

# Histories and Narratives of Music Analysis



# Histories and Narratives of Music Analysis

Edited by

Miloš Zatkalik, Milena Medić and Denis Collins

**CAMBRIDGE**  
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**P U B L I S H I N G**

Histories and Narratives of Music Analysis,  
Edited by Miloš Zatkalik, Milena Medić and Denis Collins

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## PREFACE

The phenomenon of music assumes countless forms of expression and a vast range of meanings, rendering it impossible for a single history or a single grand narrative to encompass its innumerable aspects. This very recognition of the fertility of musical phenomena weaves an intricate web of readings and interpretations, revealing music analysis as a contextual and above all, a creative act. Inherent decentricity of analytical insights into music does not, however, imply only a new passage through already well-trodden paths: it has also prompted the discipline to expand beyond its boundaries and assimilate change and difference. Music analysis itself is being redefined within and by means of these newly opened realms. Provided with such interdisciplinary underpinnings, music analysis is empowered to reconfigure and redefine the essential corpus of knowledge pertaining to the science of music. As a result, even “minor truths” and “local” narratives and discourses become legitimate, while plurality and difference acquire new value.

This value confirms that the historical knowledge of music is not a fixed body of facts, but an evolving practice that continually reassesses the musical past. From this point of view, the history of music can be examined not only as a history of styles, genres, compositional procedures, theoretical speculations, social and institutional interactions between musicians and music, and so on. It can also be examined as an expression of movement and transformation of the musical-analytical mind. To be able to comprehend the tendencies of dominant musical-analytical concerns we have to understand historical conditions and processes. Conversely, we cannot understand the directions of historical processes if we are not aware of the changes and transformations of the musical-analytical mind.

The history of music analysis can only exist in a mode of plurality because it reveals the multitude of narrative explanations of musical phenomena, whether it is the analyst who brings narrative to musical objects, or the narrative is the constituent of music analysis by which that analysis narrates the possible sense of music. Consequently, the narrative becomes an important and powerful tool for rethinking music. It may have the formative role of prototext, pretext, subtext, intertext, context or metatext, probing with

each subsequent step deeper into the strata of musical meaning. Regardless of whether it is articulated explicitly or implicitly, based on history or free from historical “contamination,” the narrative may (methodologically) determine and (theoretically) predetermine the type of analytical questioning.

Creative pluralism and difference in the ways in which analysis pervades music histories and narratives is the main thread running throughout the present volume. It brings together music theorists, musicologists and composers from across the globe to explore, discuss and challenge existing and new approaches to historical and theoretical parameters of the field in order to map the (inter/intra)disciplinary landscape of music analysis, its discourses, practices and methods. The musical materials considered in this book range from Medieval manuscripts (both Western European and Byzantine), Renaissance polyphony, Baroque and Classical formal structures, Romantic harmony, to twentieth-century classics to avant-garde instrumental theater. The intradisciplinary aspect of the book embraces a plethora of analytical strategies, such as the theory of formal functions, Schenkerian analysis, neo-Riemannian and set-theoretical approaches. On the interdisciplinary side, we are offered gestural and narratological perspectives, and we discover how linguistics, cognitive psychology, psychoanalysis or physics can lend their good services to music theory.

The essays of the first section, “Sources and Structures in Early Music” encompass reevaluations of paleographical methodologies, historical-analytical inquiries into Renaissance contrapuntal and harmonic structures, and reevaluations of music-textual relationships. The critical orientation of these investigations tends towards new analytical methodologies and interpretations.

In the second section, “Musical Narrativity/Performativity,” the focus shifts at first to narrativity in music and narratological analysis of music according to the concepts of narrative (as story, plot, discourse), of topic and isotopies. In Chapter Ten, a computer program is shown as narratologically productive in its application on structuralist narrative analysis in order to represent formal functions in a musical work. This section of the book also considers rhetorical gestures in music and their role in the process of comprehending and interpreting the flow of music. In the last two chapters of this section, the emphasis is on performativity of/in music. Creative interaction between the graphic score and performer is demonstrated through an analysis of avant-garde works such as are encountered in instrumental theater.

