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Review Article 'Opera and ...': The Pleasures and Perils of Amalgamation

ROGER PARKER* (D)

David Trippett and Benjamin Walton, eds., Nineteenth-Century Opera and the Scientific Imagination. Cambridge: Cambridge University Press, 2019. xv + 381pp

We might start with the Index, often a good indicator of a book's flavour, its local habitation. First up is 'Abbate, acoustics, acting, Adler, Adorno', a reassuring miscellany; later on, the German-speaking collective of 'Schopenhauer, Schreker, Schubart, Schumann-Heink' awakens memories of time past. 'Ventilation systems, Verdi, vitalism', however, turns on the landing lights for a distinctly new approach, while 'hygiene [both mental and moral], hyperacusis, *hyperaesthesia acoustica*, hypnosis, hysteria' ushers in another region entirely: medicine, pathologies. Starting at the end, we are thus prepared: a sense of anticipation is allied to hopes of intriguing surprises in the offing. And such expectations are on the whole justified. In spite of its title – that fence-sitting conjunction – this collection is a worthy and serious attempt to write new chapters in musicology's revolving challenge to the internalist preoccupations of its past.

Reading these fourteen essays in sequence, as a reviewer must, is admittedly not the best mode of consumption. One soon becomes aware of certain recurring gestures, a *modus scribendi* taking shape across this new disciplinary enthusiasm as a way to make it more navigable. And whenever multiple scholarly essays fall into like-patterned forms, one begins to ask: what is the operating system up to here? It seems, for example, almost obligatory to start with a quirk: as one author recently put it, something chosen from a ready miscellany of 'estranging old-time images, eccentric instruments, outré theories, fabulous body parts'. This quirk is then pronounced an augur of the Zeit and its Geist, a dense signifier. What's more, the Geist in question is often described as being at some kind of world-historical transition or crux: 'a particularly anxious moment in the history of the voice' (47), or posing 'a

^{*} Roger Parker, King's College London; roger.parker@kcl.ac.uk

For the quirk, see Nicholas Matthew and Mary Ann Smart, 'Elephants in the Music Room: The Future of Quirk Historicism', Representations 132/1 (2015), 61–78. For the miscellany, see Carolyn Abbate, 'Sound Object Lessons', Journal of the American Musicological Society 69/3 (2017), 793–829, at 793. Benjamin Walton quotes the latter near the start of his chapter (199).

peculiar challenge to the Romantic concept of the subject' (109). In several essays the quirky jumping off point is a musical moment at whose strangeness we are enjoined to marvel: perhaps Heralds, Brabantians and distant heroes; or wax cylinders in which (this is one of several laugh-out-loud moments in James Davies's baggy but fascinating essay) 'the haunting vocal traces ... are heard as if competing with ... a ferocious a2000 popcorn machine' (29).

What follows these opening 'reveals'? The next station typically involves a lengthy pause among intriguing realms in the history of science, often taking up the bulk of the essay. Although invariably learned, these accounts sometimes suggest the outsider looking in: a necessary reliance on secondary sources and critical insights from fields other than musicology, on expertise summoned from afar. True, there may also be impressive arrays of primary sources, but occasionally a sense of search-engine solitaire emerges, the cards turned up as much by chance as by design.² The third and last stage of the essay will be the moment where musicological amalgamation happens, where the foregoing summary must either be returned to the operatic matter-at-hand or brought around to opera at the eleventh hour. This is often a tricky juncture, and it is to the contributors' credit that they tend to reveal nervousness about the historical justification for depositing scientific contexts at opera's front door. The amalgamation claim - how do we put musical phenomena in a causal relationship with scientific discourse? - might be based on 'common ground and even a certain reciprocity with contemporary discourses' (134); or rest on a simple proximity argument ('one can assume that Berlioz was familiar with the contemporary discourse about experimental science through his studies in medicine', 110); or even, the lightest touch of all, involve 'a hypothetical reading of Wagner's final opera in light of the medical discourse given above' (281).

