

## Communication

*John Wesley's Survey of the Wisdom of God in Creation:  
A Methodological Inquiry*

# John Wesley's *Survey of the Wisdom of God in Creation: A Methodological Inquiry*

Laura Bartels Felleman



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*This communication considers methodological arguments within the history of science that could help current researchers avoid previous errors committed in the study of [John Wesley's Survey of the Wisdom of God in Creation].*

**A**s founder of the Methodist Church, John Wesley (1703–1791) is primarily known for his work as an evangelist and church organizer. Wesley was also a prolific publisher, however, who produced religious literature designed to edify Christians as well as educate them on a variety of topics. One of these publications was a multi-volume natural philosophy text that discussed subjects now dispersed throughout diverse fields such as human physiology, biology, astronomy, and botany. First published in 1763, the *Survey of the Wisdom of God in Creation, Or a Compendium of Natural Philosophy* was written for a general audience and marketed by Wesley's preachers to Methodist Societies throughout Britain. After Wesley's death new editions of the *Survey* reflecting recent discoveries or updated theories continued to be produced by denominational publishing houses. The last edition was published in 1842.

The addition of the *Survey* to the Wesley Center for Applied Theology website ([wesley.nnu.edu](http://wesley.nnu.edu)) and the tentative plan to re-publish the *Survey* as part of the Wesley Works series of Abingdon Press (United Methodist Publishing House) suggest there is a renewed interest in this long out-of-print publication. The last time the *Survey* attracted scholarly attention, however, the results were less than commendable. This communication considers methodological arguments within the history of science that could help current researchers avoid previous errors committed in the study of this text.

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The absence of a sound methodology and the weaknesses that result are evident in the works that make up this cautionary tale of those who sought to show the compatibility of theories of evolution with Wesley's natural philosophy. William H. Mills' *John Wesley an Evolutionist* was one of the first to compare Wesley's *Survey* with Charles Darwin's theory of evolution. In this speech, delivered in 1893 to the Chit-Chat Club of San Francisco, Mills stated that his intention was to introduce his listeners to John Wesley's *Survey of the Wisdom of God in Creation*. By this time, the work was out of print and difficult to obtain, and Mills reasonably assumed none of his listeners were aware of its contents.

Mills did not cover all of the subjects touched on in the *Survey*; he only referenced the passages related to what he called the "development theory of creation." This theory argues that there was one act of creation and that current creatures developed from these first creatures. Mills identified Charles Bonnet, "a distinguished naturalist of Geneva," as one of Wesley's sources but most of the speech dwells upon Wesley's supposed agreement with proponents of evolution like Darwin, John Fiske, and Thomas Huxley.<sup>1</sup>

In 1924 Frank Collier published a pamphlet entitled *Back to Wesley*. Collier had discovered the Mills speech while doing research at the Library of Congress, and this find motivated him to search for this long-lost work of Wesley in order to learn more about the Methodist founder's interest in science. In *Back to Wesley*, Collier again and again insisted that Wesley believed the "essential idea of evolution" which Collier identified as "gradual, orderly, and progressive change." Collier acknowledged that Wesley got this idea from Bonnet and that it is not the same as the theory of organic evo-

lution, but Collier seemed to find it important that Wesley did accept some form of evolutionary theory.<sup>2</sup>

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*Arguments [by Mills and Collier] try to show Wesley's consistency with Darwin's theory of evolution even while acknowledging Wesley's source was Bonnet and not Darwin.*

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A year later an article written by Charles Hargitt appeared in *Zion's Herald* entitled "John Wesley—Evolutionist." Hargitt confessed that his choice of title was deliberate; he intended to highlight for Methodists and non-Methodists alike Wesley's views on evolution. The article briefly touches on Wesley's appreciation and publication of Bonnet's *Contemplation de la Nature* and concludes that the theory of evolution as it was known in Wesley's time was "cordially accepted" by him. The article ends with the quote, "Let not your heart be troubled: ye believe in God."<sup>3</sup>

