort to contextualize the musical facts, the court also incorporated solfege vocabulary, used by experts but previously avoided by other courts, to describe the motives. The vocabulary was undoubtedly inspired by Greitzer’s testimony:

He’s So Fine, recorded in 1962 . . . consisting essentially of four repetitions of a very short basic musical phrase, ‘sol-mi-re,’ (hereinafter motive A), altered as necessary to fit the words, followed by four repetitions of another short basic musical phrase, ‘sol-la-do-la-do,’ (hereinafter motive B). While neither motive is novel, the four repetitions of A, followed by four repetitions of B, is a highly unique pattern. In addition, in the second use of the motive B series, there is a grace note inserted making the phrase go ‘so-do-la-re-do.’ My Sweet Lord, recorded first in 1970, also uses the same motive A (modified to suit the words) four times, followed by motive B, My Sweet Lord has a transitional passage . . . of the same approximate length, with the identical grace note in the identical second repetition. The harmonies of both songs are identical. [sic]

506 Bright Tunes, 420 F. Supp. at 178n.1.
507 Bright Tunes, 420 F. Supp. at 178n.2.
508 Bright Tunes, 420 F. Supp. at 178n.4.
509 Bright Tunes Music Corp. v. Harrisongs Music, Ltd., 420 F. Supp. 177, 178 (S.D.N.Y. 1976); see also Bright Tunes Music Corp. v. Harrisongs Music., Ltd. Tr. 39 (Greitzer).
Thus, in *Bright Tunes*, musical experts contextualized the court’s consideration of similarity according to repetition and the size of musical material based on motives as structurally relevant units of music. Here, experts still appeared to contribute to the litigation process, despite their limited role.

Application of the *Arnstein* test did not always go so smoothly. In *MCA v. Wilson*, for example, the Southern District of New York, the court applied the *Arnstein* test to arrive at a judgement for the plaintiff music publishing company, MCA Music. In its complaint, MCA alleged that its copyright for “Boogie Woogie Bugle Boy,” was violated by Earl Wilson’s “Cunnilingus Champion of Company C,” one of several songs in his 1974 musical, “Let My People Come: A Sexual Musical.”

After the plaintiffs presented their *prima facie* case based on the elements of the *Arnstein* test, defendant Wilson introduced a series of unsuccessful arguments. Following anticipated defense arguments, he principally denied accusations of infringement and claimed that the commonalities between the songs were unoriginal and thus not protectable. In a more unusual argument, Wilson attempted to apply the FRE as a means to circumvent similarity analysis. He argued that evidence of non-expert lay listener perceptions of similarity should be inadmissible under the FRE on hearsay grounds, hoping instead to rely on expert analysis. Together, the arguments reflect

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510 First copyrighted in the 1940s, “Boogie Woogie Bugle Boy” was made popular by the Andrews Sisters performance, and after the initial copyright term, the rights were assigned to MCA. In 1973, Bette Midler performed the same song, reviving its popularity.


513 The court noted that under FRE 803(1), present sense impressions, such as those of lay listeners upon hearing two songs, are exceptions to the hearsay rule and that regardless of the evidence’s introduction,
changes in the legal landscape and litigation that relied more on experts and incorporated broader areas of law.

At this unusual non-jury trial, the court heard testimony from Barlow, who served on behalf of both parties, as well as from conductor-composer Russell Goudey, who was called by the defendant. Using techniques similar to the one used in *Bright Tunes*, Barlow’s report contained copious charts reflecting melodic, harmonic, rhythmic, and recording arrangement comparisons between the two songs. At trial, Barlow offered note-by-note comparisons and concluded that “what exists in common between the two compositions in question exceeds the bounds of coincidence and defendants’ song could not have been arrived at independently.” To elaborate, Barlow compared the two songs, claiming that they shared a 12-bar structure which is used in repetition involving notes in the main that are 8 beats to the bar in certain areas of the melody and certain areas of the bass. There is a general harmonic similarity, and certain specialized rhythmic patterns are also in common in the two compositions, and also, additionally, certain, what in the parlance is known as breaks, which are found to be in common in the two compositions.

Barlow also presented a series of charts and a recording of him playing excerpts of the songs to explain his analysis to the court. His discussion was melocentric and emphasized pitch congruence, with Barlow comparing the two melodies phrase by phrase

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514 MCA v. Wilson Tr. 16 (Barlow).
516 *Wilson*, 425 F. Supp. at 449; Tr. 25 (Barlow).
517 MCA v. Wilson Tr. 26 (Barlow).
in nine separate charts. For example, Chart 1, shown as Figure 14 below, was described as showing “a note-for-note comparison and the notes that are in common are shown joined by connecting lines. The notes are named by their pitch names by alphabetic designation.” Although the chart did not use the two-color technique of previous experts, its placement of the two melodies in tandem and marking similarities based on pitch was a familiar continuation of analytical techniques.

518 MCA v. Wilson Tr. 28 (Barlow).
Figure 14: MCA v. Wilson Expert Report, Harold Barlow Chart 1

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The defendants also retained conductor-composer, Russell Goudey. As the court noted in its opinion, Goudey “vouched for the accuracy of Mr. Barlow’s comparison charts,” without providing any additional explanation of them. The trial transcript reflected the same argument, but suggested Goudey’s reticence to concede to Barlow. As Goudey stated, “I don’t think there is any inaccuracy,” referring to Chart 1 in Figure 9 above, and finding fault only with Chart 2 of Barlow’s report by stating “I don’t think the parts of the song coincide.” Here, it appears that Barlow’s comparison was indisputable according to Goudey, who struggled to fulfill his role in bolstering the defendant’s case against the similarities Barlow presented.

Goudey’s attempt to discredit Barlow’s report in its capacity serving the plaintiff created an expert confrontation centered on the definition of melody. During cross-examination, Goudey offered a definition of melody as “a series of tones of varying pitch sounded in succession and formed rhythmically to make a recognizable musical pattern.” The plaintiff’s attorney attempted to impeach the definition as “not a generally accepted definition” in accordance with the Frye test and its restraint on expert testimony. Barlow challenged Goudey’s requirement for changes in pitch by suggesting melody merely needed to be a “horizontal movement of note,” that need not vary in pitch. This reflected Barlow’s later definition of melody as “a succession of notes,

521 MCA v. Wilson Tr. 363 (Goudey).
522 MCA v. Wilson Tr. 363 (Goudey).
523 MCA v. Wilson Tr. 376 (Goudey).
524 See Chapter 1 above.
525 MCA v. Wilson Tr. 377 (Goudey).
be it as little as two or as many as infinity following consecutively on a horizontal level as opposed to harmonic structure on a vertical level." Their music-theoretical disagreement regarding the definition of melody undermined the opposing analyses, but likely did little to assist court in interpreting their analyses or making its decision.

Although Barlow and Goudey did not use any markedly new technique for comparing the two pieces, the depth to which they conducted their analyses and confronted one another points toward greater analytical sophistication. Like contemporaneous cases, the experts considered not only melodic congruence, but also the compositional construction of the songs at issue in the stylistic context of popular music. Their analyses and testimony would prove influential on the court.

More significantly, the decision from Wilson highlights problems for expert witnesses under the Arnstein test. While Barlow’s statement regarding independent creation and commonalities explicitly commented only on copying, not unlawful appropriation, the court applied the statement both to the court’s evaluation of copying as well as its evaluation of unlawful appropriation, where it should have been excluded. This apparent misapplication of expert testimony pointed toward a shortcoming in the test itself, namely, that both inquiries required information regarding similarity. The probative similarity evaluation, however, is driven by expert analysis, rather than non-expert jurors who were not even present at the bench trial. By applying expert testimony

526 MCA v. Wilson Tr. 401 (Barlow).
beyond its designated prong of the similarity inquiry, the Wilson court proved that despite legal constraints on experts, once they have testified, their contributions cannot be forgotten or excluded. Thus, legal constraints on expert testimony did not necessarily constrain the decision-making process of non-experts as the test implied, which had implications for the unpredictability of the test itself.\textsuperscript{528}

Even in the Second Circuit, expert analysis produced in late twentieth-century followed trends of increasing abstraction, with mixed consequences for the influence of experts on the outcome of each case. In \textit{Gaste v. Kaiserman}, for example, experts produced highly abstract analyses and testimony whose influence on the final outcome of the case is at best implicit. In this case, plaintiffs Louis Gaste and \textit{Les Editions Louis Gaste} alleged that their copyrighted song, “Pour Toi,” which appeared as part of the soundtrack to \textit{Le Fe Aux Poudres}, was infringed by Morris Kaiserman’s song, “Feelings.”\textsuperscript{529} At trial, the plaintiffs called music theorist Dr. Anthony Ricigliano, who at the time served as the chairman of the music theory department at the Manhattan School of Music.\textsuperscript{530}

Dr. Ricigliano’s expert report showed an increased level of abstraction in analysis, but it was with a potential benefit to influencing jurors. Using graphs instead of music notation to show a comparison directed the attention of non-experts. This analytical technique drew attention away from the distinguishing features of the melody.

\textsuperscript{528} Kim, “Expert Testimony,” 116.
\textsuperscript{530} Gaste v. Kaiserman Tr. 456 (Ricigliano).
In his examination, Dr. Ricigliano defined melody, rhythm, and form, and then used this foundation to review his analysis. He also presented a comparison chart, shown below in Figure 15.

![Figure 15: Gaste v. Kaiserman, Comparison Chart, Anthony Ricigliano](image)

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531 Melody included interval content, rhythm, basic shapes, an structure. See Gaste v. Kaiserman Tr. 457 (Ricigliano); M. Fletcher Reynolds, “Music analysis for expert testimony in copyright infringement litigation” (Ph.D. diss., University of Kansas, 1991), 159.
532 “Rhythm is the organization of time values or duration.” Gaste v. Kaiserman Tr. 468 (Ricigliano); Reynolds, “Music analysis,” 159.
533 “Form refers to the organization of the musical ideas.” Gaste v. Kaiserman Tr. 466 (Ricigliano); Reynolds, “Music analysis,” 159.
With the songs aligned in tandem, showing “Pour Toi” on the top staff and “Feelings” on the bottom, Dr. Ricigliano indicated similarity with rectangular blocks on similar harmonies, using diagonal arrows to show duplicated notes, and brackets were used to parse phrasing. The format of the graph is similar to that used by Barlow and experts who served before him, and likely caused much of the same confusion due to the music notation and symbols used to mark similarity.

Dr. Ricigliano then considered the melodic contour of both melodies through a series of contour graphs. Figure 16, shown below, demonstrated comparison of the contours of the two melodies but reduced the music to its melody while retaining its rhythmic and metrical context.

![Figure 16: Gaste v. Kaiserman, Contour Graph, Anthony Ricigliano](image)

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535 Gaste ex. 93, reproduced in Reynolds, 724. The reproduction is monochromatic, but the original was brightly colored to differentiate between the two contour lines. Reynolds, “Music analysis,” 161.
The melodic contour graph demonstrated that the two songs followed nearly identical melodic trajectories until measure 5, where there is a distinct split in similarity until measure 7. The graph applied analytical abstraction strategically by representing musical information in a form that retained most of the same information as western notation but presented it in a format easily perceived by non-expert jurors. In addition, Dr. Ricigliano introduced a separate chart for harmonic analysis that provided lead sheet notation* for each of the harmonies in both songs, arranged in tandem and demarcated by bar lines. Thus, removing the music from its context in western notation seemed to abstract similarity from the musical material, but it also simplified the comparison process by reducing harmonic information into separate graphs.

The defendants introduced Irwin Coster at trial, who did not produce any of his own charts or independent analyses. Instead, he served to strategically undermine Dr. Ricigliano’s analysis through rebuttal testimony. In addition to distinguishing between the pitches in the melodies of the two songs, Coster presented the critical nature of the rhythm as a relevant characteristic separating the two songs. He also drew attention to harmonic differences in the songs and indicated that harmonic resolutions and voicing in the song were “not unique.”536 Thus, Coster’s testimony problematized analytical focus on melody and pitch congruence, signaling that rhythm and harmony could also be determinative of musical similarity or difference.

536 See e.g., Gaste v. Kaiserman Tr. 681-83 (Coster).
The jury found in favor of Gaste, which the Second Circuit would later affirm.\textsuperscript{537} The court’s decision relied on the high level of similarity presumably influenced by Dr. Ricigliano’s testimony, but his explicit influence is undefined. The decision established that “if two works are so strikingly similar as to preclude the possibility of independent creation, ‘copying’ may be proved without a showing of access.”\textsuperscript{538} Thus, factfinders may infer access based on a high level of copying. The court went on to establish that in cases involving popular music, the level of copying required is particularly high, given “the limited number of notes and chords available to composers and the resulting fact that common themes frequently appear in various compositions.”\textsuperscript{539}

In effect, \textit{Gaste} increased the stakes for expert testimony by requiring a higher threshold for similarity in cases involving popular music, which dominated music copyright litigation. Because of “the limited number of notes and chords available to composers and the resulting fact that common themes frequently reappear in various compositions, especially in popular music,”\textsuperscript{540} plaintiffs would need to show more similarity, now “striking” similarity,\textsuperscript{541} between the two songs in order to elicit an infringement finding. This higher threshold would prove to be significant in later cases, and put pressure on experts to produce analyses that found greater or more obvious similarities in comparisons of popular music.

\textsuperscript{537} \textit{Gaste} v. Kaiserman, 863 F.2d 1061, 1063 (2d Cir. 1888).
\textsuperscript{538} \textit{Gaste}, 863 F.2d at 1068.
\textsuperscript{539} \textit{Gaste}, 863 F.2d at 1068.
\textsuperscript{540} \textit{Gaste}, 863 F.2d at 1068-69 (citing Arnstein v. Edward B. Marks; see Chapter 3 above).
\textsuperscript{541} \textit{Gaste}, 863 F.2d at 1068-69.
The Seventh Circuit and the Problem with the Expert-Lay Listener Divide

Courts outside the Ninth Circuit were reticent to apply the Krofft test, instead opting for a strict application or some variant on Arnstein.\textsuperscript{542} Like the Second Circuit, Seventh Circuit courts encountered issues with applying the Arnstein test, particularly in balancing the roles of experts and non-experts. In Selle v. Gibb, for example, the court applied the Arnstein test to result in a jury finding for plaintiff Ronald Selle, but with defendant members of the BeeGees ultimately winning the lawsuit based on a post-trial motion. In Selle, locally-known musician Ronald Selle alleged that his song “Let It End,” was infringed by the BeeGee’s song, “How Deep Is Your Love,” as featured on the soundtrack to the film, Saturday Night Fever.\textsuperscript{543} Selle claimed that his song was recorded, copyrighted, submitted to eleven music publishing companies, and performed a few times at local Chicago engagements, therefore the BeeGees had access to the song and copied it. The BeeGees countered by providing their compositional process for the song and challenging Selle’s argument of “inferred access” as being conflated with striking similarity.\textsuperscript{544}

The trial for this case was unusual in that both parties hired experts to offer their analyses but only one presented in court. Selle hired expert Arrand Parsons, a music professor at Northwestern University; the BeeGees hired Harold Barlow, whose testimony was not given at trial and whose report is not included with extant court

\begin{footnotesize}
\begin{enumerate}
\item[542] See Chapter 4 above.
\item[544] See Selle, 567 F. Supp. at 1176-77; 1180-81.
\end{enumerate}
\end{footnotesize}
records. Both experts held credentials in music theory. Selle had also retained Harold Barlow as an expert to introduce at trial on rebuttal, but he was not called.

Parsons emphasized melodic and rhythmic similarities between the two songs in his report and testimony. At trial, he demonstrated the extent of this overlap using mylar overlays attached to printed cards. When overlaid, the court could see where the two melodies were the same or different because matching pitches on the overlay appeared in red. The colorful overlap likely made similarities clearer than comparing the two melodies in tandem, despite the western music notation. His comparison was enhanced by Parsons, who had pointed out each similarity and performing from his own copy of the Mylar overlays during his examination. This means of indicating musical similarity required little interpretation on the viewer’s part, seeing the note for note alignment and hearing it reinforced aurally through live courtroom performance.

Parson’s graphical method opposed the abstraction of contemporary experts, like what Barlow probably prepared, by retaining western notation. Parsons’s testimony addressed the quantitative extent of similarity, which the district court summarized in its opinion with little revision:

the first eight bars of each song (Theme A) have twenty-four notes out of thirty-four and forty notes in plaintiff's and defendants’ compositions, respectively, that are identical in pitch and symmetrical positions. Out of thirty-five rhythmic impulses in plaintiff's composition and forty in defendants’, thirty are identical. In the last four bars of both songs (Theme B), fourteen notes in each are identical in

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545 Parsons held a Ph.D. in music theory. See Selle v. Gibb Tr. 187 (Parsons).
546 Reynolds, “Music analysis,” 146.
pitch. Of the fourteen rhythmic impulses in Theme B of both songs, eleven are identical. Finally, both Theme A (the first eight bars) and Theme B (the last four bars) occur in the same position in each composition.

As Parsons noted, “the similarities are so great, the similarities are so vivid and striking that they would preclude independent composition.”

Rather than introducing Barlow as its own expert, the defense sought to undermine Parsons’s testimony by impeaching him for a lack of familiarity with popular music, specifically with the BeeGee’s stylistic idiom. This strategy required the defendants to rely primarily on their testimony regarding creative process, with only a sophisticated prose discussion of music to rebut Parsons. They argued that the quantitative similarities that Parsons identified alone were not conclusively indicative of copying, especially given the BeeGees’ evidence of independent creation and lack of access to Selle’s music during their songwriting process. In keeping with the Arnstein test, however, Parsons did not comment on the relevance of these similarities to infringement findings.

