surrounds this repertoire beloved by singers, students and amateurs, as well as for the insights offered by his knowledgeable fingers into the performance of this repertoire.

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doi:10.1017/S1479409811000358

Sylvian Kahan, *In Search of New Scales: Prince Edmond de Polignac, Octatonic Explorer*, Eastman Studies in Music, v. 63 (Rochester, NY: University of Rochester Press, 2009). xiv+389 pp. £40.00.

Paul-André Bempéchat, *Jean Cras, Polymath of Music and Letters* (Farnham, UK: Ashgate, 2009). xxviii+569 pp. £55.00.

This review concerns two recently published books dedicated to overlooked French composers, both of whom achieved renown in areas other than music during their lifetimes. The first man, Prince Edmond de Polignac (1834–1901) was born into an aristocratic family, albeit a disgraced one[1]. Unable to gain admission to the Paris Conservatoire, and with very few professional opportunities deemed 'acceptable for a young aristocratic man' he pursued a career as a 'gentleman composer' (Kahan, p. 18). The second subject, Jean Cras (1879–1932), was a scientist, an inventor, a distinguished Rear-Admiral in the French navy and a moral philosopher, in addition to being an esteemed composer. Cras, 'during his lifetime, [enjoyed] the same stature and celebrity as Fauré, Debussy, and Ravel' but '[s]ince his death, [both he] and his music have been almost completely overlooked' (Bempéchat, front flap). By contrast, Kahan does not consider Polignac to be an 'unjustly neglected composer', mainly because his octatonic music, which is the focus of her study, 'is, regrettably, not much more than a historical curiosity' (Kahan, p. 3). She does suggest that his tonal music (which she, necessarily treats much more briefly than the octatonic music) 'might justify the appellation' (Kahan, p. 3).

The temperaments of the two men were also quite different. The aristocratic Polignac was plagued with an identity crisis. He was 'a sickly and ''delicate'' son in a family of strong, brilliant older brothers' and suffered 'the additional turmoil of his sexual uncertainty'. His failure to meet the standard for admission to composition classes was due to both his limited talent and his poor showing in his courses (particularly his study of harmony with Napoléon-Henri Reber (1807–1880)). This latter may have been due in part to his 'tendencies toward indolence'. (Kahan p. 18). Cras, on the other hand, was a man of determination and resolution: 'resolutely French, resolutely republican … resolutely Catholic and resolutely contemptuous of aristocracy,' although Bempéchat attributes a sort of dichotomy to him:

> Jean Cras cannot be qualified as a purely Breton composer; *in extension*, nor can his musical legacy be qualified as purely Breton. Given his adherence to musical

[1] Kahan notes that the Prince's father, Prince Jules de Polignac 'had been condemned by the French courts to *mort civile*, a total privation of his civil rights' and that, 'as a consequence, [Prince Edmond's] birth certificate and baptismal record identified him as … son of the Marquis de Chalançon, ''currently away on a trip.'' ' (Kahan, p. 9)

> architectures traditionally acknowledged as Germanic, and his phlegmatic dismissal of the impassioned, often ludicrous anti-German polemics that had all but dominated French musical life since the 1870s, nor can his legacy be considered purely French. As this study progresses, we will come to understand how scientific objectivity, working in tandem with an indomitable will to individualistic artistically, generated the symbolically autobiographical, classically dependent, supra-national musical syntax that simultaneously summoned the complex duality of Jean Cras' musical and military careers. (Bempéchat, p. 25)