Returning to histories of tonal and post-tonal practices in the third section, “Tonal and Post/Tonal Histories,” the essays consider different levels of musical structure (formal, tonal, syntactic) as well as new horizons in

the creative process. These considerations are spread along three distinct lines, of which the first is centered on the blending of Baroque and Classical forms, while the second deals with the differentiation of formal units dependent not on melodic-motivic content but on harmonic and tonal processes. In the third line, the building blocks of musical syntax are examined in order to pinpoint the characteristic features of an individual composer's style. The second of these three lines presents a historical process whereby the hierarchically ordered monotonal space is gradually distorted by the pairing of two keys in a double-tonic complex. The maximally smooth cycle of pentatonic collections deepens further the tonal space. Chromaticism progressively undermines the forces responsible for the hierarchical organization of music as chromatic harmonic practice effectively becomes the "second practice" of tonality in the late nineteenth century. This line of investigation continues with the recognition of functional harmonic elements that are still present in early post-tonal music alongside octatonic collections and other post-tonal materials. The third line of enquiry is related to the treatment of a musical score as linguistic trace with the application of a morphemic methodology in music analysis. Using a similar methodological approach, the last chapter of the section explores the use of references from musical past as a form of metalanguage in which music history is the object of language.

The essays of the fourth section, "From Speculative to Practical," deal with both speculative and practical approaches to regulative traditions of tonal spaces (pitch, scale, harmonization). The first chapter in this section starts from a seemingly insignificant linguistic quibble over the precedence of the terms "tone" and "semitone" and draws far-reaching conclusions about the evolution of the tone system from Ancient Greek theory to Medieval to modern times. The tone system is affirmed as fundamentally dodecatonic; the concept of the heptatonic scale and the dichotomy between *musica ficta* and *musica vera* is exposed as fallacy. In Chapter 25, the tonal space is initially established on the basis of the Indian *Shruti* system; sophisticated mathematical and physical procedures and physiological data are invoked in the search for an absolute scale. Thus, the imperative of methodological pluralism is complemented by a quest for a universal framework wherein the general tonal space can be constituted. Finally, the practical side of the fourth section receives its full expression in Chapter 26, which demonstrates how harmonization – if it aspires to be the ultimate goal of the development of good practical skills – requires strategic creative planning reaching beyond the realm of part-writing and analysis.

Creative planning of composition may be conditioned by some composers' colour-hearing experience of music. The correlation between sound-

colour associations and complex compositional techniques has gained increased attention in recent neuroscience research. Current tendencies towards shaping a theory of musical emotions draw upon empirical findings and cognitive psychological methodologies for investigating emotional responses to strongly emotion-inducing music. Both synaesthetic and emotional responses to music, as a kind of aesthetic experience, are related to subjective reality, and, consequently, belong to unconscious psychic processes. Music is highly saturated with the deepest and most archaic layers of the unconscious mind, and the last chapter of the book reinforces this fact by pointing to the isomorphism between the products of the unconscious psyche and the structure and function of organized sound. This completes the theoretical-analytical trajectory of the final section of the book, leading from synaesthetic cognition and perception to unconscious reflection.

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The wide scope and interdisciplinary character of this book makes it impossible even for three editors to possess expertise in every field engaged herein. We therefore acknowledge valuable contributions from Professor Blanka Bogunović of the Faculty of Music, University of Arts in Belgrade, for her insightful reading of psychology-related articles, and to Jovan Zatkalić, retired professor of the Faculty of Electrical Engineering, University of Belgrade, for clarifying certain points from the domain of mathematics and physics.

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## Part I

### Sources and Structures in Early Music





## CHAPTER ONE

# A CRITICAL EXAMINATION OF VERBULA IN THE BERKELEY MANUSCRIPT

CHELSEY HAMM

The Berkeley manuscript first became available to scholars in 1965, when the University of California at Berkeley acquired it on November 30 of that year. It had been part of the Phillipps Collection in England until Sothebys of London offered it for auction. The manuscript contains five treatises that pertain to chant, modal theory, counterpoint, discant, mensural notation, tuning, and speculative matters. All of the treatises survive in at least one other source, though no single source contains all of the material found in the Berkeley Manuscript. The manuscript is unique in that it was probably conceived as a unified whole rather than as a collection of several independent treatises with no apparent relation; the author claims to be the same throughout the manuscript and employs connecting material between the treatises.

According to Richard L. Crocker in his announcement of the university's acquisition, the manuscript seems to have had no additions after it was written:

There are no marginal inscriptions or other posterior additions to the MS. The numerous diagrams, the drawings of instruments, the musical examples, all seem to have been made at the time of writing the body of the text. Even the two musical pieces... seem to have been part of the original composition of the MS—in other words not posterior additions.<sup>1</sup>

Crocker, however, believes that the fourth and fifth treatises were probably an “afterthought,” though not a “disassociated one.”<sup>2</sup> Oliver B. Ellsworth, who prepared a critical edition of the manuscript, agrees with Crocker, affirming that “the appearance of the manuscript suggests that all the material was written at the same time.”<sup>3</sup>

Scholars have been plagued by the Berkeley manuscript's numerous anachronisms and unique terminology since it first became available for study. In addition to Ellsworth and Crocker, Bonnie Blackburn, Anne Stone, and Klaus-Jürgen Sachs have examined the Berkeley manuscript, answering many questions about this important document. One term, however, appears in the Berkeley manuscript that has not been thoroughly explored: *verbula*. Indeed, as Anne Stone states: "To my knowledge, no one has explored this interesting word [*verbula*]." <sup>4</sup> In this paper, I will consider the authorship of the manuscript and thoroughly examine the contents of the second treatise, in which the term *verbula* appears. I will then provide critical analyses of earlier scholarship about this word and conclude by providing a new interpretation of the term.

