

## Book Reviews

Thomas Christensen. *Rameau and Musical Thought in the Enlightenment*. Cambridge Studies in Music Theory and Analysis, vol. 4. Cambridge: Cambridge University Press, 1993.

### *Review by Thomas J. Mathiesen*

Matthew Shirlaw, the first scholar of this century to engage in a painstaking analysis of the treatises of Jean-Philippe Rameau, concluded: "Rameau was a real theoretical genius. He was not only one of the greatest theorists of his time, but one of the greatest of all the theorists who have at any time endeavoured to elucidate the mysteries of harmony, and to discover its laws."<sup>1</sup> Rameau himself would surely have agreed with this assessment, yet his theories have had a checkered history. In his own lifetime, his treatises were carefully and sympathetically read by such intellectuals, scientists, and musicians as Louis-Bertrand Castel, Jean Le Rond d'Alembert, Denis Diderot, and even Jean-Jacques Rousseau. But by the end of his life in 1764, all these men had rejected his work, in some cases with considerable asperity. Beginning with d'Alembert's *Elémens de musique théorique et pratique suivant les principes de M. Rameau* (1752) and extending through the later eighteenth century and the nineteenth, Rameau's theories were simplified, adapted, expanded, criticized, and modified by theorists such as F. W. Marpurg, J. P. Kirnberger, F.-J. Fétis, Simon Sechter, H. L. F. von Helmholtz, Hugo Riemann, and others to such an extent that the tradition began to be mistaken for the theory itself. This unfortunate state of affairs was only aggravated by the fact that Rameau's treatises became increasingly scarce,<sup>2</sup> and even

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<sup>1</sup>Matthew Shirlaw, *The Theory of Harmony* . . . (London: Novello & Co., 1917; reprint, New York: Da Capo Press, 1969), x.

<sup>2</sup>"It is perhaps significant that not one of Rameau's treatises underwent a second edition, in striking contrast to many less important theoretical works of the early eighteenth century." Jean-Philippe Rameau, *Treatise on Harmony*, trans. and with an

had they been widely available, their density and prolixity would have discouraged all but the most diligent readers. Moreover, because Rameau's theory evolved over the nearly forty years separating the *Traité de l'harmonie* (1722) from the *Code de musique pratique* (1760), even a diligent reader can be overwhelmed by the inconsistencies, ostensible contradictions, and especially in the later treatises, various subtexts.

At the beginning of the twentieth century, Rameau found a new champion in Shirlaw, who devoted the greater part of his *Theory of Harmony* to a detailed explication of the treatises themselves. Shirlaw recognized the difficulty of his task:

. . . even the most complete acquaintance with all the books of the *Traité* would not entitle us to assume that we were familiar with Rameau's theory of harmony. Rameau has embodied the results of his reflections on the subject, not in one only, but in several important theoretical works, a fact not always remembered by his commentators. His ideas on the subject of harmony were in a state of constant flux, and of continuous development. For this reason it would be a somewhat difficult task to give a synopsis of Rameau's theories on half a sheet of notepaper.<sup>3</sup>

To show the evolution of Rameau's thought, Shirlaw began with two preliminary chapters—one on figured bass and the classification of chords and the other on Zarlino and Descartes (with some reference to Mersenne)—and then took up the treatises one at a time, carefully tracing their theoretical premises while at the same time introducing various objections raised by Rameau's contemporaries, by later critics such as Hector Berlioz, Fétis, and Riemann, and by Shirlaw himself. This approach has the advantage of providing the reader with two senses of the theory: in terms of its conception, content, and

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introduction and notes by Philip Gossett (New York: Dover Publications, 1971), v.

<sup>3</sup>Shirlaw, xi-xii.

construction as the work of an individual intellect; and in terms of its place within a larger unfolding theory of harmony.

