

ABSTRACT

Body, Soul, and Bible: A Religious History of Nineteenth-Century Physiological Reform

Jonathan D. Riddle, M.A.

Thesis Adviser: Barry G. Hankins, Ph.D.

The nineteenth-century American physiological reform movement was deeply religious. While historians have noted the moral or religious imperatives intermingled with reformers' dietary recommendations, few have examined why and how a movement to reform the body became religious and how that religious impulse manifested itself. This thesis therefore offers a close examination of the religious aspects of physiological reform, arguing first that a holistic or sympathetic theological anthropology undergirded the sacralization of bodily regimen. Second, this thesis demonstrates that physiological reformers relied on the Bible to promote their movement and that the Bible's dietary teachings were a substantial point of conflict between the reformers and other Americans. Finally, this thesis analyzes the reformers' hermeneutic, arguing that they read the Bible through the lens of physiology. They therefore clashed with the commonsense literalism with which their contemporaries read the Bible—a hermeneutical conflict the physiological reformers failed to win.

Body, Soul, and Bible: A Religious History
of Nineteenth-Century Physiological Reform

by

Jonathan D. Riddle, B.A.

A Thesis

Approved by the Department of History

Jeffrey S. Hamilton, Ph.D., Chairperson

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Approved by the Thesis Committee

Barry G. Hankins, Ph.D., Chairperson

Joseph C. Stubenrauch, Ph.D.

Jeff Levin, Ph.D.

Christopher Rios, Ph.D.

Accepted by the Graduate School
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J. Larry Lyon, Ph.D., Dean

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TABLE OF CONTENTS

| | |
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| ACKNOWLEDGMENTS | v |
| CHAPTER ONE | 1 |
| Introduction | 1 |
| <i>Introduction</i> | 1 |
| <i>Historiography</i> | 7 |
| <i>Thesis</i> | 9 |
| <i>Demography</i> | 14 |
| CHAPTER TWO | 21 |
| Obeying God’s Laws with Body and Soul..... | 21 |
| <i>Introduction</i> | 21 |
| <i>The History of a Religious Movement</i> | 23 |
| <i>A Sympathetic Theological Anthropology</i> | 41 |
| <i>Conclusion</i> | 55 |
| CHAPTER THREE | 57 |
| Grahamism as a Hermeneutical Conflict | 57 |
| <i>Introduction</i> | 57 |
| <i>The Bible’s Role in the Physiological Reform Movement</i> | 60 |
| <i>The Physiological Hermeneutic</i> | 73 |
| <i>Conclusion</i> | 86 |
| CHAPTER FOUR..... | 88 |
| The Biblical Debate over Meat and Drink | 88 |
| <i>Introduction</i> | 88 |
| <i>The Old Testament</i> | 89 |
| <i>The New Testament</i> | 99 |
| <i>The Bible at Stake</i> | 109 |
| <i>Conclusion</i> | 115 |
| CHAPTER FIVE | 118 |
| Conclusion..... | 118 |
| <i>To Heal Bodies as well as Souls</i> | 118 |
| <i>The Dietetics of the Bible</i> | 121 |
| <i>Significance</i> | 122 |
| BIBLIOGRAPHY | 125 |
| Primary Sources | 125 |
| <i>Periodicals</i> | 125 |
| <i>Books, Pamphlets, and Published Letters</i> | 125 |
| Secondary Sources | 129 |
| <i>Articles and Books</i> | 129 |

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CHAPTER ONE

Introduction

Introduction

British gentlewoman Frances Trollope lived and traveled in America from 1827 to 1831. In 1832, she wrote *Domestic Manners of the Americans*—a popular traveler’s account of everyday life in the early American republic. Trollope described the common fare. Americans, she said, “consume an extraordinary quantity of bacon. Ham and beef-steaks appear morning, noon, and night.”¹ A decade later, Charles Dickens recorded the breakfast offerings aboard a canal boat near Pittsburgh: “At about six o’clock, all the small tables were put together to form one long table, and everybody sat down to tea, coffee, bread, butter, salmon, shad, liver, potatoes, pickles, ham, chops, black-puddings, and sausages.”² These carnivorous Americans were plagued by indigestion—or, as it was then known, dyspepsia. The complaint was so common, in fact, that revivalist Charles G. Finney wrote in 1840, “Almost every person...is in a greater or less degree a dyspeptic.”³ To a small but zealous group of reformers, the diagnosis was clear: Americans suffered from dyspepsia and a great many other ailments because of their indulgent eating habits and poorly regimented lives. These reformers therefore launched a crusade to purify Americans’ diet and regimen and thereby heal the country. Their goal was all-around

¹ Frances Trollope, *Domestic Manners of the Americans*, ed. Richard Mullen (1832; repr., Oxford: Oxford University Press, 1984), 254.

² Quoted in Karen Iacobbo and Michael Iacobbo, *Vegetarian America: A History* (Westport, CT: Praeger 2004), 55.

³ Charles G. Finney, “Professor Finney’s Lectures.—No. 10.,” *The Oberlin Evangelist* 2, no. 5 (1840): 35.

hygiene—in eating, drinking, exercising, bathing, sleeping, and procreating. Yet they aspired for even more. The body and soul, these reformers believed, existed in sympathy with one another (or, for some, were one and the same). By healing the body, therefore, they hoped to heal the soul—enabling it to climb to greater heights of morality and spirituality. They thereby joined in the great project of Jacksonian America: to reform the self, to reform the nation, and to hasten the millennium.

While some militated against slavery and others worked for women’s rights, these reformers dedicated themselves to the study and promulgation of physiology. Human physiology, or “the Science of Human Life,” referred to the study of the proper functioning of the body, its organs, and its systems. Physiology’s foundation, therefore, was built on human anatomy. As the founders of the first American Physiological Society wrote in their constitution, physiology also examined the body in its environment, including “the influence of temperature, air, cleanliness, exercise, sleep, food, drink, medicine, &c., on human health and longevity.”⁴ The principles of physiology were not widely known, these reformers believed. If they could educate people in the science that governed their health, they might “aid [the physician] greatly in the discharge of his weighty trust.” Indeed, they hoped to prevent sickness and disease rather than to treat them. “‘Prevention is better than the cure,’ is our favorite motto,” the Society’s constitution declared. They therefore formed societies, gave lectures, and wrote books to teach their fellow Americans the regimen that led to a sound body and soul. While some Americans may have found their cold-water baths or hard beds

⁴ Reprinted in Hebbel E. Hoff and John F. Fulton, “The Centenary of the First American Physiological Society Founded at Boston By William A. Alcott and Sylvester Graham,” *Bulletin of the Institute of the History of Medicine* 5, no. 8 (1937): 729.

unpleasant, it was the reformers' dietary restrictions that proved to be the most galvanizing. Abstemiousness was the rule. The reformers recommended only two meals a day and strictly forbade the use of tobacco, coffee, tea, or spices. The most controversial proscriptions, however, were of meat and alcohol. Despite the opposition these positions elicited, or perhaps because of it, physiological reformers insisted all the more strongly that vegetarianism and teetotalism were the keys to health and morality.

The early nineteenth century was an auspicious time to launch the physiological reform movement. In the 1820s and 1830s, orthodox medical science lost its dominant position in American life.⁵ Heroic medicine—which included bleeding, purging, and large doses of minerals—still held sway as medical orthodoxy. The pages of *The Boston Medical and Surgical Journal*, an orthodox medical periodical, bear testimony. In 1828, a doctor reported giving a patient “mild mercurial laxatives” followed by regular doses of turpentine. He said he occasionally prescribed turpentine combined with castor oil and calomel (mercury chloride).⁶ Another doctor treated a syphilis patient's symptoms with a series of medicines: first mercury, then opium, until finally wine solved the problem.⁷ Leeches were a common therapy. In 1830, for example, a doctor reported treating a fifteen-year-old boy's stomach ailment with forty leeches.⁸ These practices created suspicion, if not fear, of traditional doctors and their medicines. In 1860, Dr. Oliver

⁵ John S. Haller, Jr., *Medical Protestants: The Eclectics in American Medicine, 1825-1939* (Carbondale, IL: Southern Illinois University Press, 1994), 32.

⁶ M.F. Colby, “Effects of Spirits of Turpentine in a Case of Intermittent,” *The Boston Medical and Surgical Journal*, 1, no. 45 (1828): 712.

⁷ J. Bennet, “Notes of a Case initiative of Neuralgic Affection, occasioned by Mercury,” *The Boston Medical and Surgical Journal* 2, no. 13 (1829): 197.

⁸ H. Worship, “Mental Derangement from Gastric Irritation,” *The Boston Medical and Surgical Journal* 2, no. 51 (1830): 1.

