

GENRES OF MUSIC THEORY, 1650–1750

Thomas Christensen

To help make sense of any complex intellectual or historical discipline, scholars have usually found it necessary to divide the subject up into various classifications and parts that are related in some kind of rationalized network or hierarchy. Put more metaphorically, we create maps of disciplines by which to survey and understand the varied terrains we wish to navigate in our studies. Without some kind of order imposed upon either unwieldy empiricism or intellectual abstraction, our work as scholars and historians would be well-nigh impossible. Disciplinary categories and divisions are indispensable as cognitive heuristics.

Of course, divisions (or maps) of disciplines do not remain stable over time. This is particularly so in the case of music theory, whose domain and sub-categories have varied widely since the first extant theoretical writings from antiquity. What constitutes music theory over this 2000-year period—its primary subject matters and its attendant internal configurations—has changed dramatically. A difficulty for many students today, then, is to recognize and understand unfamiliar historical topographies. We can become so complacent as to what a subject such as music theory “looks like” from our own experiences and practice that it becomes quite jarring to observe radically differing conceptualizations. Topics that we might presume belong inherently to music theory may not be found in older writings, while conversely, other topics that we would not associate at all with the discipline of theory are in fact featured prominently. For that matter, it may not even be clear what literature we ought to look at as constituting music theory.¹

1. A thoughtful meditation on the knotty epistemological and historiographical problems of mapping music theory is found in Lee Blasius, “Mapping the Terrain”, in: Thomas Christensen (ed.), *The Cambridge History of Western Music Theory*, Cambridge 2002, pp. 27–45.

There is perhaps no historical period in which we can find more dramatic juxtapositions of “older” and “newer” conceptions of music theory than the period 1650–1750. Framed by works such as Athanasius Kircher’s *Mursurgia Universalis* (1650) and René Descartes’s *Compendium Musicae* (published in 1650, although first penned around 1618) on the one end, and Jean-Philippe Rameau’s *Démonstration du principe de l’harmonie* (1750) and Jean-Jacques Rousseau’s first musical articles for the great *Encyclopédie* (1751) on the other, we traverse a bewildering number of musical writings that seem to elude coherent synthesis. Admittedly, any centenary demarcation of a historical period is an artificial one. Still, it is hard to recognize even minimal intellectual conformity in the music-theoretical writings of a time span that includes such diverse figures as Kircher, Descartes, Rameau and Rousseau, not to mention Roger North, Andreas Werckmeister, Joseph Sauveur, Lorenzo Penna, Johann Mattheson, and Leonhard Euler (to offer only a random selection of names). Even if we agree that the music composed between 1650 and 1750 evinces a bit more holism (and this is itself subject to strong challenge, given that music historians have by and large been moving away from the older historical model of a High Baroque Period “terminating” at mid-century with the deaths of Bach and Handel), there is certainly no reason to presume that music theory must necessarily follow suit.

The problem, however, may be not so much that of the time we are considering than that of the subject of music theory itself, which (as we have already noted) has always been historically diverse in its contents and methods. In order to make sense of the richness and complexity of music-theoretical thought between 1650 and 1750—or from any period, for that matter—we need to establish some criteria by which to decide what writings in fact constitute “music theory”. We won’t necessarily find help by simply reading the title pages of books, for few authors on musical matters at the time would have referred to their writings as “theoretical”, let alone called themselves “theorists”. What we need to do is agree upon a broad definition of music theory that is flexible enough to accommodate many of the writings of this period that would otherwise elude classification, while at the same time having enough internal coherence so as to provide a meaningful basis of

inclusion.² In short, we need a good map of the music-theoretical terrain of the early modern period.

As a point of departure, I have found it useful to invoke a tripartite classification of music theory first suggested as far as I am aware by Carl Dahlhaus. In his brilliant monograph on the history of eighteenth- and nineteenth-century music theory, Dahlhaus has identified three broad traditions into which Western music theory may be divided: speculative, regulative, and analytic.³ Simply put, speculative theory concerns the “ontological contemplation” of musical essences and materials, their basis in number and acoustics. (This science often went by the name of “harmonics” in antiquity.) Historically speaking, speculative harmonics was the oldest and most authentic sense in which music theory was understood by musicians through the seventeenth century. “Regulative” theory, according to Dahlhaus, constitutes the broad range of “practical” and “poetical” writings that instructed students on the rudiments and syntactic rules of music, encompassing such topics as pitch notation, mode, rhythm, meter, counterpoint, harmony, and form. (Today, such pedagogical writings are often considered to be the epitome of music theory, although historically such writings were usually classified as “*musica practica*” or “*musica poetica*” rather than “*musica theorica*”.) Finally, a third, more critical tradition arose in the late eighteenth and early nineteenth centuries (although there were a few notable precedents already in the early seventeenth century) that can be roughly

2. I have pondered in greater detail some of the hermeneutic problems alluded to in this paragraph of reifying and historicizing a given period of music theory in an older article of mine, “Music Theory and its Histories”, in: David Bernstein (ed.), *Music Theory and the Exploration of the Past*, Chicago 1993, pp. 23–51. Also of relevance to this question is the recent essay of Dörte Schmidt, “Handlungsräume. Von der ‘Universal-Geschichte’ zu einer ‘Kulturgeschichte’ der Musiktheorie”, in: Dörte Schmidt (ed.), *Musiktheoretisches Denken und kultureller Kontext*, Schliengen 2005, pp. 9–17.

3. Carl Dahlhaus, *Die Musiktheorie im 18. und 19. Jahrhundert: I, Grundzüge einer Systematik*, Darmstadt 1984. See especially pp. 9–13. Also see Dahlhaus’s historiographical essay, “Was heißt ‘Geschichte der Musiktheorie?’”, in: Frieder Zaminer (ed.), *Ideen zu einer Geschichte der Musiktheorie. Einleitung in das Gesamtwerk. Geschichte der Musiktheorie vol. 1*, Darmstadt 1985, p. 39.

grouped within the locution of “music analysis”. Here the concern is with the intensive study and contemplation of musical masterworks as models for compositional study and aesthetic appreciation.

I find it helpful to think of these traditions as “genres” of theory, as odd as they may sound to us as a locution. (Dahlhaus himself, it should be noted, chooses to call these “paradigms” of music theory after the historian of science, Thomas Kuhn.) Much like a musical genre, each of these theoretical paradigms has certain fundamental characteristics unique to itself that nonetheless are manifest in multiple ways in practice. At the same time, as genres, each belongs to a common “family” of critical and pedagogical writings that we can group heuristically as “music theory”. Thinking of music theory in terms of genre has helped me to make some sense of the bewildering varieties of musical writings we find in the history of music theory—and particularly from the late seventeenth and early eighteenth centuries.⁴

In the following essay, I propose to consider how the three genres of music theory outlined by Dahlhaus look in the period 1650–1750. We will see that each of the genres of theory changed in fundamental ways over the course of this time. Indeed, in many ways, the modern institutional character and configuration of music theory is one that first came into view during this period. Yet we will also see how less familiar conceptions of music theory that were legacies of early thought and practice continued to play out in the seventeenth and eighteenth centuries. I should emphasize that the following essay should by no means be mistaken for a comprehensive survey of Baroque music theory. That is clearly impossible within its limited scope. But what I do hope to do is sketch out with selected examples some of the major themes of Baroque music theory—a general map, if you will, of the chang-

4. Indeed, I have ended up organizing my own history of theory project directly around this tripartite division, although I have modified his model in significant ways (cited in footnote 1). In the Introduction to this history, I have expounded at some length many of the points I am making in the present article (pp. 1–23).

ing topographies of the music-intellectual landscape. By considering the historical roots and epistemological tensions of music theory during this seminal time frame, we will better understand how those same tensions continue to reverberate today.