At the end of third treatise, a location and date appear: January 12, 1375, in Paris. Neither Crocker nor Ellsworth question the date or the location; after all, the five treatises of the manuscript appear to have been written at the same time, with no later additions. Furthermore, Crocker points out that both the handwriting and musical notation appear to be written throughout in the same hand: "a neat, 14<sup>th</sup>-century book hand of classic Gothic style and quality," supporting the notion that the treatise was written at the same time, in the same place, by the same author. <sup>5</sup>

Though scholars do not debate that the same author wrote all of the treatises of the Berkeley Manuscript, the identity of the author is highly controversial. Some passages of the manuscript have been seen as revisions of works by Johannes de Muris. Ellsworth points out that the first half of the second treatise is closely related to the *Ars contrapuncti secundum Johannem de Muris*, while the entire third treatise is an updated version of the *Libellus cantus mensurabilis secundum Johannem de Muris*. <sup>6</sup>

Ellsworth has identified several similarities between the *Libellus cantus mensurabilis* and the Berkeley manuscript; these include a similar order of topics and a likeness between definitions and formulations. <sup>7</sup> Crocker adds that the two treatises share a common reference to "Guillermus de Mascandio" or Guillaume de Machaut. <sup>8</sup> There are several substantial differences, however. The Berkeley manuscript does not quote any of the *Libellus* verbatim. The *Libellus* also has significantly more musical examples, while the author of the Berkeley manuscript more frequently employs words to describe musical phenomena. Both treatises describe the logistics of mensural notation. <sup>9</sup>

The beginning of the second treatise of the Berkeley manuscript, which deals with the rules of basic discant, is similar to the *Ars contrapuncti secundum Johannem de Muris*. <sup>10</sup> Again, the Berkeley manuscript quotes no part of the *Ars contrapuncti* verbatim, and the number of musical examples is

significantly different; furthermore, those of the *Arts contrapuncti* are notated on staves, while those of the Berkeley Manuscript are not. That the authorship of both the *Ars contrapuncti* and *Libellus cantus mensurabilis* is debated among scholars is not of concern here; whether or not the treatises were prepared by Johannes de Muris or a student possibly under his supervision does not matter because the Berkeley manuscript is not simply a copied version of these treatises.<sup>11</sup>

It seems plausible that, due to the aforementioned similarities between the Berkeley manuscript and de Muris's treatises, the author of the Berkeley manuscript had perhaps read de Muris's works, especially the *Libellus*; after all, the author states that he intends to "take up some of their [authors of other theory treatises] sayings."<sup>12</sup> On the other hand, perhaps he did not; after all, many treatises contemporary with the Berkeley manuscript contain basic information about mensural notation and discant rules. Since the ordering of the second and third treatises is systematic and logical, from basic to more complex concepts, it is plausible that two authors could have come up with such an ordering independently, though this argument is weak since there are so many overlapping similarities between the works. For now it seems as though Ellsworth's conclusion is correct: it appears likely that the second and third treatises of the Berkeley manuscript are based on the works of Johannes de Muris.

The Catania manuscript, Biblioteche Riunite Civice e A. Ursino Recupero D. 39, contains all the treatises of the Berkeley manuscript except the fourth. This manuscript includes the name of an author: "Gostaltus" or "Goscalcus francigenus," which Ellsworth thinks is a Latin version of the common name "Gottschalk."<sup>13</sup> Ellsworth questions this authorship for several reasons:

It is somewhat difficult, however, to accept this name without question, considering the late date (fifteenth century) of this manuscript and without further proof of the authority of the manuscript. The reliability of the scribe (as indicated by... misreadings...) is highly suspect.<sup>14</sup>

These arguments are sound, though several other sources accept this authorship without question.<sup>15</sup>

Two other sources identify Gottschalk as a theorist, though they were written over a century later. The *Liber musices* by Florentius de Faxolis, written in the last decade of the fifteenth century, lists "Goschalchus parisiensis" along with several other contemporary theorists.<sup>16</sup> Cristoval de Escobar cites the name "Goscalcus" in the margin of a treatise on chant.<sup>17</sup> De Escobar refers to a treatise that is possibly the Berkeley manuscript but could be a different source, since its ordering of topics is different from that

of the Berkeley manuscript. Since no contemporary source exists that cites Goscalcus as the author, it seems best to not assume his authorship of the Berkeley manuscript.