The jury proved to be unconvinced by the defense and found for Selle. The court later overturned their verdict, however, pursuant to a motion filed by the members of the BeeGees that challenged the sufficiency of the evidence produced at trial. Most notably, the BeeGees argued that because each member of the group gave testimony regarding their compositional process that indicated independent composition, this lay testimony could not be overridden by an inference presented by an expert, in this case, Parsons.

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551 Selle v. Gibb Tr. 266-72 (Parsons).
552 Selle, 567 F. Supp. at 1175; 1182.
Thus, a plaintiff was now required to meet “some minimum threshold of proof which demonstrates that the inference of access is reasonable.”\textsuperscript{553} Where there is a lack of access, as the defendants showed, there was no need to advance to similarity analysis, and ultimately no need for expert testimony or non-expert evaluations.

The \textit{Selle} court demonstrated the appeal process to be the strongest check on the subjective nature of non-expert jury decisions. More than reversing the jury verdict, the court’s decision on appeal refined the relationship between access and similarity as being an inverse ratio, such that the more access that can be proved, the less similarity needed to be proved in order to find copying, and vice versa. This altered the role of experts by imposing further legal limitations on the scope of their influence in circumstances where proof of access is high, creating a legal climate where experts were only relevant in situations access was difficult to prove.

\textbf{The Ninth Circuit and Problems with Extrinsic Analysis}

Despite the majority of circuits relying on the \textit{Arnstein} test, the Ninth Circuit set out applying the \textit{Krofft} test. Courts and experts alike struggled to apply the standard, particularly with regard to applying expert analysis of the “musical idea” in the music at issue. In its attempt to keep the test applicable across categories of expressive works, the \textit{Krofft} test had not offered any hint as to where to distinguish a musical idea or how it

\textsuperscript{553} \textit{Selle}, 741 F.2d 896, 902 (7th Cir. 1984).
should be evaluated by the experts. The notion of underlying, not protectable musical material lent itself to reductive analytical techniques, however, which increased the abstraction and sophistication of techniques used by experts in these late-century cases.

In *Baxter v. MCA*, Leslie T. Baxter sued film-score composer John Williams, alleging that the musical score to the movie *E.T.: The Extra Terrestrial* infringed on Baxter’s copyright to his song “Joy.” Baxter’s song was part of a seven-song collection titled, *The Passions*. In the lawsuit, Baxter claimed that Williams had participated in an unrelated performance of “Joy” during a concert at the Hollywood Bowl decades earlier, therefore he had access to the song and copied a six-note motive. To prove similarity, Baxter argued that a six-note motive constituted a “small but qualitatively important portion” of “Joy” that had been allegedly appropriated.

In response to a motion for summary judgment* filed by the plaintiffs, Williams conceded that the two musical ideas were similar by conceding access to “Joy.” In a comparable approach to the relationship between similarity and access taken in *Selle*, expert testimony was limited due to Baxter’s convincing proof of access. Because *Krofft* limited expert testimony to only the extrinsic test, or analysis of the similarity between the ideas behind the two works, experts were no longer legally available. Instead, the only issue at trial had to do with the intrinsic test, whether there was similarity between

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554 See also Mark Avsec, “‘Nonconventional’ Musical Analysis and ‘Disguised’ Infringement: Clever Musical Tricks to Divide the Wealth of Tin Pan Alley,” *Cleveland State Law Review* 52 (2004-05), 353 (discussing issues with musical idea and probative similarity analysis).

555 *Baxter v. MCA*, Inc., 812 F.2d 421, 422-24 (9th Cir. 1987).

556 See also Patry § 9:237.

557 *Baxter*, 812 F.3d at 422-24.
the expressions of these ideas between the two works. Thus, the trial court handed down its decision in favor of the plaintiffs.

On appeal, however, the Ninth Circuit found summary judgment improper under *Krofft*. The court also noted that a six-motive on which Baxter relied to argue access could not constitute a substantial enough portion of the song to constitute, the reasoning for which reached back to *Marks v. Leo Feist*. More importantly, the court stated that granting summary judgment on these grounds necessarily required the present perceptions of the judge without expert testimony, which did not fully consider the intrinsic test that addressed the expression of each idea. Thus, the Ninth Circuit remanded the case to the district court.

At the new trial, the plaintiffs called expert musicologists Dr. Robert Winter and Dr. Phillip Springer, while the defendants called expert musicologists Dr. Earl Spielman and Harold Barlow. Their analyses accounted for the relationship between melody and harmony and the nature of similarity as indicative of independent creation or copying, comparable with the precedent in *Selle v. Gibb* and earlier stages in the litigation process of the current case. The two experts called by the plaintiffs emphasized the melodic contour and aural performance of the music, but did not introduce any graphic exhibits. In contrast, the two experts called by the defendants relied more heavily on such charts.

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558 *Baxter*, 812 F.2d at 423-24; see also Patry §9:237.
560 *Baxter*, 812 F.2d at 424-25.
561 *Baxter*, 812 F.2d at 425.
562 Reynolds, “Music analysis,” 212.
To that end, Springer created impromptu charts on a blackboard at trial that were intended to accompany his live courtroom demonstrations at the piano, but were not retained in court records.\(^{563}\)

Dr. Spielman produced an unusually abstract chart that compared the music at issue in a new way. His “chromatranscription,” shown below in Figure 17, demonstrated a high level of abstraction used to show similarity of musical idea in a symbolic way, completely separated from the context of western notation. Despite this abstraction, the chart appears to have retained concepts of pitch and rhythmic duration for each melody. Although extant records show the chart in black and white, the trial court viewed pitches colorfully arranged on the chart. Where the colors matched, there was similarity, or what Dr. Spielman called “simultaneous pitch occurrences.”\(^{564}\) Drawing from the long expert tradition of using color to demarcate similarity, the chart relied on color to symbolize similarity between the two musical works. In so doing, this chart completely removed western notation, trading it instead with a more abstract graph for viewers unable to read western music notation.

\(^{563}\) Reynolds, “Music analysis,” 212.
\(^{564}\) Reynolds, “Music analysis,” 923.
Figure 17: *Baxter v. MCA, Inc.*, Chromatranscription, Earl Spielman\(^{565}\)

\(^{565}\) Reproduced in Reynolds, “Music analysis,” 923.
Although Dr. Spielman’s impact on the jury cannot be definitively evaluated, a verdict ultimately found that the six-note motive from Joy was not protectable on its own and therefore the theme from *E.T.* did not infringe on it.

Legally, *Baxter* highlighted the issues with expert testimony in *Krofft*. As the summary judgment demonstrated, there were legal means to bypass the extrinsic test and because of the limited contributions of experts, there was the ability to completely eliminate them. Thus, the *Baxter* court seemed to introduce a *de facto* “ordinary listener” test, where infringement is determined exclusively based on the evaluation of non-expert witnesses.\(^{566}\) This decision could be applied strategically to maximize the subjective nature of jury-centric inquiries, thereby assisting parties attempting to avoid the influence of experts that might reveal similarity otherwise likely to be missed by non-experts.

Like the Southern District of New York applying expert testimony to the *Arnstein* test, courts in the Ninth Circuit encountered problems limiting the application of expert analysis under *Krofft*. Courts attempted to offer structure to expert analysis by defining criteria for the legal concept of a musical idea, with problematic effect. In *Thompson v. Richie*, for example, Gene Thompson and Tracy Singleton sued Lionel Richie for copyright infringement with his own “Sela,” “Stuck on You,” and “Deep River Woman.”\(^{567}\) Prior to trial, the district court initially granted summary judgment for

\(^{566}\) Baxter v. MCA, Inc., 812 F.2d 421, 424 n.2 (9th Cir. 1987).

Richie, finding a lack of similarity in the ideas and the expression of the songs at issue.\textsuperscript{568} On appeal, the Ninth Circuit reversed and remanded on grounds that the lower court had questionably applied the \textit{Krofft} test.\textsuperscript{569}

On remand, the court faced conflicting expert standards for analyzing similarity of musical ideas. Plaintiffs retained Garnett Brown, who considered a musical idea non-existent until it was expressed in musical form.\textsuperscript{570} The problem is that once that idea was expressed, it became part of musical expression left to the perception of non-expert listeners. Conversely, the defendants retained Dr. Ricigliano, who testified that a musical thought implies a self-contained entity, but generally represents only a portion of a musical work. The elements he identified reflected the elements used by experts for centuries to assess similarity: “1) a single line of pitch or rhythm (melodic); 2) a vertical group of pitches (harmonic or chordal); 3) a series of time values without pitch (rhythmic); or 4) a combination of pitch, rhythm, and chord(s).”\textsuperscript{571} In the context of the case, however, the resulting expert conflict pitted Brown’s statement that the music contained similar ideas as forms of popular music, while Dr. Ricigliano stated that the musical ideas were distinct.\textsuperscript{572}

\textsuperscript{569} Thompson v. Richie, 820 F.2d 408 (9th Cir. 1987). After remand, Tracy Singleton joined as Plaintiff, alleging that Singleton and Thompson’s copyright in “You and Me” was infringed by Richie’s “Sela.” See Thompson v. Richie, No. CV 88-1126 (Mar. 1 1988). For a complete procedural discussion of this matter, see Jones, “Improved Approach,” 278 n.7.
\textsuperscript{570} Jones, “Improved Approach,” 278.
\textsuperscript{571} Ricigliano, as summarized in Jones, “Approved Approach,” at 301.
\textsuperscript{572} Jones, “Improved Approach,” 278 n.7, 299-300 ("Most of the information relating to the Richie case was garnered from the author’s personal observance of the trial, review of the court orders and docket, and interviews with Lionel Richie, his attorney and experts, and plaintiffs’ attorney and expert").

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The Ninth Circuit then contributed its own definition of musical idea as “pitch, harmony, and tempo,” but did not offer any definitive resolution regarding musical idea. Its definition did more to muddy the music-theoretical waters by addressing tempo, which had previously been established by experts as irrelevant to similarity analysis, and ignoring matters of formal structure, which had previously been established as significant to expert analyses of similarity.

As Baxter and Thompson demonstrate, experts were left grasping at a means to analyze music that addressed fundamental ideas outside the context of their expression manifested in the music at issue. Although contemporaneous cases had attempted to define the contours of the underlying “idea” in an expressive work, their criteria, such as “plot, themes, dialogue, mood, setting, pace, characters, and sequence,” were ineffective as applied to music. “Pitch, harmony, and tempo,” as offered in Thompson, hardly clarified matters. Nonetheless, the Ninth Circuit did not overturn Krofft, leaving determinations about the musical idea to the interpretation of experts in each case.

Cases decided in the late twentieth century highlight the fundamental problems of applying expert testimony to the Arnstein and Krofft tests. The testimony of musical experts reflects their attempts to adapt to their new legal constraints, particularly for experts attempting to present analyses that reflected only the ineffable “musical idea,” of the music at issue without mentioning the “expression” of that idea. These cases reveal

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574 Shaw v. Lindheim, 908 F.3d 531, 537 (9th Cir. 1990).
that although midcentury courts attempted to codify and control the role of experts, they did more to complicate that role in the infringement analysis process.\footnote{One critic of the \textit{Krofft} approach stated that it was “easily the most foolish of the Ninth Circuit’s copyright decisions.” Liebig, “Copyright Inroads on the Public Domain in the Ninth Circuit,” Entertainment Law Report 9 (December 1987) (cited in Jones, “Improved Approach,” 292).}

**Late-Century Changes**

In the late twentieth century, circuit courts began to introduce refinements of the \textit{Arnstein} test that, like \textit{Krofft}, introduced new tests for similarity. In most circuits, these new tests did more to add complexity and uncertainty to similarity analysis than they did to clarify the application of existing tests. They focused on managing non-expert jurors or on the content evaluated in similarity analysis, and the process by which it was evaluated, rather than looking to experts. At the same time, reforms in the Ninth Circuit brought the \textit{Krofft} test, specifically the application of the extrinsic test, into closer alignment with \textit{Arnstein} probative similarity.

The Fourth Circuit, for example, introduced the “intended audience” test, where “the intended audience is significantly more specialized than a pool of lay listeners, the reaction of the intended audience would be the relevant inquiry.”\footnote{Dawson v. Hinshaw Music, Inc., 905 F.2d 731, 734 (4th Cir. 1990).} This new approach was first introduced in \textit{Dawson v. Hinshaw Music}. In this case, plaintiff William Dawson alleged that his arrangement of the spiritual, “Ezekiel Saw De Wheel,” was infringed by
an arrangement of the same song created by Gilbert Martin and granted to Hinshaw Music.577

In its decision, the court extensively reviewed the history and relationship of the *Arnstein* and *Kroff†* tests. The court refined *Kroff†* by calling for plaintiffs to “establish substantial similarity of both the ideas of the two works and the expression of these ideas,”578 but in the latter inquiry, courts were to consider a narrower base of non-expert listeners. Based on reasoning used in copyright infringement cases involving computer software, the court determined that “courts have been slow to recognize explicitly the need for refining the ordinary observer test in such a way that it would adopt the perspective of the intended audience.”579 This narrower audience arguably offered a better representation of the non-experts who were assumed to have at least a minimal musical competence or familiarity with the works at issue. It likewise served as an attempt to reduce the subjective jury decisions by introducing jurors that possessed even a limited amount of specialized knowledge about the music at issue. The *Dawson* decision’s introduction of the “intended audience” raised questions about the appropriate identity of non-experts evaluating similarity. It likewise altered what was previously a binary opposition between experts and non-experts to a spectrum of expertise that empowered lay listeners as quasi-experts.

The Tenth Circuit likewise cultivated an alternative to the *Arnstein* and *Kroff†* tests that is specifically applicable to music. Drawing inspiration from the Second

577 *Dawson*, 905 F.2d at 732.
578 *Dawson*, 905 F.2d at 732.
579 *Dawson*, 905 F.2d at 734.
Circuit’s development of a separate test to evaluate similarity in copyright cases for computer software that accounted for its idiosyncratic and highly specialized creative process, the Tenth Circuit applied what came to be called the abstraction-filtration-comparison test to all categories of expressive works. Under this test, a court would still divide copying, based on access and similarity, from improper appropriation, and would approach copying according to the inverse ratio rule relating access and similarity. To determine improper appropriation, the court would follow a new process that brought the determination back to being a question of law:

At the abstraction step, we separate the ideas (and basic utilitarian functions), which are not protectable, from the particular expression of the work. Then, we filter out the nonprotectable, from the particular expression of the work. Then we filter out the nonprotectable components of the product from the original expression. Finally, we compare the remaining protected elements to the allegedly copied work to determine if the two works are substantially similar.

The test was applied to music in McRae v. Smith, a case that involved Maree McRae suing to protect her rights in the country and western song, “Every Minute, Every Hour Every Day,” which was allegedly infringed on by Gerald Smith and Wayne Perry’s “Every Second.” The prospect of filtration would seem to invite reductive analyses that embraced comparisons of structural melody, harmony, and form. As applied, the new test filtered out stylistic idioms of country music, such as the “two-step” rhythm and meter, lyrical themes of first-person love, harmonic progressions, and verse-chorus formal

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structure as not protectable. Consequently, the comparisons that the plaintiffs produced did not follow the legal process of analysis and failed to rebut the dissimilarities that the defendants identified, resulting in the court granting their motion for summary judgment.

Meanwhile, district courts in the Ninth Circuit continued to incorporate criteria for assessing the underlying idea at issue under the *Krofft* extrinsic test. As a result, courts increasingly relied on the extrinsic test that strictly evaluated only the ideas behind a work, seeming to “stray[] from *Krofft*’s division between expression and ideas.” In response, the Ninth Circuit the court revised the scope of its extrinsic test in *Shaw v. Lindheim,* a case involving the copyright of television scripts. Noting that “[a]ny test for substantial similarity is necessarily imprecise,” the court reconceived of the test as “more sensibly described as objective and subjective analyses of expression.” Thus, the extrinsic test was now considered a legally objective test for evaluating the expressions of the works at issue, contrasted with the intrinsic test as now a subjective evaluation of them. Despite these changes, expert testimony and “analytic dissection,” was still included in the court’s analysis, but its application remained confined to the extrinsic test.

By the late twentieth century, each circuit had settled on its own legal method for similarity analysis, creating what has been recognized as an incoherent mess of

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584 McRae, at 968 F. Supp. at 566-67.
585 *Shaw v. Lindheim*, 919 F.2d 1353, 1357 (9th Cir. 1990).
586 919 F.2d 1353 (9th Cir. 1990).
587 *Shaw*, 919 F.2d at 1355-56.
588 *Shaw*, 919 F.2d at 1356.
589 *Shaw*, 919 F.2d at 1357.
competing tests that create inconsistencies between circuits and do little to reduce the subjective nature of case outcomes. Although most circuits’ tests can be traced to *Arnstein* in some way, each had introduced its own refinements that diversified the field of copyright law and slightly altered the role of experts in its circuit. Table 1 below summarizes these tests.

The First, Second, Third, Fifth, Sixth, and Seventh circuits had adopted *Arnstein* in its original formulation or in some variant. The Tenth Circuit, taking its cue from Second Circuit cases involving computer software that separated from *Arnstein*, adopted the “Abstraction-Filtration-Comparison” test, which was later extended to all categories of expressive works in that circuit. The Ninth Circuit retained the *Krofft* test, which was adopted by the Eighth Circuit; the Fourth Circuit had introduced its own refinement of the “intended audience test” that narrowed the non-expert “ordinary listener” pool in *Krofft*. A set of conflicting Eleventh Circuit cases demonstrate that this Circuit has applied both the Abstraction-Filtration-Comparison test and the *Krofft* test.