1

Let me begin with the branch of speculative theory discussed by Dahlhaus. As I have already indicated, this is unquestionably the oldest and in many ways most authentic genre of music theory. Indeed, it was the only sense in which *musica theorica* was understood by most musicians well into the eighteenth century. What was the nature of *musica theorica*? Here we must return for a moment to ancient Greece, where some of the very first writings on music were penned. It was Greek philosophers, too, who articulated the epistemological framework within which *theoria* was understood.

Let us begin by reminding ourselves of the etymology of the term *theoria*. It comes from the Greek word to contemplate, observe, or behold: *theoreo*. A *theoros* was a spectator at a game. *Theoria* as an activity leads to a kind of knowledge—*epistēmē*—that Aristotle contrasted with practical knowledge and skills—*technē*.

If there was no recognized profession of music theorist in Ancient Greece, there was an occupation we can inelegantly translate as the “theoretical contemplator of musical elements”. But this occupation went under a simpler title: a musician. If you were a musician in Ancient Greece—a *mousikos*—it meant you understood the nature and essence of music’s material. In a tenacious Platonic tradition (whose roots are traceable back to the Pythagoreans), this nature and essence of music consisted of number and ratio. A true musician understood the mathematical basis of musical material. It did not mean that one knew how to write, sing, or play music. Indeed, most probably a *mousikos* could have done none of these things.

I can make this non-intuitive distinction clearer, perhaps, by looking at the famous tripartite organization of music laid down in the sixth century by that greatest synthesizer and transmitter of

Greek musical thought, Boethius. (See Ex. 1.) Now it may seem odd that I turn to a writer active in the sixth century of the Christian era as a representative of ancient classical music theory articulated a full millennium earlier. Yet in many ways, there was no more faithful representative of the Platonic ideal of musical *theoria* than Boethius.

Example 1. Boethius, De institutione musica (6th Century AD)

1. Musica Mundana	2. Musica Humana	3. Musica Instrumentalis
a. Celestial Objects	a. Animal Spirits	a. Tension (string)
b. The Four Elements	b. Body	b. Spirit (wind)
c. Temporal (seasons)	c. Temperament	c. Percussion
("Musicus")	("Poet")	("Executor")

As any student of music history well knows, Boethius argued that there were three basic kinds of music: *mundana*, *humana*, and *instrumentalis*—the harmony of the spheres, of the human body, and finally of instrumental music.⁵ Implicated within the Platonic cosmology, these musics represented three distinct species of *harmonia* or consonance, each one itself divisible into three sub-categories. And need I emphasize that of the three kinds of music, *musica instrumentalis* was the one holding the least interest or ethical value to Boethius, it being the most corrupted, profane form of *harmonia*, coming as it does from the hands of man, and the only one perceptible by the mortal ear.

Still, as a science concerned with numerical relations and *harmonia*, Boethius was able to incorporate music into the great Quadrivium of mathematical sciences, along with arithmetic, geometry, and astronomy. As Boethius explained it (although drawing heavily upon earlier Neoplatonic traditions), arithmetic was the science of numbers without mobility and without extension; geometry was the science of numbers without mobility, but

5. See Boethius, *Fundamentals of Music*, trans. Calvin M. Bower, New Haven 1989, Book 1, ch. 2.

with extension; astronomy, however, dealt with magnitudes with both mobility and extension, while music was the science of magnitudes with mobility but lacking extension.

Now Boethius mapped onto his division of three kinds of musical harmonia the three professions of music that corresponded to their ontological value: one who judges music, one who writes music, and one who plays a musical instrument. Let me take these in reverse order. The instrumentalist, the executor, Boethius tells us, is like a servant — one totally dedicated to the performance of his instrument and bearing nothing of reason or spirit, “being wholly destitute of speculation” as he put it. The composer, or inventor of songs, however, can be compared to the poet. He is “borne to song not so much by speculation and reason as by a certain natural instinct.” And it is for this reason that Boethius pairs the composer with *musica humana*—like the poet, the composer relies on the animal spirits and passions of the body for inspiration, the exhaling of *spiritus* through his breath and song. Finally, there is the person who judges music by reason and speculation, understanding the mathematical nature and cause of harmonia in all its forms. For Boethius — as for Plato — this was the real musician, indeed, the only one who properly deserves the name:

And seeing that the whole is founded in reason and speculation, this class is rightly reckoned as musical, and that man as a musician who possesses the faculty of judging, according to speculation or reason, appropriate and suitable to music, of modes and rhythms and of the classes of melodies and their mixtures...

A musician, then, was one who understood the ontological nature of music, which is to say, its numerical essence. The ability to perform or compose was secondary. Aristotle would have contrasted these kinds of knowledge as knowing an object’s final cause, its formal and material cause, and its efficient cause. The instrumentalist knows only the efficient cause of music—the mechanical production of sounds, like a worker who builds a house. The composer, however, knows the material and formal causes of music, what a composition is made of and how it is put together, much as does the designer or architect of the house. But only the true musician understands music’s final cause: its ultimate nature,

purpose and function—the reason, we might say, why the house was built in the first place.

It is perhaps odd to be citing Aristotle here in support of Boethius's hyper-Platonic metaphysics. But Aristotle would have had no disagreement in strongly demarcating practical from theoretical elements of music, just as he would distinguish poetics from practice and theory. His concern would lie with the kinds of *theoria* to be invoked—what is the best method for attaining true knowledge and understanding of music. He certainly never would have questioned the superiority of understanding the formal and final cause of an object over its efficient or material causes.

To be sure, Aristotle would have argued that to gain access to the essence of an object, one needs to go through perceptual appearance—its *phainomenon*. We need only recall briefly the views of that arch-empiricist and student of Aristotle, Aristoxenus of Tarentum. With characteristic bluster and arrogance, Aristoxenus lambasted the followers of Plato who would judge music on criteria of number and form. For Aristoxenus, the musician must use empirical evidence of the ear. But by this, he does not mean going into the Elysian Fields and listening to performers of the aulos, or rhapsodes reciting Homer to the accompaniment of a kithara. As far as their musical worth was concerned, Aristoxenus could be just as supercilious as any Platonist. Rather, Aristoxenus meant a kind of internal, almost phenomenological conceptualization of musical material. For this purpose, he insisted upon beginning with the voice-conceiving and defining intervals and genera by listening to the voice inflecting them rather than abstractly plotting interval ratios.