Although I will review the two volumes separately here, they share one aesthetic: the tension between musical novelty and compositional sincerity. Polignac's search for new scales, culminating in his experiments with octatonicism, may be contrasted with Cras's search for compositional authenticity and sincerity – his concern for the soul of the composer – which leads Bempéchat to conclude that 'his aesthetic reasoning had become entrapped by romantic subjectivity' (Bempéchat, p. 162). One of Polignac's obituaries, by Eugène d'Harcourt in *Le Figaro* (9 August, 1901), read '[a]lways in search of novelty, he invented a scale, a succession of whole tones [*sic*], for which one could reproach him for a certain hardness [of sound], but which gave to his works an astonishing originality. …[H]e was interested in all new ideas and strove to be an artist, in whatever form that took' (Kahan, p. 108; emendations are Kahan's). By contrast, Cras's correspondence (from a letter of 19 January 1917) reveals his opinion of novelty for its own sake to be artifice and decadence, even in the hands of a composer as revered as Debussy:

> [From] the day he discovered ''the [whole-tone] system,'' he exploited it *ad infinitum*, and that was the glorious period of his life … then the method, albeit fruitful, burned out, leaving only vapidity. … When an artist does not delve into the recesses of his soul, the source of his inspiration burns out at a certain point, and there is nothing more painful than this decadence, which, at life's end, discloses only the 'physical' nature of the art (Bempéchat, p. 162; emendations are the Bempéchat's).

Cras writes further of his concern for the artist's soul in passages such this one in a letter of 30 March 1904: 'the goal of music (above all and perhaps exclusively) is to reveal the soul of the composer. … [A] piece of music attracts you as does a human being, because its merits equal those of its author's; one likes it as one would have liked its creator' (Bempéchat p. 162; emendations are mine). He, like Henrich Schenker (1868–1935) who was active in Austria during the same period, seems to draw a distinction between talent and genius based on his perception of artistic integrity and sincerity.[2] He writes of Debussy, whose music he frequently performed in his home 'to relax,' '[a]s long as, when playing Debussy's best compositions, I would not, for example, [be able to] say, ''what a beautiful soul this man must have''; as long as I do not feel my soul uplifted toward God, Debussy will remain for me a marvellous alchemist of rare perfumes, but not an artist' (Bempéchat, p. 163).

On Cras's own use of exotic musical elements, including Breton folk idioms, Bempéchat writes that '[such elements] are invariably in proper context, in proper proportion and always at the service of the philosophical or autobiographical message he projects' (p. 168). According to Bempéchat, Cras was very well aware of the difference between superficial imitation of a modal or folk

[2] I discuss Schenker's understanding of the nature of 'genius' and 'non-genius' in my dissertation. See Benjamin McKay Ayotte, 'Incomplete Ursatzformen Transferences in the Vocal Music of Heinrich Schenker' (PhD diss., Michigan State University, 2008): 36–7.

idiom and the thorough assimilation of its style and affect. In a letter of 18 January 1903, Cras writes,

> all such compositions [e.g., contrived 'Arabian, Breton or Chinese fantasia[s]'] are really 'genre' pieces having little artistic merit. Because one can't know the characteristics of a mode without feeling it. Modes are the moulds through which is expressed the soul of a people who employ them. The mould, empty, has no value. One must be able to assimilate it so perfectly that, at a moment's notice, one's soul can flow naturally through it. (Bempéchat, p. 174)

While Cras's exposure to exotic musical elements was a result of his travels and seeking out of musical experts (Bempéchat, p. 175), Polignac's seems largely to be academic in nature. Kahan mentions frequently that it is impossible to know whether Polignac attended particular musical performances (and notes her understandable frustration at the lack of such documentation), but she observes that discussions of 'scales and their history; exoticism; rejuvenation of modern music; Russian music; and Gypsy music' were common topics in Parisian musical periodicals (Kahan, p. 44). About the 1878 World's Fair, which featured Russian music as a 'body of ''exotic'' repertoire that captured public attention' she writes, 'the lack of evidence of what Polignac heard and when he heard it is particularly frustrating, for it is in mid-nineteenth-century Russian music that the octatonic collection was first widely exploited as both a melodic and structural element.' (p. 40) Admitting the lack of hard evidence connecting Polignac's writing to Rimsky-Korsakov, Kahan documents the many opportunities that Polignac would have had for engagement with Russian music and the study of scores to Rimsky-Korsakov's *Sadko* and Modest Mussorgsky's *Boris Godunov* that the Paris Conservatoire acquired in 1874 (p. 41).

