contribution of the book. He reminds us that, fundamentally, singing is speech. As he states, there is "a persisting core relationship between language and music" (120). Dr. Watts hymn singing helped shape and reflected patterns of speech that became uniquely African American. Though different regions throughout the United States developed their own styles and expressions of the musical genre, for each of them Dr. Watts became a core feature of their musical and linguistic identities, and a "cultural site of self-definition" (11).

Lining out the Word is innovative, assiduously researched, and deeply textured. William Dargan has written a study that will be of interest to those in a range of fields and disciplines. It will be of particular use to ethnomusicologists, linguists, U.S. historians, cultural theorists, and black studies scholars. The book is a sensitive explication of the Dr. Watts singing tradition, particularly as it has been practiced in the black Baptist ritual. It is also a good example of the mystery of cultural transmission. As Dargan perhaps inadvertently shows, Dr. Watts hymn singing is learned, but it is not taught.

Ironically, the language of the book is a bit too technical for lay readers. Dargan often uses words, phrases, and concepts that only those trained in music are likely to understand. And he relied perhaps too heavily on recorded sources to which readers will likely have no access. But the contribution of this fine study far outweighs these criticisms. *Lining out the Word* adds significantly to our understanding that music and language have been key shapers of African American identity. African American identity has emerged in the contested space "between white control and black self-determination" (2), and bears witness to the wonders of "change and non-change."

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Equations from God: Pure Mathematics and Victorian Faith. By **Daniel J. Cohen**. Baltimore, Md.: Johns Hopkins University Press, 2007. xii + 244 pp. $50.00 cloth.

Daniel Cohen, an assistant professor of history at George Mason University, wants to illuminate the religious history behind the odd academic phenomenon that most of us have experienced: mathematicians humbly belittling and trivializing the nature and parameters of their discipline. Cohen quotes Bertrand Russell in a typical backhanded grand gesture: "Mathematics may be defined as the subject in which we never know what we are talking about, nor whether what we are saying is true" (181).

Cohen succeeds in showing that this rhetoric of humility has roots in the hopes of George Boole (1815–1864) and Augustus De Morgan (1806–1871) to use mathematical logic in the service of true religion. Symbolic logic, Boole believed, would strip the ambiguities and inconsistencies present in religious dialogue and point toward a "divine plane where all knowledge converged into God's Truth" (105). Boole was a transitional figure who shared in the traditional belief that mathematics was a divine language but realigned it with Kantian philosophy. The first two chapters of Cohen's book are about the history of this mathematical idealism, and how it was robustly exemplified in the life and work of the Harvard Unitarian Benjamin Peirce (1808–1880). In *Equations from God*, Pierce stands looking backward; Boole takes a step forward to a more stripped-down, austere future; and Augustus De Morgan strives further forward out of religious zeal into a situation where it behooves him to couch his mathematical idealism in humble rhetoric.

De Morgan was the principal founder of the London Mathematical Society, a society that strove to separate professional mathematicians from amateurs and "arrogant metaphysicians" (107). De Morgan promoted a new rhetoric of humility for professional mathematicians as a means of separating themselves from amateurs and metaphysicians who waxed eloquent about mathematics as the language of God. On the other hand, De Morgan had his own high hopes for mathematics in religion.

De Morgan, like Boole, thought mathematics could help purify religion of its sectarian small-mindedness and lay a foundation for ecumenical universality. De Morgan was a great proponent of spiritualism and the use of mathematics to strengthen and clarify evidence for clairvoyance, telepathy, miracles, and the existence of spirits. De Morgan believed that the rise in spiritualism was being driven by human experience and substantial evidence, *not* by abstractions or authorities in theology, philosophy, or metaphysics. Cohen points out that this antagonism to abstraction and authority encouraged De Morgan to ratchet down the rhetoric of mathematical idealism. If mathematicians could stop being bound to theological, philosophical, and metaphysical systems, then mathematics could be free to find and support truth—especially truths such as communication with spirits.

Cohen shines a light into one of the more shadowy corners of how the history of modern science and modern religion work together. If we entwine Cohen's story with the history of Darwinism, we see that Benjamin Peirce was a close supporter of Louis Agassiz. De Morgan, on the other hand, found a compatriot in Alfred Wallace. None of these four wants to strip religion out of science or even have science lead religion. The differences between them are that the former were gripped by old metaphysical traditions and high theological concepts. The latter wanted religion and

science to be driven by openness to practical experience and the intellectual freedom to follow evidence where evidence leads. De Morgan wanted to reform the conservative intellectual establishment that dismissed miracles and spiritualism by advocating a new, more austere professionalism that would recognize and support evidence no matter what the evidence pointed toward.

In the last chapter of the book, De Morgan's advocacy of purposefully humble rhetoric is taken up by other professionals who want to use it to separate mathematics fully from religious implications. John Venn in *The Logic of Chance* (London: MacMillan, 1866) wrote against the use of mathematics in debates about miracles. Irreconcilable differences in opposing viewpoints made the mathematics meaningless in the debate. Bertram Russell found comfort in praising the value of mathematics as a purely mental exercise separated from metaphysics and physical science.

Daniel Cohen has done what historians of science do best: make complex a story that has been told too simplistically and triumphantly. The pressure on mathematics to strip itself of religion was not irreligious. The standard story of moving from messy old traditions to clean scientific methods is not very accurate. Messy old traditions yield messy new traditions. One of these messy new traditions is the awkward rhetorical posturing of mental independence evident in G. H. Hardy's *A Mathematician's Apology* (Cambridge: Canto, 1992 [1940]): "The 'real' mathematics of 'real' mathematicians, the mathematics of Fermat and Euler and Gauss and Abel and Reimann, is almost wholly 'useless'" (119).

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Painting the Bible: Representation of Belief in Mid-Victorian Britain. By **Michaela Giebelhausen**. British Art and Visual Culture since 1750. Aldershot, U.K.: Ashgate, 2006. xii + 249 pp. $99.95.

This work began as a dissertation and carries with it an intensity of focus. The book is essentially not an overview of belief in mid-century Britain or of Bible illustration in general, but of the Christian imagery of the Pre-Raphaelite painters. Michaela Giebelhausen does attempt to contextualize these painters' work with some allusion to continental parallels and English precedents. The problematic for Britain cannot be overstated; since the reign of Edward VI in 1547, England resolutely eschewed religious imagery. Thus these artists