It is not, though, because of these family resemblances among the essays (and none of them is quite this simple, of course) that I must forego dealing here with each one separately: it is purely that to do so would require far more space than I can command and also – crucially – far more expertise. But my overall impression is that the leap towards science within opera studies is by and large a positive development, helping us to think beyond the excesses of the past, in particular beyond those prolonged, self-reflexive gazes into the inner workings of opera's musical systems that beguiled so many in decades gone by. All the contributors are erudite and informed, and all add new perspectives to the ever-fraught search for operatic

many of these had glaring errors, and in some cases began or ended at arbitrary points dictated by

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Of course, it may be that (to take an example at random) The Revised Laws and Ordinances of the City of Troy (Troy, NY: Tuttle, Belcher & Butler, 1838), quoted on page 157, was part of everyday reading for an essay on Wagner and hearing loss, rather than the result of a word search on Google Books. While we all gain immeasurably from the riches available online, the delicate balance between precision in the 'key word' department and geographical/chronological proximity to the argument at hand always needs to be borne in mind. There is also the issue of language: one searches in English and one finds English-language sources (which anyway form the overwhelming bulk of the largest online repositories); the very material from which we build our histories can be distorted by a form of 'soft power' at work among the online providers.
Strangely enough, though, the book has a generous helping of musical examples. The fact that

meaning. But it nevertheless makes sense to zero in on a few aspects of the collection: to put pressure on fundamental assumptions and also – I hope – to offer provocations that will enable continued debate.

To begin, a question. Does the search for the operatically scientific or the scientifically operatic seem at present more promising in certain repertoires than in others? The point emerged clearly enough in Deirdre Loughridge's fine essay about late eighteenth-century opera, in which the wondrous machines of Haydn's Il mondo della luna and Mozart's Die Zauberflöte display onstage contemporary scientific endeavour with little or no sense of strain or incongruity: so much so that in her conclusion she can boldly state that 'opera has been a site of cross-fertilisation between technological innovations and dream images, and also a site for social commentary on the practice of scientific inquiry' (198). It immediately occurred to me that one feature of the nineteenth-century development of science was a gradual professionalisation that, at least arguably, drew it ever further away from those 'dream images' Loughridge discusses. What's more, the establishment of a repertoire system during the nineteenth century was, at least potentially, another way in which operatic progress and technological progress might seem uncoupled, or even in some senses antithetical (Benjamin Walton's essay has much to say on this matter, as I'll discuss later). The 1000th performance of Les Huguenots at the Paris Opéra (which happened in 1903) strove in some ways to be unchanged from the first (in 1836), but it was enacted before an audience whose technological world (in speed and modes of communication, in the medical and physical sciences, etc.) was profoundly different. Perhaps this gradual uncoupling to some extent necessitated those nervous amalgamation gestures mentioned previously.

However, on the basis of this book there is another cliché of nineteenth-century operatic history (indeed one of its foundational binaries) that might make a difference to how the amalgamation game is played: the story of Germans vs Italians. Wagner is not neglected in the present study', the editors assure us in their Introduction (8). No, not at all, since four essays centre on Wagner and his works, and there are, lest we should further concern ourselves about cruelly neglecting the Mage of Bayreuth, generous name-checks elsewhere. In so many ways this is to be expected. After all, Wagner's voracious enthusiasms for intellectual byways could well read like an open invitation to unlock one's connection-making toolkit. What did he not at some point dabble in? Climate, nutrition, Buddhism, gender theory, steam technologies, political rebellion, racist pamphleteering, mercery and animal wrangling, to name but a few. David Trippett, for example, gets captivating mileage out of the Herald's famously unanswered questions in Act 1 of Lohengrin, and can cite a genealogy of media theorists before him (Friedrich Kittler as ever the grandfather) linking the scene to proto radio waves, proto telephones or elaborate medical theories of the nervous system. Trippett's preliminary conclusion is that: 'In the context of music's expressive powers, traceable to the hypertrope of Orpheus, to depict the sound of

the printed page from which they were taken, is a less positive aspect of the resistance to 'close reading' that characterises contemporary musicology.