In a recent article on the authorship of the Berkeley manuscript, Christopher Page speculated that the author of the fourth treatise of this manuscript is spelled out in its opening verses. He claims that these spell out “Iohhan Vaiant,” which would identify the treatise with Jean Vaillant, a late fourteenth-century composer. Page himself is extremely hesitant about his claim, writing that “I do not wish to state that Jean Vaillant was the author of the... Berkeley Theory MS, but it seems... likely.”<sup>18</sup> The reason Page is hesitant is because of the acronym for the author’s last name. While it is true that the “Iohhan” could be found by taking the first letter of the first six lines of the treatise, the name “Vaiant” runs through the middle of the next stanza of text. Page admits that he could find no examples of internal acrostics dating from this period, though they are evident in earlier examples of Latin poetry.<sup>19</sup> Furthermore, since the fourth treatise is not included in the Catania manuscript, knowing the author of the fourth treatise would not prove anything about the authorship of the other four. For now it seems prudent to agree with Ellsworth’s conservative conclusion that “the safest course for the present is a guarded assumption of anonymity for all treatises of the Berkley manuscript.”<sup>20</sup>

The second treatise of the Berkeley manuscript, which will be my focus for the rest of this paper, pertains to the rules and elaborations of simple discant. The treatise first outlines the six species of discant, then several pages are spent illuminating the rules of moving between species—in other words, which species can move to which others and rules for parallel and similar motion. The author then states that he has “arranged the said species as follows for general clarification by examples” and provides a handy chart that designates which intervals are permitted above a given pitch. This chart is reproduced in the attached appendix as Figure 1–1.<sup>21</sup>

The chart requires a few words of explanation. The notes on the left, outlining all pitches in the Gamut, represent a lower sustained voice. The notes of the top voice are given by interval and solmization syllable. Two different hexachords, however, the hard (hexachord built on G) and the natural (hexachord built on C), are needed in order to maximize the number of notes the top voice can sing above the lower voice. The column on the left uses the G hexachord and the column on the right uses the C hexachord. For example, at the beginning of the chart, G-ut, b-mi, d-sol, and e-la are allowed above the proslambanomenos. In the right-hand column the syllables d-re, e-mi, and g-sol, all in the C hexachord, are allowed.

The second part of the second treatise pertains to florid discant. In the author's words, "it may be useful and expedient—and also pleasant—to know how to divide the syllables into parts, that is how to extend several syllables in place of one syllable in the cantus."<sup>22</sup> Before proceeding with these elaborations, the author lists and illustrates the rhythmic values of his day (maxima, longa, brevis, semibrevis, and minima). He explains perfection and imperfection and the four tempora that musicians use to talk about the division of the brevis and semibrevis: perfect tempus of major prolation, perfect tempus of minor prolation, imperfect tempus of major prolation, and imperfect tempus of minor prolation.

The author then elaborates for several pages on ways of notating other rhythmic values; for example, how to write four notes in the space of three or two notes in the space of three. Ellsworth explains that:

Confronted with the need to represent mensural relationships that do not conform to the regular two or threefold scheme, theorists of the fourteenth century... found two possible courses of action: (1) they could extend the possibilities of coloration beyond the customary representation of a hemiola (2:3)... to encompass other relationships, primarily 3:4; or (2) they could invent new signs chiefly new combinations of *caudae* in either or both directions, to which they affixed flags of different types... The author of the Berkeley manuscript, in agreement with the majority of his contemporaries, prefers the use of different *notae caudatae* for the intricate relationships in the discant rather than the use of coloration in some unusual manner.<sup>23</sup>

Figure 1–2 shows a few of the new *notae caudatae* described by the Berkeley manuscript author. Four of the first *notae caudatae* replace three minimae and are called *additae* by the Berkeley author. Two of the second *notae caudatae* replace three minimae and are deemed *fusa*.

Next the author of the Berkeley manuscript discusses the practice of coloration in notation. The treatise explains that coloration can be used at the level of tempus, prolation, or both at once, though the treatise cautions against contradictions that can arise. Stone describes coloration as follows: "In an effort to record complex rhythmic relationships with increasing precision, composers... used artful combinations of red, black, and even blue coloration..."<sup>24</sup> It is at this point that the mysterious word *verbula* appears, which Ellsworth does not translate. The author's discussion on *verbula* grows out of his discourse on coloration. The word first appears in the following context:

If one wishes to indicate diminutions by changing colors (for example), let him take care to accomplish it without becoming involved in a contradiction.