Apparently, there were still a few troubled hearts out there two years later in 1927, because Hargitt published another article on the subject of John Wesley and evolution, this time in the *Methodist Review*. His stated purpose in "John Wesley and Science" was to clear up two points of confusion that had been raised about Wesley's familiarity with the science of his day. First, Hargitt quoted a passage from Wesley's *Survey* to show that Wesley did esteem the Copernican system. Second, Hargitt cited Bonnet as the source for a passage in the *Survey* that seems to anticipate Darwin's theory of evolution. Hargitt stated that it is significant that Wesley quoted from Bonnet's writings on evolution but Hargitt did not explain why he thought this to be of significance.<sup>4</sup>

William C. S. Pellowe also published an article in the 1927 *Methodist Review* detailing the reasons why he thought Wesley would have, at the very least, studied the theory of evolution (if he had lived long enough to see *The Origin of Species* published). Pellowe reached this conclusion based on such things as Wesley's reading of scientific literature, the experiments he conducted and the information he gathered on natural phenomena, and his use of science to counter the disquisitions of astrologers. Pellowe wrote during a period that he described as a time of conflict between conservatives and liberals, and he held up Wesley as an example of a Christian who adhered to carefully reasoned religious convictions that took into account the latest developments in science. Pellowe did not go so

far as to suggest Wesley would have accepted the theory of evolution, but he did conclude that Wesley would have thoroughly considered the issue in order to have an informed opinion on the matter. This approach to science and religion is the one Pellowe recommended all Methodists follow.<sup>5</sup>

In 1928 the longest treatment arguing for Wesley's positive view of science appeared. Collier's book *John Wesley Among the Scientists* has one chapter devoted to a comparison of Wesley's view of evolution with that of Darwin. The rest of the book, however, argues that Wesley's understanding of science was the same as some of Collier's contemporaries. Statements about the philosophy of science made by such men as Borden Bowne, William James, Robert Andrews Millikan, Karl Pearson, and Edwin Slosson are liberally quoted. Collier concluded that Wesley's attitude toward science was essentially the same as these late nineteenth- and early twentieth-century writers.<sup>6</sup>

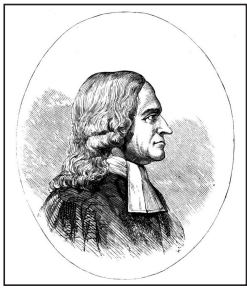
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*Hargitt's articles [depict Wesley] as a Christian leader who "cordially accepted" new scientific theories.*

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These interpretations of the *Survey* exhibit the fallacies in logic Quentin Skinner warned against in his essay "Meaning and Understanding in the History of Ideas." First, Skinner points out the anachronism of searching for "doctrines" in texts that could not possibly be commenting upon yet-to-be-published theories.<sup>7</sup> The speech by Mills and the early Collier piece would be examples of this "mythology of doctrine." Both arguments try to show Wesley's consistency with Darwin's theory of evolution even while acknowledging Wesley's source was Bonnet and not Darwin. Comparisons such as these, which purport to explain how the history of an idea or doctrine unfolded, minimize the discontinuity between Bonnet's theory of a static, spatial evolution of life forms up the Chain of Being and Darwin's theory of a dynamic, temporal evolution of life forms across eons.

Skinner also critiques historical narratives that organize a writer's ideas according to one over-arching theme.<sup>8</sup> This is one form of the "mythology of coherence" and an example of this fallacy can be found in Hargitt's articles where Wesley is depicted as a Christian leader who "cordially accepted" new scientific theories. This coherent picture of Wesley is easily refuted if one considers the first published review of the *Survey of the Wisdom of God*. In this letter to the editor of the *London Magazine*, Wesley is criticized for rejecting the latest theories in astronomy.<sup>9</sup>



## Communication

### *John Wesley's Survey of the Wisdom of God in Creation: A Methodological Inquiry*

Wesley's response was that he did not find these theories convincing and could not subscribe to them with full confidence.<sup>10</sup> This correspondence shows that Wesley was not as receptive to every scientific theory proposed during his lifetime as is implied in Hargitt's articles.