In the late 1960s and early 1970s, interest in re-examining the theory of Rameau was stimulated by the publication of a facsimile edition of his complete theoretical writings, edited by Erwin Jacobi;<sup>4</sup> the revised and enlarged edition of Cuthbert Girdlestone's *Jean-Philippe Rameau: His Life and Work*;<sup>5</sup> Philip Gossett's translation of the complete *Traité de l'harmonie* into English;<sup>6</sup> and several important dissertations and articles.<sup>7</sup> In 1985, Thomas Christensen completed his Yale dissertation on d'Alembert's critique of Rameau, which was followed by the publication of several interesting articles exploring specific aspects of Rameau's theory. Now, in his new book, *Rameau and Musical Thought in the Enlightenment*, published as part of Ian Bent's series Cambridge Studies in Music Theory and Analysis, Christensen expands upon his earlier work and provides the reader with the first comprehensive study of Rameau as music theorist since Shirlaw's *Theory of Harmony*.

The studies of Shirlaw and Christensen naturally invite comparison. In fact, Christensen himself anticipates this comparison by describing Shirlaw's treatment as "probably the most systematic and sympathetic reading Rameau has ever received." He regards the result as "a richly-detailed exposition that reveals much of the power and originality

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<sup>4</sup>Erwin R. Jacobi, ed., *The Complete Theoretical Writings of Jean-Philippe Rameau*, 6 vols., Publications of the American Institute of Musicology: Miscellanea, ser. 3 (n.p.: American Institute of Musicology, 1967-72).

<sup>5</sup>Cuthbert Girdlestone, *Jean-Philippe Rameau: His Life and Work*, rev. and enl. ed. (New York: Dover Publications, 1969).

<sup>6</sup>See n. 2 above.

<sup>7</sup>The book under review (Thomas Christensen, *Rameau and Musical Thought in the Enlightenment*, Cambridge Studies in Music Theory and Analysis, vol. 4 [Cambridge: Cambridge University Press, 1993]) contains a very good bibliography (pp. 313-20); see also the extensive bibliography for the entry "Jean-Philippe Rameau" in David Damschroder and David Russell Williams, *Music Theory from Zarlino to Schenker: A Bibliography and Guide*, Harmonologia, no. 4 (Stuyvesant, NY: Pendragon Press, 1990), 251-60.

of Rameau's thought, as well as its obvious shortcomings" but concludes in the end that it makes "a frustrating read."<sup>8</sup> Various readers will no doubt differ in their summary assessments of the earlier work, but all will surely discern certain parallels in the organization of the two works, while at the same time noticing distinctive differences. Both take a chronological approach, for the most part; both include excurses on the objections of Leonard Euler to Rameau's theory of "octave identity," followed immediately by considerations of Rameau's disputes with the philosophes of the *Encyclopédie*;<sup>9</sup> and both provide systematic explanations and demonstrations of the theoretical principles. Shirlaw's treatment, as already noted, is placed in a fairly broad historical context, extending from Zarlino to nineteenth-century English theorists such as Alfred Day, Sir John Stainer, and Ebenezer Prout, but except for a brief reference to Descartes (in Chapter Two) and passing references to a few scientific figures (in Chapter Three), it is exclusively musical. Christensen's study is in one sense much more narrowly focused, concentrating almost entirely on figures of the seventeenth and eighteenth centuries, but in another sense, it is much broader in scope, since it views Rameau's theory within the context of the compelling scientific and philosophical controversies of the Enlightenment. Christensen also makes use of manuscript materials such as the so-called "Clermont notes," "Art de la basse fondamentale," and the "Opéra Mémoire," unknown to Shirlaw, to provide a much fuller view of the actual development of Rameau's theory.

Christensen organizes his book in ten chapters, preceded by a brief introduction. In the first chapter, he considers Rameau as a figure responding to the various intellectual forces of Cartesianism, Newtonianism, Lockean sensationalism, and Malebranchian occasionalism, in short, the competing intellectual forces of the Enlightenment. In Christensen's view, this was not a simple Enlightenment "consisting of an intrepid troop of secular materialists,

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<sup>8</sup>Christensen, 2.