Polignac's interest in the exotic is exemplified by one of his first pieces employing a 'new scale', his *Fantasie-Tanz* of 1884, a 'wistful, mazurka-like piece for piano in ternary form' (Kahan, p. 44). In his preface, Polignac describes the scale basis 'in which the sixth degree is raised by a half step; but it parts company from [the 'Greek Dorian mode' upon which it is based] by virtue of its more modern tonality, which easily takes on an aspect that is bizarre, disconnected, quasi-macabre' (Kahan p. 44; emendations are mine). In the context of the present discussion of novelty and sincerity, Polignac's motto, 'Rien n'est vrai que le faux, le faux seul est aimable' ('only the false is true; the false alone is kindly') is interesting. 'It bears pointing out', Kahan writes, 'that the French word *faux* (false) can also be translated as ''out of tune.'' ' (Kahan, p. 44) Or it may be a sort of paradox, such as composers often wrote over contrapuntal riddles and canons. Alternately, it may be a statement of his intentions for modern music: that the *false* (i.e., man-made, contrived) systems of musical organization are the only way forward now that the *true* (i.e., natural) system of musical organization according to the hierarchical tonal system is being called into question as backward-looking at best; antiquated at worst.

Sylvia Kahan: *In Search of New Scales: Prince Edmond de Polignac, Octatonic Explorer*

Sylvia Kahan's study of Prince Edmond de Polignac, an early explorer of the octatonic scale, is written in two parts: Part I, 'Man, Prince, and Composer' (pp. 9–142) is comprised of general biography interspersed with chapters

https://doi.org/10.1017/S147940981100036X Published online by Cambridge University Press

devoted to the Prince's 'invention of octatonicism' and 'seeks to provide a link between Rimsky-Korsakov's first forays into orcatonic writing, in 1867, and late nineteenth-century octatonicism' (p. 3). Part II, 'Edmond de Polignac's Octatonic Treatise' (pp. 145–334), includes a transcription, edition and copiously annotated translation of the Prince's treatise on ocatonicism, *Étude sur les successions alternantes de tons et demi-tons (Et sur la gamme dite majeure-mineure)* ('A Study on the Altenating Sequences of Whole Steps and Half Steps (and on the Scale Known as Major-Minor)'). Kahan deftly situates Polignac's work in both chronological and intellectual history, duly citing the pioneering work of Arthur Berger (1963), which inspired the work of Pieter van den Toorn, Richard Taruskin and Allen Forte, among others, in the gradual revelation of the 'functional and formal uses of the octatonic scale.' (p. 1)[3] She writes of the unfortunate truth that, 'while theory often lags behind practice, the lag between the use of the octatonic collection in composition and its articulation in theory seems to have been particularly long' and that Rimsky-Korsakov's followers tended to use the collection 'as an embellishment of diminished or diminished seventh chords [*sic*]' (p. 2). I think that here Kahan meant to write '*dominant* or diminished seventh chords' considering that both are octatonic subsets.

Kahan wades into the delightfully muddy waters of octatonic theory, as she describes the 'diversity of opinion' she encounters in the scholarly literature as the considers four questions: '(1) what exactly constitutes ''octatonic music?''; (2) what are the most likely influences on octatonic and proto-octatonic composition in late nineteenth-century France; (3) what does octatonic music sound like; and (4) which nineteenth-century works can justifiably be considered to be precursors of twentieth-century octatonic works?' (p. 4) She considers the 'collectional' versus the 'structural' use of the octatonic scale. In the former, one is reminded of Schoenberg's suggestion that the Bach B minor fugue (Well-Tempered Clavier, Book I) may have been the first twelve-tone work, considering the chromatic nature of the subject (Bach uses all 12 pitch classes). Kahan considers this 'greatest dichotomy of opinion' within the scholarly community. She questions whether

> the presence alone of the eight pitch classes of one of the three collections (or a subset of the a collection) is sufficient to warrant the appellation ''octatonic,'' any more than the presence of the diatonic collection in a piece (say, the ''Russian Dance'' in Stravinsky's *Petroushka*) renders the work tonal just because it is constructed from the white-key diatonic collection (p. 4).