The next fallacy identified by Skinner, "mythology of prolepsis," occurs whenever a work is used to address a contemporary problem without first considering the original intentions of the author in producing the work.<sup>11</sup> The use of Wesley in the controversy between the liberals and conservatives of Pellowe's Methodism exhibits this tendency. The article does little to contribute to our understanding of Wesley's purposes for writing the *Survey*.<sup>12</sup>

Collier's book, *John Wesley among the Scientists*, is one type of the "mythology of parochialism," the final fallacy Skinner seeks to characterize in his article. By detailing this bent in academic writing, he alerts the investigator to the danger "that the historian may conceptualize an argument in such a way that its alien elements are dissolved into an apparent but misleading familiarity."<sup>13</sup> Collier's tendency to read Wesley's arguments as precursors to modern philosophies of science does just this by obscuring the significance of Wesley's writings for his own time in order to emphasize a supposed similarity to that of Collier.

Because Skinner argues for a methodology that seeks first to discover the past rhetorical intention of a historical document rather than solely focusing on a text's relevance for today, his historiography has been called heuristic.<sup>14</sup> I would agree that the "Meaning and Understanding" essay suggests that the first task of the scholarly researcher is to try to discover the context out of which a document arose. Once a text is situated within a particular genre, debate, or convention, the past rhetorical strategy it served is more readily apparent and less likely to be conflated with the commitments, values, and issues of the interpreter's day. The benefit of such a historical method is its propensity to reduce the anachronisms and logical fallacies in one's reading of a past author.

Skinner's approach, which emphasizes the particularities and historically contingent

elements of a text's argument instead of the generalization and abstraction of the history of an idea, was influential for Andrew Cunningham. A historian of science at Cambridge University, Cunningham has written extensively about the identity of natural philosophy.<sup>15</sup> The debate generated by Cunningham's scholarship offers a helpful introduction to scholars seeking to locate the *Survey* within the broader context of the natural philosophy genre.

From Skinner and others, Cunningham took the idea of the importance of studying the particular "terms and categories" of Natural Philosophers.<sup>16</sup> In Cunningham's opinion, such a practice is important in order to avoid the "present-centredness" of much that was being written about the history of science.<sup>17</sup> This fallacy, much like the mythology of parochialism, occurs whenever a historian concludes that an idea discussed in a text seems familiar and is in fact similar to a current theory with the only difference being that the idea is in an early stage of development. Cunningham suggests that the remedy for this fallacy is to focus on the original intentions of the author, and that by doing so historians can avoid reading their own present priorities and values into the work.

Through his research, Cunningham has determined that the original intention (or role) of natural philosophy and its identity were "intimately bound up" with one another.<sup>18</sup> Natural philosophy was about God's creation and God's attributes.<sup>19</sup> This was its identity. It was produced with the intention of fighting atheism.<sup>20</sup> That was the role it played in the broader society. Cunningham distinguishes this identity and role from that of modern science (a view of the world which does not implicitly see the natural order as the creation of God and definitely does not see its work as serving to refute atheism). As the study of the natural world became more secularized and less and less about a divine creation, science began to replace natural philosophy between 1760 and 1848, according to Cunningham.<sup>21</sup> By focusing on the intention behind the writings of natural philosophers, Cunningham tries to avoid conflating these works with arguments made by the scientists of his time.

