

RESEARCH REPORT

Robert Boyle as the Source of an Isaac Watts Text Set for a William Billings Anthem

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William Billings is one of my very favorite composers, and his anthem "Creation" from *The Continental Harmony* (1794) one of my favorite pieces. A short composition of two stanzas (the second set to a fugal tune) written by Isaac Watts, it praises the wondrous complexity of the human body and the amazing ability of such a delicate construction to survive for many years:¹

When I with pleasing Wonder stand,
And all my Frame survey,
Lord, 'tis thy Work, I own; thy Hand
Thus built my humble Clay. (Watts, Psalm 139, Part 2)

Our Life contains a thousand Springs,
And dies, if one be gone:
Strange! that a Harp, of thousand Strings,
Should keep in Tune so long. (Watts, *Hymns and Spiritual Songs*, II, no. 19, v. 3)

While the inspiration for the first text is clearly biblical, that of the second text, hitherto unidentified, turns out to be none other than the great English chemist Robert Boyle (1627–1691), who actually wrote several moral and contemplative works (none published until several years later) before turning his attention to natural philosophy in the late 1640s.

I stumbled upon this discovery a few months ago, while indexing the fourteen-volume set of Boyle's works that Michael Hunter and I have been editing for about a decade. I was working my way through *The Christian Virtuoso*, a book with a complicated history. It was published in two parts, the first near the end of Boyle's life in 1690 and the second—compiled from Boyle's papers 50 years after his death by the dissenting minister Henry Miles—not until 1744, when it was printed at the very end of Thomas Birch's five-volume folio edition, *The Works of the Honourable Robert Boyle*. Part way through the posthumous portion, the following passage jumped out of the page:

For a human body consists of divers hundreds of parts, . . . and each of these may be harmed, by so many outward agents, and internal causes, and some of these invisible and unsuspected, that, as I

elsewhere note, it seems as strange, that in so compounded and delicate a machine, as a human body, nothing should be out of order, or complained of, as that a musical instrument, that were furnished with a thousand strings, (none of them superfluous,) should be long in tune, since the very change of the air, may suffice to disorder it, as oftentimes we see it also do, to the living machine of a human body.²

I knew I had heard something like that before, and within minutes had the Billings anthem playing on the stereo. But as soon as I learned that Watts' *Hymns and Spiritual Songs* was published in 1707–9, I was puzzled: though Boyle had obviously written this passage prior to his death on the last day of 1691, it lay unpublished until long after Watts' hymnal had appeared. It seemed virtually impossible that Watts could have had access to Boyle's manuscripts. Perhaps, I thought for a short while, there was a common source on which they both drew, such as Sir Thomas Browne's *Religio Medici* (1642) or a similar work?

Within days, however, I realized my error: in the excitement of the moment I had overlooked Boyle's words "as I elsewhere note," clearly an allusion to another work—but which one? It could have been something I had indexed months, even years, before—if I had indexed it at all which, as it happens, I had not (an omission since corrected). On a hunch, I tried the one book of Boyle's that I thought Watts would have been most likely to have read, and found exactly what I was looking for. The passage that inspired Watts is found in Boyle's *Occasional Reflections upon Several Subjects*, a devotional work published in 1665 (second edition in 1669), though largely written several years before, some of it probably influenced by Isaac Walton's *Compleat Angler* (1653). A short section "Containing Occasional Reflections, Upon the *Accidents of an Ague*," addressed to his favorite elder sister Katherine, Lady Ranelagh, who had nursed him through this fever, opens with a meditation "Upon the first Invasion of the Disease," including this interminable sentence that is so typically Boylean:

But I confess, that this unwelcome accident had not amaz'd me, as well as troubled me, if I had sufficiently consider'd to what a strange number and variety of Distempers these frail Carcasses of ours are Obnoxious; for, if I had call'd to mind what my Curiosity for Dissections has shown me, and remembered how many Bones, and Muscles, and Veins, and Arteries, and Grisles, and Ligaments, and Nerves, and Membranes, and Juices, a humane Body is made up of, I could not have

been surprised, that so curious an Engine, that consists of so many pieces, whose Harmony is requisite to Health, and whereof not any is superfluous, nor scarce any insensible, should have some or other of them out of order, it being no more strange that a Man's Body should be subject to Pain, or Sickness, than that an Instrument with above a thousand Strings (if there were any such) should frequently be out of Tune, especially since the bare change of Air may as well discompose the Body of a Man, as untune some of the Strings of such an Instrument; so that ev'n the inimitable Structure of humane Bodies is scarce more admirable, than that such curious and elaborate Engines can be so contriv'd, as not to be oftner out of order than they are; the preservation of so nice and exact a Frame being the next Wonder to its Work-man-ship.³

Thus we now know that Watts read Boyle, at least this particular book if not also others. This conclusion is hardly surprising, given the contemplative nature and moralistic tone of the Boyle work, despite the almost overbearing prolixity of much of the prose and the triviality of certain subjects, which led Jonathan Swift to write a parody, "A Meditation upon a Broomstick." No less than the Puritan divine Richard Baxter told Boyle that "your pious Meditations & Reflections, do call to me for greater Reverence in the reading of them, & make me put off my hatt, as if I were in the Church; & have not in vaine excited me to the expectation of some higher benefitt; as they stand neerer to my ultimate End."⁴ Reprinted at least three times in the first half of the nineteenth century, it remained one of Boyle's most popular books. And Boyle's strong commitment to a thoughtful, deeply pious religious life, rooted in the Calvinism of his Genevan tutor Isaac Marcombes (related by marriage

to the great preacher Jean Diodati) but not confined by it, no doubt appealed to Watts.

Nor was this the only Boyle work indirectly to inspire great music. Thomas Morell's libretto for Handel's oratorio *Theodora* (1750), recently revived in England, is based on Boyle's *The Martyrdom of Theodora, And of Didymus* (1687), which Samuel Johnson described as the first "attempt to employ the ornaments of romance in the decoration of religion."⁵ Ultimately there is a certain justice in this: that Robert Boyle, by his own analysis a fair musician and a lover of music,⁶ should be memorialized in this way.⁷ ❧

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Notes

¹Texts set by Billings are identified in Karl Kroeger, *Catalog of the Musical Works of William Billings* (New York: Greenwood Press, 1991).

²*The Works of Robert Boyle*, ed. Michael Hunter and Edward B. Davis, 14 vols. (London: Pickering & Chatto, 1999–2000), vol. 12, p. 492. In the original edition of *The Christian Virtuoso, The Second Part*, first published in *The Works of the Honourable Robert Boyle*, ed. Thomas Birch, 5 vols. (London: Andrew Millar, 1744), the reference is vol. 5, p. 717. Miles altered Boyle's capitalization (many of the manuscripts he used survive) to match eighteenth-century conventions.

³*Works*, ed. Hunter and Davis, vol. 5, pp. 63–4. In the first edition of *Occasional Reflections*, the reference is pp. 188–9.

⁴Letter of 14 June 1665, in *The Correspondence of Robert Boyle (1636–1691)*, ed. Michael Hunter, Antonio Clericuzio, and Lawrence Principe, 6 vols. (London, 2001), vol. 2, p. 473.

⁵James Boswell, *Life of Johnson*, ed. G. Birkbeck Hill, 6 vols. (Oxford: The Clarendon Press, 1934), vol. 1, p. 312.

⁶See esp. his comments in *Works*, ed. Hunter and Davis, vol. 3, p. 452, where he says he is "very Musically given," and vol. 6, p. 478 where he says "I have *ex tempore* played divers Tunes, that I had never learned" on "several Instruments."

⁷I am grateful to Michael Hunter and my colleague, Ronald Miller, for helpful suggestions.