In all of the ancient writings I have drawn from so far, it is worth emphasizing how disassociated concerns of practical music were for these classical music theorists. To be sure, we can find discussions of *tonoi* and the varieties of *genera* and *systemata* by Aristoxenus. But these can hardly be called practical constructs. They represented a mixture of idealized historical reconstructions and abstracted systematization of tonal materials—not things that ever had any real musical meaning to singers or instrumentalists. And by the time we come to authorities like Aristides Quintilianus writing some 500 years after Aristoxenus, which is to

say, about the second century of the modern era—the distance between theory and practice was even greater.

Still, this did not stop Aristides from suggesting his own comprehensive mapping of music that gave prominent room to musical practice, shown in Ex. 2.⁶

Example 2.: Aristides Quintilianus, De Musica (2nd Century AD)

1. Theoretikon	2. Praktikon
A. Natural (<i>physikon</i>)	A. Creative (<i>chrestikon</i>)
1. Arithmetical	1. Melo-poetic
2. Natural	2. Temporal
	3. Poetic
B. Artificial (<i>technikon</i>)	B. Executive (<i>exangeltikon</i>)
1. Harmonic	1. Instrumental
2. Rhythmic	2. Vocal
3. Metric	3. Dramatic

As we see, Aristides recognized two parts of practical music—composition and performance—the creative and executive. Neither of them, of course, could be considered relevant to true musicians. Aristides was too much of a Platonist for such charity. Observe, also, that Aristides distinguishes two parts to the theoretical category: natural and artificial. By natural elements of music, he distinguishes numerical and acoustical ways of defining music—while under artificial music (*technikon*) he means the primary parameters of *musica instrumentalis*—to bring us back (or more accurately, forward) to Boethius. Remember, too, this is

6. Aristides Quintilianus, *On Music in Three Books*, trans. Thomas J. Mathiesen, New Haven 1983. While Aristides never himself synthesized his divisions of music into the neat graph shown in Ex. 1, I was inspired by Claude Palisca's adaptation of Aristides's taxonomy as a basis for his important entry "Theory" in the *New Grove Dictionary of Music and Musicians*, London 1980.

not harmony, rhythm or meter in any sense that would be useful to those sympathetic to the second column of practical music. Rather, these are the kinds of potential relationships latent in sounding music.

Observe, finally, while both taxonomies maintain the opposition between theory and practice, each does so in very different styles. Boethius's opposition lies on a continuum. It depicts a hierarchy or chain of being with Platonic overtones, its presentation accordingly emphasizes continuity and contiguity. For Aristides, however, this opposition is dialectical. Following the model of Aristotelian logic, his categories are oppositional; his presentation accordingly is tabular and schematic.

It is possible, then, to form a composite conceptual definition of *musica theorica* as predominantly speculative in the ancient world based on the writings of Aristoxenus, Aristides, Nicomachus, not to mention many of the others whose writings have come down to us in various degrees of corruption. For all their differences in style and philosophy, their unified concern was the ontology of music—its material, nature, and meaning—but not its practice, not as it was composed, played, and heard by anyone of their day—or any day, really.

The subsequent development of music theory in the Latinized west—the move in other words, from Greek to Latin *theoria*—may be generally characterized as a process of growing tension between speculative and practical traditions—the concerns, pedagogical needs and activities of singers increasingly tugging at those of the theorists. Of course in one sense it is an oxymoron to speak of “practical theory”. Any rapprochement of theory and practice is conceptually subversive, as it threatens the very epistemological grounding upon which Greek *theoria* had been based. In other words, the strong demarcation between the realms of theory and practice was the condition upon which theory as a discipline could exist.

This is why, at least on the surface, various kinds of distinctions continued to be maintained between theory and practice in the medieval period. We find, for instance, Guido famously distinguishing *cantor* and *musicus*. The *musicus*—the music theorist—is one who understands the nature of music, and stands in contrast

to the poor ignorant singer—the *cantor*—who Guido reminds us, “is the most foolish of men”.⁷

But I need not also remind you that Guido did indeed concern himself with singers and their practical needs. His *Micrologus*, after all, is a handbook for singers, and it is there that Guido introduced his revolutionary notational system and the equally famous solfège mnemonic for navigating the tonal space of the hexachord. (By the way, Guido nowhere discusses the use of the hand to teach hexachordal mutations, despite that his name became attached to this method in the writings of subsequent theorists.) Indeed, by all accounts, with the Carolingian Renaissance, *musica theorica* in its orthodox, Boethian forms of cosmological harmonia and monochord divisions receded strongly in favor of *musica practica* or—as it was usually called thanks to the influential terminology adopted from the Arabic writer, Al-Farabi—*musica activa*. The concerns of the practicing singer became pressing, and music theory now assumed a regulative role that it has in large part retained to this day.

This pedagogical tradition of music theory (and here I am using “music theory” in a non-historical sense) is first evident in the West in several Carolingian manuscripts dating from the ninth and tenth centuries that sought to answer the Church’s growing needs to systematize, codify, and notate a growing liturgical chant practice. This entailed solving several problems that have served as an agenda of music-theoretical topics ever since: clarifying a tonal space in which this music was sung, finding a vocabulary for analyzing the structure of a chant, a way of classifying the different species (or “modes”) of chant represented, and finally, an efficient notation for setting down these chants so that they could be practiced and disseminated. Later on, other notational problems arose to which these theorists turned their attention, including the need to conceptualize a temporal space within which the rhythmic proportions and metrical subdivisions of music could be notated.

7. Quoted in Calvin Bower, “The Transmission of Ancient Music Theory into the Middle Ages”, in: *The Cambridge History of Western Music Theory*, p. 163.

In many ways, the concern of theorists since the eleventh century have not changed radically. The diatonic gamut of Guido was expanded over the following centuries to include chromatic and enharmonic spaces. The structural vocabulary to analyze the components of a chant were expanded to include the more complex elements of counterpoint and harmony. Problems of mode classification gave way to problems of the major / minor key system, and ultimately questions over the nature of tonality itself. The parsing of chant melodies into discrete functional elements not only can be seen as a nascent form of music analysis, but as a precursor to later theoretical investigations of form.

We thus find a seismic shift in the concerns of the *musicus* towards a more practical bent. To be sure, *musica speculativa* in the tradition of ancient harmonics continued to be cultivated by some scholars; but its Platonic components were greatly diminished in the Universities thanks to the triumph of Aristotle's teaching in the Middle Ages via his Arabic transmitters. The cosmological and ethical elements of *musica mundana* and *humana* largely went into hibernation not to be revived in any major way until the re-emergence of Platonism in the late fifteenth century. Then, humanist scholars such as Franchino Gaffurio wrote once again on topics of *musica speculativa*, often drawing heavily upon the writings of Greek authors who were increasingly being translated and published. (It was Gaffurio, incidentally, who was the first to actually entitle one of his treatises as music theory: the *Theorica Musice* of 1492.) The concerns of Gaffurio were with ancient Quadrivial problems of musical sound, proportions, and tuning—in other words the classical agenda of ancient harmonics—as well as the more speculative matters of *musica mundana* and *humana*. And as a good humanist, Gaffurio was explicit about the virtues of *theoria* providing the most exalted knowledge of music. Troping from both Boethius and Aristotle, he writes:

Accordingly, this discipline [that is, music], because it is a natural science, prefers the speculative or theoretical intellect as nobler and wiser than the practical... The speculative musician, then, is he who, led by reasoning, has acquired the science of singing not by the drudgery of practice but by the power of speculation ... Of this class

we call [him] a knowledgeable geometrician who has learned this science and retains it. Both [the speculative and the practical intellects] potentially know, but not in the same sense, for the former [does so] a little dimly and very tenuously only because he is teachable and capable of learning, whereas the other goes beyond, because he can contemplate an action and comment on it if not prevented by an external cause.⁸

Given his obvious epistemological bias, then, it may seem surprising to us that Gaffurio also took it upon himself to publish four years later a *Practica Musice* (1496) that dealt with contemporaneous problems of mode, mensuration, and counterpoint. In that work, Gaffurio seemed to have softened his stance some, granting a good deal more value to the poor *cantor* of musical practice:

It is true that ... sounds are assembled in vain by theory and science unless they are expressed in practice. Hence one must become thoroughly conversant with the highness, lowness, and the combinations of these sounds not only through one's mind and reason but also through the habit of listening to and articulating them.⁹

Ultimately, one supposes, Gaffurio saw theory and practice as complementary, each necessary to the other, although still placing practice in an ontologically subordinate role to theory. But he also clearly knew where his bread was coming from. There was a good deal more of a market for a useable text of *musica practica* than for one of abstract theory. And in any case, if it was the role of theory to help guide and correct practice, then who else is in a better position to write such a practical treatise than the *musicus* who is versed in learned theory? Thus, after Gaffurio, it was commonplace to find treatises of *musica theorica* and *musica practica* paired together. Zarlino's *Le Istitutioni harmoniche* (1558) is only one of the most famous examples, its first two books constituting the

8. Franchino Gaffurio, *The Theory of Music*, trans. by Walter Kurt Kreyszig, New Haven 1993, pp. 41–42.

9. Irwin Young (ed. & trans.), *The Practica Musicae of Franchinus Gafurius*, Madison 1969, p. 12.

traditional agenda of speculative theory, and its last two books practical considerations of counterpoint and mode.¹⁰

2

By the beginning of the seventeenth century, then, we find two venerable traditions of musical thought standing in dialectical juxtaposition: *theorica* and *practica*.¹¹ Virtually all writers on musical topics acknowledged these two fundamental categories, sometimes with extended discussions concerning the epistemological value of each.¹² Still, the vast majority of musical literature we find published during the seventeenth century was of a practical nature. After all, it was the growing class of amateur musicians wishing to learn the rudiments of reading, playing, and composing music who provided a demand for such literature. Thus we

10. Not that Zarlino's first two books were devoid of practical considerations. Not only did Zarlino include various species of temperaments in Book II that were obviously driven by performance questions, he also famously introduced his *senario* to accommodate and legitimize the imperfect consonances that were then in common practice.

11. One might argue that another category should be introduced here: that of *musica poetica*. For German theorists of the seventeenth century, *musica poetica* constituted an important third category of musical study, it being concerned with the compositional process and work (*opus*) of music. As Nicolaus Listenius wrote in his *Rudimenta musicae planae* of 1537 (in which the term *musica poetica* was first used), "Poetica is that which strives neither for knowledge of things nor for mere practice, but leaves behind some work after the labor" (Poetica, quae neque rei cognitione, neque solo exercitio contenta, sed aliquid post laborem relinquit operis). (Wittenberg 1537, fol. A4v.) Joachim Burmeister's *Musica poetica* of 1600 is one of the classical exemplars of this genre, as well as works of Heinrich Faber, Gallus Dressler, and Sethus Calvisius. But as we will see, most "compositional theory" was integrated within works of *musica practica*, which held out composition as the end goal of their instructions, whether it was in the study of counterpoint or harmony, or in performance practice of instrumental diminution, vocal embellishment, or thoroughbass. (This is why Walther, in his *Lexikon* of 1732 ended up subsuming *musica poetica* within *musica practica*.) In any event, Heinz von Loesch has recently argued that any equation of the seventeenth-century German notion of the musical artwork with the nineteenth-century Romantic work-concept is based on a fundamental misunderstanding of Reformation aesthetic values. See his *Der Werkbegriff in der protestantischen Musiktheorie des 16. und 17. Jahrhunderts: Ein Mißverständnis*, Hildesheim 2001.

12. Mersenne in his *Questions harmoniques* of 1634 pondered whether "theory was to be preferred to practice" or vice versa. (Typically for Mersenne, he equivocated on the answer, although he did seem ultimately to come down in favor of theory.)

find, to take one typical example, a work such as Thomas Morley's *A Plaine and Easie Introduction to Practicall Musicke* (first published in 1597, but reissued as late as 1771), which was written for those who are "altogether unlearned or then have not so far proceeded in learning as to understand the reason of a definition."¹³ The agenda of Morley's comprehensive treatise offered a typical (if unusually detailed) survey of topics in *musica practica*: the rudiments of pitch and rhythm ("Teaching to Sing"), counterpoint ("Treating of Descant"), and harmony ("Treating of Composing or Setting of Songs"). Dozens of other such works were published throughout Europe during the seventeenth century hoping to meet the increasing demand of amateur musicians for practical introductions to the skills of music.

Of course we continue to find more learned, speculative treatises of music theory published through the seventeenth and eighteenth centuries, if in vastly smaller numbers. The filiation of many of these early-modern treatises of theory to their counterparts in antiquity and the Middle Ages is clear not simply from their title pages (in which most explicitly contain references to "theory") but in their canonist agenda. Almost without exception, a "music theory" treatise in the seventeenth or eighteenth century was concerned with traditional problems of interval calculation and tuning.¹⁴ The one major difference, however, was the kinds of

13. Thomas Morley, *A Plaine and Easie Introduction to Practicall Musicke*, London 1597; modern edition by Alec R. Harman, New York 1973, p. 100. Still, this did not prevent Morley from appending to his treatise some lengthy "annotations" in which more speculative and learned matters were raised for the benefit of those with "better skill in letters".

14. A representative sampling of such theory titles is suggestive: Otto Gibel, *Introductio musicae theoreticae didacticae... cum primis vero mathematica*, Bremen 1660; Thomas Salmon, *The Theory of Musick Reduced to Arithmetical and Geometrical Proportions*, London 1705; Leonhard Euler, *Tentamen novae theoriae musicae*, St. Petersburg 1739; Friedrich Wilhelm Marburg, *Anfangsgründe der theoretischen Musik*, Leipzig 1757; Giovanni Battista Martini, *Compendio della theoria de' numeri per uso del musico*, Bologna 1769. Jean-Philippe Rameau's *Nouveau système de musique théorique et pratique* of 1726 is also in the tradition, it being "new" only in the sense that it substituted an acoustical principle—the *corps sonore*—as the origin of musical proportions for the canonical one in string divisions (as was proposed in his *Traité de l'harmonie* four years earlier).

tunings being discussed, or more accurately, the kinds of temperaments. Using an array of new mathematical tools that were developed in the seventeenth century—above all that of logarithms—theorists were now able to calculate and test a dizzying number of new temperaments. If many of these temperaments were ultimately speculative “paper temperaments”, we nonetheless see how practical considerations of musical performance were impinging upon the domain of speculative theory.¹⁵