listening in opera would be to depict music's negative or opposite – the silent condition of one's openness to receiving auditory expression' (137). Showing an open, embracing hand, he even attempts to bring Verdi into the circle. After spending some time on the English physicist John Tyndall, whose 1867 lectures at the Royal Institution concerned the theory of sound transfer, he adds (with another of those tentative sutures that populate the book, my italics here) 'it may be no coincidence that earlier that year, Giuseppe Verdi's latest opera Don Carlos would open by establishing an auditory perspective within space and time; the eponymous bass [sic: Don Carlos is in fact a tenor, and a high one at that first becomes rooted, dramaturgically, by listening to the dying strains of an offstage horn-call' (140). But the difference is that Verdi's horn call is right there in his score, for all (including our questing hero) to hear. What's more, in the larger context, Verdi's standard operating procedure for acts of listening would hardly support such a theory: when someone in Il trovatore or countless other operas sings 'Udite' or 'Ascoltate', that's precisely what everyone onstage does; far from descending into the labyrinth of the soul and anxiously questioning the ontologies of auditory expression, they eagerly gather round and, as instructed, pay attention, often punctuating the ensuing narration with sympathetic or horrified cries.

My point here is twofold. One is that Wagner's actual (or presumed) lack of generic predictability allows ample room for elaborate amalgamative acts. This, the amalgamator can specify or (more often) tacitly assume, is a unique moment in the operatic repertoire, and thus its plot details can be lent on hard to disclose secrets, without fear of counter-examples from similar generic moments elsewhere. And yet unique? Truly unique? In Myles W. Jackson's essay on Parsifal, for example, page 282 and onwards sees the peculiar case of Parsifal's 'wound' monologue in Act 2 read as a 'mirror' of Charcot's four stages of hysteria, which the latter published in 1879 (a tight chronology, this, as Wagner had finished two complete musical drafts of *Parsifal* by that stage). But a related point is that the sheer weight of this kind of interpretative treatment (in the case of Lobengrin those previous media theorists; in the case of Parsifal, a whole legion of interpreters, from Nietzsche onwards, who have seen Wagner's music as in some way related to mental aberration), far from occupying the hermeneutic ground and then repelling all invaders, actually serves to enhance and give greater credence to subsequent interpretations: when the hermeneutic impulse is abroad, there's safety, it seems, in numbers.

I am emphasising this point because two essays that consistently display scepticism about the possibility of music/science connections (although both have interesting conclusions about that very thing) are concerned with the Italian repertoire, and within that with objects very far from the canonic.⁴ Ellen Lockhart opens her

⁴ A further notable sceptic is Carmel Raz, whose essay about 'operatic fantasies' is one of the best of the collection, and whose doubts and nervousness about grand amalgamations is in the context entirely refreshing. But then Raz sets herself the more pragmatic task; in her own words, she is investigating 'the role of opera within early nineteenth-century psychiatry' (64), not the vice versa of many other essays.

essay with *Scossa elettrica*, a distinctly occasional piece by Puccini that is couched in the form of a galop (a down-market leg-raiser even among the rowdier French dances). But while the promise of sudden convergence – of a musical object revealing some inner connection with a fundamental nineteenth-century technology – is unfulfilled, Lockhart goes on to explain in great detail that the *trope* of electricity was indeed an important one within nineteenth-century Italian music aesthetics, and then explains why that body of writing has much to tell us about how groups of listeners, gathered in concert halls, felt themselves newly connected by means of the electrical energy they believed music could distribute among them. In this case the musical object reveals a blank, but the historical discourse surrounding the medium proves rich indeed.

In similar, non-canonic territory, Gavin Williams focuses on Milan at the time of its Esposizione in 1881, and in particular on the ballet Excelsior, a brash piece of boosterism, a celebration of all things modern, that was put on, of all places, in the crumbling, cash-strapped monument that was La Scala, a theatre described by one commentator as itself a 'vecchio meccanismo' (257), now fundamentally geared to reproducing the hits of decades past. Unlike the canonic nineteenth-century works examined elsewhere in the volume, in which scientific connections often have to be forged by means of elaborate argument, Excelsior wears its scientific credentials right there on its sleeve: one passage involves a celebration of Alessandro Volta and then – via transatlantic scene shifting – moves to Washington, where ballerinas impersonate couriers delivering electric telegraph messages. Again the musical surface is disarmingly generic (the galop once more figures prominently). But released by this lack of seriousness, Williams, like Lockhart, manages to make the ballet's choreography and treatment of bodies onstage speak eloquently about audience perceptions of music and movement. The climax of all this comes in his recuperation of Kracauer's famous notion of the 'mass ornament', but rather than offering merely another celebration or refutation of this idea, Williams gives it, via Excelsior, a degree of nineteenth-century historical specificity that acts both to demystify and to strengthen its explanatory potential.