<sup>9</sup>Shirlaw, 274-76 and 276-83; Christensen, 245-47 and 247-51.

fighting all the superstition, prejudice, and intolerance . . . with the weapons of British empiricism”<sup>10</sup> but rather a “dialectical struggle between rationalist and empiricist tendencies,” that is, “an intellectual *tourbillon*.”<sup>11</sup>

The second chapter concentrates on Rameau’s theoretical method (insofar as a single method can be identified), “a dialectic in which Rameau was constantly attempting to mediate between the empirical appearances of musical practice and the synthetic demands of theoretical systematization.”<sup>12</sup> The focus here is on the *Traité*; the evidence of the “Clermont notes,” written apparently in the seven years prior to his move to Paris in 1722; the influence of Cartesianism; and the competing theoretical and practical traditions apparent in earlier French music theory, represented on the one hand by Marin Mersenne and René Descartes himself and on the other hand by figures such as Etienne Loulié and Michel L’Affilard.

The third chapter, “Precursors of Harmonic Theory,” provides a brief consideration of French thorough-bass practice as represented in a number of treatises published in the seventeenth century, with particular focus on the important *règle de l’octave*<sup>13</sup> and the way in which the art of accompaniment became “the key that has opened to him [Rameau] the most secret sanctuaries of music.”<sup>14</sup> Two other elements important to the development of Rameau’s theory are also introduced here: first, the new conception of dissonance as a means of defining harmonic progression, and second, a rising awareness of

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<sup>10</sup>Christensen, 15.

<sup>11</sup>Ibid., 19. Christensen credits the dialectical analogy to Ernst Cassirer.

<sup>12</sup>Ibid., 40.

<sup>13</sup>This is essentially a pattern of root-position triads (on the first and fifth notes of a diatonic scale spanning an octave) and first-inversion triads or seventh chords (on the other degrees of the scale). As Christensen describes it (ibid., 50), “By knowing which particular sixth chord belongs to which scale degree, one has a means of harmonizing every diatonic scale progression.”

<sup>14</sup>From L.-B. Castel’s review in the *Journal de Trévoux* (1722), quoted in ibid., 51.

inverted chords as equivalent to their perfect disposition, not merely as derived from that disposition. In order for this “equivalence” to be logically (and perhaps empirically) acceptable, it was necessary to identify and recognize a “generative fundamental,” and this is the subject of the fourth and fifth chapters.

Christensen provides in Chapters Four and Five a useful summary of the various mathematical principles described by “canonists” (as he calls them) such as Johannes Kepler, Athanasius Kircher, Robert Fludd, and Mersenne, concentrating however on the ways in which these principles were expounded by Zarlino and especially Descartes in his *Compendium musicae*. All these principles had been explored earlier by various Greek musical writers, who had observed the interesting correspondence between arithmetic ratios such as 1:2, 1:3, 1:4, 2:3, and 4:3 and the musical consonances of the octave, twelfth, fifteenth, fifth, and fourth, not to mention much more complex ratios and intervals, which were also examined in some of the treatises.<sup>15</sup> As these principles were rediscovered and applied by later theorists, they were eventually adapted by Rameau for his theory of chordal generation, in which two basic types of chords, the consonant triad and the dissonant seventh, and all their compounds and inversions could be generated from a single source. But the adaptation went beyond this, for Rameau also saw that the harmonic relationships inherent in each chord were also inherent in the movement of the underlying fundamental bass from chord to chord, thereby explaining “how music was a fully dynamic process that unfolded over real time.” Thus, “music is a coherent and intelligible succession of directed harmonies over real time that can be both defined by and modeled with the fundamental bass.”<sup>16</sup>

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<sup>15</sup>I note here in passing that a number of Christensen’s observations on the manipulation of the monochord and the ways in which monochord theorists actually viewed their findings (see especially pp. 78–83), while perhaps true for Zarlino and Descartes, should not be taken as generally true for earlier theorists of the canon, who show considerable variety in their conception of the construction of this instrument, their ways of measuring the intervals on multiple strings or on a single string, and their understanding of the results (in terms of frequency, string length, or pure number).

<sup>16</sup>*Ibid.*, 132.