But we cannot limit our consideration of speculative theory texts only to those that dealt with issues of temperament. With the revolutionary upheaval in scientific thought of the seventeenth century, music theory was also reinvigorated with new tools of inquiry and new domains of analysis. Particularly in the nascent field of acoustics and rational mechanics, scientists like Galileo Galilei, Marin Mersenne, Isaac Beeckman, and Isaac Newton can be said to have carried on the tradition of ancient harmonics with studies of the nature of sound propagation, the behavior of vibrating strings, and the acoustical basis of consonance and dissonance. The numerical criteria by which consonance had traditionally been determined and evaluated was slowly replaced in the seventeenth century with a mechanistic model in which consonance was analyzed and categorized according to frequency coincidence.¹⁶ The culmination of this work is surely found in the writings of the French scientist Joseph Sauveur, who was the first to designate the scientific study of sound as “acoustique”. In a series of important publications that appeared in the records of the *Académie Royale des Sciences* beginning in 1700, Sauveur was one of the first to subject musical sound to rigorous empirical analysis

15. An interesting exception to this was Descartes’s *Compendium Musicae*. It is a traditional monograph in the canonist tradition dividing the monochord in order to generate the basic whole-number consonances of tonal practice. But if Descartes’s topic was not original, his epistemological underpinnings in the treatise were. Beginning with a sensory phenomenology of sound from which he was able to deduce in methodical order the intervals of musical practice, the *Compendium* can be viewed as a test-case for the philosopher’s evolving rationalist philosophy.

16. A story comprehensively treated in H. F. Cohen, *Quantifying Music: The Science of Music at the First Stage of the Scientific Revolution, 1580–1650*, Dordrecht 1984.

and experimental method. Among the musical topics he treated were the measurement and determination of fixed pitch, a highly-detailed logarithmic calculation of musical temperament, the mechanics of the vibrating string, and the overtone series.¹⁷

To be sure, other, more esoteric types of speculative theory were penned in the seventeenth century. Most conspicuous, perhaps, are those writings of the English Rosicrucian Robert Fludd and the German Jesuit, Athanasius Kircher (mentioned at the beginning of this essay), both of whom mixed into their musical writings speculations of cosmic harmony, gnostic lore, hermetic magic, alchemy, and Galenic medicine. Likewise, much of Kepler's writings on music are rooted in an older Quadrivial tradition in which music and cosmology were intimately entwined.¹⁸ None of this should be surprising, since for a number of intellectual *virtuosi* of the seventeenth century, the boundary between "science" and "natural magic" was a porous one. As historians of science have pointed out, many of the problems and methods of early modern science are intimately enmeshed with natural magic, alchemy, and other occult sciences.¹⁹ But even for those writers who eschewed natural magic or hermetic philosophy, the boundaries of music theory could be slippery.

The late seventeenth-century German theorist Andreas Werckmeister believed the new mechanistic sciences offered a wondrous, natural basis for understanding and explaining musical phenomena. At the same time, though, Werckmeister could not resist indulging in a great deal of numerical speculations and theological musings in his music theory. Hence, even a seemingly

17. See Joseph Sauveur, *Collected Writings on Musical Acoustics (Paris 1700–13)*, ed. Rudolf Rasch, Utrecht 1984. It was in fact Sauveur's demonstration of the harmonic partials in a periodically-vibrating body that was to be so influential to Rameau's own musical theories.

18. For Kepler's writings on music theory, see Bruce Stephenson, *The Music of the Heavens: Kepler's Harmonic Astronomy*, Princeton 1984.

19. And as Penelope Gouk has brilliantly shown in this volume [p. 41] and in her many other writings, the same mixture of magic and mechanism may be observed in musical writings of the time. See in particular her book, *Music, Science and Natural Magic in Seventeenth-Century England*, New Haven and London 1999.

mechanical phenomenon as the “trumpet series” produced by overblowing most any brass instrument invites Werckmeister to consider the resulting intervals to constitute a replica of divine creation and the great chain of being. The major / minor duality of harmony that was coming increasingly to the fore in practice inspires in Werckmeister even more rhapsodical musings over the ambivalent nature of man suspended between states of grace and corruption, between poles of the masculine and feminine; while pedantic issues of organ tuning and pipe scaling meander quickly into Pythagorean discourses on the perfection of certain whole numbers and the paradox of having to temper and sully these divine proportions in practice—surely a lesson in the corruption and fall of man since Adam.²⁰

Still, Werckmeister cannot be considered typical. He was really one of the last in the line of major *practical* theorists to adopt a universal vision of cosmic *harmonia* in the Boethian sense. Yet for every metaphysical instinct pulling him back towards the Middle Ages, there was also a counter-gravitational pull drawing him forward into the modern era; his awareness and accounts of contemporary music practice were extraordinarily percipient, and he proved to be a pioneer in recognizing and codifying the full transposable major / minor key system within various tempered chromatic gamuts.

3

Thus by the beginning of the eighteenth century, we can see an important shift in music theory that would henceforth more and more characterize the discipline. On the one hand, those topics that were historically associated with *musica theorica* were becoming relegated to the periphery of the discipline as too speculative and esoteric, or absorbed more innocuously into the nascent disciplines of physical acoustics, mathematics, and later tone psychology. On the other hand, the subjects of *musica practica*, which as we have seen were always considered to be dialectically opposed

20. See Andreas Werckmeister, *Musicae mathematicae hodegus curiosus*, Leipzig, 1687, especially pp. 141–54.

to theory, were little by little coming to be understood as “theory”. Revealing testimony to this effect is found in Brossard’s famous *Dictionnaire de musique* of 1703. There Brossard wrote that properly speaking, a “theorist” was one who was concerned with *théorie*, which is to say, the “simple speculation of an object of an art or science, by which one considers or examines its essence, nature, and properties without regard to its practice” (s.v. “Theoria”). He noted, however, that a number of Italian writers also considered as a *musico theorico* anyone “who has written or given to the public any treatise concerning music, although he is in other respects perhaps an accomplished practician” (s.v. “Theorico”). Still, it was clear that Brossard disapproved of this conflation, since he elsewhere clearly demarcated the genre of “Musica Contemplativa, ou Speculativa, ou Theorica” from “Musica Attiva, ou Pratica”, the former dealing with the “reasons of sound, the examination of its nature, properties and effects”, the latter with its “execution, without taking into consideration its reasons, nor the causes of its good effect in execution.”

As I noted above, some texts in the tradition of canonist *musica theorica* continued to be published through the eighteenth century, including works by Leonhard Euler, Lorenz Mizler, Friedrich Wilhelm Marpurg, and Robert Smith.²¹ A very few texts of cosmological harmonics may be found, too.²² By and large, though, the subject of speculative music theory was not held in high esteem during the high Enlightenment of the eighteenth century. Many of the *philosophes* criticized such writings as symptomatic of the baleful *esprit de système*—the vain fantasies of those scientists and philosophers who construct their systems based not on empirical investigation and moderate induction, but rather by using a priori principles and scholastic methodology. Rameau was widely criticized by many of these *philosophes* for just that reason.