The last essay I want to consider in detail is unlike any other in the collection. In some ways it might be thought the least ambitious in terms of the connection it poses between opera and science, but in others – to my mind at least – it engages profoundly with the implications of such connections. Benjamin Walton's chapter on the construction of the Paris Opéra's new building in the 1870s has little directly to say about the great works that sustained the theatre, from *Robert le Diable* to *Don Carlos* and beyond, and instead starts with a simple question: 'what might a material history of opera seem most likely to leave out?' His answer comes in a form that might even seem a gentle admonition to some of the more extravagant essays in the book: 'from recent evidence, it would pass over those material traces that seem least enchanted, or least historically innovative, which often amounts to much the same thing' (199). Taking this conclusion as a challenge, he then dives headlong into the ever-generous Parisian archives to examine the political and organisational mechanisms that brought into being the backstage technology sustaining the

city's new opera house. It is a story of 'pulleys, counterweights, flats, trolleys' (226); an investigation in which the tensions between, on the one hand, the Opéra's overwhelmingly historical repertoire and the unvarying manner in which they were staged, and, on the other, the Parisian desire to lead the world in terms of technological innovation came into sharp collision. This is too convoluted a tale even to summarise here (Walton teasingly takes on the lineaments of grand opéra by casting his account in five generous acts); it traces in detail the inevitable twists and turns, the continual compromises, the endlessly formed and reformed committees that eventually produced those pulleys and ropes, those complex mechanisms that - guided by a small army of often risk-prone and often underpaid workers - strove to create the quasi-magical illusion for which the Opéra was so famous. Even though beautifully written, these five acts constitute a hard read: the tale is complex, with any agency claimed by individuals constantly drained away by the grinding mechanisms of corporate governance. But I would want to insist that such prosaic detail can and should find a place within our operatic adventures. As Walton writes, if we pay attention to machines 'only when remade in mythic form' (226), then we lose a great deal, and at worst risk merely adding further layers of mythology to our chosen subjects.

In their Introduction, the editors of this volume say that, ideally, their topic should be more than 'just a matter of opera and its personalities interacting with and responding to claims for scientific universalities and technological developments'. Instead, they want to 'argue for a more complex reciprocity, in which operatic production and performance is transformed and reframed by its contact with a variety of scientific (and pseudo-scientific) thought, and where different branches of science are informed and shaped by their contact with opera, broadly conceived' (5). There is little doubt that their aspirations have been achieved: many of the essays here make important contributions to their chosen areas, and all succeed in adding valuable new layers of contextual detail to their operatic objects. This notwithstanding, the cumulative impression I drew from the volume was that canonic works, with a mass of reception history behind them, and with those proven techniques of close reading through which they are sustained and celebrated, are not the only place to find that 'complex reciprocity' so earnestly sought, and perhaps not even the most profitable. The hope that such works will be redolent of, or be prophetic of, or mirror unconsciously, or attempt programmatically to reflect, or resonate within their innermost essence with contemporary scientific developments will of course punctually be fulfilled - the mass of discourse surrounding them virtually ensures that seekers will be finders. But other kinds of music, more popular, more reliant on generic conventions, less serious, will reflect a different kind of light on the scientific endeavour. Or perhaps we don't need the musical object at all for this purpose, perhaps the dyad music-and-science need not involve specific musical works, sounds, art objects or performances as its focus of operations. If we move beyond such objects - and thus free ourselves from a need to grasp at the legible ways in which musical objects might instantiate other (perhaps scientific) things – we may find a different light congregating around our beloved medium.