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591 See, e.g., Hickey, 15-16; Lippman, 527-46. See generally Ostenberg & Ostenberg.
Table 1: Similarity Tests by Circuit

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<tr>
<th>Circuit</th>
<th>Similarity Test</th>
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<tr>
<td>Second</td>
<td><em>Arnstein</em> (“ordinary observer”)</td>
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<tr>
<td>Third</td>
<td><em>Arnstein</em> (“ordinary observer”)</td>
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<td>Fourth</td>
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<td><em>Arnstein</em> (“ordinary observer”) 592</td>
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<td>Seventh</td>
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<td>Ninth</td>
<td><em>Krofft</em> (“extrinsic/intrinsic”), modified by <em>Shaw</em></td>
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<td>Eleventh</td>
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<tr>
<td>D.C.</td>
<td>[test applicable in originating district court]</td>
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Toward the New Millennium

In the wake of *Arnstein* and *Krofft*, courts across the U.S. struggled to apply

musical expert testimony to legal infringement analysis. Cases during this period brought

592 Ellis v. Diffie, 177 F.3d 503, 506 (6th Cir. 1999) (applying an “ordinary observer” test without the aid of expert testimony). In 2003, the Sixth Circuit would adopt its own version of the Abstraction-Filtration-Comparison test. See Kohus v. Mariol, 328 F.3d 848, 854 (6th Cir. 2003). A full exploration of the complexities in the Sixth Circuit’s approach to substantial similarity analysis is beyond the scope of the present study.
out flaws in both tests, which included the balance between expert and non-expert
evaluations of similarity. Other circuits began to adopt and refine the *Arnstein* and *Krofft*
tests, ultimately generating what is currently recognized as five different tests for finding
substantial similarity. These new tests added new complexities to the nature of
comparisons, with implications for the role of the expert in his analytical function, as well
as the relationship between experts and non-experts, both jurors and judges.

Courts struggling to apply infringement tests were faced with more reforms to
federal copyright law that attempted to bring laws in closer sync with technological
innovations, particularly for music. Most notably, the Digital Millennium Copyright Act,
passed in 1990, attempted to modernize the 1976 Act to address concerns with digital
media and rampant piracy.\(^{593}\) In addition to addressing anti-circumvention technology,
the Act offered safe harbor provisions to internet service providers against internet users.
Both of these new dimensions of copyright were subject to their own limitations and
exemptions. The Digital Performance Right in Sound Recordings Act of 1995 granted
public-performance rights to sound-recording copyright holders.\(^{594}\) Like previous
copyright reforms, these revisions remained silent regarding similarity analysis as it
pertained to the infringement litigation process, leaving the issues with judicial
evaluations of substantial similarity intact.

As copyright laws changed, so too did the ways in which parties and courts
conceived of musical experts. The enactment of the FRE, and the Supreme Court’s
interpretation of them, generated momentum for a trend away from witnesses with practical skills, specifically composers and publishers, toward a preference for experts with academic credentials, specifically music critics with doctorates and musicologists. These credentials met the new standards of admissibility for expert witnesses more concretely, but also correlated with analytical trends toward sophistication.

This greater reliance on experts with academic credentials in music undoubtedly contributed to the ways in which musical experts fulfilled their role. For all that experts introduced sophisticated, abstract analyses, with variable effects, the purpose of these analyses remained the same. Despite changes in the scope of their influence, musical experts continued to survey the contested boundaries between pieces of music at issue, marking points of similarity and difference so that triers of fact might be better equipped to distinguish between lawful commonality and unlawful appropriation.

595 See Chapter 1 above.
Chapter 6: Expertise in the New Millennium

By the turn of the twenty-first century, each judicial circuit had its own legal test for resolving music copyright infringement claims. Late twentieth-century copyright litigation had revealed problems with the Arnstein and Krofft tests, which many courts attempted to resolve by refining existing tests, mostly predicated on balancing the roles of experts and non-expert jurors. What has resulted is the lasting presence of the Arnstein-Krofft circuit split in a web of subtly distinct legal tests that have maintained copyright litigation as unpredictable, and at times inconsistent, in its outcomes.

Despite the emphasis that courts place on jury-centric decision-making, this legal landscape seems to be forcing experts into greater legal irrelevance. The introduction of what might be called “quasi-experts” according to the “intended audience” test, and more recently the broader application of the “discerning observer” test to music, further decrease the legal need for expert testimony given the specialized knowledge that jurors possess. Some of the most recent lawsuits have seemed to dispense with expert testimony altogether, relying instead on the perceptions of non-expert triers of fact. Despite this seemingly growing trend, early twenty-first-century courts continue to foreground expert reports in their opinions to contextualize the nature of musical similarity.

See Chapter 4 above for a detailed discussion of Arnstein and Krofft.
Even in their diminished role, musical experts have continued to assist in surveying contested boundaries between musical works with increasing analytical precision, but also increasing confrontation. In the first fifteen years of the twenty-first century, three trends have developed among expert analyses. Some parties offer a continuation of analyses used in earlier decades by presenting analyses that rely on theoretical, often reductive, techniques and graphs formatted through western notation. These analyses are challenged by more holistic techniques that incorporate cultural context, resulting in increasingly potent clashes between experts called by opposing parties. Meanwhile, still other experts have begun introducing innovative techniques of digital wave-form analysis that offer more comprehensive sonic comparisons, reaching far beyond the conceptual and technical limits of western music notation. The proliferation of competing analytical techniques, together with contrasting music-theoretical understandings of musical construction, have led to an increase in expert disagreements.

**Continuation of Analytical Techniques**

Many cases involving expert analyses in the first years of the twenty-first century continued the same approach to analytical techniques as in previous centuries and cases. That is, many musical experts continued to separate and compare musical elements, often presenting graphic analyses of their conclusions through representations with written notation. At the same time, experts increasingly incorporated idiomatic stylistic context
based on their genre identification of the two songs, adding another layer of sophistication to their analyses.

In the Second Circuit, for example, experts conducted analyses that continued the traditions of earlier cases that emphasized melody, harmony, rhythm, and formal structure. Decided at the turn of the century, *Tisi v. Patrick* was heard in the Southern District of New York. In this case, plaintiff songwriter Michael Tisi alleged that Nine Inch Nails and Filter guitarist Richard Patrick unlawfully copied from Tisi’s “Sell Your Soul” with his own “Take a Picture.”

The case involved musicologist Dr. Lawrence Ferrara and composer-professor Michael White as experts. In an unusually collegial negotiation, the experts agreed to analyze the music given the same criteria, identified the same similarities and differences, and yet arrived at opposite conclusions. They agreed that the melodies were dissimilar but then drew opposite conclusions as to the harmony, rhythm, and form of the two songs. Their arrival at opposite conclusions, using the same premise and analytical criteria, was likely influenced, at least in part, by their party affiliation.

The court ultimately resolved the dispute in favor of Patrick, finding that the similarities were “insignificant and incidental and can be attributed to common musical practices in rock and pop music.” In its opinion, the court foregrounded expert contributions, even acknowledging that the court was “unfamiliar with the genre” prior to

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598 *Tisi*, 97 F. Supp. at 543.
599 *Tisi*, 97 F. Supp. at 543.
600 *Tisi*, 97 F. Supp. at 545.
receiving testimony from the defendant’s expert, Dr. Ferrara.\textsuperscript{601} After reviewing their analyses in detail, including lead sheet notation discussions of the harmonies in each song and compositional conventions in rock and popular music, the court introduced the notion of “superficial similarity,” which considered issues of stylistic idiom and prior art in relation to that of similarity.\textsuperscript{602}

For the uninitiated, much of rock music sounds the same, and a hasty comparison of [“Sell Your Soul”] and [“Take A Picture”] could result in a finding of superficial similarity, as both songs employ a standard usage in rock music: an introduction, verse, chorus, and bridge, with harmonic and rhythmic similarities common to many musical genres, including pop rock. A closer review of the two compositions reveals, however, that they are significantly different.

Although notions of superficial similarity were not new given emphases on evaluating similarity based only on original, protectable elements, the \textit{Tisi} court’s explication provided judicial validation to the approach. In this way, superficial similarity fueled the application of a striking similarity standard, such that plaintiffs attempting to meet the striking similarity standard would need to overcome superficial similarities between the works at issue. The court did not, however, define the practical contours of these terms.

The agreement between experts in \textit{Tisi} was less the norm than growing tensions between experts retained by opposing parties. During this period, expert confrontations throughout litigation raised issues about opposing experts’ techniques and theories. More than representing differences in analytical techniques, these confrontations served to

\begin{flushleft}
\textsuperscript{601} \textit{Tisi}, 97 F. Supp. at 541 (“[t]hanks to the skill of counsel and the clarity of the defendants' expert witness, the unfamiliarity of the court with the genre has been overcome. A combination of common sense and a hastily trained ear dictate the forthcoming result”).
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\textsuperscript{602} \textit{Tisi}, 97 F. Supp. at 543 (emphasis added).
\end{flushleft}
undermine the credibility of experts and promote the partisan goals of the party to which each expert served. It likewise seemed to continue non-binding trends away from superficial, or irrelevant, similarities between songs.

Although techniques that aimed to illustrate or distinguish protectable musical material had been used for decades, contemporary cases show a growing number of issues with such strategies, highlighting the friction with those techniques that took a more holistic approach to analysis. In ZZ Top v. Chrysler Corp., for example, defendant Chrysler retained musicologist Dr. Robert Walser to aid their case against rock band, ZZ Top, over the use of their song, “La Grange,” in a promotional campaign. The defendants argued that the guitar riff at issue was unoriginal, which Dr. Walser demonstrated through melodic and rhythmic comparison with seven other songs, including Norman Greenbaum’s song, “Spirit in the Sky.” In visual representation of this analysis, Dr. Walser reduced the combination of melody and power chords to a single notated melodic line. Because he had altered what was written in the copyright-registered sheet music, the court determined that his analysis was not objective, as required by applicable extrinsic analysis. As a result, the court found in favor of ZZ Top.

604 ZZ Top, 54 F. Supp.2d at 985.
605 ZZ Top v. Chrysler Corp. Tr. 27-28 (Walser) (cited in ZZ Top, 54 F. Supp.2d at 985 (“Walser admitted, however, that he changed the written music by reducing intervals, or power chords, to single notes. While the reduced version of the riff may, as Walser maintains, be an appropriate representation of “how the music actually sounds” or is “perceived,” it is not an accurate representation of the written notes that are subject to copyright protection”) (citations omitted)).
606 ZZ Top, 54 F. Supp.2d at 985.
607 ZZ Top, 54 F. Supp.2d at 985.
A similar conflict arose in a case decided three years later, which foregrounded issues with Dr. Walser’s reductive analytical technique and its relationship to extrinsic analysis. In Swirsky v. Carey, songwriter plaintiffs Seth Swirsky and Warryn Campbell sued Mariah Carey, along with her songwriting team and other music industry entities, alleging that they had profited from the release of plaintiff’s “One of Those Love Songs,” as recorded by female vocal group Xscape, with Carey’s “Thank God I Found You.”608 Both songs were mastered by engineer Bob Ludwig and both albums on which the songs appeared were produced by Sony and distributed by Columbia Records.609 Additionally, the plaintiffs contended that the two songs were substantially similar, an allegation bolstered by the expert report produced by Dr. Walser.

Dr. Walser’s report in this case was based “solely upon the recordings,”610 from which he created his own transcriptions. His subsequent analysis based on these transcriptions reduced the chorus melodies of both songs from their embellished performances and then emphasized their similarity. This analysis relied on the stylistic conventions of R&B, both in focusing on the choruses and in his transcriptions of them.611

In this case, a charge of copyright infringement would have to be founded on the resemblance of the songs’ choruses, since their lyrics and verse melodies differ clearly and significantly. However, the chorus of a popular song is usually its most important part, because it is there that the song’s melodic and lyrical ‘hooks’—its most memorable, appealing, and thus valuable features—are typically found. That is true for these songs; both in catchiness and in length—thirty-nine of seventy-two measures of Xscape’s recording, thirty-six of the sixty-

609 Swirsky, F. Supp.2d at 1227. The albums involved were Mariah Carey’s Rainbow and Xscape’s Traces of My Lipstick, respectively.
five measures of Mariah Carey’s – the chorus material dominates and defines these songs.

In many music copyright cases, a plaintiff points to five or six sequential pitches that two songs have in common, a defendant produces a Scottish folk song or some other melody that pre-dates both pieces, and a discussion of the relevance of the prior art and the closeness of each song’s rhythms can ensue. This case is different because small variations in the melodies as they are notated prevent such simple analytic moves from revealing the extent to which the songs are actually heard as similar. Both songs are performed in the style of contemporary R&B or ‘urban’ music, in which vocal styles are florid and highly-embellished. But it is the basic shape and pitch emphasis of the melodies, plus their appearance over highly similar bass lines and chord changes, a very nearly the same tempo and in the same generic style, that makes them similar. They are even both in the same key, B-flat; the key of a song is not usually considered to be of great importance when comparing melodic material, but in the context of a copyright infringement case this can be taken as a suspicious coincidence.

Alluding to the long tradition of expert testimony, Dr. Walser offered an explanation of his technique given the style of the music at issue.

Dr. Walser accompanied his report with five notated transcriptions from the recordings: 1) the melody of “One of Those Love Songs” with lead sheet notation to show harmony, 2) the melody of “Thank God I Found You” with lead sheet notation to show harmony, 3) the piano introduction of “Thank God I Found You,” 4) a melodic comparison of the two songs, and 5) a comparison of the bass lines as reduced by Dr. Walser.612 Figure 18, shown below, encapsulates Dr. Walser’s written analysis of the melodies from the choruses of the two songs. These graphs use western notation with lead sheet symbols and scale degrees to place the melodies in tandem. Unusually, Dr. Walser provided no additional notation, either colors, symbols, or alphabetic

612 The computerized music notation was entered by one of Dr. Walser’s graduate students at the time of trial. Swirsky v. Carey Walser Dep. 15.
designations, to signify any congruence. Rather, the viewer would need to be literate in lead sheet notation in order to interpret the chart. As Dr. Walser would later explain, his reductive graph was designed to show certain relationships, certain musical details, but it is not a performance score. And to then take this and perform from it inevitably involves making – putting things in that are not notated here. 613

![Example 4 - Melodic Comparison](image)

**Figure 18: Swirsky v. Carey, Melodic Comparison, Robert Walser** 614

Dr. Walser’s report then addressed each part of the chorus melodies and their corresponding harmonies for “One of Those Love Songs” and focused on the bass lines and harmonic rhythms of the two songs, as shown in Figure 19 below. Here, Dr. Walser

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significantly reduced the melodic content of the bass part of both songs in order to show their fundamental harmonic structure and produce a starker comparison.

Figure 19: Swirsky v. Carey, Bassline Reduction, Robert Walser\textsuperscript{615}

In response, the defendants argued that Dr. Walser’s analysis was improper and should be excluded.\textsuperscript{616} The defendants attacked Dr. Walser’s methods by contending that he relied too heavily on his own reductive analysis, which allegedly ignored differences in pitch and rhythm by selectively removing notes from the music. Not only did Dr. Walser’s method appear to exaggerate melodic similarities, they argued, but the reductions were also based on Dr. Walser’s perception of the melodies as represented by


\textsuperscript{616} To assist in their analyses, the defendants retained Dr. Anthony Ricigliano, whose analyses were not available in the court records.
his transcriptions. Thus, in keeping with the decision in ZZ Top, such reductive analytical technique was inappropriate for objective, extrinsic analysis under Krofft.\(^{617}\) The defendants also countered Dr. Walser’s contention of comparison between the first and fifth measures of both songs, shown in Figure 19 above, because the material was unoriginal.

Applying Krofft, the district court began its decision by determining that the plaintiffs had a reduced burden of proof to demonstrate similarity because the defendants had a high degree of access to the plaintiff’s song through shared production and distribution. On the issue of substantial similarity, the court focused on Dr. Walser’s analysis, summarizing and quoting from it directly to outline its own opinion and to address one of the main disputes between the parties regarding the analysis.\(^{618}\) Following Dr. Walser’s organization of measures between 2, 4, and 6, and 1 and 5, the court reviewed both arguments and granted the defendants’ motion. Its reasoning identified Dr. Walser’s analysis as defective for being “selective,” and relying more on his individual perceptions rather than purportedly objective, extrinsic dissection.\(^{619}\) After finding that the melodies were either dissimilar or not protectable, “given the lack of melodic similarity between the two songs, any alleged similarity in key, harmonic structure, tempo, or genre, between [the two songs] is not sufficient”\(^{620}\) to constitute a material issue, so the court granted summary judgement in favor of the plaintiffs.