Edward Grant, another historian of science, has challenged the discontinuity in

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Cunningham's characterizations of natural philosophy and science. Grant wants to show the continuity between the two by citing examples of the way science builds upon the findings of natural philosophy. His methodology focuses on the arguments presented in the texts rather than on the contexts addressed by these writings. Grant refutes Cunningham's claims by analyzing the works of natural philosophers from the thirteenth and fourteenth centuries. These writings contain little by way of reference to God, he concludes, but they do demonstrate a scientific method that is consistent with that of modern science.<sup>22</sup>

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Unlike Grant, who criticizes Cunningham's methodology for being too contextual, Peter Dear asks Cunningham to put even more emphasis upon context. Equating natural philosophy with "An Identity" is akin to essentialism in Dear's opinion and does not explain the varieties of natural philosophy found between the thirteenth and eighteenth centuries.<sup>23</sup> A focus on context would highlight the different types of natural philosophies and offer a historical explanation for these differences.

In Cunningham's earlier arguments, he has demonstrated his awareness that there were various types of natural philosophy produced in different communities. He attributes this diversity to the differing religious commitments, from Catholic to Arian, of those who wrote such works. The arguments look different because God is conceived differently in various Christian traditions, but this does not change the identity and intention of natural philosophy for Cunningham.<sup>24</sup> The Dominicans wrote to counter the spread of Catharism while the Franciscans produced texts which aided spiritual practices, but both were types of natural philosophy because they both were about God and God's creation.<sup>25</sup>

In light of this recent scholarship on natural philosophy, the anachronism of cataloging Wesley's *Survey of the Wisdom of God in Creation: Or, a Compendium of Natural Philosophy* under a heading like "John Wesley and Science" should be obvious. Scholars who wish to use the *Survey* as an example of the relationship between faith and science will first have to locate this text within the literary genre of

natural philosophy, show how this subject differs from current conceptions of science, detail Wesley's contribution to eighteenth-century natural philosophy, and only then propose the relevance this text holds for today.

My research indicates that Cunningham's characterization of natural philosophy is an apt description of John Wesley's *Survey* in all but one respect. This work is about God's creation and God's attributes. It views the natural order through the eyes of faith and sees in the various components of creation worldly examples that can be used to illuminate the divine characteristics of God. Natural philosophy, according to the Preface to the *Survey*, should serve one purpose: "to display the invisible things of God, his power, wisdom, and goodness."<sup>26</sup>

This characterization of God as powerful, wise, and good is evident throughout the *Survey* as can be found in the conclusion to volume one:

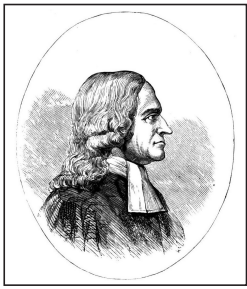
His Power appears in the whole Frame of Creation, and his Wisdom in every Part of it. His Independence is pointed out in the inexhaustible Variety of Beasts, Birds, Fishes, and Insects: And his Goodness, in taking care of every one of these, opening his hand, and filling all things living with plenteousness.<sup>27</sup>

The same theme can be found in a section on the elements of earth, fire, air, and water:

Herein we read the characters of his Power, which is invariably obeyed; of his Wisdom, which has abundantly provided for everything, and of his tender kindness toward Man for whom he has provided Services equally various and infallible.<sup>28</sup>

In this case, God's power is in part the ability to manipulate these four elements. This power is displayed in the creation of humanity for nothing less could have taken earth, fire, air and water, mixed them together and formed out of this combination so many different body parts of various shapes, textures, and sizes.<sup>29</sup>

God's wisdom is displayed in the structure of the human body. Wisdom, in this instance, refers to the brilliant way God has situated the various body parts, protected them from injury, and proportioned them in relation to the rest of creation. God's design wisely positions the vital organs where they will be most secure. The heart is in the center of the body, cushioned by the lungs, and protected by muscles, ribs, and skin. The brain is protected by the "iron helmet" of the skull and covered by two membranes that provide further security. Prudently, God has doubled up certain body parts in order to ensure that if one is damaged there is still a backup. Finally, all these parts are proportioned in such a way that humanity is not too small in relation to the rest of creation, nor so large that the bounty of the earth is not able to sustain both humankind and the rest of the creatures.<sup>30</sup>