Wendell Holmes, Sr. quipped, “if the whole materia medica, as now used, could be sunk to the bottom of the sea, it would be all the better for mankind,—and all the worse for the fishes.”⁹ As the authority of orthodox medicine waned, an opening was created for alternative approaches to health. Thus, in the middle-third of the nineteenth century, alternative therapies proliferated: herb-based Thomsonianism, hydropathy (or the water-cure), and homeopathy, to name a few.¹⁰ It was in this context, and in part because of it, that the physiological reform movement began. Physiological reformers rejected medicines as harmful, dangerous, and ultimately unnecessary. Physician and physiologist William Andrus Alcott, for example, described his conversion to proper physiology in an autobiography entitled *Forty Years in the Wilderness of Pills and Powders* (1859).¹¹ Instead of medications, physiological reformers proposed an enlightened regimen that would lead to good health and eliminate any need for cures. Indeed, they dreamed that physicians would become physiological teachers rather than healers.¹² Physiological reformers therefore joined homeopaths, hydropaths, and many others in exploiting an age of free-wheeling opportunity in order to offer an alternative approach to health.

⁹ Quoted in Ronald L. Numbers, *Prophetess of Health: A Study of Ellen G. White*, 3rd. ed. (Grand Rapids: William B. Eerdmans Publishing Company, 2008), 96.

¹⁰ Norman Gevitz, ed., *Other Healers: Unorthodox Medicine in America* (Baltimore: Johns Hopkins University Press, 1988). The first alternative medical college, the Reformed Medical College of the City of New York, was founded in 1830. Haller, *Medical Protestants*, 75.

¹¹ William Andrus Alcott, *Forty Years in the Wilderness of Pills and Powders; Or the Cogitations and Confessions of an Aged Physician* (Boston: John P. Jewett, 1859).

¹² At its third annual meeting, for example, the American Physiological Society adopted resolutions (proposed by Graham) declaring that “all medicine, as such, is, in itself considered, an evil” and that “the province of the physician is to teach the laws of life and health.” “Third Anniversary of the American Physiological Society,” *Graham Journal of Health and Longevity* 3, no. 13 (1839): 201.

Physiology was not only an alternative health movement; it was also a reform campaign. The first half of the nineteenth century saw the births of a host of reform efforts. Physiological reformers made common cause with many of these, including abolitionism, women's rights, and temperance. The meetings of the physiologically-inspired American Vegetarian Society were a gathering place for radical reformers, such as abolitionists Horace Greeley and Gerritt Smith, women's rights activists Susan B. Anthony and Lucy Stone, and many others. The physiological reform movement's boarding houses were similar meeting places. In 1833, Amherst College tutor William S. Tyler wrote to his brother about his experience in the Boston boarding house: "The Boarders in this establishment are not only Grahamites, but Garrisonites—not only reformers in diet, but radicalists in Politics. Such a knot of Abolitionists I never before fell in with."¹³ The affinity between these movements was such that, at one vegetarian banquet, abolitionist and champion of the water-cure James Caleb Jackson proposed a toast: "Total Abstinence, Women's Rights, and Vegetarianism."¹⁴ Physiological reform overlapped the most, however, with temperance—particularly teetotalism. The two movements shared not only a common goal in promoting total abstinence from alcohol, but even personnel. One of physiology's most famous champions, Sylvester Graham, began his reforming career delivering temperance lectures.

¹³ William S. Tyler to Edward Tyler, October 10, 1833, reprinted in Thomas H. Le Duc, "Documents: Grahamites and Garrisonites," *New York History* 20, no. 2 (1939): 189.

¹⁴ Quoted in Gerald Carson, *Cornflake Crusade* (New York: Rinehart & Company, Inc., 1957), 18-19. Among the 350 people in attendance at the Great Vegetarian Banquet held in New York in 1853, were Lucy Stone, Mary Gove Nichols, Lydia N. Fowler, Amelia Bloomer, Susan B. Anthony, Russell T. Trall, Horace Greeley, and James Caleb Jackson. The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church For the First Century of Its Existence, From 1817 to 1917* (Philadelphia: J.B. Lippincott, 1922), 168.

All of these reform movements shared yet another, deeper connection: they were, at least in part, products of the Second Great Awakening. Historians have explained how the revivals of the first half of the nineteenth century fostered social movements. The egalitarianism of revivals and new primitive churches challenged social and ecclesiastical norms, laying the foundation for suffragists and abolitionists. The doctrines of sanctification and perfectionism, powered by an Arminian confidence in an individual's moral agency, undergirded the pursuit of purity and piety—which in turn inspired temperance and concern for the plight of the urban poor. As revivals inspired both personal and social change, sanctification came to mean self-reform.¹⁵ Physiology, like these other reform efforts, emerged from this theological context.¹⁶ Physiological reformers possessed unbounded confidence in the individual's ability to reform his or her ways.¹⁷ They urged their fellow Americans onward to bodily purity and spiritual piety, and equipped them with the physiological knowledge to reach these goals. Physiology promised not only health but also moral control of one's self. Thus equipped with health, energy, and moral power, the physiologically-reformed were prepared to undertake the good works that would hasten the millennial reign of Jesus Christ. As Alcott said in

¹⁵ Timothy L. Smith, *Revivalism & Social Reform: American Protestantism on the Eve of the Civil War* (Nashville, TN: Abingdon Press, 1957; Baltimore: Johns Hopkins University Press, 1980); Charles E. and Carroll S. Rosenberg, "Pietism and the Origins of the American Public Health Movement: A Note on John H. Griscom and Robert M. Hartley," *Journal of the History of Medicine and Allied Sciences* 23, no. 1 (1968): 16-35; Ronald G. Walters, *American Reformers, 1815-1860* (New York: Hill and Wang, 1978); and Barry Hankins, *The Second Great Awakening and the Transcendentalists* (Westport, CT: Greenwood Press, 2004).

¹⁶ Historian James C. Whorton says "it was from contemporary Christianity, more than any other source, that health reform ideology drew its inspiration." James C. Whorton, *Crusaders for Fitness: The History of American Health Reformers* (Princeton: Princeton University Press, 1982), 29.

¹⁷ For an example the reformers' Arminian confidence in a person's moral agency, see Sylvester Graham, *A Lecture on the Responsibilities of Human Beings in the Exercise of Their Moral Power: Occasioned by the Visit of the New England Guards to Northampton on the 13th of July, 1840; And Publicly Delivered Before a Northampton Audience on the Evening of the 10th of March, 1841*. Northampton, MA: J.H. Butler, 1841.

1850, “A Vegetable Diet lies at the basis of all Reform, whether Civil, Social, Moral, or Religious.”¹⁸

Historiography

Physiological reform has been studied in fits and starts over the last century. In the 1930s and 1940s, a number of historians chronicled the adventures of the early health reformers in a handful of scholarly articles. Among these, Richard Harrison Shryock’s “Sylvester Graham and the Popular Health Movement, 1830-1870” (1931) has been a touchstone for subsequent studies.¹⁹ Gerald Carson’s *Cornflake Crusade* (1957) was the first book-length study of health reform, tracing the movement from its inception in religiously-inspired vegetarianism to its fruition in the breakfast cereal industry.²⁰ Carson’s work is well researched and has proven a valuable starting point for scholars. His analyses of the intellectual currents of physiology, however, are cursory and he largely neglects religion.

It was not until the 1980s that the ideology of health reform received serious and prolonged consideration. Stephen Nissenbaum’s *Sex, Diet, and Debility in Jacksonian America: Sylvester Graham and Health Reform* (1980) is the best study of Graham’s

¹⁸ Quoted in James C. Whorton, “‘Christian Physiology’: William Alcott’s Prescription for the Millennium,” *Bulletin of the History of Medicine*, 49, no. 4 (1975): 466.

¹⁹ Richard Harrison Shryock, “Sylvester Graham and the Popular Health Movement, 1830-1870,” *The Mississippi Valley Historical Review* 18, no. 2 (1931): 172-183; Russell Hickman, “The Vegetarian and Octagon Settlement Companies,” *Kansas Historical Quarterly* 2, no. 4 (1933): 377-385; Henry E. Sigerist, “The Philosophy of Hygiene,” *Institute of the History of Medicine, Bulletin* 1 (1933): 323-331; Bertha-Monica Stearns, “Two Forgotten New England Reformers,” *The New England Quarterly* 6, no. 1 (1933): 59-84; Hoff and Fulton, “Centenary of the First American Physiological Society,” 687-734; Robert Samuel Fletcher, “Bread and Doctrine at Oberlin,” *Ohio State Archaeological and Historical Quarterly* 49 (January-March, 1940): 58-67; Mildred V. Naylor, “Sylvester Graham, 1794-1851,” *Annals of Medical History Series* 3, 4 (1941): 236-240; Arthur Meier Schlesinger, “A Dietary Interpretation of American History,” *Proceedings of the Massachusetts Historical Society* 68 (Oct., 1944-May, 1947): 199-227.