21. See footnote 14 for bibliography information on Euler and Marpurg. For Robert Smith, see his *Harmonics or the Philosophy of Musical Sounds* (Cambridge, 1749); for Mizler, see the many articles contained in the journal published for his “Society for Musical Science”: *Musikalische Bibliothek*, Leipzig 1736–54.

22. Most notorious, perhaps, is Johann Heinrich Buttstett, *Ut, mi, sol, re, fa, la, Tota Musica et Harmonia Aeterna*, Erfurt c. 1715.

Yet Rameau is ironically the figure who reveals more clearly than any other how Enlightenment philosophy could reconcile theory and practice. The *basse fondamentale*, which is of course the discovery which earned Rameau his fame—and notoriety—as a theorist, is ultimately a brilliant synthesis of theoretical (canonist) traditions with thorough-bass practice. In the first book of his *Traité de l'harmonie* of 1722, Rameau derives (not without some logical slips) the basic harmonies of thorough-bass practice through traditional methods of monochord division. In the subsequent books of his treatise, Rameau goes on to show how the chords he has generated are connected in practice by a small number of cadential progressions that also may be related to their generative source. If Rameau's canonist methods were flawed, they were still based on solid musical intuitions (the notion of a generative chord root and the fundamental priority of the seventh as a dissonance). The result is a tool—the fundamental bass—that is shown to have extraordinarily effective pedagogical value to the teaching of composition and the learning of thorough-bass accompaniment (both intertwined skills in the eighteenth century).²³ As a synthesis, or perhaps more accurately a dialectic, between theoretical rigor and practical empiricism, the *basse fondamentale* is a perfect example not of the *esprit de système*, but of the *esprit systématique*—the measured, inductive systems of philosophy and science that were admired and espoused by the *philosophes*.²⁴

Still, this did not protect Rameau from criticism that his theory was still grounded in an outmoded rationalist, not to say virtually gnostic, epistemology. (And to be sure, Rameau was often not his own best defender in these matters.) For Johann Mattheson, perhaps the most severe critic of Rameau, music theory (or “musical mathematics” as he typically called it) was completely at odds with

23. For more on Rameau's theory, see my book, *Rameau and Musical Thought in the Enlightenment*, Cambridge 1993. A more succinct account of Rameau's theory is found in Joel Lester, *Compositional Theory in the Eighteenth Century*, Cambridge Mass. 1992, pp. 90–157.

24. I have explored in much greater detail this aspect of Rameau's synthetic method in my book, *Rameau and Musical Thought in the Enlightenment*, especially chapter 2, pp. 21–42.

the aesthetics of galant sensibility and sensationalist psychology of which he was such an ardent champion.²⁵ But Mattheson was hardly alone; with the triumph of Locke's sensationalist epistemology throughout the continent in the eighteenth century, abstract rationalism and speculative theory was under suspicion by most European intellectuals. In the realm of music, numerous writers advocated Enlightened views of musical empiricism and sentimental aesthetics, including the Germans Friedrich Niedt, Johann David Heinichen, Johann Adolph Scheibe and Johann Philipp Kirnberger; the Encyclopedists Rousseau, d'Alembert and Diderot, and a smattering of theorists from England and Italy.

But a closer examination of this "practical" theory suggests that the issues of their concern were not ones that could be plotted on a theory/practice continuum. That question was not so much one of epistemology and method as it was one of expression. Questions of musical affect and attendant problems of genre, style, and performance became the dominant marker of the musical landscape, one to which music theory as both practice and pedagogy was increasingly subordinated. For questions of musical expression and aural sensibility skew traditional musical divisions, as they cut across both speculative and practical disciplines.²⁶ While some seventeenth-century writers theorized abstractly (or perhaps "scientifically") about the power of music to arouse emotions (for example, Descartes, Roger North, and Athanasius Kircher), others attempted to show what specific musical tech-

25. On Mattheson's empirical aesthetics, see my article, "*Sensus, Ratio, and Phthongos: Mattheson's Theory of Musical Perception*", in: Raphael Atlas and Michael Cherlin (eds.), *Musical Intuitions and Transformations: Essays in Honor of David Lewin*, Boston 1994, pp. 1–16.

26. The interest in musical expression and affect is of course a well-known and documented quality of Baroque musical aesthetics. What is perhaps less recognized, though, is how interest in the corporeal effects of music (in its abilities to agitate the passions) seemed to resurrect questions posed already in the Boethian program of *musica humana*. In any case, the obsession of Baroque writers concerning the doctrine of affections (related to interest also in questions of musical sensibility) can be seen as a strong counter-narrative to the traditional theoretical concerns (of speculative theory) with topics of number and form. If we were to propose a third genre of musical theorizing in the Baroque period, it would be less that of "*musica poetica*" than of "*musica affectiva*".

niques could be employed in practice to arouse emotions (by choice of mode, rhythmic patterns, rhetorical figures, and so forth). The most comprehensive compositional treatises of the period (such as Heinichen's *Der General-Baß in der Composition* of 1728 or Mattheson's *Der vollkommene Capellmeister* of 1739) offered numerous examples of compositional techniques that a musician could employ to generate a specific affect.

If we turn to questions of style, which becomes another dominating concern of Baroque theorists, an even more complex picture emerges, one that again has a destabilizing effect upon the traditional divisions of music theory. As made most famous by Marco Scacchi in the early seventeenth century, there were three prominent styles of musical composition: *musica ecclesiastica*, *musica da camera*, and *musica theatralis*—music for the church, the chamber, and the theater. (The debt to Aristotle's three levels of rhetoric is obvious here.)

But these styles were not exclusively restricted to specific geographic genres, despite their names. For example, "theatrical dissonance" as described by someone like Heinichen could easily be found in works outside of operatic music, just as music in *stile antico* could be found in chamber music. At the same time, national styles of French and Italian music (and to a much lesser degree, "English", "German" or "Polish" music) provided further categories of division that could be layered over the rhetorical divisions of Scacchi. (Composers such as Bach and Handel were commonly celebrated—or sometimes censored—for their penchant to mix all of these styles.) Quite clearly, the terrain of Baroque music was getting quite dense with new categories of style and genre, and these categories could not be easily mapped over traditional theoretical divisions of the musical landscape.

To expand on this last point in a most literal way, consider the illustration shown in Ex. 3. This is from a delightful little book called *Bellum Musicum* by the late seventeenth-century German novelist and musician, Johann Beer.²⁷ It is a map—literally—of

27. Johann Bähr, *Bellum Musicum oder musicalischer Krieg*, 1701. (The orthography of Beer's name varies, and includes Beer, Bähr, Ursus, etc.)

the musical landscape as imagined in Beer's fantastical work, which narrates an allegorical war between musicians led by Queen Composition advocating the newest styles of Italian theatrical music with partisans of more traditional music. But Beer's aesthetic battle is more than a clash of musical styles: it reflects the profound shift to be observed in German Baroque musical thought.