Likewise, it can be deduced from the aforesaid how the syllables can be divided into more parts, but I leave division of this sort to a theorist. In order that anyone might better understand division, let him pay close attention to the examples that follow below, which musicians call *verbula*. First I shall give *verbula* in perfect tempus, major prolation; next in perfect tempus, minor prolation; then in imperfect tempus, major prolation; and finally in imperfect tempus, minor prolation, all at various intervals of the hexachords and in order for greater convenience.<sup>25</sup>

The nature of *verbula* can be gleaned from this introduction within a discussion of rhythmic divisions and how colorations can show rhythmic divisions. Since this treatise is logically and coherently written, it stands to reason that *verbula* have something to do with these matters. After all, when the author wishes to bring up a new, unrelated subject, he indicates it by a number, as earlier in the second treatise.<sup>26</sup>

The author says that musicians should pay attention to *verbula*, which are examples that will help them “better understand division,” i.e., rhythmic division of the “syllables.” The author is clearly stating the purpose of *verbula*—to help musicians better understand how syllables (here used to mean the solmization syllables of counterpoint) are divided into different rhythms. The *verbula* are given in various tempora and prolations and these have to do with rhythmic divisions; after all, only something rhythmic would need a tempus and prolation specified. If the *verbula* simply applied to dividing syllables into various pitches, the tempus and prolation would not need to be named.

The author of the Berkeley manuscript continues to describe *verbula* for several more paragraphs:

It must be noted that since it would be impossible or very difficult (and also exceedingly tedious) to situate all syllables in concord with various other syllables, it is possible to place some of them dissonant, as long as the greater part, or at least half, are consonant. And it must be noted that, according to some, in dividing syllables, concord predominates for the greater part; according to others, the first note is consonant—or in consonance. There may also be as many syllables according to their value in one place as in another; in that case, the consonance is called mixed or common. It must be noted that one may begin and end any consonance with a dissonant syllable, as long as that syllable is of a smaller value by half than the consonance; it can, however, be equal in syncopation. For I use the term “syncopation” when reductions of some various notes—proximate to each other and remote from each other—are made by reckoning their perfections. It must be noted that when anyone wishes to move from some concord to a perfect consonance, he ought to beware lest the last note of the first concord be the same concord as that to which it leads. It must

be noted that one may well syncopate in descanting and sing various mensurations that differ from that of the tenor, so long as he knows how to proportion them properly to each other and maintain properly his coequal mensuration; otherwise he should not concern himself with these things.

Now that these things have been set forth, in turning to the *verbula* as promised, I wish to make it clear to everyone that I do not intend to name any syllables or add any pitch names; I do this for reason of brevity and so that anyone, in making concords in the *verbula* with various syllables and studying them, may be better instructed.<sup>27</sup>

These paragraphs are extremely important, because they tell the reader that there is a pitch component to *verbula*. First, the author allows for dissonance within the *verbula*, stating that it would be both “impossible” and “tedious” if all syllables were consonant. Bonnie Blackburn states that “Few treatises [of this time period] mention dissonances, simply because they have no place in note-against-note writing.”<sup>28</sup> Various scholars’ interpretations of this passage will be considered below, but for now it is simply important to glean that dissonance treatment is mentioned.

In the final sentences on the *verbula*, the Berkeley manuscript author gives an important clue to understanding them. He states that he does not intend to name any syllables (used here in the sense of hexachordal syllables, i.e., *ut re mi*) or add pitch names. This means that the *verbula* have no definite pitch, and indeed, a cursory examination of them will lead one to realize that there are no clefs specified in the *verbula*. From these two paragraphs, then, we can conclude the following: first, that there is some sort of pitch component to the *verbula*, because the author goes out of his way to mention dissonance treatment within them, an unusual feature of treatises from this time; and second, that while there is a pitch component to *verbula*, it is not specified by clefs or in modes.

Before proceeding with a new interpretation of the *verbula*, it may be useful to review what others have written about them. Blackburn states that “Inexplicably, Ellsworth did not transcribe the *verbula* in modern notation, nor does he offer any explanation of them.”<sup>29</sup> This assertion is not entirely fair, for while it is true that Ellsworth does not transcribe the *verbula* into modern notation, he does provide an explanation, albeit brief, for their existence. Perhaps Blackburn missed his explanation, as it occurs in a footnote several pages before the *verbula* are mentioned. After explaining that fourteenth-century terminology is disparate, Ellsworth states:

There are almost as many different terms for the transformation of a contrapuntal framework into a finished discant as there are theorists who describe this process. The author of the Berkeley manuscript prefers the phrase “divi-

sion of the *voces* (solmization syllables);” at the end of the treatise he also speaks of “verbulating” (*verbulando*), which most likely implies that the creation of a florid discant should normally develop simultaneously with the addition of a text to the upper voice.”<sup>30</sup>

Ellsworth then proceeds to describe other fourteenth-century terms associated with elaborating a discant, including *diminutiones*, *cantus fractus* or *fractibilis*, *cantus floridus*, and *cantus coloratus*.