Such a question likely arose in Schoenberg's mind as he studied Bach's scores, with their expressive chromaticism. But if our answer to the Bach question is (as it ought to be) a resounding 'no', then ought not our answer to the collectional approach be 'no' as well? Richard Taruskin, in *Stravinsky and the Russian Tradition* (cited by Kahan), defines 'true octatonicism' as 'the supplanting of functions generated by movement within the circle of fifths by a rotation of thirds or by a

[3] See Arthur Berger, 'Problems of Pitch Organization in Stravinsky', *Perspectives of New Music* 2 (1963): 11–42; Pieter C. van den Toorn, *The Music of Igor Stravinsky* (New Haven: Yale University Press, 1983); Richard Taruskin, *Stravinsky and The Russian Tradition: A Biography of the Works through* Marva, 2 vols. (Berkeley and Los Angeles: University of California Press, 1986); Allen Forte, 'Debussy and the Octatonic', *Music Analysis* 10 (1991): 125–69; ibid. 'An Octatonic Essay by Webern: No. 1 of the *Six Bagatelles for String Quartet*, Op. 9', *Music Theory Spectrum* 16 (1994): 171–95.

tonally stable diminished harmony' (p. 2). Kahan rejects the collectional approach as well as Forte's application of set theory, claiming that

> [it] provides a useful classification of whole-step/half-step pitch content on the surface level, [but] does not provide any framework for discussing [octatonic music's] special – indeed, astonishing – sonic qualities: the audacious third-related progressions of proto-octatonicists such [as] Schubert, Liszt, and – perhaps – Chopin; the pervasive associations with magic and sorcery in nineteenth-century Russian music; and the identification of the collection with exoticism and barbarism in the twentieth century (pp. 4–5).

In this respect, she echoes the criticisms of set theory by George Perle, whose reaction she characterizes as 'extreme [but] pertinent' (p. 336, fn 19). Kahan cites Perle's 1990 article in which he criticizes the theoretical rigor of set theory as being incompatible with his experiences as a listening composer.[4]

The introduction to Polignac's treatise delightfully documents the researcher's intense difficulties in transcribing the work. Kahan identifies three primary problems: (1) Polignac's authorial intentions for the document (was it to be a private compositional aid or intended for publication?) in light of his 'self-promotion issues;' (2) Polignac's working method, which freely alternated between 'the confident hand of a pedagogue intent on teaching' and 'the spontaneous, off-the-cuff jottings of a composer in the act of composing'; and (3) his 'sloppy approach to notation', including his 'slovenly' notation of notes and rhythms, his 'alternatively erratic, erroneous and redundant' notation of accidentals (pp. 145–6). In addition to these editorial concerns, there were the 'tensions between … the nineteenth-century vocabulary that Polignac, with no precedent to guide him, used to describe his finding, and the twentieth- and twenty-first-century vocabulary of music-theoretical concepts and terminology that any knowledgeable music scholar brings to a reading of this book (pp. 146–7). Kahan's edition of the treatise is historical musicology at its best. She reads Polignac's text closely and provides expert editorial clarity to bring to life a document of great historical significance. In doing so, she pushes the theoretical explication of the octatonic scale from 1963 back to 1888.