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\(^{617}\) See also Swirsky, 226 F. Supp.2d at 1228-34.
\(^{618}\) Swirsky, 226 F. Supp.2d at 1227-28.
\(^{619}\) Swirsky, 226 F. Supp.2d at 1227-28.
\(^{620}\) Swirsky, 226 F. Supp.2d at 1234.
On appeal, the Ninth Circuit reversed and remanded.\(^{621}\) First, the court established Dr. Walser’s testimony as sound;\(^{622}\) second, it disagreed with the district court’s characterization of Dr. Walser’s testimony as intrinsic, instead clarifying Dr. Walser’s statements as offering information toward the similarity of the two songs, rather than their overall similarity as perceived by a non-expert.\(^{623}\) The Ninth Circuit also rejected the district court’s finding that the melodic elements of measures 1 and 5 were not protectable because they were unoriginal.\(^{624}\)

The court noted that “[o]bjective analysis of music under the extrinsic test cannot mean that a court may simply compare the numerical representations of pitch sequences and the visual representations of notes to determine that two choruses are not substantially similar, without regard to other elements of the compositions.”\(^{625}\) Referring back to Baxter v. MCA and earlier cases that separated pitch and harmony when comparisons were conducted, the Swirsky court emphasized the need to consider the entire context of the music:\(^{626}\)

\[
\text{[N]}\text{o approach can completely divorce pitch sequence and rhythm from harmonic chord progression, tempo, and key, and thereby support a conclusion that compositions are dissimilar as a matter of law. It is these elements that determine what notes and pitches are heard in a song and at what point in the song they are found. To pull these elements out of a song individually, without also looking at them in combination, is to perform an incomplete and distorted musicological analysis.}
\]

\[^{621}\text{Swirsky v. Carey, 376 F.3d 841, 841 (9th Cir. 2004).}\]
\[^{622}\text{Swirsky, 376 F.3d at 847.}\]
\[^{623}\text{Swirsky, 376 F.3d at 847.}\]
\[^{624}\text{Swirsky, 276 F.3d at 850.}\]
\[^{625}\text{Swirsky, 276 F.3d at 847-48.}\]
\[^{626}\text{Swirsky, 276 F.3d at 848. See also Patry § 9:246. For Baxter v. MCA, see 812 F.2d 421, 422-24 (9th Cir. 1987); see also Chapter 5.}\]
numerical pitch sequences, he or she could play that music a number of different ways, none of them being substantially similar to each other. In order to perform a song exactly, the musician would need information about key, harmony, rhythm, and tempo—the type of information not included in the district court's comparison.

The court’s treatment of Dr. Walser’s report points toward the critical influence that the musical expert can have on copyright infringement cases. Despite criticisms, Dr. Walser’s expert report, in its techniques and conclusions, became the center of the controversy for both the district and appellate court over its fulfillment of extrinsic analysis. As a result, the impact of the Swirsky decision and its influence on later cases is directly connected to questions expertise and analytical technique considered valid under Krofft.

**Computerized Analysis**

As Dr. Walser noted in Swirsky, there are limitations to the use of western music notation, which come to bear on music copyright litigation in the first decades of the twenty-first century: 627

One of the big topics in popular music studies of the last couple of decades has to do with the usefulness and limitations of notation. If you are dealing with classical music or a Tin Pan Alley popular song, you have a song that’s written, that’s the primary text. It may be recorded in many different versions, but there is still the sense that the song is the written thing. That’s not the way music has operated in the last half of the 20th century, especially in the last couple of decades with new technologies. So one big topic, as I said, has been moving away from the idea that notation is some sort of master system for representing musical – music comprehensively, and seeing that it is, in fact, ‘tactical,’ that it reveals certain things and conceals other things; that it – that all analyses and all transcriptions do that and have certain purposes.

627 Swirsky v. Carey, Dr. Walser Dep. 117.
Although musical experts have been using computerized analysis for decades to reach beyond the confines of western notation and traditional analytical techniques, there is a rise in the use of computerized analyses in the twenty-first century. These new techniques have offered mixed results: on the one hand, computer-generated comparative analysis has not necessarily been convincing to courts; on the other hand, computer-generated sound analyses offered new possibilities for acute comparisons in cases involving digital samples.

At approximately the same time that Swirsky was decided, the Ninth Circuit heard Cottrill v. Spears. In this case, plaintiff songwriters Michael Cottrill and Lawrence Wnukowski sued Britney Spears, along with her industry affiliates, over alleged infringement of their song, “What You See Is What You Get,” with the hit song recorded by Spears, “What U See Is What U Get” off her album, Oops I Did It Again. They claimed that around 1998, they began to write “What You See Is What You Get,” which was submitted for consideration to William Kahn, a representative of Britney Spears, in October 1999, a month before the team submitted the song to the copyright office. In August that same year, however, Spears’s songwriting team began to write and record “What U See Is What U Get” in Stockholm, Sweden. Spears recorded the vocals for the song in November, and the song was released in May the following year. The songwriting team all claimed that they never heard the plaintiffs’ song.

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628 Arrand Parsons used computer software to conduct quantitative analysis in Selle v. Gibb. See Parsons Dep. 5; see also Chapter 5.
630 Cottrill, 2003 WL 21223846 at *2-*3.
Both parties relied on expert musicological testimony: the defendants hired musicologists Dr. Ricigliano and the plaintiffs hired Dr. Marshall Bevil. Dr. Ricigliano’s analysis offered extensive music-theoretical explanations, not only of his analytical process but also definitions of common terms. He produced a seemingly traditional note-for-note comparison using scale degrees to discuss melodic comparisons and contour, as well as roman-numeral analysis to discuss harmonies and to conclude that the songs were unalike.\(^{631}\) In contrast, Dr. Bevil’s analysis was “assisted” by computerized comparisons and generation of melodic contour graphs to show “duplications, melodic parallelism and melodic pattern resemblances.”\(^{632}\) The musical material Dr. Bevil entered into the computer, however, was rhythmically “simplified,” to “remove some of the ‘chatter’” and bring the two songs “closer,”\(^{633}\) thereby allowing him to conclude that the songs were similar. In his rebuttal of Dr. Ricigliano’s report, Dr. Bevil confronted Dr. Ricigliano’s note-by-note comparisons as inappropriate given that listeners would hear melodic shape, not individual pitches.\(^{634}\)

In granting the defendant’s motion for summary judgment, the court identified Dr. Bevil’s testimony as “not aid[ing] the fact-finder in determining the extrinsic test; rather Dr. Bevil’s opinion goes to the intrinsic test—how the two works are aurally perceived by the lay listener.”\(^{635}\) The decision resulted from Dr. Bevil’s report that the two songs were strikingly similar “from a musical (and distinct from a textual) standpoint, resulting

\(^{631}\) Cottrill v. Spears Dr. Ricigliano Rep. 1.
in their sounding very much the same to the average lay listener who perceives them aurally rather than reading them from notation.”^636 In keeping with the defendant’s argument that Dr. Bevil’s analysis did not meet the extrinsic test, the court noted that his analysis lacked any “detailed examination of the elements of the two works.”^637 Without meeting the extrinsic test, the plaintiffs failed to make a *prima facie* case for infringement.

Radical Break: Digital Samples and Wave Form Analysis

The rise of digital sampling* in the late twentieth century brought with it new dimensions to copyright, which have become especially relevant in the twenty-first century for similarity analysis.^638 Drawing a small amount of material directly from one recording and appropriating the exact musical content into a new recording placed new challenges on copyright litigation and on the traditional analytical techniques used by musical experts. Transcriptions, or even extrapolations from this notation into other graphical representations, would reveal a complete musical overlap between the two works. Experts addressed these concerns by incorporating computer generated analyses into their testimony. Rather than relying solely on expert musicologists, some parties called record producers and sound analysts as experts to produce computer-generated analyses that revealed sonic information not adequately represented by traditional

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^638 For more on the history of sampling and copyright law, see Kembrew McLeod and Peter DiCola, *Creative License: The Law and Culture of Digital Sampling* (Durham: Duke University, 2011).
notation. This use of computer-based analysis marked a radical change by providing musical detail to an extent not previously possible.

Sampling cases highlight the limits of western music notation and the need for alternative analytical and graphical methods to deal with newly relevant musical elements, especially timbre. They also signal a diversion from normative concepts of copying-in-fact required by infringement analysis and raise new questions about similarity analysis in copyright litigation. In *Newton v. Diamond*, for example, composer James Newton sued members of The Beastie Boys for sampling a six-second, three-note sequence of his flute composition “Choir,” in their song, “Pass the Mic.”639 In 1992, The Beastie Boys obtained a license to sample from Newton’s recording of “Choir” lawfully, under which they constructed their song.640 The sample they selected, which involved a flutist playing a C on the flute while vocalizing a C-D-flat-C melody into the flute, was looped throughout the song, which was approximately four and half minutes long.

Plaintiff Newton contended that in sampling from his recording, defendant members of the Beastie Boys drew not only the three-note sequence that their license covered, but also the distinctive musical sound that the plaintiff had developed as part of the unlicensed musical composition.641 In response, the defendants argued that the sample was not protectable and was so minimal that it could not constitute copyright infringement.

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640 *Newton*, 204 F. Supp.2d at 1246.
641 *Newton*, 204 F. Supp.2d at 1246-49.
The plaintiffs relied on expert reports from musicologist-composers Dr. J. Christopher Dobrian and Dr. Oliver Wilson, while the defendants relied on musicologist Dr. Ferrara. Each expert presented his own analyses of the two songs to identify the sample and addressed the key issues of the case. One of the main sources of contention between the experts, and for the outcome of the case, was whether Newton’s “vocalization” or multiphonic technique, could be considered unique to his composition. Experts agreed that the technique of vocalizing into a flute while playing was not unique to Newton’s composition, but rather a technique used in sub-Saharan African music and in late twentieth century avant-garde compositions. Newton’s response was that although the technique itself was not unique, his performance of it in “Choir” was unique to him and the composition, despite any absence of description in the score of how his technique was distinct from that used in any other piece or by any other performer. Rather, the score merely showed the notation and indications to perform generic vocalization.

In his report, Dr. Dobrian argued against the application of traditional analyses that focused on melody, noting that:

[a]pplying traditional analysis to this brief excerpt from Newton’s ‘Choir’... a theorist could conclude (erroneously, in my opinion) that the excerpt contains an insignificant amount of information because it contains a simple ‘neighboring-tone’ figure: C to D-Flat and back to c. That might possibly be true if this were a melody from the baroque or classical periods... If, on the other hand, one considers the special playing technique described in the score (holding one fingered note constant while singing the other pitches) and the resultant complex, expressive effect that results, it is clear that the ‘unique expression’ of this excerpt

is not solely in the pitch choices, but is actually in those particular pitches
performed in that particular way on that instrument. These components in this
particular combination are not found anywhere else in notated music literature,
and they are unique and distinctive in their sonic/musical result.

As a result, Dr. Dobrian argued that analyses in this case required non-traditional
techniques that accounted for issues of timbre and the complex relationships between the
flute and the voice. To emphasize his argument, Dr. Dobrian included computer-
produced frequency charts to show the “dissonant conflict between voice and flute that
creates new frequencies, turbulence, and the unique sound” of Newton’s “Choir”
excerpt. He explained:

The attached pictures are spectral plots of two passages from Choir by James
Newton. The plots show time going from the ‘front’ of the picture toward the
‘back.’ Frequency is left-to-right from 100 Hz to 2000 Hz (0.1KHz to 2.0 KHz).
Amplitude is shown by the height and color at each frequency at each moment in
time.

The picture called ‘Choir Excerpt’ [Figure 20 below] shows the excerpt that the
Beastie Boys extracted, as it originally appears in Newton’s recording.

Note that it has no less than seven(!) prominent frequency bands, each one
changing amplitude at a different rate, including many harmonics of the main
tone, some energy that’s even lower than what he played (Caused by difference
tones and/or turbulence), and additional low level energy distributed throughout
the spectrum. The main point here is that there are seven distinct main regions of
energy in the frequency range being analyzed, and that the regions evolve with a
great deal of independence. This is the result of Mr. Newton’s refined breath
control for interpretive use of tone color. The independent prominences of the
different component frequencies can be likened to 7-part counterpoint,
demonstrating that the sound (notated rather simply in the score) is in fact way
more complex than a normal single flute note.

Dr. Dobrian also included a screen capture that he called “One Flute Note,” shown in Figure 21 below. This graph served as a point of comparison to the “Choir” Excerpt in Figure 20 above. The recorded selection was drawn from a different point in “Choir,” that shows

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a single normal flute note (preceded by a very brief ‘grace note’). This . . .
show[s] how simple the spectrum of a single focused normal flute note looks. It
shows energy in a single frequency band) with a tiny bit of extra stuff at the
beginning during the grace note).

Figure 21: Newton v. Diamond, “Flute” Excerpt Christopher Dobrian\textsuperscript{649}

\textsuperscript{649} Dobrian Rep. 8; James Newton v. Michael Diamond, Accession 021-06-10001 FRC 10031831 Box 11
(Riverside, California).
In keeping with Dr. Dobrian’s report, these two charts radically broke with the traditional notational representations used by musical experts. Traditional music notation would have indicated a complete overlap of musical material, but it would have neglected the timbral expressions in “Choir.” It is unclear the extent to which the court would have been able to interpret the charts independent of Dr. Dobrian’s explanation to show the unique elements of Newton’s performance.

Dr. Wilson’s report supported Dr. Dobrian’s by contending that Newton “is not simply using a technique that is common in contemporary musical practice, but rather creating a specific musical event in the composition Choir that reflect[ed] his specific artistic vision.”650 In contrast, Dr. Ferrara argued that Newton’s application of the multiphonic vocalization technique offered nothing distinct from any other avant-garde composition that called for the same performative technique. Furthermore, Dr. Ferrara noted that Newton’s performance was “qualitatively different than what is scored,”651 therefore protection of Newton’s composition could not extend to his recording of it as licensed to The Beastie Boys. As Dr. Ferrara said of Dr. Dobrian’s timbral analysis, “[t]hat entire analysis is irrelevant. The qualities and attributes of the ‘sound’ and ‘performance’ of the composition must be peeled away from the analysis, in view of the fact that the Beastie Boys licensed”652 the recording.

In response, Dr. Dobrian argued that Dr. Ferrara approached the score with653 an erroneous idea of the role of notation . . . an extremely restrictive view of the interpretive qualities a performer—especially a composer/performer—may bring

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650 Newton v. Diamond Wilson Rep. 21; see also Newton, 204 F. Supp.2d at 1256.
653 Dobrian Rep. 1.
to notated music, and perhaps on an incomplete understanding of the practical technical details of the performance of such contemporary flute techniques.

Thus, the core of expert disagreement was not only regarding matters of technique and notation, but the musical criteria by which boundaries should be surveyed. While the plaintiff’s experts pointed toward timbre as a relevant, distinctive, yet non-notated element that distinguished Newton’s composition, the defendant’s expert focused on the melodic structure and tradition behind the technique to argue in the opposite.

The district court found in favor the defendants by denying the plaintiff’s motion for summary judgment. The opinion relied on other sampling cases decided in the same year as *Newton*, and earlier cases with similar fact patterns, to reason that the three-note sequence of the sample was not protected because it lacked originality. Regardless of Dr. Dobrian’s explication of timbral expression and seemingly objective analytical graphs, which the court dismissed as Newton’s unnotated interpretation of the score, the court relied on a holistic summary of expert reports to conclude that the C-D-flat-C sequence was fundamentally unoriginal, and ultimately too small a selection to merit copyright protection. On appeal, the Ninth Circuit affirmed.

Although not the first case of its kind, *Newton* exemplifies the problems faced by musical experts and the court seeking to locate musical similarity among digital samples. Expert reports in this case illuminated the costs and benefits of various analytical techniques for sampling in the wake of new musical styles, genres, and creative

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657 Newton, 204 F. Supp.2d at 1256-57.
658 See Newton v. Diamond, 349 F.3d 591 (9th Cir. 2003).
processes. Like other digital sampling cases, *Newton* also raised questions about the application of fair use to samples, the minimum size of a unit of protectable musical material, and the extent of originality in music between its presence on sheet music and its recorded performance.

**Digital Sampling and Combining Analytical Techniques**

The rise of digital sampling cases like *Newton* brought with it the development of copyright jurisprudence surrounding such cases. Arguably, the most significant case for this area of music copyright law is *Bridgeport v. Dimension Films*, which established that sound recording owners had an exclusive right to sample the recordings they controlled. In short, as the court explained, “[g]et a license or do not sample.”

Considerable discussion ensued during and after this decision, particularly in consideration of the copyright statute for sound recordings, the legislative history for which provides protection over “any substantial portion of the actual sounds” copied from a recording. Scholars and courts have argued against this decision, ruling similarity analysis, and its minimum or *de minimis* threshold to constitute unlawful appropriation, extends to sound recordings.

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660 House Report (cited in Bridgeport Amicus Brief).
The *Bridgeport* decision that imposed a strict standard for sampling would seem to make expert witnesses irrelevant. If a plaintiff could prove that his or her song was sampled, then there would be no need to hire an expert to evaluate similarity. So long as circuits remain split on the best way to determine copyright infringement cases about sampling, however, experts could still have a role to play in litigation. Their analytical techniques to date have combined traditional comparative analyses using comparative analysis based on transcriptions and cultural context with computer-generated wave form analysis. These analytical techniques show that in this developing area of law, the role of musical experts has not changed, despite shifts in its function. Even with arguably more objective wave-form analyses, final decisions regarding infringement continue to be rooted in the subjective evaluations of non-experts.