The basis for Ellsworth’s conclusion derives from the seemingly literal translation of the *verbula* as “little word.” “Verba” translates as “word” and “-ula” is the diminutive suffix meaning “little.” Therefore, *verbula* could be viewed as an elaboration with little words or syllables, as in imagining a “word” as made up of syllables, which are “little words.” Ellsworth thinks the author’s purpose is for musicians to elaborate a top voice above some sort of tenor; that much is obvious. In addition, the author intends to provide model rhythmic elaborations, together with a pitch component. Nevertheless, since there is no explicit mention of words or elaboration of text by the Berkeley author, it cannot be assumed that *verbula* refer to the “creation of a florid discant...with the addition of a text to the upper voice.”

Anne Stone approaches the Berkeley manuscript from a rhythmic perspective.<sup>31</sup> She lists the Berkeley manuscript among “Treatises that discuss new note shapes in the context of discant theory.” Stone’s other categories of treatises include “Discant treatises that discuss *cantus fractus*, *contrapunctus diminutus*, etc.” and “Treatises that discuss new note shapes (no mention of discant or counterpoint).”<sup>32</sup> Stone’s main question is as follows:

Does the complex notation that survives in manuscripts [of the last decades of the fourteenth-century] constitute an attempt outside the arena of performance to invent increasingly complicated rhythms that were then to be performed? Or is it an attempt to record rhythms whose first incarnation was in performance, not in writing?

I think that many scholars too readily have assumed the former; that music writing as an end in itself was the impetus for the flamboyant notation found in late fourteenth-century manuscripts. The point of this essay is to try to assemble some evidence to the contrary and to make the case for a link between some of this flamboyant notation and an unwritten tradition that is removed from the kind of intellectual game-playing that we associate with the label “*ars subtilior*.”<sup>33</sup>

Thus she cites the Berkeley manuscript within a discussion of the performance and notation of rhythm in support of her assertion that the complex notation of the later fourteenth-century was the result of performance practice and not intellectualism.



Stone discusses *verbula* in order to demonstrate a treatise that shows newly invented note shapes and syncopated rhythms. Later, she uses the Berkeley manuscript's rhetoric to support her argument that complex fourteenth-century rhythms were the result of performance practice by showing that the author of the Berkeley manuscript differentiates between practical and theoretical rhythmic elaborations and that he was concerned about making the discantus too complicated, because this would be bad for performance.

Stone offers even less explanation of *verbula* than Ellsworth, though she does transcribe one *verbula* of perfect tempus, major prolation, into modern notation.<sup>34</sup> She says that the author of the Berkeley manuscript “offers some examples of discant lines, which he calls *verbula*, using both the codified shapes of the *ars nova* and the invented shapes.”<sup>35</sup> Thus, to Stone, *verbula* are simply “examples of discant lines,” and she provides no further explanation of their meaning or function. Stone uses the *verbula* to support her conclusion, but it is outside the scope of her paper to speculate on their substance or purpose.

Blackburn discusses the Berkeley manuscript in a section pertaining to theories of dissonance in her article “On Compositional Process in the Fifteenth Century.”<sup>36</sup> Her reason for mentioning the Berkeley manuscript is that “he [the author of the Berkeley manuscript] was ahead of his time, for prescriptions for the use of dissonance are rare even in treatises of the first half of the fifteenth century...”<sup>37</sup> Her primary purpose, however, is not to discuss *verbula*: they arise in her discussion of dissonance treatment because the passage pertaining to them mentions dissonance.

Blackburn mentions *verbula* twice within her treatment of the Berkeley manuscript. She states, first, that “the emphasis is on ‘discanting’, for which Goscalcus uses the word ‘verbulare.’”<sup>38</sup> Later she says that:

He [the author of the Berkeley manuscript] does give a set of *verbula* (what English writers would later call “divisions”) in the various mensurations, but without pitch and without a tenor, leaving the student to add his own—this method being, as he says, briefer and more instructive...Goscalcus did not spoon-feed his students but left them to work out the examples on their own.<sup>39</sup>

Thus, to Blackburn, the nature of *verbula* is not mysterious—they are simple elaborations on a countertenor. What of her assertion that “Goscalcus did not spoon-feed his students but left them to work out the examples on their own?” Why would the author of the Berkeley manuscript not give any pitches for the *verbula*?