Paul-André Bempéchat: *Jean Cras, Polymath of Music and Letters*

Bempéchat begins his study of the life and music of Jean Cras by describing Cras's triple life as soldier, scientist and musician. Not just a soldier, Cras was a highly-decorated Rear-Admiral in the French navy, who earned two of France's highest naval awards – the *Médalle de sauvetage* (equivalent to the Victoria Cross) and the *Croix de guerre* – as well as Italy's *Cavaliere dell' Ordine dei Santissimi Santi Maurizio e Lazzaro* (equivalent to France's *Chevalier de la Légion d'honneur*), and France's *Ordre de l'Armée* (p. 100). Cras was a scientist who, finding the accuracy of the current on-board equipment for navigation and logistics deficient, conceived 'a device that would enhance and facilitate the transmission of electrical signals', which 'rapidly became standard equipment for all French war vessels' (p. 88). He also conceived 'a new directional ruler-compass that would also become standard navigational equipment for the French Navy' and for which he was inducted into the Academy of Naval Sciences in 1925 (p. 89). Cras was a musician whose works number nearly

[4] George Perle, 'Pitch-Class Set Analysis: An Evaluation', *Journal of Musicology* 8 (1990): 151–72.

100, and whose aesthetic outlook and quest for compositional sincerity and authenticity has been mentioned above.

The primary source material for this thorough and meticulous study of the remarkable life of Jean Cras is the voluminous correspondence collected by Cras's daughter Monique Cras, who was herself a talented artist.[5] Bempéchat writes that she 'entrusted me with five volumes of transcribed letters she had selected – many excerpted – for the scholarly community' (p. xxii). Like Kahan, Bempéchat notes the frustration of working with otherwise exciting source material: 'Monique's typing was oftentimes faulty and the (second-generation) typeface very faint. Ellipses abounded, thereby upsetting Cras' prose, confusing time lines, the flow of information and data. References to obscure Breton and French cultural and political figures, then vital actors in the theatre of the Third Republic, were frequent'. Particularly beautiful is Bempéchat's dedication of his volume 'to the unknown soldier' citing Cras's 'humanity, pacifism, spirituality and idealism' and stressing his life as an 'ecumenical lesson in humility' (pp. xxii–xxiii).

The book is divided into the standard 'life' (Chapters 1–6; pp. 3–191) and 'works' (Chapters 7–11; pp. 195–517). Four appendices and a copious bibliography round out the volume. Eight full-colour maps show Cras's ports of call and theatres of operation; musical examples abound and the author's analyses are cogent, insightful, and supported in many cases by Cras's own writings. In his preface to the analytical section of his text, Bempéchat waxes poetic about the nature of genius. Taking as his point of departure Kant's notion that 'genius is the talent that gives art its rules,'[6] he describes musical genius as 'the talent that generates new, enduring formal constructs, or that spawns an autonomous musical syntax, bequeathing, in the process, a legacy that will inevitably be studied and cultivated' (p. 153). He succinctly assesses the contributions of several musical geniuses (Mozart, Chopin, Schumann, Berg, Haydn, Beethoven, Mussorgsky and Janáček) in order to situate Jean Cras among them, considering that genius and authenticity were such overarching aesthetic concerns for Cras.

Jean Cras, Bempéchat writes, was an autodidact, but one 'proficient enough at the piano to play through all of Beethoven's thirty-two sonatas, and advanced enough on violin and viola to be able to interchange them in performances of Beethoven's string quartets and Brahms' string quintets.' (p. 155) He studied composition with Henri Duparc (1848–1933) and was assessed as 'the most gifted young man I have ever met [and one who] holds his art up to the highest ideals possible' (p. 156; emendations are mine).

There is no doubt that, in subsequent studies of Jean Cras's life and works, this book will be the first source to which the researcher turns. Bempéchat's deft and skilful blending of a beautifully written and engaging biography with lucid and erudite musical analysis, interspersed with tales of military history and scientific discovery, has resulted in a book that is absolutely engaging on its own, as it tells the life story of a most extraordinary man.

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doi:10.1017/S147940981100036X

[5] Two examples of her artwork, *En Bourgogne* and *En Hoggar*, are found on pp. 267–8.

[6] Adapted from Kant's *Critique of Pure Judgment* (London, Oxford: Clarendon Press, 1973): 176 (cited on p. 153), which states 'Genius is the talent that gives the rule to art.'