In *Bridgeport Music, Inc. v. Justin Combs*, for example, the plaintiffs hired ethnomusicologist Dr. Alexander Stewart and producer Mark Rubel to serve as experts, while the defendants hired Dr. Ferrara.662 In this case, Bridgeport owned the copyright to the song, “Singing in the Morning,” by the Ohio Players, which was sampled in Notorious B.I.G.’s song, “Ready to Die,” the rights to which were held by Justin Combs Publications.663 Of particular note for experts was Dr. Stewart’s expert report, which produced transcriptions of both songs in order to demonstrate that the melody, rhythm,

662 Bridgeport Music, Inc. v. Justin Combs Pub., 507 F.3d 470 (6th Cir. 2007). The opinion notes that at trial, Plaintiff’s counsel “implied that defendants' expert [Dr. Ferrara] was ‘a fancy guy from New York.’” 507 F.3d at 479.
663 Bridgeport, 507 F.3d at 470.
instrumentation, and harmony, were “duplicated exactly” with the sample. After arguing that he considered the possibility extremely remote that the producers of ‘Ready to Die’ assembled the exact same instrumentalists (guitar, winds, and vocalists), and managed to duplicate not only the transcribed parameters above, timbres, inflections, and other details, but also the analog sound quality and studio ambiance of the recording.

Without providing a detailed wave-form analysis to bolster his point, Dr. Stewart continued his testimony by discussing originality and aesthetic value and placement of the sampled portion of “Singing in the Morning” in the overall song itself. This analysis tacitly correlated to earlier issues of originality in sampling. Stewart’s analysis presented temporal indications of points in the recorded song where the sampled material occurred, demonstrating that the passage “performs a highly significant function in the original work.” Stewart then provided temporal indications in the recorded performance of “Ready to Die” and considered its prominence in the recording mix in order to argue that the “Singing in the Morning” sample was significant and meaningful. Rubel used a similar technique to arrive a similar expert conclusion: the sample was unique, valuable, and nearly identical.

The use of temporal indications created guided listening for the court to follow in identifying musical similarities, without the complexity of computer-generated graphs. The impact of this technique on the case was likely significant to the jurors’ perceptions.
of the sample, contributing to their finding in favor of the plaintiffs. Although the case hinged on damage allocation on appeal, the expert reports likely influenced the initial jury award.

In the Vargas cases, plaintiffs Ralph Vargas and Bland-Ricky Roberts sued defendants Pfizer, Inc. and Brian Transeau, among others, regarding the use of musical themes from their composition, “Bust Dat Groove Without Ride,” in the defendants’ campaign for the arthritis drug, Celebrex. The copyright registration for “Bust Dat Groove Without Ride,” from the album Funky Drummer vol. II, reflected a one-measure percussion pattern using high-hat cymbal, snare drum, bass drum and ghost notes as performed live by Roberts and then looped 27 times. The plaintiffs claimed that the combination of percussion instruments and rhythmic pattern were sufficient to be unique and original, such that its similarity to a rhythmic phrase from Transeau’s “Aparthenonia,” as used in a Celebrex commercial, constituted infringement. Thus, the plaintiffs alleged that Transeau unlawfully sampled and manipulated “Bust Date Groove Without Ride.”

During litigation, the defendants hired Dr. Richard Boulanger, a professor of music synthesis, to conduct a Fast Fourier Transform (FFT) spectral analysis to compare “Bust Dat Groove Without Ride” and “Aparthenonia” to identify whether the latter sampled from the former. Based on this analysis, Dr. Boulanger demonstrated that “the

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669 Bridgeport Music, Inc. v. Justin Combs Pub., 507 F.3d 475 (6th Cir. 2007).
670 See Bridgeport Music, Inc. v. Justin Combs Pub., 507 F.3d 484-84 (6th Cir. 2007) (discussing various possibilities of jury’s perceptions of expert testimony with regard to calculating damages).
673 Transeau, 514 F. Supp.2d at 439, 441-42.
audio source material in Aparthenonia is unique and original and is not at all based on or copied or derived from [BDG].”\footnote{Vargas v. Transeau Boulanger Rep. 61; See also Transeau, 514 F. Supp.2d at 444.} This conclusion was confirmed by the plaintiff’s expert, Dr. Stephen Smith.

Outside of introducing the FFT, however, the plaintiffs also hired percussion expert Matthew Ritter, who identified the high level of similarity between the two songs but contended that “Aparthenonia” contained digitally edited elements of “Bust Dat Groove Without Ride.”\footnote{Transeau, 514 F Supp.2d at 444-45 (citing Ritter Decl.).} Offering greater support of Ritter’s claim, the plaintiffs’ sound engineer and sampling expert, Ivan Rodriguez, likewise claimed that “Aparthenononia” was created by importing drum beats from “Bust Dat Groove without Ride,” and then manipulating that sample to ensure that the works were not identical.\footnote{See Transeau, 514 F. Supp.2d at 445.}

Ultimately, the court decided in favor of decided in favor of the defendants because the plaintiffs were unable to establish striking similarity. The opinion tacitly pointed toward Ritter’s and Rodriguez’s testimonies that cast doubt on the “striking similarity” of the two songs, thereby demonstrating that the plaintiffs did not establish striking similarity and that summary judgment could be granted.

Like the analysis offered in Newton, the FFT in the Vargas cases offered unparalleled insight into the relationship between the two songs in cases of sampling, which were highly influential on the court. In these cases, the wave-form based analytical techniques were presented against traditional forms of musical analyses. These more traditional analyses, in addition to the apparent lack of waveform analyses in Bridgeport
v. Combs, suggests a point of transition. While traditional analytical techniques of transcription and qualitative discussion provided by musical experts are still considered relevant in court cases, the rise of computer-based analytical techniques to provide more intricate comparisons of sampling offer new and significant information to courts. These reports, while interpreted by musical experts, can also be produced by any person with the ability to operate computer software. This created the opportunity to bypass the musically trained expert altogether.

In their response to new dimensions to questions of copyright infringement, these cases reveal a break from traditional analytical techniques and shifts in the nature of musical expertise for the courts. In so doing, they raise questions about expert analyses. Expert contributions were legally confined to the context of now-traditional methods of presenting comparisons that separate musical elements. Over time, experts presented these dissections using various graphical means, but most commonly separated each musical element using musical notation, and possibly included a totalizing picture of the comparative whole for context. With waveform analyses, musical elements are no longer isolated in notation, in the same manner as before, but instead presented in a totalizing representation of timbre in hertz that would be absent in written notation.

“Standard Musicological Procedure”

Whether the methods used by experts represented a continuation or a radical break in tradition, some of the most recent cases have recognized what has been dubbed
“standard musicological procedure.” Contrary to the preceding historical narrative that shows a variety of analytical methods as well as statements in previous cases that there is no singular set of criteria for musical analysis or best practice, experts have begun to use the term, and variations on it such as “musicological comparison” and “musicological analysis.” One reason for this is likely to respond to standards for admissibility of expert testimony in evidence law; another is to attempt to lend credibility to an expert by strategically invoking the expertise associated with musicology as a credentialed, academic profession. Thus, the mere terminological invocation of musicology seems to be becoming synonymous with expertise in the context of copyright litigation. The procedure to which courts and experts refer, however, remains indefinitely defined.

While references to “accepted practice for musicological analysis” have occurred before this time, the notion was not as widely used until recently. In Brainard v. Vassar, for example, plaintiff songwriters David Brainard, Dustin Evans, and Tim Mathews sued defendant songwriters Phil Vassar and Craig Wisemen, along with multiple music publishing and production companies, alleging that the plaintiffs’ song, “Good Ol’ Days to Come” was infringed by the defendants’ song “Good Ole Days.” The plaintiffs claimed that they collaborated on writing the song in October 2003, which was recorded by Dustin Evans the following January, and then the team began “pitching”

677 See Chapter 1 above. Factors emphasize the method of the expert in considering the witness’s credibility, including 1) whether the expert’s theory or technique could, and had been tested; 2) whether the theory or technique had been subject to peer review; 3) whether there is an accepted error rate and 4) whether the method was generally accepted in the field. See Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579, 92-94 (1993).
the song to various music companies before the song was featured on Evans’ July 2004 album by the same name. It during this time, in early 2004, that the defendants allegedly gained access to the song, which they denied, claiming that they began to write their song in March for release in September the same year. The plaintiffs retained Dr. Gerald Eskelin and the defendants retained “forensic musicologists” Dr. Anthony Ricigliano and Dan Dixon to serve as experts.

Their reports followed the long tradition of analytical techniques, the age and acceptance of which likely embodied notions of standard musicological procedure. Dr. Ricigliano’s report outlined the musical elements central to his comparison, placing melody, harmony, structure, and lyrics as the “principal aspects” of comparison, followed by key, meter, and tempo. In keeping with many analyses proffered in previous cases, including those prepared by Dr. Ricigliano, transcriptions of the two songs were transposed to be in the same key. Rather than merely stating as much, Dr. Ricigliano noted that such transposition was “standard musicological procedure”: “To facilitate comparison of the musical elements the musical examples are notated in the same key of G major (*standard musicological procedure*). Also, where applicable, the scale-step designation for each melodic pitch is shown by the number under each melody note.”

While they did not apply the expression “standard musicological procedure,” Dr. Eskelin and Dixon used “musicological” to describe their analytical methods. Dr. Eskelin’s report began with an explanation that “[i]t contain[ed] a *musicological*

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680 *Brainard*, 625 F. Supp.2d at 613.
682 See *Brainard v. Vassar Ricigliano Rep.* 1.
683 *Brainard v. Vassar Ricigliano Rep.* 1 (emphasis added).
The report continued with Dr. Eskelin’s comparisons and conclusions without outlining any further analytical technique. Nonetheless, his conclusions refer to tonal harmony designations, including “dominant chord,” melodic scale degrees, and phrasing, suggesting that he followed a similar procedure used by many other musicologists. In a similar way, Dixon used the phrase “comparative musicological analysis” to refer to his use of many of the same analytical techniques, except that Dixon’s report placed greater emphasis on rhythm.

The court found in favor of the defendants by granting their motion for summary judgment. In its opinion, the court indicated that “[d]espite similar titles, the two songs, recordings of which were provided to the court, sound different in many ways.” In its discussion, the court relied on experts to indicate that “experts in this case essentially agree” that similarities between the two songs were “the result of common usage in the industry and that they are not indicative of copying.” The analytical techniques used by the experts, however, were not mentioned.

Legal notions of a standard procedure for music analysis appeared again in 2011 in the case of Straughter v. Raymond. Here, musician-producer Lee Straughter sued defendants Usher Raymond, Jermaine Dupri Mauldin, Bryan-Michael Paul Cox and multiple music production companies, alleging that they infringed on Straughter’s song

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687 Brainard, 625 F. Supp.2d at 613.
688 Brainard, 625 F. Supp.2d at 620.
689 Brainard, 625 F. Supp.2d at 620.
“Reason” with their own song, “Burn.” The plaintiff claimed that his song appeared under the title “No More Pain” on R&B group Reel Tight’s 1999 album, Back to the Real. In response, the defendants claimed that they co-wrote “Burn” in 2003, which then featured on Usher’s March 2004 album, Confessions.

Unlike in Brainard, the invocation of standard procedure appeared not in any expert report, but in a memorandum used to impeach the plaintiff’s expert, ethnomusicologist Dr. Cheryl L. Keyes. This manifestation of the idea of standard practice was used as the core of one of the defendants’ main arguments. The defendants claimed that Dr. Keyes “substitute[d] her own subjective views for long-standing, fundamental, widely accepted musicological principles.” In addition to arguing that Dr. Keyes’ analysis was not grounded in “reliable principles and methods,” the defendants’ argument centered on terminology, calling into question Dr. Keyes’ use of terms such as “motif” and “harmonic rhythm.” In her report, Dr. Keyes responded by presenting a list of alternatives and claimed that her use of the term derived from a desire for consistency in communication. Furthermore, in her opposing declaration, Dr. Keyes outlined the basis for her more qualitative “coding” analysis as rooted in ethnomusicological techniques she had developed in her study of hip-hop and rap. As a

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691 Straughter, 2011 WL 3651350 at *2.

692 Straughter v. Raymond Memorandum of Points and Authorities in Support of Defendants’ Motion to Exclude and/or Strike the Opinions, Reports and Testimony of Plaintiff’s Purported Expert Witness, Cheryl L. Keyes, 17 [hereinafter Memo] (emphasis added).

693 Straughter v. Raymond Keyes Decl. 1.

694 Straughter v. Raymond Memo, 17.

695 Straughter v. Raymond Keyes Decl., 1.

696 Straughter v. Raymond Decl. Keyes. The expert confrontation also addressed the issue of the relevance of waveform analysis in digital reconfigurations of music. Keyes notes that such computer analysis is not
result of the contingency basis of her participation, however, Dr. Keye’s testimony was excluded. In this expert confrontation, standard-practice concepts were used to impeach expert Dr. Keyes by calling into question her expertise by questioning her methods. Beyond the bitter confrontation rooted in concepts of standard musicological procedure, the court denied the defendant’s motion for summary judgment. As of 2013, the court issued a stay order pending an appeal on the case.

Although the term remains undefined, recent invocations of “standard musicological procedure” raise questions not only about applicable analytical techniques for music copyright litigation, but also about the potential development of a “best practice” among musicologists, or more specifically, forensic musicologists. Furthermore, notions of a standardized procedure point toward issues in the nature of musicological expertise in the twenty-first century. Its invocation suggests the development of what may become an industry standard, within music and more specifically among forensic musicologists, for the purposes of litigation. The acceptance of such a standard might have implications for reducing the unpredictability of music copyright litigation. Musical expert witnesses faced with the task of analyzing music in future copyright cases will undoubtedly confront these questions.

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698 See Chapter 1 above.
The Relevance of the Musical Expert

In addition to cases involving digital sampling, other recent music copyright litigation has also brought the relevance of the musical expert into question. Cases decided in 2015 show courts treating expert analyses in ways that seem to continue to narrow their scope of influence on the outcome of cases and in more practically significant ways. In some cases, jurors and judges appear to disregard expert evidence entirely. In others, courts continue to refine the identity of quasi-expert jurors by increasing their minimum competency through the imposition of the “discerning observer” test, with implications for the relevance of musical expert analysis in future litigation.

In the highly publicized case of *Williams v. Bridgeport Music, Inc.*, Marvin Gaye’s estate alleged that hip hop collaborators Robin Thicke, Pharrell Williams, and Clifford “T.I.” Harris infringed on Gaye's 1977 hit songs, “Got to Give It Up” and “After the Dance,” with their own 2013 hits, “Blurred Lines,” and “Love After War,” respectively. Although the lawsuit dealt with two pairs of songs, “Got to Give It Up” and “Blurred Lines” became the focal point of the case for the court and the media. The conflict arose from the Gaye estate threatening legal action due to alleged similarity

between the two songs. The case featured an unusual legal procedure, with Williams and his team acting as the plaintiffs because in August 2013, they filed for a declaratory judgment* that they did not infringe on the Gaye estate’s rights in the song. In October 2014, the court denied the plaintiff’s motion for summary judgment, noting that genuine issues of material fact existed that would send the case to trial.

Underlying the case was the problem of the statutory copyright laws under which each song was registered. The plaintiffs claimed that because the defendants’ copyrights in Gaye’s songs were filed prior to implementation of the 1976 Copyright Act, only the printed lead sheet was protected. Therefore, according to the plaintiffs, musical material heard on the recording but not memorialized on the printed music, most significantly the percussive “groove,” the sound of the instruments and voices, and the “party noise,” were not protected. On the contrary, the defendants argued that they were not restricted to the lead sheet material because Gaye himself “did not fluently read sheet music” or transcribe his own songs. Nonetheless, the trial judge ruled that the song as it appeared on the lead sheet would be the only musical material at issue and prevented either party from playing recordings of the songs in court. Instead, analyses were to be conducted based on notated sheet music.

As part of their argument regarding copying, the defendants had introduced deposition testimony and previous media interviews demonstrating Thicke and Williams’s access to “Got To Give It Up,” based on their expressed appreciation for

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701 Williams, 2014 WL 7877773 at *1.
702 Williams, 2014 WL 7877773 at *6-*7.
703 Williams, 2014 WL 7877773 at *7.
704 Williams, 2014 WL 7877773 at *10.
Gaye’s compositional style and desire to evoke a similar musical groove.\footnote{Williams, 2014 WL 7877773 at *11.} The court ruled that such compositional influence was not itself direct evidence of copying, it did contribute to the legal analysis of access plus similarity.

With regard to finding similarity, the expert testimony, and its confrontations, figured prominently for the court. The plaintiffs introduced musicologist Sandy Wilbur; the defendants retained musicologist Dr. Judith Finnell and ethnomusicologist Dr. Ingrid Monson. Unsurprisingly, given their party affiliations, Dr. Wilbur found that there were no similarities between the two songs in any respect, while Dr. Finnell and Dr. Monson found the opposite, arguing that the copying was more than mere coincidence.\footnote{Williams v. Bridgeport Music, Inc., 2014 WL 7877773 *2-4 (C.D. Cal. Oct. 30, 2014).}

The methods that each expert used incorporated more traditional analytical techniques that distinguished various musical elements, particularly melody, harmony, rhythm, and formal structure. Dr. Finnell’s report identified “a constellation of eight substantially similar features” which together “surpass[ed] the realm of generic coincidence, reaching to the very essence of each work.”\footnote{Williams v. Bridgeport Finnell Rep. 1.} Dr. Monson’s report identified seven similarities, most of which paralleled Dr. Finnell’s report.\footnote{Williams, 2014 WL 7877773 at *4 (citing Dr. Monson Decl.)} Table 2, found below, encapsulates the criteria for similarity, correlating similar criteria between the parties.