Chapters Six and Seven concentrate on Rameau's reconceptualization of his earlier theory in terms of the *corps sonore*, or in other words, a vibrating body and its harmonic overtones. Christensen reviews some of the scientific treatments of overtones in the generations prior to Rameau, especially those of Mersenne and Joseph Sauveur, but the emphasis is on the development of Rameau's new theories—in the *Génération harmonique* (1737) and his 1749 presentation to the Académie Royale des Sciences, preserved, as it seems, in an unpublished manuscript in the Bibliothèque-Musée de l'Opéra, which Christensen calls the “Opéra Mémoire,” and later published in a longer version as the *Démonstration du principe de l'harmonie* (1750)—and reactions to them by scientists such as Dortous de Mairan, Castel, Euler, Daniel Bernoulli, and d'Alembert. Related to Rameau's new interest in the *corps sonore* was a fascination with the geometric proportion. This proportion could be used to explain the obvious harmonic force of the subdominant, which had previously been disregarded as a cadence point or a fundamental chord, and of greater importance, it could provide a new model of symmetrical musical relationships in place of the “rigorously mechanistic, directed chain of dominants found in the *Traité*. . . . The function of mode can now be understood as a kind of solar system, where the tonic represents a large body like the sun drawing smaller planets from all directions towards its own center.”<sup>17</sup> These symmetries are particularly well summarized in Christensen's figure 7.1, which shows the interlocking patterns of arithmetic, harmonic, and geometric proportions and their respective associations with the minor triad, the major triad, and the relationship among subdominant, tonic, and dominant functions.<sup>18</sup>

In the final chapters, Christensen explores the history of Rameau's association with the philosophes and his gradual estrangement from them, especially from his erstwhile champion d'Alembert. Christensen certainly does not discount basic personalities in trying to provide

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<sup>17</sup>Ibid., 185.

<sup>18</sup>Ibid., 208. I should remark, however, that the note d''' is misplaced in the diagram. It should fall directly over the number 27.

reasons for the controversies that became more and more acidulous in the last decades of Rameau's life, but he sees these hostilities primarily as the inescapable result of the various cultural, intellectual, and rhetorical positions competing for primacy in the course of the French Enlightenment. Christensen is apparently aware that his interpretation of Rameau's theory as consciously rhetorical may not sit well with all readers:

The dependence of music theory—or really any kind of theory—upon political and rhetorical factors may strike some readers as a baleful situation, one the theorist ought to strive to mitigate as much as possible. I would argue, on the contrary, that such a dependence can be a virtue. Only to the degree that music theory responds to questions of pressing import of [i.e., to (?)] its time in a culturally-resonant language does it accrue vitality. Music theory for someone like Rameau was not a discipline standing outside his culture, but one intrinsically a part of it. Of course, a theory has the possibility of not just responding to cultural forces, but also of redirecting them.<sup>19</sup>

While this point of view seems to be used in modern criticism to reduce the individual to little more than a soulless package of tedious ideologies, Christensen does not take it to extremes. He clearly recognizes that Rameau's theory is important and still of interest today precisely because it transcends the limitations of its time and culture, for at the end of his book, he writes:

The truly revolutionary accomplishment of Rameau, I think, consisted in the overall reconceptualization of music and the music-theoretical enterprise he envisioned. Almost single-handedly, he redirected the focus of music theory to questions involving chordal generation, harmonic coherence, and

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<sup>19</sup>*Ibid.*, 305.

tonal identity, questions that still resonate today.<sup>20</sup>

The subject matter of *Rameau and Musical Thought in the Enlightenment* is often quite complex, and this is certainly not a book for the casual reader. Thomas Christensen, however, does his best to make the material as accessible as possible by writing in an effective and well-controlled style, with the footnotes unobtrusively providing solid and appropriate documentation (though here, I think the publisher should have used a somewhat larger type). *Rameau and Musical Thought in the Enlightenment* makes an impressive contribution to our understanding of his music theory and especially the intellectual ferment within which it was formed. If it is true that “no scholar of tonal music may remain ignorant of concepts such as the sonorous body (*corps sonore*) and fundamental bass (*basse fondamentale*), regardless of his or her own theoretical orientation or reaction to these formulations,”<sup>21</sup> then it is also true that this is a book for all such scholars to add to their libraries.

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<sup>20</sup>Ibid., 306.

<sup>21</sup>Damschroder and Williams, 250.

