JAMES KENNAWAY, **Bad Vibrations: The History of the Idea of Music as a Cause of Disease**. Farnham: Ashgate, 2012. Pp. xii + 213. ISBN 978-1-4094-2642-4. £65.00 (hardback).
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The literary tradition of the praise of music dates back to the Middle Ages, a genre that has been implicitly augmented by the handful of modern texts now available on the history of music therapy and the healing effects of music more generally. James Kennaway's book is original in that it traces the history of the idea that music (of certain kinds) is a bad thing, and specifically a cause of disease. Acknowledging early instances of this idea that go back to Plato, Kennaway's narrative really begins in the eighteenth century and takes us through to 2010, showing some remarkable continuities in thinking over the intervening period.

Enlightenment physicians and music theorists mostly recognized music as a beneficial stimulant to the nervous system, a means of moderating the passions and therefore an essential part of the cult of sensibility which characterized the period. However, by 1800 it had become increasingly accepted that music could overstimulate the nerves and therefore might not only cause illness but also lead to the immoral behaviour associated with modern urban lifestyles. In his first chapter Kennaway explains the emergence of the discourse of pathological music in terms of broader shifts in European thinking on music, class and sexuality, particularly in the wake of the French Revolution. A symbiotic relationship developed between aesthetics and music criticism on the one hand, and a medical (chiefly psychiatric) discourse on the other, which together gave credibility to 'a hostility towards certain music that would have an impact well beyond music criticism' (p. 53).

Kennaway then explores this hostility as it developed from around 1850 to the First World War, paying particular attention to attacks on Wagner and what was widely regarded as his dangerous and degenerate music. Again, these attacks were entangled with political critiques of problems blamed on modern city life, including uncontrolled sexuality and physical malaise, particularly neurasthesia in women and homosexuality in men. Ironically, Wagner himself developed a stridently anti-Semitic discourse that specifically identified Jewishness in music as the danger to be controlled, a standpoint which eventually led to the Nazi's identification of Wagner with musical 'health' and supported their atrocious policies of racial hygiene. As Kennaway argues in the following chapter, the Nazi exhibition of Degenerate Music of 1938 was only the most extreme example of the combination of the medical critique of pathological music with the politics of race, which notably took place in Germany and the United States in the first half of the twentieth century. While there was nothing comparable in America to the expulsion and extermination of Jewish musicians under Hitler, the emergence of jazz from within black musical culture more generally prompted a discourse of pathological music that clearly had a racial and political foundation.

Evidently the specifically Nazi concept of degenerate music declined after 1945, but, as the final chapter shows, the American interwar discourse of pathogenic music continued to flourish, providing a context for medical panics about almost every new musical genre since jazz. Kennaway argues that each new form of musical reproduction, from the radio to the Internet, has resulted in perceived dangers to the health of listeners, particularly among rebellious and sexually vulnerable teenagers. Prominent among these dangers has been the perceived effect of musical brainwashing, a form of mind control that political conservatives linked to rock and roll's power to subvert individual autonomy as well as its associations with disorder, drugs and sexuality. More recently, in the 1980s and 1990s, a widespread moral panic erupted in the USA around the fear of Satanism in which heavy metal music was strongly implicated.

Continuing the theme of new musical technologies being a source of anxiety, Kennaway turns his attention to the sobering evidence of the recent uses of music, and sound more generally, as a weapon and as a means of torture. These practices have been developed most notably by American, British and Israeli authorities, maybe because psychological pain and hearing damage

are more acceptable to democratic societies than the visible effects of other forms of violence. Perhaps in the spirit of even-handedness, Kennaway appends a disappointingly brief but tantalizing section on 'pathological music and Islam'. He has found that some influential modern Islamic critiques of (primarily Western) music have used outdated medical claims about the negative effects of music on the nerves and willpower to back up more religious and moral objections. He argues that this strategy resembles the way in which medical discourse on pathological music was used in nineteenth-century Europe to critique immoral modern music, However, the author is keen to emphasize that such discourse is still prevalent in the West, and claims that for the most part it is associated with right-wing Christian fundamentalists, and with the periodic waves of panic about new musical/technological fashions in the mainstream media. He leaves us in no doubt of his distaste for 'pseudo-scientific moralising', which seems to have no basis in fact but, at the same time, he also warns us that in the light of music's role in defence, in the future we 'may have to radically alter … our assumption of the essentially benign nature of music' (p. 158).

This is a pioneering work which provides a strong argument for conceptualizing music as a powerful technology that has shaped, and has been shaped by, Western understandings of disease and health in social as well as individual bodies. It suggests that medical professionals and also the lay public have been as interested in music's degenerative effects as in its healing powers, and paves the way for future research that looks at the complex relationship between these conflicting ideas.

Penelope Gouk
University of Manchester

R.G.W. Anderson and Jean Jones (eds.), **The Correspondence of Joseph Black**. 2 vols. Farnham: Ashgate, 2012. Pp. xiv + 1564. ISBN 978-0-7546-0131-0. £300.00 (hardback).
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One of the key features of the history of science since 1945 has been the enormous effort put into publishing high-quality scholarly editions of the correspondence of various scientific figures. Starting with Marin Mersenne and Henry Oldenburg, those vast clearing houses of seventeenth-century science, there are now a lot of them. Among others, the letters of Isaac Newton, Robert Boyle, Albert Einstein, Charles Darwin, Michael Faraday, André-Marie Ampère, Joseph Henry, John Flamsteed, Joseph Banks, James Clerk Maxwell, Marcello Malpighi, Macedonio Melloni, Marc Pictet, Jöns Berzelius, Henry Fox Talbot and Ferdinand von Mueller are now easily accessible, whilst those of Humphry Davy and John Tyndall are in active preparation. Furthermore, there are number of two-way correspondences such as that between George Stokes and William Thomson (Lord Kelvin). This long-awaited edition of the letters of Joseph Black (1728–1799) is a welcomed addition to these texts, the more so because science in the Scottish Enlightenment is not especially well represented by editions of correspondence.

While the intention of the early editors of correspondences was to provide evidence for the internal development of science, especially during the seventeenth century, this idea was, ironically, undermined by the commitment (in most cases) to publish all the extant letters of a particular individual. As a consequence of such completeness, areas relating to individual lives, which would have previously been thought too irrelevant or inappropriate to their science to warrant study, became available. In turn, such access radically altered how historians approached their subject, since, for instance, they could view the construction of scientific knowledge in a whole range of interrelated contexts, from the home to the study, to the laboratory, to the lecture hall, to publication, dissemination, reception and legacy. Furthermore, and, in my view, of supreme significance, correspondences plot quite precisely how scientific practitioners and their knowledge relate to other key areas in culture and society, especially religion, imperialism, industry and business, as well as the state and its agencies, including the armed forces.