The confrontation that resulted between the experts, documented primarily between Wilbur and Dr. Finnell, emphasized differing conclusions and methodology. Wilbur criticized Dr. Finnell’s analysis for being “primarily melodic,” yet “[t]here are no
two consecutive notes in any of the melodic examples in the Finnell Report that have the same pitch, the same duration, and the same placement in the measure. In addition, Wilbur found fault with Dr. Finnell’s analysis for drawing attention to similarities in the unoriginal, non-protectable, musical material in each song.

<table>
<thead>
<tr>
<th>Dr. Finnell</th>
<th>Dr. Monson</th>
</tr>
</thead>
<tbody>
<tr>
<td>signature phrase in main vocal melodies</td>
<td>melodic connections</td>
</tr>
<tr>
<td>hooks</td>
<td>melodic connections</td>
</tr>
<tr>
<td>hooks with backup vocals</td>
<td>melodic connections; form; harmony</td>
</tr>
<tr>
<td>core theme</td>
<td>melodic connections</td>
</tr>
<tr>
<td>backup hooks</td>
<td>melodic connections</td>
</tr>
<tr>
<td>bass melodies</td>
<td>basslines; harmony; form</td>
</tr>
<tr>
<td>keyboard parts</td>
<td>keyboard parts</td>
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<tr>
<td>unusual percussion choices</td>
<td>cowbell/hand percussion; drum set parts</td>
</tr>
</tbody>
</table>

Table 2: Defendants’ Expert Analytical Criteria for “Blurred Lines”

Conversely, Dr. Finnell called out Wilbur’s analytical techniques, which led to conclusions that the music at issue was not similar, as being improperly “built on requiring absolute identity in all 3 melodic comparison factors of (A) pitch or scale degree, (B) duration, and (C) rhythmic placement for every single note in order to be

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710 Williams v. Bridgeport Wilbur Rep. 1 (emphasis in original); also cited in Williams, 2014 WL 7877773 at *3.
similar.”  

This partisan attack went against a long tradition of experts seeking musical congruences, instead calling for a more generalized approach to similarity based on the overall effect of correlating musical elements. Together, the reports showed “significant indicia” of disagreement, prompting the case to go to trial.

The case went to trial in February 2015, concluding in a jury finding infringement and awarded the Gaye estate approximately $7.4 million in damages. After judicial hearing on post-trial motions, the judge reduced the damage award by approximately $2 million. The Williams verdict has since raised questions about the future of copyright infringement analysis, with its implications for the evaluation of infringement based more on cultural appropriation of stylistic features rather than note-for-note comparisons. In this decision, a long history of musical congruence establishing similarity appears to be giving way to less precise musical resemblance as a marker of legal similarity.

The verdict also raises questions about the practical relevance of experts, given that juries are not legally bound to, and in some cases do not, rely on expert testimony to make the decisions. Rather, experts merely serve as surveyors by evaluating evidence and presenting their conclusions and opinion testimony to aid triers of fact. Although the legal tests call for expert analyses, the ultimate question of infringement relies solely on non-experts, who can, and do, choose to make their own decisions.

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711 Dr. Finnell Decl. 50; Williams, 2014 WL 7877773 at *13.
712 Williams, 2014 WL 7877773 at *4.
714 Williams, 2015 WL 4479500 at *47-48.
Another circuit has pushed toward dispensing with experts all together. In
Copeland v. Bieber, for example, songwriter Devin Copeland, whose performance name
is De Rico, sued Justin Bieber and Usher Raymond IV, alleging that their song,
“Somebody to Love,” infringed on Copeland’s song by the same name.\(^\text{716}\) Copeland
claimed that in late 2009, Usher heard Copeland’s album on which “Somebody to Love”
appeared as part of promotional effort, and therefore had access to the song. Months later,
Copeland discovered a YouTube video appeared of Usher performing a demo song,
“Somebody to Love.” Although Usher never commercially released the song, he brought
it to Justin Bieber to record and release on his debut album by spring 2010.\(^\text{717}\) In
response, Usher and Bieber denied any similarity between the two songs.

The case was heard in the Fourth Circuit, which applied the intended audience
test.\(^\text{718}\) As the test was described in this case, plaintiffs must demonstrate\(^\text{719}\)

two distinct forms of similarity: ‘extrinsic’ similarity, an objective match between
the copyright-protectable elements of an original work and a purported copy,
often based on expert testimony; and ‘intrinsic’ similarity, a more subjective and
‘essentially aesthetic judgment’ as to whether the intended audience of two works
would experience them as similar in overall effect.

After a hearing, the district court applied the intrinsic prong of the test. It determined that
the “intended audience” for the work was the “general public,” thereby seeming to return
to an ordinary lay listener standard. But the court then concluded that “no reasonable
jury” could find the songs to be similar.\(^\text{720}\) Because no intrinsic similarity was identified

\(^{716}\) Copeland v. Bieber, 789 F.3d 484, 487 (4th Cir. 2015).
\(^{717}\) Copeland, 789 F.3d at 487-88.
\(^{718}\) See Chapter 5 above.
\(^{719}\) Copeland, 789 F.3d at 488.
\(^{720}\) Copeland, 789 F.3d at 488.
by the judge, the court forewent extrinsic analysis and granted Bieber and Usher’s motion to dismiss.

On appeal, the Fourth Circuit reversed, but not because the district court had only conducted part of the test or because the judge had inserted her own interpretation of a “reasonable jury” in place of an actual jury who likely should have made these decisions. In fact, the Fourth Circuit affirmed that approach, “undertak[ing] that analysis by listening to the songs in their entirety and side by side, to determine whether a reasonable jury could find that they are subjectively similar.”\textsuperscript{721} In so doing, the court found a fair amount of dissimilarity, but its perceived commonality between the choruses of Copeland’s against Usher and Bieber’s song were “similar enough and also significant enough that a reasonable jury could find the songs intrinsically similar.”\textsuperscript{722} As a result, the appellate court vacated and remanded, sending the issue to a jury.\textsuperscript{723}

Although the Fourth Circuit similarity test calls for “extrinsic” analysis usually aided by expert testimony, the court in Copeland dispensed with it given the legal contours of infringement analysis under current tests. Instead, both the district and appellate judges made their own comparisons in lieu of jurors, let alone experts whose contribution was implied by the precedential test. This digression from standing precedent contributes to a growing concern about the practical relevance of experts as musical surveyors.

\textsuperscript{721} Copeland, 789 F.3d at 492.
\textsuperscript{722} Copeland, 789 F.3d at 494.
\textsuperscript{723} Copeland v. Bieber, 789 F.3d 484, 495 (4th Cir. 2015).
Two cases decided in the Southern District of New York late in 2015 show the court applying a more refined standard for lay listeners to music copyright cases. In both *McDonald v. West*\(^{724}\) and *Lane v. Carter-Knowles*,\(^{725}\) the court applied the “discerning observer” test, drawing on precedent from a case involving alleged copyright infringement of quilt patterns.\(^{726}\) Both *McDonald* and *Lane* dealt with infringement claims against popular R&B-hip-hop performers Kayne West and Jay-Z, or Beyoncé, respectively.

The relevance of these cases however, turns on a new refinement of the “ordinary observer” test, rooted in the *Arnstein* test.\(^{727}\) This test combines conceptual filtration from the abstraction-filtration-comparison test with the ordinary observer test originating with *Arnstein*, calling for non-experts to separate protected and unprotected elements before making holistic comparisons of the protected elements. As the court explained in *McDonald*:\(^{728}\)

“When a plaintiff alleges infringement of a copyrighted work that incorporates significant elements from the public domain, however, the ‘ordinary observer’ test must become ‘more discerning.’ It would be unfair to impose copyright liability if the defendant copied something from the plaintiff that the latter had no right to control. Applying this ‘more discerning observer’ test, the Court must look for substantial similarity between the allegedly infringing work and the original, protected elements of the plaintiff's creation.

[A] court applying the ‘more discerning observer’ test may not simply ‘dissect the works at issue into separate components and compare only the copyrightable elements.’ This would narrow copyright too much, and render protection for the selection and arrangement of public domain elements a dead letter. When

\(^{724}\) 2015 WL 5751197 (Sept. 30, 2015).
\(^{725}\) 2015 WL 639540 (Oct. 21 2015).
\(^{726}\) Boisson v. Banian, Ltd., 273 F.3d 262, 272 (2d Cir. 2001).
\(^{727}\) See Chapters 4-5 above.
\(^{728}\) 2015 WL 5751197 at *4 (citations omitted).
applying the ‘more discerning observer’ test, the Court must make sure to engage in a holistic comparison of the two works, looking for substantial similarity that is apparent ‘only when numerous aesthetic decisions embodied in the plaintiff’s work of art—the excerpting, modifying, and arranging of [unprotectible components] [sic] ...—are considered in relation to one another.’ Only then can the Court determine whether any similarities ‘are due to protected aesthetic expressions original to the allegedly infringed work, or whether the similarity is to something in the original that is free for the taking.’

According to the new test, a court must consider the source of similarity when examining works where there is both protectable and non-protectable material, which would be typical of popular music. The test incorporates some of the same notions as “superficial similarity” and “striking similarity,” with all three standards attempting to distinguish between musical material common to a genre of music and material that separates pieces of music that exemplifies it. In this way, the test is intended to create the opportunity to clarify the line between commonality and infringement within the contested space shared by the music at issue.

More than the “intended audience” test, the “discerning observer” test has the effect of blurring lines between experts and non-experts. The new test requires a higher level of awareness and understanding among non-experts to permit their discernment between protected and unprotected elements when evaluating improper appropriation. On the one hand, more discerning observers would seem to reinforce the presence of experts to assist non-experts in distinguishing between protected and non-protected material. On the other hand, discerning observers making comparisons based on specialized skill and knowledge, acquired at trial or before, would eventually lead to less reliance on expert
testimony for infringement decisions and more on their own expertise as audience members.

Recent court cases have shown the precarious position of musical experts in contemporary music copyright litigation. Although their analytical expertise continues to be a valuable asset to the court, courts seem willing to rely more on non-expert or quasi-expert perceptions to evaluate similarity and continue to narrow the influence of experts in clarifying the boundaries between music. Tradition, past influence, and technical expertise regarding matters of musical style and borrowing seem to galvanize the strategic presence of experts in litigation, despite their sophisticated analyses and confrontations that make expert testimony appear partial and mystifying. While the precise impact of these cases on music copyright litigation remains to be seen, these cases raise questions about the future role of musical experts, the contours of expert analysis, the nature of musical expertise itself.
Chapter 7: Similarity, Expertise, and the Blurred Lines of Music Copyright

From nineteenth century parlor songs to twenty-first-century hip-hop productions, musical experts have brought their specialized skills, knowledge, and experiences to federal copyright litigation. The evolution of the legal process for finding infringement, which centers on evaluating substantial similarity, has involved judges adopting various legal methods to avoid unpredictable and inconsistent decision-making. This history, especially as it involves the contributions of musical experts, reveals that rather than any specific judicial formulation causing these problems, it is the nature of similarity inquiry itself that has caused these problems. The question of musical similarity at the core of each case hinges on fact-specific evaluations of substantiality, namely, whether the contested boundary space between two pieces of music crosses the blurred line between commonality and unlawful appropriation.

Musical experts have played an essential role in this process. They survey the intellectual property features of contested musical spaces to locate for triers of fact the features of musical similarity and difference. The variety of their analytical techniques both reflects and reveals the fact-specific nature of similarity in each case. The musical features that constitute similarities, and the relevance of each comparison to evaluations of substantiality, are particular to the music at issue and can be interpreted differently between one case and another. As a result, expert testimony, regardless of its scope of
influence on the case, demonstrates that the legal similarity inquiry is specific to the particularities of the music at issue.

Despite their specialized ability to discern relevant evidence of similarity, the narrowing role of musical experts in this legal process over time has had the effect of limiting experts from adequately assisting triers of fact in making their determinations. Judicial skepticism toward expert partiality and their place in legal fact-finding directed the contributions of experts toward analyses that may have seemed more scientific or systematic, and thus more objective, but that are frequently also increasingly sophisticated, abstract, and mystifying. The treatment of experts in recent cases suggests that these limitations have reduced their influence to an extent that questions may be raised about their overall relevance to the copyright litigation process.

**Similarity and the Expert**

Since the nineteenth century, the legal standard for finding infringement has relied on an identification of similarity substantial enough to distinguish lawful commonality from unlawful appropriation.\(^{729}\) Making this decision is dependent the fact-specific characteristics of the contested boundary space between pieces of music at issue. Courts have turned to musical experts, who have analyzed music for the court in order to separate stylistic commonality from musical congruence, and both from musical difference. Because the terrain of each shared boundary emerges from such musical

\(^{729}\) See Chapter 2 above.
comparisons, experts apply diverse analytical techniques and identify different musical features to be relevant. Thus, notions of musical, and legal, similarity change over time and are specific to the music at issue.

The experts serving in *Blume v. Spear* and *Hein v. Harris* offer early examples of the ways in which musical similarity was understood. In both cases, experts retained by the plaintiff constructed similarity based primarily on melodic congruence largely separated from its formal, harmonic, and even rhythmic, contexts. Experts called by the defendants refuted these analyses through their own discussions of stylistic resemblance, with experts and courts alike in *Blume* discussing a generic “popular song” idiom common to the late nineteenth century, and those in *Hein* discussing ragtime. The judges in both cases found for the plaintiffs, rooted in their own comparisons as a matter of law but undoubtedly influenced by evidence introduced by the experts.

By the mid-twentieth century and the Second Circuit’s issuance of the *Arnstein* decision, the role of experts had been legally narrowed. After *Arnstein*, experts were limited to a discussion of probative similarity and prevented from commenting on whether that similarity constituted infringement. The legal invocation of expert “dissection” coincided with a rise of more sophisticated techniques that placed melody in its formal and harmonic context before identifying congruence. In turn, this shift legally and analytically altered the criteria for similarity, such that melodic congruence

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needed to coincide with harmonic and formal congruence in order to meet the threshold of musical similarity.

The *Krofft* decision furthered this trend in legally narrowing the role of the expert and drove changes in analysis and the similarities they located. Experts under *Krofft* were now limited to “extrinsic” aspects of similarity, referring to the musical idea legally thought to be capable of being identified through analysis. As Baxter and Thompson demonstrated, experts and courts alike struggled to set widely applicable criteria for finding a musical idea, separate from its expression through live or recorded performance or in commonly-used western notation, and evaluating the similarity between those musical ideas.\(^{733}\) The quest for the musical idea lent itself well to abstract musical analyses and symbolic representations of music, as well as to reductive techniques that sought to dispense with musical material deemed by the expert to be inessential to musical identity for the purposes of similarity. Even with the modification of *Krofft* under *Shaw* that brought the extrinsic test more closely in alignment with *Arnstein* probative similarity,\(^{734}\) the application of expert testimony remained limited.

The treatment of grace notes in different cases decided from the mid-twentieth through twenty-first centuries offers one example of the diversity of analytical techniques and the fact-specific, emergent nature of musical similarities that contribute to perceptions of inconsistency in copyright. The rise of reductive analysis during this time, likely influenced by the prominence of Schenkerian-based theoretical approaches in formalized music theory circles, conveniently met the legal call to find similarity through

\(^{733}\) See Chapter 5 above.
\(^{734}\) See Chapter 5 above.
convincingly objective analysis in which ornamental notes could be considered dispensable.

In *Cholvin v. B&F Music*, Barlow’s melodic reduction, which removed ornamental notes to arrive at a more abstract melodic representation, made melodic congruence more apparent, despite differing meters between the pieces of music at issue.\(^{735}\) Although the *Cholvin* court found no problem with this analysis, the same technique was later considered problematic in *Swirsky v. Carey*.\(^{736}\) Here, Dr. Walser’s reduction of vocal ornaments to arrive at an underlying melody was considered by the district court to be defective in its application to the extrinsic test.\(^{737}\) In other cases, however, grace notes had proved significant to arguments regarding similarity. In *Bright Tunes Music Corp. v. Harrisongs Music, Ltd.*, for example, the grace note in what was labeled Motive B contributed to a finding of similarity through musical congruence, and later infringement.\(^{738}\) The variable treatment of grace notes reflects a complex and evolving musical reality, in relation to which the perceived relevance of one or another musical point of comparison in arguments of similarity changes according to the case and the applicable test.

The application in recent years of pre-established legal tests and analytical techniques to cases involving digital sampling raise issues with analytical techniques that rely on the traditional arguments of musical congruence, with implications for notions of

\(^{735}\) *Cholvin v. B&F Music*, 253 F.2d 102, 103 (7th Cir. 1958); see also Chapter 4.
\(^{737}\) *Swirsky v. Carey*, 226 F. Supp.2d 1224, 1228-34 (C.D. Cal. 2002); see also Chapter 6.
\(^{738}\) *Bright Tunes Music Corp. v. Harrisongs Music, Ltd.*, 420 F. Supp. 177, 178 (S.D.N.Y. 1976); see also Chapter 5.
musical and legal similarity. The *Newton v. Diamond* case demonstrated the problematics of this circumstance, where the material in question is nearly identical, differing only its place within formal structure and perhaps in the timbral manipulation of the sample itself. One court has reconstructed the definition of similarity, in the context of digitally-borrowed sampling and in the absence of a license, as an unequivocal, *de facto* indication of infringement, thus eliminating the ability of experts to offer their own expert criteria for similarity in this innovative context. And yet, multidisciplinary discussion and, in certain circles, controversy on this issue is growing. It remains unclear how sampling might ultimately be viewed with regard to the similarity inquiry.