Example 3.: Johann Bähr, Bellum Musicum oder musicalischer Krieg, in welchem unständiglich erzehlet wird, wie die Königin Compositio nebst ihrer Tochter Harmonia mit denen Hümpfern und Stümpfern zerfallen und nach beyderseits ergriffenen Waffen zwey blutige Haupt-Treffen sambt der Belagerung der Vestung Systema unfern der Invention-See vorgegangen, auch wie solcher Krieg endlich gestillet und der Friede mit gewissen Grund-Reguln befestiget worden... von Johann Beehren (1701)



Let us look at a few details of Beer's disciplinary topography. We see that the musical landscape is divided by the kingdoms of double counterpoint in the Northwest, *Figuralia* in the Southeast, and *Choralia* in the Southwest. The region of *Contrapunctus* is the home of such antiquated musical techniques as invertible counterpoint and the canon, conservative genres such as the *fuga* and *passacaglia*, and anachronistic theoretical constructs such as mode, hexachords, solfège, and mensural theory. Lest we miss Beer's opinion on this musical practice, he shows us that this Northwest terrain is nurtured by *Flumen Simplicитatis* and *Dumm* and *Despectus*—interspersed with the lakes of ignorance and contemptibility, and populated with villages called *Schweinsburg*, *Fressenberg*, *Sackpfeiffingen*, *Unverständigen*, *Verachtungshofen*, *Eselbosen*, *Grob*, and *Stultusberg*.

In contrast, the healthy and sunny territory of *Figuralia* is fed by the lake of invention on the far right of the map—the *Lacus Inventionis*—whose nourishing waters are distributed by rivers with names such as *Mollis* and *Durus*, *Forte* and *Piano*. *Figuralia* is the land of progressive musical taste: not only of the newest theatrical genres and styles, but of transposeable key systems, pedagogies of the figured bass, harmonic *inventio*, and accentual metrics. Here we find such wholesome residences as *Gute Weinberg*, *Concertberg*, *Tonhofen*, *Passagio*, *Orgelberg*, *Alla Capella*, *Dorflein Allegro*, *Semitonia*, *Quintenberg*, *Imitationshofen*, *Fagottburg*, *Tempo*, and *Saraband*. Note that this terrain is itself divided into two parts: *Terra Instrumentistarum* in the northeast and *Terra Vocalistarum* in the southeast *Ultramontane*, the worlds of chamber and theatrical music, respectively. The more distant land of *Choralia*—church music—seems to have its own reservoir in the foothills of the Southwest with the *Flumen Devotionis*.

The landscape mapped out by Beer, of course, reflects on one level Scacchi's tripartite division of musical styles mentioned above. At the same time, though, it suggests the empirical problems inherent in this triadic system. Note, for instance, how Beer maps instrumental music dangerously between counterpoint and theatrical music, it potentially partaking of both conservative and progressive elements, while the world of Church music seems somewhat detached from the battlefields further north—as if

Church music was somehow innocent of these stylistic tensions. Music theorists should pay special attention to the position of *Vestung Systema*—the Fortress systems, which sits impervious and insulated from the surrounding terrains. In Beer's text, we learn that this fortress is occupied by music scholars and philosophers who spend their days studying ancient music texts, debating the perfection of certain intervals, calculating evermore precise divisions of the monochord, and censoring transgressions of traditional modal theory and counterpoint. They live in other words within their own world of obsolete, abstract systems of speculative philosophy. Significantly, our musical scholastics never come down from their ivory towers to explore the lands surrounding them until a force of invaders led by Queen Composition and Field-Marshal Tactus actually besieges the fortress, burns their treatises, ties them to galley-stocks, and commands them to actually listen to the music of their landmen. Here is empiricism with a revenge.

There is much more I could say about Beer's hilarious and eye-opening book as a veritable treasure-trove of insight into the musical debates and issues confronting German musicians and music theorists in the late seventeenth century.²⁸ But what strikes me as most intriguing about Beer's allegory is its seeming subordination of music theory and pedagogy to issues of style. The music-theoretical world is still divided into areas of practical and speculative inquiry, respectively, but only those practical elements relevant to the new tastes of *Musica figuralis* are deemed worthy of study and preservation. The speculative traditions of theoretical study are anachronistically paired with old styles of ecclesiastical music and its theoretical *apparati*—modes, hexachords, mensuration and the like—all to be banished to the deserts of ignorance, the cloisters of the church, and the ivory towers of the academics. For Beer, music theory was something that was mapped out and navigated according to its relevance to practice. And the judgement of its merits was by *sensus*, not *ratio*—a battle cry that would be

28. For more on Beer's treatise and its background, see Werner Braun, "Musiksatorische Kriege", in: *Acta Musicologica* 63 (1991), pp. 168–99.

repeated again and again throughout the eighteenth century by similarly empirically-minded writers.

4

I want finally to say something about Dahlhaus's third paradigm of music theory: music analysis. During the seventeenth and eighteenth centuries, examples of music analysis as we might understand the concept today are rare. To be sure, there are some famous examples of "analysis" to be found. In Rameau's *Traité de l'harmonie*, for instance, there is a fundamental-bass analysis of his own fugal motet, "Laboravi clamans". And in the *Nouveau Système* of 1726 there is perhaps the most famous example of eighteenth century "analysis": Rameau's fundamental-bass reading of a recitative from Lully's *Armide*, "Enfin, il est en ma puissance". (This latter example would be discussed by both d'Alembert and Rousseau, and would itself become an object of intense aesthetic debate between Rameau and Rousseau.) A few other selected examples of music analysis between 1650 and 1750 could also be cited.²⁹ But none of these examples is properly an analysis in the sense discussed by Dahlhaus, which relies on a much later Romantic aesthetic of the musical artwork. Rather than investigating a musical work to reveal its inner content and beauty, these are all *exempla* used by the author for pedagogical purposes to illustrate some pedagogical point or ideal. What is crucially lacking in each of these Baroque *exempla* is a proto-Romantic notion of the autonomous musical artwork deserving and demanding profound contemplation and study by the student. Whereas a music student in the seventeenth or early eighteenth century might study a work of a

29. Another early example of musical analysis is discussed by Joel Lester, "An Analysis of Lully from circa 1700", in: *Music Theory Spectrum* 16/1 (1994), pp. 41–61. One of the very earliest "analyses" of music often cited by historians is found in Joachim Burmeister's *Musica poetica* of 1600: a rhetorical parsing of a Lassus motet, "In me transierunt". Again, however, this is analysis in an older sense of *exemplum*. As von Loesch has argued (see footnote 11), the seventeenth-century German writings on *musica poetica* cannot be read as simple anticipations of the nineteenth-century work-concept, with all its attendant aesthetic and social values.

composer for emulation and instruction in his own composition lessons, the Romantic notion of analysis was far less pragmatic. (And given the status of the musical artwork as a monumental and ineffable masterpiece, the idea of strict imitation would have been in any case disputable.) Nineteenth-century critics such as Hoffmann, A.B. Marx, or George Grove would attempt through their analytical hermeneutics to discover the music's inner artistic and spiritual content.³⁰