²⁰ Carson, *Cornflake Crusade*.

physiological thought. Nissenbaum helpfully explains Graham's ideas regarding the operation of the body, and traces the roots of those ideas to a few European physiologists.²¹ In *Crusaders for Fitness: The History of American Health Reformers* (1982), James C. Whorton noted that health reform had thus far been dismissed as mere faddism. Whorton, on the other hand, insisted that "health reform movements must be understood as hygienic ideologies." In *Crusaders for Fitness*, therefore, he offers a comprehensive overview of the ideologies of American health reformers, from Graham to twentieth-century body-builder Bernarr Macfadden.²² This generation of scholarly interest was capped off by Harvey Green's *Fit for America: Health, Fitness, Sport, and American Society* (1986). By using a broad array of sources, from books to advertisements to artifacts, Green provides the fullest picture of the health reform movement to date. He helpfully adds a cultural dimension to a historiography that has been predominately intellectual.²³

²¹ Stephen Nissenbaum, *Sex, Diet, and Debility in Jacksonian America: Sylvester Graham and Health Reform* (Westport, CT: Greenwood Press, 1980). Jayme A. Sokolow's similar *Eros and Modernization: Sylvester Graham, Health Reform, and the Origins of Victorian Sexuality in America* (Rutherford, NJ: Fairleigh Dickinson University Press, 1983) is tainted by his plagiarism of Nissenbaum's work. Two years prior to Nissenbaum's work, Ronald G. Walters included Graham and Alcott in a chapter on "body reforms" in *American Reformers*, 145-172.

²² Whorton, *Crusaders for Fitness*. See also Whorton, "Christian Physiology"; James C. Whorton, "'Tempest in a fleshpot': The Formulation of a Physiological Rationale for Vegetarianism," *Journal of the History of Medicine and Allied Sciences* 32, no. 2 (1977): 115-139; and James C. Whorton, "Patient, Heal Thyself: Popular Health Reform Movements as Unorthodox Medicine," in *Other Healers: Unorthodox Medicine in America*, ed. Norman Gevitz, 52-81.

²³ Harvey Green, *Fit for America: Health, Fitness, Sport, and American Society* (New York: Pantheon Books, 1986). That same year saw the publication of Hillel Schwartz, *Never Satisfied: A Cultural History of Diets, Fantasies and Fat* (New York: Free Press, 1986). Schwartz's chapter on Graham is an impressive contribution to the cultural history of the movement, providing a thorough description of Graham's cultural reception (or lack thereof). See also John Money, *The Destroying Angel: Sex, Fitness & Food in the Legacy of Degeneracy Theory, Graham Crackers, Kellogg's Cork Flakes & American Health History* (Buffalo, NY: Prometheus Books, 1985).

Since the turn of this century, physiological reform has received renewed attention, even in more popular publications.²⁴ The most notable of recent scholarly studies is Ruth Clifford Eng's *Clean Living Movements: American Cycles of Health Reform* (2000). Eng is primarily interested in comparing the "clean living" movements which, she argues, occur in seventy- to ninety-year cycles. Her treatment of mid-nineteenth-century health reform is more encyclopedic than analytical. It is thus best used as a starting point for further research.²⁵

Thesis

To date, nineteenth-century health reform has been studied primarily as a radical reform movement or an alternative health movement, and has been placed in either of these contexts. As suggested above, these approaches are well justified. Yet physiological reform was also a religious movement. Almost to a person, its stand-out leaders were physicians or physiologists as well as ministers. They foresaw moral and spiritual implications for their dietary recommendations. They employed theological reasoning to make their claims and relied on the Bible to defend them. Although they came from a variety of theological and ecclesiastical backgrounds, they united in a religious movement that operated within their respective churches and promised to aid

²⁴ Melanie Du Puis, "Angels and Vegetables: A Brief History of Food Advice in America," *Gastronomica: The Journal of Food and Culture* 7, no. 3 (2007): 34-44; Kyla Wazana Tompkins, "Sylvester Graham's Imperial Dietetics," *Gastronomica: the Journal of Food and Culture* 9, no. 1 (2009): 50-60; Nanami Suzuki, "Popular Health Movements and Diet Reform in Nineteenth-Century America," *The Japanese Journal of American Studies* no. 21 (2010): 111-137; Jeffrey Haydu, "Cultural Modeling in Two Eras of U.S. Food Protest: Grahamites (1830s) and Organic Advocates (1960s)," *Social Problems* 58, no. 3 (Aug., 2011): 461-487. For examples of popular interest, see Dana Logan, "What Graham Crackers Teach Us About Whole Foods," *Religion & Politics*, August 1, 2012; David Segal, "When a Sugar High Isn't Enough," *New York Times*, April 21, 2012.

²⁵ Ruth Clifford Engs, *Clean Living Movements: American Cycles of Health Reform* (Westport, CT: Praeger, 2000). See also Ruth Clifford Engs, *The Progressive Era's Health Reform Movement: A Historical Dictionary* (Westport, CT: Praeger, 2003).

them in their pursuit of the Kingdom of God. As a religious movement, physiological reform must also be placed in a religious context. On February 27, 1833, about the time Graham was beginning his career as a health reformer, Joseph Smith received the Word of Wisdom. In it, Smith was instructed that wine, tobacco, and hot drinks were not good for consumption, and that meat was to be eaten sparingly.²⁶ At the end of the decade, both Asa Mahan and Charles G. Finney enthusiastically adopted the Graham diet and incorporated its teachings into their theologies of total sanctification.²⁷ In 1863, Ellen G. White received a revelation of dietary restrictions which thereafter became a matter of Seventh-day Adventist church discipline. Three years later, Harriet Beecher Stowe wrote an article for *The Atlantic Monthly* entitled, “Bodily Religion: A Sermon on Good Health.”²⁸ Mary Baker Eddy, the founder of Christian Science, dedicated an entire chapter to physiology in her *Science and Health with Key to the Scriptures* (1875) in

²⁶ The Doctrine and Covenants 89:1-19. Robert T. Divett, “Medicine and the Mormons: A Historical Perspective,” *Dialogue: A Journal of Mormon Thought* 12, no. 3 (1979):16-25; N. Lee Smith, “Herbal Remedies: God’s Medicine?” *Dialogue: A Journal of Mormon Thought* 12, no. 3 (1979): 37-60; Thomas G. Alexander, “The Word of Wisdom: From Principle to Requirement,” *Dialogue: A Journal of Mormon Thought* 14, no. 3 (1981): 78-88; Lester E. Bush, Jr., “The Word of Wisdom in Early Nineteenth-Century Perspective,” *Dialogue: A Journal of Mormon Thought* 14, no. 3 (1981): 47-65; Robert J. McCue, “Did the Word of Wisdom Become a Commandment in 1851?” *Dialogue: A Journal of Mormon Thought* 14, no. 3 (1981): 66-77; Robert T. Divett, *Medicine and the Mormons: An Introduction to the History of Latter-day Saint Health Care* (Bountiful, UT: Horizon Publishers and Distributors, 1981); Lester E. Bush, Jr., *Health and Medicine among the Latter-day Saints: Science, Sense, and Scripture* (New York: Crossroad, 1993).

²⁷ Asa Mahan, “Intimate Relation Between Moral, Mental and Physical Law,” *Graham Journal of Health and Longevity* 3, no. 10 (1839): 153; Finney, “Professor Finney’s Lectures.—No. 10.,” 35-36; Charles G. Finney, “Professor Finney’s Lectures. Lecture IX. Sanctification.—No. 9.,” *The Oberlin Evangelist* 2, no. 9 (1840): 65; Robert Samuel Fletcher, *A History of Oberlin College: From Its Foundation Through the Civil War* (Oberlin, OH: Oberlin College, 1943), 1:316-340; and Robert Samuel Fletcher, “Bread and Doctrine at Oberlin,” *Ohio State Archaeological and Historical Quarterly* 49 (January-March, 1940): 58-67.

²⁸ Harriet Beecher Stowe, “The Chimney-Corner For 1866. VII. Bodily Religion: A Sermon on Good Health,” *The Atlantic Monthly* 18, no. 105 (1866): 85-93.

which she condemned it as “one of the apples from the ‘the tree of knowledge.’”²⁹ It is clear that there was a religious dimension to health reform and that through this the movement touched many other aspects of nineteenth-century American religion. A full understanding of physiological reform and nineteenth-century American religion requires attention to this religious dimension.

Ronald L. Numbers was the first to approach physiological reform as a subject of religious history. In *Prophetess of Health: A Study of Ellen G. White* (1976), Numbers traces the influences of antebellum health reformers on White and her revelations regarding health and diet. His is an indispensable history of the Seventh-day Adventists’ involvement in religious health reform.³⁰ In *Crusaders for Fitness*, Whorton argues that physiological reformers practiced nothing less than a “hygienic religion.” By wedding physiology to morality, Graham and those who came after him advocated what Whorton calls “Christian physiology.”³¹ Whorton helpfully sketches many of the theological aspects of this Christian physiology. Finally, Robert H. Abzug features “body reforms” in his *Cosmos Crumbling: American Reform and the Religious Imagination* (1994). Abzug argues that physiological reformers, like other radicals, were unsatisfied with formal religion and therefore looked elsewhere for cosmological answers. They found

²⁹ Mary Baker Eddy, *Science and Health with Key to the Scriptures* (1875; repr., Boston: The Writings of Mary Baker Eddy, 2000).

³⁰ Numbers, *Prophetess of Health*.