## Communication

### *John Wesley's Survey of the Wisdom of God in Creation: A Methodological Inquiry*

In some instances, the term wisdom signifies God's abilities as a mechanic *par excellant* as is the case when the design of the human hand is praised. The hand bones are "so fitly joined together," the hand muscles "so wonderfully provided," and the hand's ability to make "so many different Motions," all leads to the conclusion that "the Hand alone gives us an abundant argument of the admirable Wisdom of God."<sup>31</sup>

While a large portion of the *Survey* refers to the wonder of the human creation, other instances of God's power, wisdom, and goodness are also given. For example, the movement of fish from the sea upstream by way of rivers reveals a God who "conducts them with so much Care and Goodness."<sup>32</sup> Even the metals and minerals of the Earth are included in this survey of God's goodness and wisdom: "Since all these things are to Us, not only a noble Spectacle, bright with the display of our Creator's Wisdom, but likewise an inestimable Gift, rich with the Eminations of his Goodness."<sup>33</sup> Wisdom in this case once again signifies praise for God's shrewd design, so wisely placing materials like flint, clay, stones, and iron in the Earth where they can be mined underground without disturbing all the activity going on above. Goodness in this example does not suggest God shows kindness toward minerals, but that the provision of minerals is an illustration of the way God takes care of humanity's needs.

The birds also have a place in this survey. A series of rhetorical questions are posed in the section on birds that all ask the question Who? Who taught the birds to build nests of so many various kinds? Who taught them they would need to sit on their eggs in order to incubate them? Who taught them to carry food and water in their gullets as nourishment for their young? The answer to each question is, of course, God but the ultimate purpose of this instruction serves humanity:

Rather is it not thy Design, by all these Wonders, to call us to Thyself? To make us sensible of thy Wisdom, and fill us with Confidence in thy Bounty, who watchest so carefully over those inconsiderable Creatures, two of which are sold for a farthing?<sup>34</sup>

Given that this work is called *A Survey of the Wisdom of God in Creation*, the number of

references to God's wisdom, as opposed to other attributes, comes as no surprise. The growth of trees is lifted up as an example of the Creator's wisdom.<sup>35</sup> Again, it is the design of trees, the way they put down a root system, which shows God is wise. The design of insects, especially the spider's ability to release threads, is also pointed to as an example of God's wisdom.<sup>36</sup> In addition, the movement of the Earth and of the Heavens is a sign of the wisdom of the Creator.<sup>37</sup>

This focus on God's wisdom, power, and goodness is consistent with the identity of natural philosophy Cunningham discovered in his survey of the genre. The one difference between Wesley's natural philosophy and those analyzed by Cunningham would be that Wesley edited out references to atheism in his compilation. Wesley included sections from the natural philosophies of John Ray, William Derham, and Matthew Hale in his *Survey*, but, unlike their works, the *Survey* does not contain any refutations of atheism.<sup>38</sup> Cunningham's contention that natural philosophy was produced with the intention of fighting atheism does not describe or explain the content of the *Survey*.

Unlike Grant, I found a simple reading of this text was not adequate for uncovering this significant difference. Since Wesley's *Survey* is a compilation of other works on natural philosophy, an intertextual reading comparing Wesley with the sources he edited was necessary. This is the only way to determine the uniqueness of the rhetorical strategy Wesley demonstrated in this text and the consistency with which he employed it.

There are many methodological options available to researchers of Wesley's writings and depending on the purpose of the researcher's use of Wesley there will be differing measures of critical success to recommend one or another. That having been said, it may be the particular ethical role of a historian to raise a warning across disciplines that Wesley's writings present difficult challenges to his interpreters. His ready use of the work of others, incorporated without credit and often edited to fit his purposes, could easily lead one to attribute to Wesley an idea that does not in fact originate with him and/or to assume wrongly his total alliance with a source. Also, the many editions of the *Survey* produced after his death do not

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indicate which sections were original to Wesley and which were added by a later editor.<sup>39</sup> The only way to avoid the embarrassment of misattribution is to become familiar with Wesley's reading list, research the footnotes he does not provide, and compare later editions with those Wesley edited.