The history of music copyright litigation and musical expertise thus demonstrates that the nature of the similarity inquiry is fact-specific. Although experts contribute to this situation by applying diverse analytical techniques and reaching conclusions that are applicable specifically to the music at issue in each case, their skill, knowledge, and experience may be able to offer guidance on how to interpret their analyses and the nature of musical similarity.

### Using Experts to Solve Problems in Copyright

The disconnect between experts and non-experts observed in copyright cases, or the lay-expert divide, has attracted the attention of multidisciplinary scholars eager to

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find a solution that might “fix” problems with copyright litigation. Proposed legal resolutions have relied on policy considerations and alternative test formulations to justify removing experts or non-experts from litigation because of their contributions to unpredictable and inconsistent outcomes on copyright cases. Musicological scholarship has likewise offered perspectives on analytical techniques that are intended to more equitably, and predictably, resolve cases involving music. The main problems with most of these proposed solutions are that they fail to improve the relative predictability of copyright or inadequately account for the underlying fact-specific nature of the similarity inquiry.

**Between Experts and Non-Experts**

The contributions of experts are only a part of copyright infringement analysis, and their scope of influence has been increasingly narrowed since *Arnstein*, in favor of non-expert determinations. Expert analyses nevertheless contribute to non-expert perceptions of substantial similarity, as some courts have noticed, so the two are inherently linked. In an effort to resolve problems of unpredictability and inconsistency in copyright cases, some legal scholars have decried the contributions of expert witnesses, while others have pointed to non-expert jurors, and the jury-centric nature of the inquiry, as the cause of copyright litigation’s problems. Their proposed solutions have ranged from revising existing tests to removing either experts or lay listeners entirely. To

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date, no solution has appeared to resolve these issues successfully, due at least in part because they misplace the cause of the issues in the decision-making process rather than in the foundational similarity inquiry itself.

The expert non-expert divide stems from, and is perpetuated by, a need for balance between protecting the rights of arts and the roots of copyright and copyright jurisprudence. Although these ideas and distinctions predate 1946, this divide was legally codified by the *Arnstein* court, who were themselves caught up with skepticism regarding fact-finding and expert testimony alongside questions about the acuity with which copyright infringement should be evaluated.742 Experts, especially musical ones, often produce analyses and testimony accused of being ill-suited to assist non-experts who lack specialized training to interpret it. As one recent commentator described, “[t]oo often musicologists present convoluted diagrams and transcriptions that only bewilder the ordinary fact-finder.”743 Increasing sophistication in expert analyses appear to increase disconnects between experts and lay listeners, which seems to push expert contributions toward potential irrelevance.

Legal scholars have offered a variety of alternatives to existing similarity analysis tests that rebalance the roles of experts and lay listeners, or that completely eliminate one or the other. One alternative that has been proposed is the “actual” audience test, which refines the Fourth Circuit’s “intended audience,”744 and the Sixth Circuit’s “target

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742 See Chapter 4 above.
audience” test that narrow the pool of lay listeners to those with slightly more specialized knowledge than an ordinary observer. This significant diversion from the “ordinary observer” standard for lay listeners increasingly privileges decisions from quasi-expert listeners. The problem with the intended audience test is that it assumes a close relationship between general non-expert lay listeners called for by Arnstein and members of a song’s “audience.” This is not always the case, especially for highly idiosyncratic works with small, more knowledgeable audiences.

Applying policy-based understandings of economic incentives created by copyright, “lay-centered” approaches to fixing copyright litigation often places greater emphasis on the contributions of non-experts. Legal scholars have suggested merely flipping the order of existing tests so that lay listeners conduct their comparisons before a supplemental influence from expert analysis would be introduced. Others have suggested the complete removal of expert witnesses, and various revisions of Arnstein and Krofft. One scholar has recommended the removal of the “reasonable observer”

745 Kohus v. Mariol, 328 F.3d 848, 857 (6th Cir. 2003).
746 Francis, “Replacement,” 519.
748 Although certain kinds of visual and performing arts also face this problem, computers are an excellent example. See, e.g., Jeffrey D. Coulter, “Computers, Copyright and Substantial Similarity,” J. Marshall Journal of Computer and Information Law 14 (1995), 47, 52 (discussing intended audiences and the problems with substantial similarity analysis for computer programs).
751 See, e.g., Jones, “Improved Approach,” 227-308 (proposing revisions to the Krofft approach); Mark A. Lemley, “Our Bizarre System for Proving Copyright Infringement,” Journal of the Copyright Society of the USA 57 (Summer 2010), 719-35.
standard applicable to most current legal tests, instead favoring an “aesthetic test,” whereby jurors conduct their own aural comparisons as non-expert lay listeners, rather than attempting to decide based on the ways that a reasonable lay listener might perceive the music at issue.752

While these solutions may seem to resolve many of the issues with copyright by introducing “lay-centered” approaches, they also present their own challenges. Although courts often approach experts with skepticism because of their often partial and confusing testimony, such perceptions are insufficient to eliminate experts. All evidence, regardless of its quality or source, is dirty, being flawed or biased in some way.753 Thus, the pitfalls of expert analyses are not reason to devalue expert testimony altogether.754 Rather, this circumstance should be recast as specificity that allows the trial to proceed in a way best suited to the music at issue. The legal space for this variance allows for experts to develop and adapt new analytical techniques that may afford the court the best possible resolution for musicians. Furthermore, jury-centric evaluations of similarity that contribute to the unpredictable nature of litigation outcomes are preserved in these propositions.

In contrast, some scholars have suggested alternative infringement models that reduce, and even eliminate, the participation of non-expert lay listeners. Other scholars have proposed the adoption of a pre-Arnstein process, where experts may comment not

only on matters of probative similarity, but also on matters of improper appropriation, leaving the judge to make the ultimate determination of infringement based on all the evidence presented by experts.\textsuperscript{755} Other solutions have included the exploitation of Rule 706 by using court-appointed experts to reduce partiality and standardize analyses,\textsuperscript{756} as well as the institution of a specialized copyright court. Scholars have offered different structures to this court, including a court with specialized fact-finders and national jurisdiction,\textsuperscript{757} a “musically-educated temporary magistrate,”\textsuperscript{758} and a three-person “specialized musicology tribunal.”\textsuperscript{759} One commentator has included a jury of the “intended audience” outside the strictures of the \textit{Krofft} test as alternative formulation of expert-only approaches.\textsuperscript{760}

“Expert-only” alternatives take issue primarily with the lack of qualification among non-expert listeners, despite there being only one study to date that empirically demonstrated the perceptions of non-expert jurors as different from experts, and as superficial in evaluating musical similarity.\textsuperscript{761} Beyond constitutional issues denying the right to a jury, there are practical issues with “expert-only” solutions, such as equipping

\textsuperscript{756} E. Scott Fruehwald, “Musical Compositions,” 43.
\textsuperscript{757} Michael Landau and Donald Biederman, “The Case for a Specialized Copyright Court: Eliminating the Jurisdictional Advantage,” \textit{Hastings Communications and Entertainment Law Journal} 21 (Summer 1999).
\textsuperscript{758} Fruehwald, “Musical Compositions,” 43.
\textsuperscript{760} See Austin Padgett, Note, “The Rhetoric of Predictability: Reclaiming the Lay Ear in Music Copyright,” \textit{Pierce Law Review} 7 (December 2008), 137 (citing Grinvalsky).
\textsuperscript{761} Jamie Lund, “An Empirical Examination of the Lay Listener Test in Music Composition Copyright Infringement,” \textit{Virginia Sports and Entertainment Law Journal} 11 (Fall 2011) (finding that non-expert participants would hear similarity more often among paired recordings that were performed similarly with regard to key, timbre, and instrumentation, than when the same recordings were performed differently).
hypothesised triers of fact so that they are equally prepared to make legal determinations as they would be to produce expert analyses. Furthermore, these solutions disregard the economic arguments by ignoring the role of lay listeners as market participants. These expert-only approaches only serve to heighten the analytical precision of similarity analysis without resolving problems caused by the subjective evaluations of non-expert triers of fact.

The problem with all of these propositions is that they locate the cause of subjectivity and unpredictability in the skills of the people involved, namely, the jurors or the experts. As history demonstrates, the problem has more to do with the unavoidably fact-specific nature of the similarity inquiry and the complexities of musical comparison. On the one hand, removing experts from the process would not only perpetuate unpredictable outcomes, but it also could result in outcomes that unfairly represent the music at issue. On the other hand, removing lay listeners and replacing them with experts as decision-makers would likely do more to separate copyright law from its underlying economic policy and increase the analytical precision of similarity analysis than it would to resolve problems with unpredictable outcomes.

Still other scholars have argued for dispensing with current infringement analysis in favor of entirely different models that are in various ways clearer or more meaningful. These arguments and alternatives attempt to resolve what appears to be a conflation of similarity with misappropriation by proposing entirely new legal procedures. One strain of scholarship argues for the integration of criteria used in the fair use defense to extend

762 See generally Lund.
over infringement analysis. Another proposition seeks to replace “similarity” with “harm,” such that courts determine whether the plaintiff has suffered substantial harm by the defendant’s allegedly infringing acts. A third scholar has recommended eliminating a “one-size-fits-all” approach to similarity analysis across categories of expressive works, instead calling for a test that accounts for the “possible amount of expressive variation that the author of the work has available to her.”

Each of these alternatives have shortcomings, but together, none of them adequately outlines how evidence would be introduced or evaluated under each proposed tests. Instead, they reconceive of infringement as something other than a problem of similarity. For this reason, these alternatives have the potential to resolve the problems caused by similarity, but would likely do more to trade those problems for others than to offer any meaningful resolution to existing issues.

Musicological Solutions to Similarity

Contemporary processes for determining copyright infringement are intensely fact-driven and lead to unpredictable outcomes. Recent legal scholarship observing the outcomes of copyright infringement cases has demonstrated that no existing test results in favorable decisions for one party or the other, regardless of the relationship between

experts and non-experts.\textsuperscript{766} This situation is due at least in part to the structure of the Arnstein test, which serves as the model for later tests that have developed.\textsuperscript{767} Despite the idiosyncrasies of each test, which place varying emphasis on the contributions of experts, every test relies on experts to contribute an acute understanding of musical similarity. As a result, another point of discussion in copyright reform involves the criteria and methods by which experts and courts should evaluate similarity.

With the variety of available analytical techniques and the breadth of legal tests, determining legally-recognized conditions for musical expert analysis has challenged courts, scholars, and experts. “Music, like software programs and art objects, is not capable of ready classification into only five or six constituent elements; music is comprised of a large array of elements, some combination of which is protectable by copyright.”\textsuperscript{768} Copyright treatises and courts have disagreed as to the musical features that expert analysis should consider. “[C]ourts have taken account of additional components of musical compositions, including melody, harmony, rhythm, pitch, tempo, phrasing, structure, chord progressions, and lyrics.”\textsuperscript{769} These treatises have disagreed, however, suggesting that “a musical work consists of rhythm, harmony and melody--and that the requisite creativity must inhere in one of these three.”\textsuperscript{770}

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\textsuperscript{766} Kevin Hickey, “Reframing Similarity Analysis in Copyright,” \textit{Washington Law Review} 93 (2016) (forthcoming). But see Irina D. Manta, “Reasonable Copyright,” \textit{Boston College Law Review} 53 (September 2012), 1308. (“[t]here is a dearth of empirical research in the area of the substantial similarity test, which makes conclusive determinations about judges’ and juries’ decision making more speculative”).


\textsuperscript{768} Swirsky v. Carey, 376 F.3d 841, 849-50 9th Cir. 2004).

\textsuperscript{769} \textit{Swirsky}, 376 F.3d at 849.

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History reveals an expert analytical emphasis on melody, followed by harmony, rhythmic profile, and formal structure. Only rarely do experts address issues of voicing, instrumentation, and timbre, with the exception of recent cases. Part of this emphasis is undoubtedly driven by the nature of the musical features addressed a plaintiff’s initial complaint and sometimes in part by an expert’s partiality. Another contributing factor may be the stylistic idiom of the music, which might be melocentric, as is often the case for Tin Pan Alley songs in cases like *Arnstein v. Porter*, or rely heavily on rhythmic grooves, as has been the case for digital sampling cases and the funk-inflected R&B hits in cases like *Williams v. Bridgeport*. The gradual cumulation of cases, expert testimony, and judicial opinions has contributed to legal and analytical emphasis on these musical elements, even to the exclusion of others, but does not avoid or resolve these issues of musical analysis.

Musicologists have attempted to contribute to this dialogue by offering various best practices or criteria for similarity analysis. One scholar has suggested that expert analysis should identify “temporal segmentations, separation of parameters, and hierarchical reductions of each work followed by subject-matter comparison, formal comparison, functional comparison, and temporal comparison,” and that an expert must focus most exclusively on the aural manifestation of music as the material perceived by non-experts. Based on these criteria, courts should establish “recognized standards

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771 M. Fletcher Reynolds, “Music analysis for expert testimony in copyright infringement litigation” (Ph.D. diss., University of Kansas, 1991), 515. In his dissertation, Reynolds offers extended discourse on each of these terms.

772 Reynolds, “Music analysis,” 512 (“Music can be understood only aurally”).
of analysis,”773 that would supposedly provide guidance to the first-time expert as to their role. Members of the Audio Forensic Center have made similar arguments for setting out common analytical criteria.774

Another scholar has argued that not only is it possible to quantify the extent of similarity between musical works, but that this method, based on a “weighted model of similarity adapted from Typke et al’s Proportional Transportation Distance,”775 is “a good general indicator of [predictability, or] the likelihood of a finding of copyright infringement.”776 Another scholar has suggested the adoption of a rule that requires musical experts to only use “traditional music notation in a reduced score,”777 thereby controlling graphical analyses and the information conveyed to factfinders, along with requiring a “brief tutorial” for the jury so that they can rapidly interpret these analyses.778 Other expert information under this proposition would be restricted under the Federal Rules as inadmissible.779

The implication of these recommendations is that experts, and potentially even courts, should adopt certain analytical methods or techniques to use across music copyright litigation in an effort to standardize the analytical process. While treatises, as well as some court decisions and experts, have made suggestions toward what analyses should include, they amount to legal codifications of a “standard musicological

776 Laroche, “Quantitative Measure,” 41.
procedure.” This codification would be potentially detrimental to future music copyright litigation. As digital sampling has demonstrated, there is no way to predict changes in creative process or stylistic idiom in nascent musical styles and genres. As a result, adopting a standard way to conduct musical analysis would simply create more problems, causing courts to revise their criteria for each new style and parties strategically arguing that their music does not readily align with codified analytical criteria.

Another problem with these proposed methods is that they ascribe a latent quality to similarity. Applying a mathematical formula best suited to predicting similarity assumes that most music is constructed with the same elements that serve as variables and that points of similarity would be fundamentally the same between any two given pieces of music. Likewise, “best practices” assume that one analytical method is better at locating similarity than any other. The history of musical expertise, and the variability in the nature of similarity from case to case, shows that similarity actually it emerges from contested space particular to the music at issue and is discovered according to comparisons located with analytical techniques suited to the music itself.

Although court-“recognized standards of analysis”780 or “standard musicological procedures” reach too close to the narrow boundaries of best practices, it is possible for musicologists to dialogue regarding their analytical techniques and to at least agree on analytical techniques specific to each case. For example, as occurred among experts in Tisi v. Patrick,781 experts could agree to the musical contours of analysis and then provide their conclusions to each party. While this collegial approach to the role of musical expert

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780 Reynolds, “Music analysis,” 518 (calling for standards of analysis recognized by courts for experts).
781 See Chapter 6 above.
witness would seem to be an ideal solution, partisan affiliations would likely make it impractical. These conversations could likewise work to bridge conceptual gaps between experts and non-experts and to better assist the decision-making process.

Expert witnesses alone cannot make copyright cases more consistent or predictable. These problems stem not from the triers of fact, witnesses, or even parties involved, but rather from the nature of the similarity inquiry and the particular music at issue. They arose at the beginning of music copyright litigation in the nineteenth century and have endured through multiple changes in copyright statute, the legal process for evaluating infringement, and shifts in expert analytical techniques. Reconceiving of the root cause for these issues may bring about new opportunities for resolution in which experts may play an essential role. Embracing the fact-specific, emergent nature of the similarity inquiry invites a reconsideration of the restrictions placed on the role that experts played, which has the potential through further study to reveal more suitable solutions to current issues in copyright litigation.

**Negotiating the Blurred Lines of Musical Identity**

The history of musical expertise in copyright infringement litigation reveals the complexities of role that musical expert witnesses play. Acting as intellectual property surveyors, musical experts conduct analyses that survey the shared boundaries between pieces of music contested through the legal similarity inquiry by demarcating points of musical similarity and difference. History demonstrates that judicial skepticism toward
fact-finding and expert testimony, coupled with disconnects between expert and non-expert perceptions of music and policy concerning copyright, the extent to which experts can be helpful to the court are limited. Changes in contemporary legal approaches to similarity analysis threaten the future legal relevance of the musical expert.

These increasing constraints on experts raise concerns for future copyright litigation. The historical study of musical expertise demonstrates that musical experts are essential to the decision-making process. They offer critical, albeit at times mystifying, insight into musical similarity and aid non-expert triers of fact in evaluating relevant evidence that more acutely compares the music at issue in each case. The reduction of expert contributions, while appealing to policy concerns regarding the economic purposes and jurisprudential skepticism toward sources of facts and evidence, may have dire consequences on the future of copyright litigation for music. Only further study will reveal resolutions to this problem, potentially through reconceiving the role of the musical expert.