³¹ Whorton defines “Christian Physiology as “a directing of biological science toward the social goals of contemporary revivalism, a placement of physiology as the cornerstone of the earthly Kingdom.” Whorton, *Crusaders for Fitness*, 467.

them in the sacralization of the mundane, thereby making bodily regimen a matter of religion—their new religion.³²

Numbers, Whorton, and Abzug have effectively highlighted the religious dimension of health reform. Indeed, it is commonplace to say that Grahamism was “religious” or “moral.” Most studies of health reform, however, have tended to be comprehensive. They include either all of the major radical reforms (Walters, Abzug) or the entire sweep of nineteenth-century health and fitness, from the Jacksonian to Progressive eras (Whorton, Harvey). They have not, therefore, studied in any great depth just *how* physiological reform manifested itself as a religious movement nor in what ways it interacted with the larger American religious context. The reformers’ theological reasoning has been dealt with cursorily and their use of the Bible has been neglected altogether. Thus, more focused studies are the order of the day. Caleb Maskell has undertaken the first such project. In “The Great Natural Kingdom of God: Reading Sylvester Graham as a Religious Thinker,” Maskell studies Graham’s view of the Kingdom of God. He examines Graham’s hermeneutical approach to the Bible and traces the influence of the Bible-Christians on Graham’s religious thought. Maskell’s paper has the further distinction of being one of the very few Graham studies to use archival sources. This study is exemplary. It is, however, yet unpublished.³³

³² Robert H. Abzug, *Cosmos Crumbling: American Reform and the Religious Imagination* (New York: Oxford University Press, 1994). “Grahamism and the Christian Health Movement” is also briefly treated in Robert C. Fuller’s *Alternative Medicine and American Religious Life*, although it is outside of Fuller’s study of medical theories that involve supernatural causes and cures. Robert C. Fuller, *Alternative Medicine and American Religious Life* (New York: Oxford University Press, 1989), 30-37.

³³ Caleb J.D. Maskell, “The Great Natural Kingdom of God: Reading Sylvester Graham as a Religious Thinker” (unpublished manuscript, n.d.). There are two other narrow studies of the religious dimensions of diet and health reform: Richard W. Schwarz, “Dr. John Harvey Kellogg As a Social Gospel Practitioner,” *Journal of the Illinois State Historical Society (1908-1984)* 57, no. 1 (1964): 5-22; Samantha Jane Calvert, “A Taste of Eden: Modern Christianity and Vegetarianism,” *The Journal of Ecclesiastical*

With the historiographical foundation thus laid, I will undertake in this thesis a close analysis of physiological reform as a religious movement. The first chapter will begin by sketching the history of the movement and the careers of the reformers, paying particular attention to their articulation of religious commitments and goals. I will then examine the logic by which bodily practices were made a religious issue, arguing that the sacralization of regimen was a product of the reformers' theological anthropology—their view of humankind and its relationship to God. They believed that God interacted with his people through both spiritual and physical laws, both of which were morally binding. Further, the sympathy between a person's body and soul meant that their fates were wed: health or debility in one induced the same in the other. Health reformers offered scientific grounds for this anthropology, explaining the sympathy in physiological terms. Yet it was premised on theological convictions and yielded a religious conclusion: for a healthy soul, one must also tend the body. The second chapter will demonstrate that physiological reformers used the Bible to promote their dietary strictures, in part because of a cultural imperative to do so. The Bible's teachings proved to be a real and substantial point of conflict between the dietetically reformed and their opponents. I will argue that the physiological reformers approached the Bible with a naturalizing hermeneutic that was at odds with the dominant commonsense literalism of contemporary American Christians. The third chapter will analyze the actual biblical arguments concerning the consumption of meat and wine. These debates depended on the relationship between science and the Bible—between natural and special revelation. They reveal the combatants' varying hierarchies of authority in questions of knowledge

History 58, no. 3 (2007): 461-481. While both are very useful, neither of these articles offers much theological analysis.

about this world and one's duty in it. This chapter will argue that, ultimately, the hermeneutical conflict over vegetarianism raised fundamental questions about the authority of the Bible. I will conclude by reemphasizing that, in the eyes of both its promoters and its opponents, nineteenth-century health reform was a religious movement that depended on theological reasoning and biblical argumentation. Indeed, the movement's fate was tied to the reformers' ability to defend their religious claims on biblical grounds. Their failure to do so reveals physiological reform's place in the American religious context and suggests the persistent importance and authority of the Bible—plainly read—to Americans throughout the nineteenth century and into the twentieth.

Demography

The following is an intellectual history of the religious convictions and commitments that informed nineteenth-century health reform, as seen in the words and activities of the movement's leaders—its writers, lecturers, and journal editors. Because it rarely descends from the realm of ideas, a prefatory note is needed to explain for whom physiological reform was a religious movement. To date, there has been no comprehensive demographical study of health reformers. The following is therefore more suggestive than definitive.

Men dominate the pages that follow, yet it is clear that women were involved in the health reform movement. At the founding of the American Physiological Society, for example, 124 men (75%) and 41 women (25%) signed the society's constitution. By 1838, the number and proportion of women in the organization had grown: there were

158 men (63%) and 93 women (37%).³⁴ Although none of these women served as officers in the society, there were a few female leaders—most notably, Mary Gove Nichols. Nichols operated a Graham boarding house and gave lectures to women on physiology and anatomy.³⁵ (Graham was attacked for the impropriety of lecturing to women about such sensitive subjects.) At least one popular Grahamite text was written by a woman: Asenath Nicholson's *Nature's Own Book*.³⁶ When the Vegetarian Society of America was founded later in the century, three women served on its executive committee.³⁷ Women also played a special role in the ideology of physiological reform. As the stewards of the kitchen and the teachers of the children, they were seen as the frontlines of dietary reformation. They were thought to possess a uniquely effective moral power over men and children. As the American Physiological Society resolved in 1839, a woman is "only second to the Deity in the influence which she exerts on the physical, the intellectual and the moral interests of the human race."³⁸

³⁴ Hoff and Fulton, "Centenary of the First American Physiological Society," 696-700, 731-734. Of the 41 women who signed the constitution, Nissenbaum says, "twenty-four of them were wives of male members, and several of the rest were apparently their daughters. The Society was essentially a male organization." Nissenbaum, *Sex, Diet, and Debility*, 154, n. 7. There were, however, also women's physiological organizations. See, for example, "Ladies Physiological Association, Boston," *Graham Journal of Health and Longevity* 3, no. 5 (1839): 82.

³⁵ Mary Gove Nichols, *Lectures to Ladies on Anatomy and Physiology* (Boston: Saxton and Pierce, 1842); Bertha-Monica Stearns, "Two Forgotten New England Reformers"; John B. Blake, "Mary Gove Nichols, Prophetess of Health," *Proceedings of the American Philosophical Society* 106, no. 3 (1962): 219-234.

³⁶ Asenath Nicholson, *Nature's Own Book*, 2nd ed. (New York: Wilbur and Whipple, 1835). She also published Asenath Nicholson, *A Treatise on Vegetable Diet, with Practical Results; Or, a Leaf From Nature's Own Book, Illustrated by Facts and Experiments of Many Years' Practice* (Glasgow: John M'Combe, n.d).

³⁷ The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 176-177.

³⁸ "Third Anniversary of the American Physiological Society," *Graham Journal of Health and Longevity* 3, no. 13 (1839): 201. See also Sylvester Graham, "Influence of Woman on Man as a Race," *Graham Journal of Health and Longevity* 3, no. 16 (1839): 249. John Harvey Kellogg's wife, Ellen Eaton, was responsible for many of the culinary inventions that poured out of the Battle Creek Sanitarium's

Despite being allies with abolitionists, or even abolitionists themselves, physiological reformers were largely silent on the questions of race and slavery. A perusal of the Graham-era health reform literature turns up few published references to slaves. In 1837, the *Graham Journal of Health Longevity* republished a story of a slave named Tak Sisson who lived on a vegetable diet from his youth. He became “uncommonly shrewd and bright, and strong and active” and served bravely in the American Revolution as a substitute.³⁹ Elizur Wright, Jr. felt differently. In 1836, he wrote to Theodore Dwight Weld: “My Anti-Graham philosophy will only pass for what it is worth, of course. Every southern slave I ever saw, complained bitterly about the prevention of meat.”⁴⁰ The relationship between physiological reform and slavery is therefore ambivalent—or, more accurately, irrelevant. Slaves simply did not have the luxury of tailoring their diet to the latest physiological recommendations.

Physiological reform, like many of the nineteenth century’s radical reform movements, is generally assumed to have been concentrated in the northeast. Indeed, many of the movement’s leaders were from the northeast and focused their efforts in those states. Health reform was most successful in cities like Boston and New York, although it also made headway in America’s medical capital, Philadelphia. There is, however, evidence that the movement was a bit more widespread. An 1837 list of agents for the *Graham Journal of Health and Longevity* includes agents in Pennsylvania, Ohio,

kitchen. “Without the help derived from this fertile incubator of ideas,” Kellogg said, “the great food industries of Battle Creek would never have existed. They are all direct or indirect outgrowths of Mrs. Kellogg’s experimental kitchen, established in the fall of 1883.” Carson, *Cornflake Crusade*, 112.

³⁹ “Tak Sisson,” *Graham Journal of Health and Longevity* 1, no. 19 (1837): 151. The story was originally published in Alcott’s journal, *The Library of Health and Teacher on the Human Constitution*.