A re-examination of the *Survey of the Wisdom of God* is advisable for those who wish to understand the impact Wesley's readings in natural philosophy had on his theology, or anyone trying to situate the *Survey* within the genre of British natural philosophy, or scholars interested in studying the impact such writings had on the general public's grasp of natural science. Let us hope these scholarly endeavors contribute to our perception of the contingencies that made this historical text possible and do not send us into another round of exchanges between the creationists and evolutionists within Wesleyan and Methodist circles where both sides in the debate claim Wesley as their forbearer. ❧

### Acknowledgment

I would like to thank Quentin Skinner, Regius Professor of Modern History, Cambridge University, for his generous response to an early version of this communication.

### Notes

- <sup>1</sup>William H. Mills, *John Wesley – An Evolutionist* (San Francisco, CA: privately printed, 1893).
- <sup>2</sup>Frank Wilbur Collier, *Back to Wesley* (New York: Methodist Book Concern, 1924). Collier was Director of Research at American University and later joined the Department of Philosophy.
- <sup>3</sup>Charles W. Hargitt, "John Wesley – Evolutionist," *Zion's Herald* (1925): 1061–88. Hargitt was Professor of Zoology at Syracuse University.
- <sup>4</sup>Charles W. Hargitt, "John Wesley and Science: A Challenge from the Eighteenth Century," *Methodist Review* 110 (1927): 383–93.
- <sup>5</sup>William C. S. Pellowe, "Wesley's Use of Science," *Methodist Review* May (1927): 394–404. Pellowe was a Methodist Episcopal minister in Detroit, Michigan.
- <sup>6</sup>Frank Wilbur Collier, *John Wesley among the Scientists* (New York: Abingdon Press, 1928).
- <sup>7</sup>Quentin Skinner, "Meaning and Understanding in the History of Ideas," *History and Theory* 8, no. 1 (1969): 7, 8. Skinner is the Regius Professor of Modern History, Cambridge University.
- <sup>8</sup>Skinner, 16.
- <sup>9</sup>"Philosophaster," "To Mr. John Wesley," *The London Magazine: Or, The Gentleman's Monthly Intelligencer* (November 1764): 570–3.
- <sup>10</sup>John Wesley, *The Letters of the Rev. John Wesley, A. M.*, ed. John Telford (London: The Epworth Press, 1931), 4: 281–5.
- <sup>11</sup>Skinner, 22.
- <sup>12</sup>Skinner, 24.
- <sup>13</sup>Skinner, 27.
- <sup>14</sup>Kari Palonen, *Quentin Skinner: History, Politics, Rhetoric* (Cambridge: Polity Press, 2003), 21–3.
- <sup>15</sup>Andrew Cunningham and Perry Williams, "De-Centring the 'Big Picture': *The Origins of Modern Science* and the Modern Origins of Science," *British Journal for the History of Science* 26 (1993): 419; and Andrew Cunningham, "Getting the Game Right: Some Plain Words on the Identity and Invention of Science," *Studies in History and Philosophy of Science* 19, no. 3 (1988): 367, note 1.
- <sup>16</sup>Cunningham and Williams, "De-Centring the 'Big Picture,'" 419.