Still, the aesthetic turn of music theory towards issues of style, rhetoric and genre evident in the writings of Mattheson or Scheibe (and adumbrated to a surprising degree by Beer) bespeaks a concern with the poetics of the musical work that could arguably be taken as a foretoken of nineteenth-century music analysis. This concern is made even more explicit in several writings of the Göttingen organist and music historian, Johann Nicolaus Forkel. Known to most musicians today as the first biographer of Bach, Forkel published an important though little-known essay in 1777 under the title "Über die Theorie der Musik".³¹ Here for the first time we have music theory used as a disciplinary program we would recognize today — as a synthesis of speculative, practical, and analytic concerns. Arguing that an understanding of music would require a balance of both empirical and rational approaches, Forkel proposed that the true discipline of music theory would incorporate both, much as Kant was shortly to attempt a mediation in his critical philosophy of empiricism and rationalism. In Ex. 4, I have outlined the basics of Forkel's program. Note that parts one and two constitute the traditional and modern domains of speculative harmonics: the mathematical and acoustical study of tone — *Klanglehre*. Part three and four constitute the tradition of systematic theory — the regulation of tonal material in both syntax and form. Here again, Forkel betrays his originality

30. For a useful anthology of such nineteenth-century analyses, as well as a revealing discussion of the aesthetics underlying such analyses, see Ian Bent, *Music Analysis in the Nineteenth Century*, 2 vols., Cambridge 1994. Also of value is Dahlhaus's classic monograph, *The Idea of Absolute Music*, translated by Roger Lustig, Chicago 1989.

31. Reprinted in C. F. Cramer's *Magazin der Musik* 1 (1785), pp. 855–912.

Example 4. Johann Forkel, *Über die Theorie der Musik* (1777)

I SPECULATIVE	1. Die Physikalische Kanglehre	2. Die Mathematische Kanglehre
<hr/>		
II REGULATIVE	3. Die Musikalische Grammatik	4. Die Musikalische Rhetorik
	a. <i>Zeichenlehre</i> (notation)	a. <i>Periodologie</i> (rhythm and logic)
	b. <i>Tonarten</i> (scales, modes and intervals)	b. <i>Schreibarten</i> (style)
	c. <i>Harmonie</i>	c. <i>Gattungen</i> (genre)
	d. <i>Rhythmopöie</i>	d. <i>Anordnung</i> (composition)
		1. <i>Aesthetische</i> (rhetorical divisions)
		2. <i>Figuren</i> (figures)
		e. <i>Vortrag</i> (performance)
<hr/>		
III ANALYTIC	5. Die Musikalische Kritik	
	a. (On the necessity of rules)	
	b. (On beauty)	
	c. (Musical taste)	

by having recourse to an old discipline-rhetoric — and adapting it creatively as a strategy for analyzing the parts, styles, and genres of music. Performance, as can be seen, is now firmly within the theoretical domain, as it is within the traditional discipline of rhetoric, which considers not only the composition (*inventio*) and structure (*dispositio*) of a speech, but its affect and delivery (*elocutio*).

Interestingly and tellingly, Forkel does not consider style difference as an essential marker. (Again, let me draw attention to contrasts in the structure and style of Forkel's presentation with that of Beer's. The map in Ex. 3 illustrates perfectly, I think, Foucault's *epistēmē* of Renaissance Resemblance.³² It is based upon principles of affinity and association, and its appearance is regulated by family groups and clusters. Forkel's taxonomy in Ex. 4, however, illustrates Foucault's classical epistemic order of representation. It

32. This famous distinction is made in Michel Foucault's *The Order of Things*, London 1972; originally published in 1966 as *Les mots et les choses*.

is based upon Enlightenment principles of function and behavior, and its presentation is accordingly tabular and encyclopedic in the model of Petrus Ramus.)

Finally, under part 5, Forkel discusses the role of the critic in evaluating music's beauty, and the necessity for cultivating one's taste in judging musical pieces. Although he does not develop this part of his program in great detail, I think it can be read—as I have suggested above—as a clear foretoken of nineteenth-century music analysis. No longer concerned simply with abstracting and codifying systems of harmony, tonality, counterpoint or meter, let alone in analyzing the numerical or acoustical basis of this material, theorists would turn increasingly to the analysis of individual pieces to deduce norms of practice and standards of worth. (That Forkel himself helped establish Bach's musical works in the canon of Western music during the early nineteenth century affirms that he very much had in mind the kind of autonomous artwork held by Dahlhaus as the aesthetic underpinning of Romantic music analysis.) Of course this aesthetic was not always easily reconciled with the increasing premium the Romantics placed upon creative genius, by which individual masterworks were said to be irreproducible and beyond rational analysis. But it was appropriate that an individual with the historical consciousness of Forkel would see the need to develop tools for the analysis and judgement of musical works. The rise of historicism and of music analysis go hand in hand.

5

This brings us as far as I want to take us on this whirlwind tour of late Baroque music theory, for it has done its duty in introducing us to the complex (and often overlapping) configurations of thought found in this period. Still, it is interesting to see how the basic tripartite division outlined by Dahlhaus provides a useful template for our survey. While a further analysis of the development of music theory in the nineteenth and twentieth centuries would certainly reveal further modifications and reconfigurations of the discipline—particularly with the foundation of systematic musicology by Guido Adler in the late nineteenth century, I am struck by how resilient Dahlhaus's three

“genres” remain today, how effectively they continue to serve as coordinates by which to survey our own disciplinary territory. Music theory continues to have a heavily practical orientation, to be sure, as we continue to identify, codify, and classify systems of musical structure and language for music students in our many institutions of musical education. At the same time, music analysis has matured into a lively critical discipline in its own right, although one still heavily tethered to *musica practica* for its pedagogical values. Finally, a seeming resurgence of speculative theory is evident in the writings of several American music theorists, theory that has little ostensible pedagogical or analytic function.³³

* * *

Music theory has often been said to offer us a lens by which we may hear music—to mix my sensory metaphors. The kinds of languages, models, and questions theory poses help to frame our perceptions and conceptions of music. Yet, to continue my optometrical analogy, there are a multitude of glasses musicians can wear. And over time, we have had occasion to look through many kinds of lenses, many varieties of telescopes and microscopes, since the questions we want to have answered about music have changed, the objects of our scrutiny have shifted.

Of course, theory is usually less spontaneously absorbed than an ocular metaphor suggests. Perhaps a better metaphor is found in the topographical analogies with which I began this talk. Theory can be seen as a set of surveying tools—compass, sextant, plumb line—that produce varieties of maps for our orientation. Its tools might also include microscopes, telescopes, oscilloscopes and radon detectors. Maps vary, as we know, depending upon what it is we might be interested in, what topographical information is deemed important to be recorded. Yet in the history of music theory, I am

33. I am thinking here of the work of theorists such as David Lewin, John Clough, and Richard Cohn, all of whom have contributed to the development of neo-Riemannian and “transformational” theory. As in medieval speculative theory, the concern of these theorists is very much with the properties and potential of musical matter. See my contribution “Musicology (Theory)”, in the revised *New Grove Dictionary of Music and Musicians*, London 2000.

continually struck by the continuity of thought as I am by the differences. If Dahlhaus's three paradigms of music theory are not exhaustive, they do capture I think on a macro-level three styles of theoretical activity, three genres of map making. Still, within those paradigms, there will always be a need for resurveying the landscape. There will be new settlements to plot, some erosion of the landscape to take into account, and probably even the occasional tectonic shifts in land mass. But while the numbers and kinds of animals we will meet up with in our musical bestiary will always be changing: our need to give them names and some kind of order will probably not.