⁴⁰ Elizur Wright, Jr. to Theodore Dwight Weld, July 28, 1836, in *Letters of Theodore Dwight Weld, Angelina Grimké Weld, and Sarah Grimké*, eds. Gilbert H. Barnes and Dwight L. Dumond (New York: Da Capo Press, 1970), 1:320.

Michigan, Indiana, Illinois, and Missouri. Further, there were at least a few vegetarians in the South and two in Jamaica.⁴¹

Physiological reformer Larkin B. Coles said that his *Philosophy of Health* was “set forth in a plain and simple style, to be adapted to the reading of all classes of people....” Indeed, Coles addressed students, professionals, and laborers.⁴² Nevertheless, historians agree that health reform was primarily an urban middle class movement. Nissenbaum conducted the only serious investigation of socioeconomic status in the movement and his interpretation has been authoritative.⁴³ He studied the 124 men who signed the American Physiological Society’s constitution and determined that they were young men from small towns who worked as skilled artisans or tradesmen and who owned a modest amount of property.⁴⁴ Although physiological reformers prized that

⁴¹ “Local Agents For This Journal,” *Graham Journal of Health and Longevity* 1, no. 17 (1837): 136; Edward Worthington, “Grahamism in New Orleans,” *Graham Journal of Health and Longevity* 1, no. 20 (1837): 153; “Names of the Members of the Second American Health Convention,” *Graham Journal of Health and Longevity* 3, no. 12 (1839): 199. There was also a healthy exchange of ideas and personnel with the vegetarian and health movements of England, on which see James Gregory, *Of Victorians and Vegetarians: The Vegetarian Movement in Nineteenth-Century Britain* (London: Tauris Academic Studies, 2007); Virginia Smith, *Clean: A History of Personal Hygiene and Purity* (New York: Oxford University Press, 2007); and Bruce Haley, *The Healthy Body and Victorian Culture* (Cambridge, MA: Harvard University Press, 1978).

⁴² Larkin B. Coles, *Philosophy of Health: Natural Principles of Health and Cure; or, Health and Cure Without Drugs. Also, the Moral Bearings of Erroneous Appetites*, 26th ed. (Boston: Ticknor, Reed, and Fields, 1851), iv.

⁴³ See, for example, Thomas A. Horrocks, “‘The Poor Man’s Riches, The Rich Man’s Bliss’: Regimen, Reform, and the *Journal of Health*, 1829-1833,” *Proceedings of the American Philosophical Society* 139, no. 2 (1995): 115-134. Horrocks suggests that the reform-leaning *Journal of Health*, edited by Philadelphian physicians John Bell and Francis Condie, was intended for a middle class audience. Similarly, Charles E. Rosenberg says that medical manuals designed for use in the home “seem in retrospect to have been aimed at an expanding and increasingly urban middle class....” Charles E. Rosenberg, “Health in the Home: A Tradition of Print and Practice,” in *Right Living: An Anglo-American Tradition of Self-Help Medicine and Hygiene*, ed. Charles E. Rosenberg (Baltimore: Johns Hopkins University Press, 2003), 7.

⁴⁴ Nissenbaum, *Sex, Diet, and Debility*, 143-145.

which was natural and close to the earth, they depended on the access to goods and ideas that only cities provided in order to promote their cause.

Finally, there are a few ways of assessing the size and impact of physiological reform: the number of its followers, its popularity, and its effectiveness. Again, only preliminary answers can be offered. In 1837, the *Graham Journal of Health and Longevity* estimated that there were 300 to 500 Grahamites in Boston. The same year Alcott's journal had some 2,000 subscribers. As Whorton notes, out of an American population of roughly 15 million, these are modest figures.⁴⁵ Popularity (or notoriety) was a different story. In 1836, at the height of Graham's fame, *The Boston Medical and Surgical Journal* reported, "No man can travel by stage or steamboat, or go into any part of our country and begin to advocate a vegetable diet...without being immediately asked—'What. Are you a Grahamite?'"⁴⁶ Indeed, historian Robert C. Fuller says that "Graham's ideas were among the most widely circulated of all the nineteenth century's health philosophies." Many reformers and reform-minded or utopian communities adopted the Graham diet.⁴⁷ Effectiveness is the most difficult measurement of all, as it depends entirely on the metric used. If physiological reform is measured by the spread of vegetarianism, it fared modestly. It was far more effective, however, in introducing bodily regimen into discussions of both physical and spiritual wellbeing. During the Progressive Era, health and fitness reform reached new heights of popularity. Prior to

⁴⁵ "Deaths from Grahamism," *Graham Journal of Health and Longevity* 1, no. 18 (1837): 142; Whorton, *Crusaders for Fitness*, 119-120.

⁴⁶ Quoted in Green, *Fit for America*, 50.

⁴⁷ Fuller, *Alternative Medicine and American Religious Life*, 33. See also Alice Ross, "Health and Diet in 19th-Century America: A Food Historian's Point of View," *Historical Archaeology* 27, no. 2 (1993): 42-56. Although "Grahamism in general was never widely accepted in the 19th century," Ross says it was nevertheless "the century's leading avant-garde nutritional theory" and often was used in conjunction with other health or reform programs (*ibid.*, 45, 44).

that, it seems that the movement was small in size, yet much larger in popularity and importance.

The following analysis assumes these demographics as the context in which the movement's intellectual leaders lived and worked. Further, a few judgments have been made about the selection of these leaders and the framing of this study. Most histories of nineteenth-century health reform begin with Graham in the 1830s.⁴⁸ The present thesis, however, will begin at the turn of the nineteenth-century with the British sect known as Bible-Christians and end at the turn of the twentieth with the Seventh-day Adventist physician and physiologist John Harvey Kellogg. There is ample evidence of intellectual connections between the three or four generations of reformers included in this span. Despite their chronological and theological disparities, they were united in the cause of physiological reform and constitute a historically coherent group.⁴⁹ Indeed, they were self-conscious of this lineage. In 1902, reflecting on the previous century of health reform, Kellogg began his history with the Bible-Christians: "These sturdy pioneers," he wrote, "...brought with them the foundation principles of the health-reform movement which has since assumed so great proportions, and spread to all parts of the world."⁵⁰ The present thesis will study this physiological and theological inheritance synchronically. This is not to deny the substantial differences, recognized by most

⁴⁸ See, for examples, Whorton, *Crusaders for Fitness*; Green, *Fit for America*.

⁴⁹ In addition to the connections seen in the following narrative, see William Penn Alcott, "Sylvester Graham," *Good Health* 37, no. 2 (1902): 67-72; John Harvey Kellogg, "Growth of Daniel's Band," *Food, Home and Garden* 1, no. 9 (1897): 136; and Henry S. Clubb, "A Pioneer Reformer," *Good Health* 40, no. 12 (1905): 601-604. While a number of historians have noted that Graham met Bible-Christians, Maskell is the first to try to trace the Bible-Christians' theological influence on Graham. Maskell, "Graham as a Religious Thinker," 16-27.

⁵⁰ John Harvey Kellogg, "A Century's Progress in Health Reform," *Good Health* 37, no. 3 (1902): 113-117. See also "Vegetarian Society's Octennial," *Good Health* 38, no. 5 (1903): 255.

historians of the topic, between Jacksonian Era health reform and that of the Progressive Era. Rather, it is to emphasize the theological and hermeneutical commitments that cut across space, time, and religious affiliation. It does, however, complicate the standard periodization by showing the enduring relevance of religious—especially biblical—arguments even in the age of Progressive science and hygiene.

Lastly, this is a study of Protestants. This is dictated by the sources: Protestants dominated the physiological reform movement. There were only two prominent Catholics in the movement, Grahamites Thomas Low Nichols and Mary Gove Nichols. The Nicholsons converted to Catholicism in 1857, after which they lectured to Catholic audiences.⁵¹ Further, this is a study of how a group of Protestants, who traditionally have no dietary requirements, developed their own dietary theology. This focus thereby excludes Mormons and Seventh-day Adventists *per se*, because they received their dietary regulations by divine revelation. Kellogg, a Seventh-day Adventist, will be included to the extent that he used merely Protestant arguments.

Writing in 1843, Alcott described the purpose of physiological reform: “It is no part of our intention to diffuse light on the structure, functions and relations of man, as the ultimate *end* of our labors; but rather as a *means* to an end. Moral or spiritual advancement has been the chief end to which our eye has been directed, and still is.”⁵² What follows is a close examination of the theological and biblical convictions that undergirded this mission and inspired it with religious zeal.

⁵¹ Nissenbaum, *Sex, Diet, and Debility*, 169-170; Philip Gleason, “From Free-Love to Catholicism: Dr. and Mrs. Thomas L. Nichols At Yellow Springs,” *The Ohio Historical Quarterly* 70, no. 4 (1961): 283-307.

⁵² Quoted in Whorton, “Christian Physiology,” 470.

CHAPTER TWO

Obeying God's Laws with Body and Soul

Glorious, indeed, will be the consummation when, Physiology being regarded in her true character as the handmaid of religion, they shall go on, hand in hand, working out the redemption of man.