- <sup>17</sup>Cunningham, "Getting the Game Right," 367.
- <sup>18</sup>Cunningham, "The Identity of Natural Philosophy. A Response to Edward Grant," *Early Science and Medicine* 5, no. 3 (2000): 264.
- <sup>19</sup>Andrew Cunningham, "How the *Principia* Got Its Name; or, Taking Natural Philosophy Seriously," *History of Science* 29 (1991): 381, 388; and —, "A Reply to Peter Dear's 'Religion, Science and Natural Philosophy: Thoughts on Cunningham's Thesis,'" *Studies in History and Philosophy of Science* 32, no. 2 (2001): 390.
- <sup>20</sup>Cunningham, "How the *Principia* Got Its Name," 383.
- <sup>21</sup>Cunningham and Williams, "De-Centring the 'Big Picture,'" 418, 424.
- <sup>22</sup>Edward Grant, "God, Science, and Natural Philosophy in the Late Middle Ages," in *Between Demonstration and Imagination: Essays in the History of Science and Philosophy Presented to John D. North*, ed. Lodi Nauta and Arjo Vanderjagt (Leiden: Brill, 1999). Dr. Grant is Professor Emeritus of History and History of Science, Indiana University, Bloomington.
- <sup>23</sup>Peter Dear, "Religion, Science and Natural Philosophy: Thoughts on Cunningham's Thesis," *Studies in History and Philosophy of Science* 32, no. 2 (2001): 379; and Peter Dear, "Reply to Andrew Cunningham," *Studies in History and Philosophy of Science* 32, no. 2 (2001): 393–5. Dr. Dear is Professor of History/Science and Technology Studies, Cornell University.
- <sup>24</sup>Cunningham, "How the *Principia* Got Its Name," 385, 389; and Cunningham, "A Reply to Peter Dear," 389.
- <sup>25</sup>Andrew Cunningham and Roger French, *Before Science: The Invention of the Friars' Natural Philosophy* (Aldershot: Scolar, 1996); and Cunningham, "The Identity of Natural Philosophy," 265.
- <sup>26</sup>John Wesley, *A Survey of the Wisdom of God in the Creation: Or a Compendium of Natural Philosophy* (Bristol: printed by William Pine, 1763), 1: iii.
- <sup>27</sup>*Survey* (1763) 1: 285.
- <sup>28</sup>*Survey* (1763) 1: 228, sec. 9.
- <sup>29</sup>*Survey* (1763) 1: 93, sec. 14.
- <sup>30</sup>*Survey* (1763) 1: 54, sec. 50.
- <sup>31</sup>*Survey* (1763) 1: 50–1, sec. 45.
- <sup>32</sup>*Survey* (1763) 1: 170, sec. 9.
- <sup>33</sup>*Survey* (1763) 2: 50, sec. 9.
- <sup>34</sup>*Survey* (1763) 1: 149, sec. 9.
- <sup>35</sup>*Survey* (1763) 1: 280, sec. 8.
- <sup>36</sup>*Survey* (1763) 1: 180, sec. 1.
- <sup>37</sup>*Survey* (1763) 2: 150, sec. 11.
- <sup>38</sup>Laura Bartels Felleman, "The Evidence of Things Not Seen: John Wesley's Use of Natural Philosophy," (PhD Diss., Drew University, 2004). In Chapter Two, I discuss possible reasons for Wesley's deletion of atheism from his compilation of natural philosophies.
- <sup>39</sup>For example, Robert Mudie mentioned in the Preface to each volume in his editions of the *Survey* (1836, 1840, 1842) that he had revised Wesley's work to reflect developments in chemistry, biology, botany, and natural science. He did not indicate in the body of the text where his editions differ from that of Wesley. *A Compendium of Natural Philosophy Being A Survey of the Wisdom of God in the Creation; by John Wesley, A.M. A new edition, revised, corrected and adapted to the Present State of Science, by Robert Mudie* (London: Printed for Thomas Tegg and Son, 1836), 1: vii–xii, 2: v–viii, and 3: iii–vi.

### God Did It, But How? Robert B. Fischer

An evangelical Christian and a professional scientist, Fischer takes both the Bible and science seriously. Never divorcing faith and reason, he nonetheless suggests we separate "Who?" and "Why?" questions from "What?" and "How?"

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