Despite the contemporary legal situation for musical experts, they serve an important public function in their contributions to copyright litigation. With specialized knowledge regarding music theory and culture, musicologists in effect negotiate legal boundary lines of musical identity to assist non-experts in understanding the emergent, and therefore particularized, nature of musical similarity. Thus, musicologists have the ability to influence jurors and the outcome of copyright decisions that would impact the future of copyright litigation. It is through this greater understanding of their role, cultivated at least in part through historical study, that musical experts will be able to
more effectively clarify the, indeed, blurred lines that join and separate so many works of music.
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Appendix A: Glossary

Short of providing an exhaustive or authoritative treatise on matters of federal civil procedure or music theory, this appendix is intended to serve as a quick reference guide to readers. Terms contained in this glossary are used prominently in the text, with their first appearance marked by an asterisk.

Affidavit: a written sworn statement.

Affirm: when an appellate court confirms the decision of a district court.

American Judicial System: arranged similarly to the legislative system, in accordance with federalist principles, into federal and state court systems. For civil cases, as opposed to criminal cases, the federal court system must have jurisdiction, or the power to hear a legal action. A federal court has jurisdiction over issues arising out the U.S. Constitution or federal laws, called federal question or subject matter jurisdiction, or based on the status of the parties in the action, called diversity jurisdiction. Thus, infringement actions under federal copyright law would be heard in federal courts, who would have jurisdiction to hear the case.

Federal courts are arranged in a three-tiered system: district courts, appellate or circuit courts, and the U.S. Supreme Court. As of 2015, there are 94 district courts, with

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at least one district court in each state, twelve circuit courts, and one U.S. Supreme Court, the court of final appeal.

Thus, decisions handed down from each court are binding on cases heard within that court’s jurisdiction. By way of example, a decision given by the Southern District of New York would be binding on cases heard within the district; a decision of the Ninth Circuit would be binding on cases heard within the Ninth Circuit’s jurisdiction, including all district courts whose decisions would be appealed to the Ninth Circuit. In different appellate courts on the same issue create what has been called a “circuit split,” that can only be resolved by the Supreme Court offering its own binding opinion. In the event of a circuit split, the precedent within the jurisdiction hearing the case is binding, but the alternate precedent may be used as persuasive authority by attorneys to attempt to influence a change in their own circuit.

American courts operate under the adversarial system, such that two parties present their cases and a designated fact-finder who must decide the legal questions of fact presented to them. In order to establish a stronger case, each party presents a legal precedent in their favor as well as evidence, including testimonial evidence from lay and expert witnesses, to establish their factual supremacy in the case.

**Appellate, or Circuit, Court:** appellate courts serve to review the decisions of district courts. If a party wishes to appeal the decision of the district court within a certain circuit court’s jurisdiction, they would do so by filing an appeal with that circuit court, and parties proceed through a similar procedure at the appellate level, where a panel of three
judges reviews the evidence collected and decision made by the district court. In some cases, the decision is reviewed *en banc*, or by the entire bench.

Circuit court decisions can be said to be appealed to the U.S. Supreme Court, as the highest court or court of last resort. This court can review any federal decision by first granting or denying *certiorari*, meaning the opportunity for a case to be heard by the Supreme Court. To date, it is relatively rare for a federal copyright case to be granted *certiorari*.

**Declaratory Judgment**: preventative legal decision clarifying uncertainty regarding rights.

**District, or Trial, Court**: District courts serve as the trial courts, or the courts that initially hear an action and issue a judgement. In the context of federal copyright infringement cases, these lawsuits would be heard by federal district court. Each case begins with at least one plaintiff filing a complaint with the district court against at least one defendant. In the context of most federal copyright cases, the complaint would allege that the defendant unlawfully infringed on the plaintiff’s copyright to a protected work. The defendant may respond with an answer or a motion, and the action proceeds following rules established in the Federal Rules of Civil Procedure. During this pre-trial phase, parties will collect evidence to make their own case and possibly reach discovery, where they may seek to obtain evidence from the opposite party. It is during this pre-trial phase that expert affidavits, depositions, and reports are usually collected. Although most cases will reach a conclusion before reaching the trial stage, or a settlement, few cases go to trial.
Deposition: the sworn statement of a witness made outside of the courtroom.

Docket: the document that records the actions and documents filed in a lawsuit.

Hearsay: an out of court statement offered to prove the truth of the matter asserted. The Federal Rules of Evidence (FRE) Section 8 manages the contours and exceptions of hearsay evidence.

Lead Sheet Notation: a method musical notation relevant to popular music in which only the melody, lyrics, and harmonies are noted.

Motion for Summary Judgment: motion filed by either party requesting the court make a ruling that one or the other party does not have a case because there is no genuine issue of material fact. Since its enactment in 1938, these motions have been managed under Federal Rule of Civil Procedure 56.

Motion to Dismiss: motion filed usually by for the court to dismiss the court, for any number of reasons, including but not limited to, settlement, failure to state a claim, or lack of jurisdiction. Since its enactment in 1938, these motions have been managed under Federal Rule of Civil Procedure 12.

Pentatonicism: use of only degrees 1, 2, 3, 5, and 6 in the common major-diatonic scale.

Prima Facie: By first impression or “first face,” the elements of a claim that a plaintiff must first allege in a case.

Question of Fact: An issue raised at trial about whether an act or event occurred, to be determined by a jury.

Question of Law: A legal issue raised at trial to be determined by the judge.
**Reductive Analysis**: broad term used describe analytical techniques, to varying extents rooted in Schenkerian-influenced musical theory, that treats music as an object comprised of nested layers of material to be discovered through the process of analysis. As applied, these techniques usually involve removing layers in order to discover a more foundational musical structure and idea.

**Remand**: when an appellate court sends a case back to the district court with instructions for a new trial.

**Reverse**: when an appellate court overrules the decision of the district court.

**Roman-numeral analysis**: use of roman numerals to label tonal harmonies.

**Sampling**: selections of a sound recording that is repurposed in a different recording.

**Solfege**: a syllable system used to aid discussion and study of pitch relationships.

**Syncopation**: rhythmic beat displacement to weak beats.

**Testimony**: a witness’s sworn statement, given either orally or in writing.

**Triers of Fact**: judge or jury responsible for making the decision in a case.
Appendix B: Cases Cited

<table>
<thead>
<tr>
<th>Date</th>
<th>Case</th>
<th>Citation</th>
<th>Docket</th>
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<tr>
<td>1845</td>
<td>Reed v. Carusi</td>
<td>20 F. Cas. 431 (C.C.D.Md. 1845)</td>
<td>11, 642</td>
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<td>1850</td>
<td>Jollie v. Jaques</td>
<td>13 F. Cas. 910 (C.C.S.D.N.Y. 1850)</td>
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<td>1887</td>
<td>Blume v. Spear</td>
<td>13 F. Cas. 910 (C.C.S.D.N.Y. 1887)</td>
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<td>1898</td>
<td>Broder v. Zeno Mauvais Music Co.</td>
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<td>12,193</td>
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<td>1910</td>
<td>Hein v. Harris</td>
<td>175 F. 875 (C.C.S.D.N.Y. 1910)</td>
<td>66</td>
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<td>1923</td>
<td>Edward B. Marks v. Leo Feist</td>
<td>290 F. 959 (2d Cir. 1923)</td>
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<td>1936</td>
<td>Arnstein v. Edward B. Marks Corp.</td>
<td>82 F.2d 2775 (2d Cir. 1936)</td>
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<td>Allen v. Walt Disney</td>
<td>41 F. Supp. 134 (S.D.N.Y 1941)</td>
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<td>1943</td>
<td>Arnstein v. Broadcast Music, Inc.</td>
<td>137 F.2d 410 (2d Cir. 1943)</td>
<td>247</td>
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<td>1943</td>
<td>Arnstein v. Twentieth Century Fox Corp.</td>
<td>3 F.R.D. 58 (S.D.N.Y. 1943)</td>
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<td>1946</td>
<td>Arnstein v. Porter</td>
<td>154 F.2d 464 (2d Cir. 1946)</td>
<td>29-754</td>
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<td>1946</td>
<td>Heim v. Universal Pictures</td>
<td>154 F.2d 480 (2d Cir. 1946)</td>
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<td>1948</td>
<td>Baron v. Leo Feist</td>
<td>78 F. Supp. 686 (S.D.N.Y. 1948)</td>
<td>30-112; 21189 (No. 138)</td>
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<tr>
<td>1952</td>
<td>Northern Music Corp. v. King Recording Corp.</td>
<td>105 F. Supp. 393 (S.D.N.Y. 1952)</td>
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Table 3: Music Copyright Cases Referenced
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<tr>
<td>1953</td>
<td>Overman v. Loesser</td>
<td>205 F.2d 521 (9th Cir. 1953)</td>
<td>13159</td>
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<td>1956</td>
<td>Whitol v. Wells</td>
<td>231 F.2d 550 (7th Cir. 1956)</td>
<td>11497</td>
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<td>1957</td>
<td>Cholvin v. B&amp;F Music Co.</td>
<td>253 F.2d 102 (7th Cir. 1957)</td>
<td>12043</td>
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<td>1967</td>
<td>Packson v. Jobete Music</td>
<td>[not reported]</td>
<td>28687</td>
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<td>1978</td>
<td>Plymouth Music Co. v. Magnus Organ Corp.</td>
<td>20 F. Supp. 676 (S.D.N.Y. 1978)</td>
<td>75 CV 2670</td>
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<tr>
<td>1984</td>
<td>Selle v. Gibb</td>
<td>741 F.2d 896 (7th Cir. 1984)</td>
<td>83-2484, 83-2545</td>
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<tr>
<td>1987</td>
<td>Baxter v. MCA, Inc.</td>
<td>812 F.2d 421 (9th Cir. 1987)</td>
<td>84-6522</td>
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<tr>
<td>1990</td>
<td>Dawson v. Hinshaw Music, Inc.</td>
<td>905 F.2d 731 (4th Cir. 1990)</td>
<td>89-2643</td>
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<td>2004</td>
<td>Newton v. Diamond</td>
<td>388 F.3d 1189 (9th Cir. 2004)</td>
<td>02-55983</td>
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<td>2004</td>
<td>Swirsky v. Carey</td>
<td>376 F.3d 841 (9th Cir. 2004)</td>
<td>03-55033, CV 0009926</td>
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Table 3 Continued

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<tr>
<td>2005</td>
<td>Bridgeport Music, Inc. v. Dimension Films</td>
<td>410 F.3d 792 (6th Cir. 2005)</td>
<td>02-6521, 03-5738</td>
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<tr>
<td>2006</td>
<td>Bridgeport Music v. Combs</td>
<td>507 F.3d 470 (6th Cir.)</td>
<td>Jun-94</td>
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<td>2009</td>
<td>Brainard v. Vassar</td>
<td>M.D. Tenn.</td>
<td>3:07-0929</td>
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<td>2009</td>
<td>Steele v. Turner Broadcasting System</td>
<td>646 F. Supp. 2d 185</td>
<td>No. 08-11727-NMG</td>
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<td>2011</td>
<td>Saregama India Ltd. v. Mosley</td>
<td>635 F.3d 1284 (11th Cir. 2011)</td>
<td>10-10626</td>
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<tr>
<td>2015</td>
<td>Copeland v. Bieber</td>
<td>789 F.3d 484 (4th Cir. 2015)</td>
<td>14-1427</td>
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Table 4: Other Copyright Cases
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<td>1930</td>
<td>Nichols v. Universal Pictures Corp.</td>
<td>45 F.2d 119 (2d Cir. 1930)</td>
<td>Copyright</td>
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<td>1970</td>
<td>Roth Greeting Cards v. United Card Co.</td>
<td>429 F.2d 1006 (9th Cir. 1970)</td>
<td>Copyright</td>
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<td>1977</td>
<td>Sid and Marty Krofft Television Product., Inc.</td>
<td>526 F.2d 1157 (9th Cir. 1977)</td>
<td>Copyright</td>
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<td>1979</td>
<td>Mitchell Bros. Film Group v. Cinema Adult Theater</td>
<td>604 F.2d 852, 855 (5th Cir. 1979)</td>
<td>Copyright</td>
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<tr>
<td>1990</td>
<td>Shaw v. Lidheim</td>
<td>908 F.3d 531 (9th Cir. 1990)</td>
<td>Copyright</td>
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<tr>
<td>1996</td>
<td>Country Kids 'N City Slicks, Inc. v. Sheen</td>
<td>77 F.3d 1280 (10th Cir. 1997)</td>
<td>Copyright</td>
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<td>2001</td>
<td>Boisson v. Banian, Ltd.</td>
<td>273 F.3d 262, 272 (2d Cir. 2001)</td>
<td>Copyright</td>
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Appendix C: Sources of Research

While conducting research at the intersection of musical and legal histories raises many common problems, especially inconsistencies in the availability of primary sources, there are differences in the ways that researchers approach their sources. In musicology, sources are treated much the same way that they might be treated in any other humanities field. In law and legal scholarship, however, there are a variety of sources that are valued somewhat hierarchically and categorized differently than humanities scholars might be accustomed. As this dissertation demonstrates, intersectional research into music and copyright law confronts such issues with source material.

The primary sources of law are statutory law, drafted and enacted by state and federal legislatures, and common law, drafted through judicial opinions from individual court cases that interpret statutes. The interaction between legislative and judicial bodies results in a perpetual process of defining, interpreting, and redefining statutes. Statutes may be amended through subsequent legislation, and opinions can be distinguished or overturned by courts. Opinions can also be superseded by revised statutes, too. As a result, what most individuals outside the legal profession think of broadly as “the law” is intricate and can change rapidly, making it difficult to keep track of judicial precedents and inter-branch revisions.

Online public records’ databases, most notably PACER, as well as legal research database juggernauts produced by Westlaw, LexisNexis, and Bloomberg, and others, aid
in the process of tracking contemporary legal happenings by providing comprehensive access to case opinions and legal scholarship, but there are problems only beginning with limited access to non-legal scholars. For all that these databases do provide, reliance in law on the most up to date sources has resulted in a detriment to historical records, many of which would be considered superseded and therefore limited in their relevance. As a result, many historical records do not appear on these legal databases. Furthermore, these databases only sometimes include collections of litigation documents outside court orders and filed motions, such as expert reports or transcribed testimony. What documents are included are inconsistent across each database. In the absence of online accessibility, some of these litigation records may be retained by the court itself or national archive facilities, but often they are hidden in private archives or may simply have been excised over the passage of time.

Music copyright specialists from various disciplines have the particular advantage of a relatively complete online collection of extant judicial opinions, thanks to the law schools at Columbia and USC, who teamed up to create a comprehensive list of music copyright case materials, including the opinions, sheet music images and MIDI recordings of the relevant music.\footnote{“Music Copyright Infringement Resource,” USC Gould School of Law, last accessed January 28, 2016, http://mcir.usc.edu/} While the resource is invaluable, evaluation of the opinions can be treacherous without a full understanding of the methodologies behind legal research, reasoning and litigation.

Researchers will also examine the legislative history of a statute or the court records from a lawsuit. Although these records are not legally binding, they do provide valuable insight into the process of preparing the resulting statute or opinion. While
statutes and opinions are published and relatively easy to access, the same cannot be said for congressional or court records. The congressional records that outline statutes at the state and federal levels are relatively intact and can be found with relative ease, the same cannot be said of court records. Judicial opinions were not systematically published until the late nineteenth century with the founding of West Publishing. Thus, some, but not all, opinions are actually available. Likewise, it was uncommon for detailed records, including pleadings, trial transcripts, and some kinds of evidence, to be kept for older cases. Even progressing through history, each court had its own system for records retention and disposal, which not only varied between courts but varied in one court itself over time. Furthermore, because most cases are resolved through out-of-court settlement, thereby leaving little, if any, public record of the dispute.

As a result, it can be a challenge just to find historical cases, let alone locate even partial records. Although the decisions from these cases and more recent court documents, including those from approximately the 1990s to the present day, are mostly available online through legal databases like Westlaw and PACER, older documents often can only be found in Federal Records Centers, National Archive and Records Administration facilities, or in custody of the deciding court, depending on the age of the documents.

Secondary sources, including journal articles, books, and treatises can also be illustrative. In particular, treatises on broad legal subject areas, usually prepared by prominent legal scholars, synthesize the most relevant and up-to-date cases decisions into best practices for attorneys and are therefore a valuable resources. Thus, while treatises are not the best legal citation because they are not binding law, they do provide a
valuable bringing together of the citable law. The most highly regarded treatises are often updated when new case law is handed down, thereby making older editions obsolete to legal practitioners and scholars. When multiple editions of the same treatise is available, these treatises provide an encapsulated view of legal evolution.

Table 5 below presents an overview for considering the kinds of sources used in musical-legal research. It provides a practical organization to the types of sources and how they are treated in research. For the purposes of the chart, the hierarchy of sources in law is analogized to primary and secondary sources as understood in humanities research. For sources of law, a primary source is understood as binding or persuasive authority, depending on the matter and jurisdiction, while a secondary source is treated as non-binding sources that a judge might consult. The table is by no means exhaustive or precise, instead offering a quick reference for readers unfamiliar with sources typically used by researchers in each discipline.

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<td>sources of law</td>
<td>oral histories</td>
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<td>oral histories</td>
<td>period publications</td>
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<td>administrative regulations</td>
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Table 5: Common Sources for Musical and Legal Research