—F.W. Bird

Introduction

On June 12, 1859, William Metcalfe preached a sermon celebrating the jubilee of the Bible-Christian Church. The church had been founded in England fifty years earlier, Metcalfe explained, and “for *forty-two years* we have been endeavoring to build up a Bible-Christian Church in the City of Brotherly Love.” The Bible-Christians had met with little success in Philadelphia: “we have not rapidly increased in numbers, as have done many other denominations around us.” Metcalfe had no delusions about the reason for their limited appeal. Church discipline required “*abstinence from the flesh of animals as food, and a total abstinence from all kinds of intoxicating beverages.*” These requirements were not unheard of, yet they proved to be “*stumbling-blocks* in the estimation of many, and prevent[ed] numbers from becoming members of the Bible-Christian Church.” As Metcalfe explained, the Bible-Christian Church required abstinence from flesh and alcohol “not simply on account of health, not merely as a physiological injunction, nor yet as a mere moral requirement, but *as a religious duty.*”¹ The Bible-Christians were the first in a line of physiological reformers that spanned the

¹ Joseph Metcalfe and William Metcalfe, *Out of the Clouds: Seventeen Discourses on the Leading Doctrines of the Day, in the Light of Bible Christianity. By the Late Rev. Wm. Metcalfe, M.D. Together with a Memoir of the Author, by His Son, Rev. Joseph Metcalfe* (Philadelphia: J. B. Lippincott & Co, 1872), 255-256. The emphasis is in the original, as is the case throughout this thesis.

nineteenth century. These reformers preached a message of obedience to the imperatives of physiological reform as a religious obligation. To follow an enlightened regimen, they taught, was to obey God's laws. Doing otherwise necessarily harmed one's body and imperiled one's soul.² It is fitting that the physiological reform movement began with a minister and the Bible-Christian denomination, for it was indeed a religious movement. While historians have noted the religious and moral nature of this movement, they have often done only that; they have not explored how and why questions of bodily regimen were elevated to questions of faithfulness, obedience, and salvation. The logic that undergirded the reformers' religious imperatives was ultimately rooted in their theological anthropology. Believing there was close connection between body and soul, they traced the implications of this union along a twisted system of physiological reasoning outward to the profane regimens of bodily health. Food and drink, exercise and fresh air, sex and sleep were all thus caught up to the planes of spiritual reformation. The following explores the logic of this sacralization.³ First, however, it is necessary to sketch the history of the physiological reformers and their labors, with an eye for their roles as leaders of a deeply religious and moral movement.

² One finds few appeals to compassion for animals among early nineteenth-century vegetarian reformers; they were far more concerned with humankind's bodily and spiritual health. A humanitarian revulsion to killing animals became a more prominent reason for vegetarianism later in the nineteenth century. On the rise of compassion towards animals in the Anglo-American world during the nineteenth century, see James Turner, *Reckoning with the Beast: Animals, Pain, and Humanity in the Victorian Mind* (Baltimore, MD: Johns Hopkins University Press, 1980).

³ I owe this word to Abzug. See Abzug, *Cosmos Crumbling*, 8.

The History of a Religious Movement

After his ordination in the summer of 1787, William Cowherd became the curate of St. John's Church in Manchester, England.⁴ Six years later, however, his Swedenborgian convictions led him out of the Church of England and into a pulpit of the Church of the New Jerusalem (or New Church).⁵ In 1800, Cowherd built a church and formed his own congregation. He soon became convinced that the Bible mandated vegetarianism and total abstinence from alcohol. Unable to convince his Swedenborgian brethren of the same, on June 28, 1809, Cowherd and a small group of New Church pastors formed a new association. William Metcalfe, who soon joined their ranks, said they were not forming a "*Sectarian Church*" but "that they simply professed and wished to be *Bible-Christians*," teaching what "they conscientiously believed to be in accordance with the revealed Word of God."⁶ In 1855, Metcalfe claimed that Cowherd was "the first person, in the nineteenth century, to adopt what is now called *Vegetarianism*, practically and publicly to inculcate its principles, not only as a Hygienic measure, but as a matter of

⁴ This narrative of the early history of Bible-Christian Church is synthesized from a number of accounts: William Metcalfe, "Society of Bible Christians," in *The Library of Health, and Teacher on the Human Constitution*, ed. William Andrus Alcott, *The Library of Health, and Teacher on the Human Constitution* (Boston: published for the author, 1849): 260-262; Metcalfe and Metcalfe, *Out of the Clouds*, 2-51; The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 1-89; Howard Williams, *The Ethics of Diet. A Catena of Authorities Deprecatory of the Practice of Flesh-Eating* (London: F. Pitman, 1883), 258-264; Carson, *Cornflake Crusade*, 15-17; and Calvert, "A Taste of Eden," 462-473.

⁵ Swedenborgianism is a religious sect premised on the writings of eighteenth-century Swedish scientist, philosopher, and theologian Emmanuel Swedenborg. Swedenborg received divine revelations which he understood as the inauguration of the second coming of Jesus Christ—hence the church is also known as the New Church or the Church of the New Jerusalem. Swedenborgianism emphasizes free will, the universality and invisibility of the true church, and the permeating reality of the spiritual realm.

⁶ Metcalfe and Metcalfe, *Out of the Clouds*, 249.

religious duty.”⁷ The doctrines of total abstinence from meat and alcohol would wend their way across the Atlantic and weave themselves into the great patchwork quilt of nineteenth-century American religious innovation and reform.

Joseph Wright was one of the New Church ministers who met with Cowherd to form the Bible-Christian Church. Wright had encouraged Metcalfe, a promising young congregant of his, to study for the ministry.⁸ Wright showed Metcalfe some of his correspondence with Cowherd in which the latter urged abstinence from meat and alcohol for reasons of health, morality, and religion. Intrigued, Metcalfe examined the relevant scientific and biblical evidence and finally decided to test the regimen himself. Thus, on September 1, 1809, at the age of twenty-one, Metcalfe foreswore “fish, flesh, and fowl as food, and every kind of intoxicating liquors as drink.” He never looked back. Two years later, Cowherd ordained Metcalfe into the ministry of the Bible-Christian Church.⁹

On March 29, 1816, Cowherd died. His fledgling Bible-Christian Church, however, survived—with some three- or four-hundred members, according to Metcalfe’s later estimate.¹⁰ In fact, they soon expanded to America. Pondering what he described in a letter as “the civil and religious freedom of the people of the United States,” Metcalfe

⁷ Quoted in Thomas Low Nichols, *Religions of the World. An Impartial History of Religious Creeds, Forms of Worship, Sects, Controversies, and Manifestations, From the Earliest Period to the Present Time* (Cincinnati, OH: Valentine Nicholson, 1855), 114.

⁸ Metcalfe’s son, Joseph, described his father’s theological education. One can see in the description the continued influence of Swedenborgianism on the Bible-Christian Church: “Next to the word of God itself, Swedenborg became his favorite author. Mr. Metcalfe read all the works of the illuminated Scribe within his reach, with avidity and care; and acknowledged that they supplied the most nourishing food to the understanding in the whole field of theological literature. Whilst he was ready to honor truth, come from what source it might, he considered Swedenborg a powerful uprooter of doctrinal errors and a good sower of Bible seeds.” Metcalfe and Metcalfe, *Out of the Clouds*, 12.

⁹ *Ibid.*, 11-12, 17.

¹⁰ Metcalfe, “Society of Bible Christians,” 260.

had entertained thoughts of emigrating for some time.¹¹ After the War of 1812 concluded and Cowherd had been mourned, Metcalfe decided to take the plunge. In the spring of 1817, he led a group of forty-one Bible-Christians to Philadelphia. These sojourners hoped to establish and spread their distinctive Christian discipline in the New World. Metcalfe described their mission in a sermon he preached on the twenty-third anniversary of the voyage:

Like Abraham of old, we had left the land of our nativity to accomplish an important work. Our purpose was nothing less than to introduce principles of religion and knowledge among a free people, which we believed to be essential to the happiness of all men here, and indispensable to their peace and everlasting salvation hereafter.¹²

To Metcalfe's dismay, most of the immigrant band apostatized upon arrival, returning to "their former habits of *flesh*-eating." Only seven adults and eleven children remained faithful to the Bible-Christian doctrines of diet.¹³ Undaunted, Metcalfe began teaching school and holding services each Sunday in his combined home and schoolroom in Philadelphia. The congregation grew slowly. To their numbers were added both new immigrants and new converts, but church membership records give the impression it grew primarily by procreation.¹⁴ Yet it did grow, and the church opened its own building on December 21, 1823. Writing a couple decades later, Metcalfe estimated his church had between eighty and ninety members, all of whom were "satisfied of the superiority of

¹¹ Quoted in Metcalfe and Metcalfe, *Out of the Clouds*, 17.

¹² *Ibid.*, 151-152.

¹³ Metcalfe, "Society of Bible Christians," 261.