Perhaps the Berkeley author was not concerned with the laziness of his students; perhaps instead he simply meant that the *verbula* did not have to start on a definite pitch. This idea is supported by a quote from

the Berkeley author: “First I shall give *verbula*... at various intervals of the hexachords...”<sup>40</sup> This quote implies that the *verbula* could start on different pitches above a tenor, like the example in Figure 1–1. Depending on which *verbula*, they could perhaps start on ut, mi, sol, or la as long as the majority of notes would be consonant with the tenor (the Berkeley author’s own dissonance rule). Furthermore, the fact that the Berkeley author does not specify specific pitches suggests that he was equally concerned with the rhythmic dimension of the *verbula*.

Klaus-Jürgen Sachs provides a more complete exploration of the *verbula* than Ellsworth, Stone or Blackburn.<sup>41</sup> He begins by translating five paragraphs of the Berkeley manuscript, one sentence at a time, with commentary. Most of his conclusions parallel those of Ellsworth.<sup>42</sup> For example, both Sachs and Ellsworth comment on the following paragraph:

But first, let everyone wishing to discant masterfully note that he ought to observe, above all, the rules of counterpoint stated above. For it is commonly said that in “verbulating,” or dividing syllables, there can well be two fifths or two octaves or more, one after the other, since it is then said that there are intermediaries. But I say that one doing this does not proceed masterfully.<sup>43</sup>

Ellsworth makes a footnote about this passage: “This rule amounts to a prohibition of hidden parallel perfect consonance.”<sup>44</sup> Sachs basically comes to the same conclusion, essentially saying that this is a rule against parallel perfect fifths and octaves, even with passing tones between them.<sup>45</sup>

Sachs comes to some interesting conclusions. He surmises that each *verbula* is differentiated by a barline and ascending ligature. He also believes that the *verbula* should be sung by two voices, but that they cannot be transcribed polyphonically. Unlike Ellsworth, Blackburn, or Stone, he analyzes salient melodic characteristics about the *verbula*. Sachs points out that the range of the *verbula* for each tempora begins small then widens.<sup>46</sup> Figure 1–3, which depicts many of the *verbula* of perfect tempus in major prolation, shows an example of this. The *verbula* have been numbered in this figure for easy reference. As seen in this example, the range of the first *verbula* is only a third, the range of the second is a fourth, the third a fifth, and so on until the seventh *verbula*, which spans an octave.

Sachs articulates one other important point: “The emphasis [of the *verbula*] was on the variability of the melodic structure (which is often driven to unusual formations with seventh leaps, etc.), not on a method of rhythmic derivation of diminution...”<sup>47</sup> This is an interesting point, with which one could easily take issue. In other words, Sachs believes that the *verbula* primarily emphasize melodic structures, not rhythmic ones. If we conclude

that *verbula* do have an important rhythmic component, as we already have, then we cannot accept this argument.

By examining both past scholarship and the Berkeley manuscript itself, we have concluded that *verbula* have both a pitch and rhythmic component. *Verbula* contain an element of rhythm for three reasons. First, the *verbula* are introduced within the context of colorations and rhythmic divisions, whereas the author indicates new, unrelated subject matter by separate sections. Second, the Berkeley author directly states that musicians should pay attention to *verbula*, which are examples that will help them “better understand division,” i.e., rhythmic division of “syllables.” In other words, *verbula* help musicians better understand how solmization syllables of counterpoint are divided into different rhythms. Finally, the *verbula* are given in various tempora and prolations, which would not be necessary unless they included a rhythmic component.

We have also concluded that there is a pitch component to the *verbula* for three reasons. First, the author describes dissonance treatment, an element of pitch, within the context of the *verbula*, which Blackburn has pointed out is an unusual quality for fourteenth-century manuscripts. Second, the Berkeley author states that he does not intend to add any syllables (as in hexachordal syllables, i.e., *ut re mi*) or pitch names. This first implies that the *verbula* have pitch and secondly implies that the pitches of the *verbula* are fluid; for example, that one could start the first *verbula* of Figure 1–3 on several different solmization syllables above a given tenor. Finally, as Sachs points out, the *verbula* have changing ranges, and the changes are systematized from smallest (a third) to largest (an octave). There would be no need for such an organization if there were no pitch component to the *verbula*.

Now that we understand that there are both pitch and rhythmic components to *verbula*, one question remains: *why* did the Berkeley manuscript author write about *verbula* and provide so many examples of them? After all, parchment was very expensive and the *verbula* are long examples by the standards of the fourteenth century. One may conclude that the *verbula* were written down as formulae for improvisation. Just like the chart in Figure 1–2 showed different consonances that could sound in concordance above a given tenor note, the *verbula* show both different rhythmic and pitch patterns that could sound in concordance above a given tenor note. This is supported by the fact that the *verbula* do not have definite pitches, clefs, or modes. After all, improvisation is fluid and is frequently based on standard melodic formulae, which do not have to begin or end on definite pitches. For example, harmonizing a descending scale in parallel thirds works nicely, but so does harmonizing it with descending parallel sixths.