¹⁴ The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 7-14.

a vegetable diet over that mixed regimen so commonly used.”¹⁵ Further, their regimen was not only more nutritious, it was essential to “pure and undefiled religion.”¹⁶

The Bible-Christians were a harried community, but this did not keep Metcalfe from evangelizing. Metcalfe rejected the Trinity and denied Jesus Christ’s substitutionary atonement, thus it is little wonder he was poorly received by Philadelphia’s clerical establishment.¹⁷ Yet it was the Bible-Christians’ standards of Christian discipline that proved to be the most problematic. They insisted the Bible required a litany of radical reforms: “abstinence from the flesh of animals as food, from all intoxicating liquors as beverages, and from war, capital punishment, and slavery.” Abandon the requirement of vegetarianism, Metcalfe was told by his detractors, and he could have a successful career in Philadelphia. Comfortable teaching and preaching positions were offered to him on this condition, but he refused to betray his convictions. Metcalfe continued to expound his doctrines in newspaper articles and tracts. In 1821, Metcalfe published a tract entitled *Abstinence from the Flesh of Animals*, “which was freely and extensively distributed.”¹⁸ He was determined to promote the biblical diet.

In 1830, a group of Bible-Christians met Sylvester Graham. A Presbyterian minister from Connecticut, Graham was in Philadelphia for his new job as an agent for

¹⁵ Metcalfe, “Society of Bible Christians,” 262.

¹⁶ Metcalfe and Metcalfe, *Out of the Clouds*, 181.

¹⁷ Williams says that “the (so-called) ‘religious’ press united to denounce his humane teaching as well as his more liberal theology. Nor did some of his more unscrupulous opponents hesitate, in the last resort, to raise the war-cry of ‘infidel’ and ‘sceptic’.” Williams, *Ethics of Diet*, 262.

¹⁸ Metcalfe and Metcalfe, *Out of the Clouds*, 25-26, 31-33. Metcalfe wrote articles in the *Saturday Evening Post*, *The Philadelphia Gazette*, *The American Sentinel*, and *The United States Gazette*, among others.

the Pennsylvania Society for Discouraging the Use of Ardent Spirits.¹⁹ Graham had begun studying anatomy, physiology, and nutrition in the 1820s, and incorporated these insights in his temperance lectures. So convinced was he that physiology lay at the heart of Christian reform and progress, Graham soon left the employ of the Pennsylvania Society in order to devote his efforts entirely to reforming Americans' bodily regimens. Despite often being referred to as "Dr. Graham," Graham was not a medical doctor. He did, however, dub himself a "Lecturer in the Science of Human Life"—a phrase that captured the essence of Graham's physiology. Graham taught that the human constitution, including both body and soul, was governed by certain, immutable, and God-authored laws. The science of human life served to discover and explicate these laws. The key to physical and spiritual wellbeing, therefore, was to obey the dictates of this science. A number of historians, most notably Stephen Nissenbaum, have explained the mechanics of Graham's physiological notions in detail.²⁰ Here it is sufficient to note that Graham recommended an ascetic regimen of early rising, exercise, fresh air, sexual temperance, and—along with the Bible-Christians—strict vegetarianism and teetotalism. Careful obedience to this regimen would lead to physical health now and eternal

¹⁹ Frederic Towgood, *The Life and Character of Sylvester Graham* (London: Wm. Horsell, n.d. [185-?]), 3. Towgood's short biography is based on a "biography and autobiography" written by Graham, obtained from Graham's wife by Henry S. Clubb. It was appended to later editions of Graham's *Lectures on the Science of Human Life*.

Graham, generally described as a powerful orator, was apparently successful in his work as a temperance lecturer. As the Pennsylvania Society reported, "the Rev. Sylvester Graham, has visited different parts of the state, and by his zeal and ability, has been instrumental in rousing the people to duly appreciate the importance of the cause, by forming numerous Auxiliary Temperance Societies. In the suburbs of Philadelphia, especially in the Northern Liberties and Kensington, the addresses delivered by this gentleman have produced a powerful effect." *The Anniversary Report of the Managers of the Pennsylvania Society for Discouraging the Use of Ardent Spirits* (Philadelphia: Literary Rooms, 1831), 8.

All of Graham's writings were suffused with religion. For something more strictly like a sermon, however, see Sylvester Graham, *Thy Kingdom Come; A Discourse, On the Importance of Infant and Sunday Schools, Delivered at the Crown St. Church, Philadelphia, December 13th, 1829* (Philadelphia: William F. Geddes, 1831).

²⁰ Nissenbaum, *Sex, Diet, and Debility*, 3-24.

happiness hereafter. Metcalfe's son, Joseph, and some historians have suggested that meeting the Bible-Christians in 1830 influenced Graham's dietetic convictions. Nissenbaum, on the other hand, denies any Bible-Christian influence and insists that Graham arrived at his vegetarianism strictly through his reading in anatomy and physiology.²¹ Regardless of influence, a new alliance was formed: Metcalfe began a life-long correspondence and working relationship with Graham and other physiological reformers.²² Despite their theological disparity (Metcalf and the Bible-Christians retained much of their Swedenborgianism) the two united around reformed physiology as the key to Christian progress.

Although Graham's reforms encompassed a broad range of hygiene—in 1834, for example, he published *The Young Man's Guide to Chastity*—his name soon became an “-ism” denoting two things: vegetarianism and bread made with unbolted flour.²³ In 1837, Graham published *A Treatise on Bread, and Bread-Making*, and in his 1839 magnum opus, *Lectures on the Science of Human Life*, Graham devoted an entire section

²¹ Metcalfe and Metcalfe, *Out of the Clouds*, 33-34; Carson, *Cornflake Crusade*, 45; Richard W. Schwarz, *John Harvey Kellogg, M.D.* (Nashville: Southern Publishing Association, 1970), 21. In an essay on the Bible-Christian Church, Henry S. Clubb said, “Graham...embraced Mr. Metcalfe's radical views on abstinence from alcoholic beverages and the flesh of animals, believing that the latter creates a thirst for the former.” Henry S. Clubb, “The Bible Christian Church,” in *One Hundred Years of Temperance. A Memorial Volume of the Centennial Temperance Conference Held in Philadelphia, PA., September 1885* (New York: National Temperance Society and Publication House, 1886), 388. For a balanced assessment, see Maskell, “Graham as a Religious Thinker,” 44, n. 65.

²² Metcalfe and Metcalfe, *Out of the Clouds*, 34.

²³ Sylvester Graham, *The Young Man's Guide to Chastity; Being Sylvester Graham's Address on that Subject, Somewhat Abridged; Intended also for the Serious Consideration of Parents and Guardians* (London: J. Watson, 1834). The American version was in its tenth edition by 1848. Sylvester Graham, *A Lecture to Young Men, on Chastity. Intended also for the Serious Consideration of Parents and Guardians*, 10th ed. (Boston: Charles H. Pierce, 1848). Diet bore on the question of sexual purity, as well. Graham taught that the proper diet enabled one to control his or her sexual urges while an improper diet only inflamed them.

to bread.²⁴ Graham believed that by bolting wheat—sifting out the bran—man “began to put asunder what God joined together” and robbed bread of its nutritive value. Whole-wheat bread, Graham explained, is therefore the “most highly conducive to the welfare of bodies and souls.”²⁵ This whole wheat bread was often made without leaven, producing very plain “Graham gems” or “Graham crackers.” Although his name was immortalized in these crackers, Graham never attempted to patent or to sell them. Graham propagated the science of human life for the good of Christendom and for the good of humankind. Propagate the ideas he did: Graham bread became the ubiquitous staple among the dietetically reformed.²⁶ Graham made his first splash as a reformer during the cholera epidemic of 1832, recommending a vegetable diet and relaxation as preventative measures.²⁷ He quickly became a prominent and sought-after lecturer on physiology—primarily in the northeast, although he was invited to lecture as far afield as England.²⁸ Graham reinforced his lectures with a number of popular books, which were often published forms or collections of his lectures.

While Graham crisscrossed the northeast lecturing, William Andrus Alcott established himself as a champion of rational physiological reform. Alcott was a traditionally-trained doctor from Connecticut, having received a diploma from the

²⁴ Sylvester Graham, *A Treatise on Bread and Bread-Making* (Boston: Light and Stearns, 1837); Sylvester Graham, *Lectures on the Science of Human Life* (London: Horsell, 1839).

²⁵ Quoted in Carson, *Cornflake Crusade*, 47.

²⁶ For bread recipes, see Nicholson, *Nature's Own Book*, 42-43.

²⁷ Towgood, *The Life and Character of Sylvester Graham*, 3. The nature of cholera and how it might be prevented and treated were all questions up for debate. See the discussions in *The Boston Medical and Surgical Journal* from 1832 to 1833. The journal tracked cholera's spread across Europe and arrival on American shores. It featured many articles discussing how the infection might be prevented and treated.

²⁸ Gregory, *Of Victorians and Vegetarians*, 23.

Medical Institution of Yale College in 1826.²⁹ He was committed, however, to the preservation of wellbeing and the prevention of disease rather than *post facto* treatment. One could obtain and keep good health, Alcott argued, through the practice of proper hygiene based on knowledge of physiology and anatomy. As with the Bible-Christians and Graham, this hygiene included vegetarianism and abstinence from alcohol. Indeed, Alcott restricted himself to an ascetic diet that consisted primarily of Graham bread and water. Alcott was a prolific writer, determined to disseminate the knowledge he believed was essential to healing and reforming Americans. In all, he wrote more than a hundred volumes on health reform.³⁰ Alcott maintained a broad view of physiological reform, which included fresh air, exercise, and sleep, and he regretted the reduction of the health reform movement to mere Grahamism.³¹ Nevertheless, Alcott was a co-laborer with Graham and Metcalfe in the field of religious physiological reform.