This conclusion is also supported by the fact that the *verbula* are so systematized; systemization makes it easier for memorization, recall, and performance. Even the Berkeley author points out that the work is organized: “First I shall give *verbula*... in order for greater convenience.”<sup>48</sup> If the *verbula* were indeed improvisation formulae, then they are practical in nature, and organizing them would be one way to facilitate their employment. That the Berkeley author is a practical man is supported by his assertion that “... it can be deduced from the aforesaid how the syllables can be divided into more parts, but I leave division of this sort to a theorist.”<sup>49</sup> Clearly the Berkeley author considers himself to be a practical performer, not a speculative theorist. Sachs has pointed out how the ranges of the *verbula* are systematized by interval. Even a cursory glance at Figure 1–3 reveals that, in general, the rhythms of the *verbula* start simply and gradually become more complicated. Finally, the *verbula* are divided by tempora, which is yet another example of their organization. Clearly the *verbula* are meant to be fluid, at least in terms of pitch, but their main purpose is to provide a multitude of different solutions, both rhythmic and melodic, to the age-old improvisation question of what will work in a specific context. In this case, the *verbula* provide various rhythmic and melodic patterns above held tenor notes.

Let us now turn to an actual example of a *verbula* to see some of their characteristics. Figure 1–4 shows a recopied transcription of one *verbula* of perfect tempus, major prolation, by Stone.<sup>50</sup> This is the third *verbula* of this tempora. This *verbula* spans a fifth, as does the one after it (see Figure 1–3), but it is obvious that it could start on several different solmization syllables above a given tenor note. For example, if the tenor was holding a G-ut, this *verbula* could start on g-ut, b-mi, or d-sol according to the rules of consonance and dissonance that the Berkeley author outlines in the second treatise. This *verbula* is in perfect tempus, major prolation, and it outlines rhythmic values that the Berkeley author discussed previously, including *additae* and *fusa*. The rhythms of this *verbula* are more difficult than those of the first two *verbula* of this tempora, yet the rhythms of subsequent *verbula* become even more complex (see Figure 1–3). Thus, from examination of an actual example of *verbula*, one can see both its pitch and rhythmic properties at work, and it could easily be viewed as an example of both a melodic and rhythmic improvisation formula above a given tenor note.

This paper has considered the authorship of the Berkeley manuscript and has examined the contents of the manuscript’s second treatise, in which the term *verbula* appears. It has also provided critical analyses of earlier scholarship about this term and concluded by providing a new interpretation for it. One may conclude from careful study of past scholarship as well as from

examining the Berkeley manuscript itself that *verbula* have both a pitch and rhythmic component. One may also conclude that they are essentially systematized improvisation formulae, whose pitch components are fluid, but whose ranges and rhythmic values gradually increase in complexity. Future studies of *verbula* may include transcribing all of them into modern notation, which may lead to even more discoveries of underlying structures and organization. For now, it is enough to gain some broad insights into the nature, systemization, and purpose of the ever fascinating *verbula*.

Examples	
Examples by B quadrum, beginning on G-sol-re-ut bassus up to E-la-mi altus.	Examples by nature, beginning on C-sol-fa-ut up to A-la-mi-re altus.
Γ-ut 8 10 12 13 ut mi sol la	12 13 15 re mi sol
A-re 8 10 12 re fa la	10 12 13 15 ut mi fa la
B-mi 6 8 10 ut mi sol	10 13 re sol
C-fa-ut 5 6 8 10 ut re fa la	8 10 12 13 ut mi sol la
D-sol-re 5 6 8 re mi sol	8 10 12 re fa la
E-la-mi 3 5 6 8 ut mi fa la	6 8 10 ut mi sol
F-fa-ut 3 5 6 re fa sol	5 6 8 10 ut re fa la
G-sol-re-ut 1 3 5 6 ut mi sol la	5 6 8 re mi sol
A-la-mi-re 1 3 5 re fa la	3 5 6 8 ut mi fa la
B-fa 3 3 ut sol	3 5 6 re fa sol
B-mi 3 1 3 ut mi sol	3 6 re sol
C-sol-fa-ut 3 1 3 re fa la	1 3 5 6 ut mi sol la

Fig. 1-1

Fig. 1-2. *Additae* (first) and *fusa* (second)



Fig. 1-3



Fig. 1-4