The dietetic reform movement gathered momentum throughout the 1830s, as reformers like Graham and Alcott traveled the lecture circuit, churned out books, and edited reform-minded periodicals. By the end of the decade, the movement began to take organizational shape with the formation of societies, boarding houses, and magazines.³²

²⁹ For a sketch of Alcott's life and reform work, see Louis B. Salomon, "The Least-Remembered Alcott," *The New England Quarterly* 34, no. 1 (1961): 87-93.

³⁰ James C. Whorton, "Christian Physiology," 467. See, for examples, Alcott, *Forty Years*; William Andrus Alcott, *Vegetable Diet: As Sanctioned by Medical Men, and By Experience in All Ages* (Boston: Marsh, Capen and Lyon, 1838); and William Andrus Alcott, *Young Man's Guide*, 2nd ed. (Boston: Lilly, Wait, Colman, and Hoden, 1834). Alcott also edited a periodical, variously entitled *The Moral Reformer*, and *Teacher on the Human Constitution* (1835-1836), *The Library of Health*, and *Teacher on the Human Constitution* (1837-1842), and *The Teacher of Health and Laws of the Human Constitution* (1843).

³¹ Hoff and Fulton, "Centenary of the First American Physiological Society," 711-712.

³² A resolution of the 1838 American Health Convention, proposed by Alcott, reveals some of the movement's go-to tools: "Resolved, That we view with gratitude to Almighty God, the formation of Physiological and Health Societies in this country; and that their efforts to promote knowledge and health by means of lectures, tracts, periodicals, infirmaries, &c. deserve the serious attention and vigorous support

In 1837, for example, Grahamite David Cambell established a journal in Boston for the popular dissemination of physiological reform: *The Graham Journal for Health and Longevity (GJHL)*. During its three years of existence, the journal published popular defenses of the Graham system and tracked the efforts of reformers and associations. On February 11, 1837, a group of reformers gathered in Boston to organize the American Physiological Society (APS). According to its constitution, signed by 165 men and women, the APS was founded for

the acquisition and diffusion of such plain and practical information, respecting the constitutional laws, relations, uses and abuses of the ‘house’ the soul ‘lives in,’ and of the various offices or functions of all the parts which go to make up this fearful and wonderful whole, as may tend to promote, not only their own health and longevity, but the health and longevity of the whole human family.³³

Alcott was elected president of the society and Cambell the corresponding secretary.³⁴ In addition to monthly meetings, the APS gathered yearly to hear addresses on proper physiology and to pass resolutions. Despite the broad compass of its name, the APS was most conspicuously dedicated to dietetic reform: it proscribed meat, alcohol, tobacco, coffee, and tea.

of the entire community.” “American Health Convention,” *Graham Journal of Health and Longevity* 2, no. 12 (1838): 188. Colleges were a popular place for physiological societies and clubs. T.F. Andrews, “A Collegiate Physiological Society,” *Graham Journal of Health and Longevity* 3, no. 14 (1839): 222; “Oberlin Physiological Society,” *Graham Journal of Health and Longevity* 3, no. 20 (1839): 326. The movement’s infrastructure also included boarding houses and at least one health food provisions store. “Rules of a Graham House,” *Graham Journal of Health and Longevity* 1, no. 6 (1837): 47; “Graham House in Rochester, N.Y.,” *Graham Journal of Health and Longevity* 3, no. 21 (1839): 331; “Physiological Society’s Provision Store,” *Graham Journal of Health and Longevity* 1, no. 25 (1837): 200; Hoff and Fulton, “Centenary of the First American Physiological Society,” 708-710.

³³ Reprinted in Hoff and Fulton, “Centenary of the First American Physiological Society,” 723-734.

³⁴ “Government of the American Physiological Society,” *Graham Journal of Health and Longevity* 1, no. 11 (1837): 88.

The religious notions and zeal that drove the APS were clear from the start. At the first annual meeting, F.W. Bird delivered the keynote address. After surveying common physiological errors and the impediments to reform and progress, Bird ended on a hopeful note, expecting “the final triumph of physiological truth.” He looked forward to a day when physiology was rightly “regarded in her true character as the handmaid of religion.” The two will go out into the world, Bird said, “hand in hand, working out the redemption of man.”³⁵ Leonard Hawes, a student at Andover Theological Seminary, likewise understood that proper physiology played an essential role in the onward march of Christianity. At the third annual meeting of the APS, Hawes proposed that it be “Resolved, That the millennium, the near approach of which is by many so confidently predicted, can never reasonably be expected to arrive until those laws which God has implanted in the PHYSICAL nature of man, are, equally with his moral laws, universally known and obeyed.”³⁶ The APS had gathered together to investigate and disseminate the laws governing the human body. Yet, through speeches and resolutions, the APS emphasized that this cause was a religious cause—that obedience to God’s physical laws was a religious duty and a necessary precursor to Jesus Christ’s millennial reign.

In 1838, the APS organized the first annual American Health Convention (AHC) in order to discuss the best means by which physiological ideas might be spread as well as applied to farming practices.³⁷ Meeting in Boston on May 30, the members of the

³⁵ F.W. Bird, “Mr. Bird’s Address,” *Graham Journal of Health and Longevity*, 1, no. 20 (1837): 155.

³⁶ “Third Anniversary of the American Physiological Society,” *Graham Journal of Health and Longevity* 3, no. 12 (1839): 201. For Hawes’s health testimony, see “Testimonial of a Student,” *Graham Journal of Health and Longevity* 2, no. 2 (1838): 30.

³⁷ Hoff and Fulton, “Centenary of the First American Physiological Society,” 704.

AHC passed a resolution declaring their commitment to “farinaceous vegetables and fruits, with the addition of milk at certain ages and in certain circumstances” as the best diet for healthy persons and “indispensable” for many sick persons. The convention, attended by ministers as well as doctors, argued along with the APS that physiology was bound up in matters of religion, and vice-versa. “We believe,” the convention declared, “that the blessed cause of human improvement, the spread of the gospel, and the universal regeneration of the world, can never be successfully carried forward without the aid of the great work which we are now assembled to advance.”³⁸ A few of the resolutions passed at the first and second meetings of the AHC illustrate the frequency and stridency with which these reformers expressed these convictions:

Graham, at the first AHC, proposed it be “Resolved, That a knowledge of the human constitution and of its laws and relations is of vital importance to the cause of sound morality and true religion.”³⁹

Rev. La Roy Sunderland, at the second AHC, proposed it be “Resolved, That it is a duty morally binding upon man, to study the principles of health, and to understand and obey those laws which God has established for the perpetuation of existence.”⁴⁰

Dr. Enoch Mack, also at the second AHC, proposed it be “Resolved, That the practices and advocacy of physiological reform, is a duty which we owe to ourselves, to the community, to posterity, and to God our Maker and Redeemer.”⁴¹

³⁸ “American Health Convention,” *Graham Journal of Health and Longevity* 2, no. 14 (1838): 209.

³⁹ *Ibid.*

⁴⁰ “Second American Health Convention,” *Graham Journal of Health and Longevity* 3, no. 12 (1839): 185.

⁴¹ *Ibid.*

The adoption and propagation of proper physiological principles was neither trifling nor optional; it was nothing less than a religious duty incumbent upon all men and women who sought to obey God and establish his kingdom.

Bible-Christians evidently did not join the APS or participate in the AHCs. They did, however, have their own Bible-Christian Physiological Society from 1840 to 1842. As the official Bible-Christian Church history reports, the society was “devoted to the giving of lectures and public discussions on the advantages of Vegetarianism.”⁴² Metcalfe and the Bible-Christians, however, joined forces with Alcott and Graham a decade later. Inspired by the Bible-Christians in England and the Vegetarian Society (UK), Metcalfe suggested to Graham and Alcott that together they form an American vegetarian society. Thus, they organized the American Vegetarian Convention in New York City on May 15, 1850. From this emerged the American Vegetarian Society (AVS), of which Alcott was president, Graham a vice-president, and Metcalfe the corresponding secretary as well as (later) the editor of the society’s journal. Much like contemporary American temperance societies, membership in the society required a pledge—a signed declaration—professing that one had abstained from eating meat for at least one month and would aid the society in its goals.⁴³

⁴² The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 143.

⁴³ The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 158-163; Metcalfe and Metcalfe, *Out of the Clouds*, 37-38. Other notable vice-presidents included Joel Shew, O.S. Fowler, Thomas Low Nichols, and R.T. Trall. Henry S. Clubb was the foreign corresponding secretary for Manchester, England.

The vegetarian pledge read, “I hereby declare that I have abstained from the Flesh of Animals as Food for one month and upwards; and that I desire to become a member of the Vegetarian Society; and to co-operate with that Body in promulgating the knowledge of the advantages of a Vegetarian Diet.” Members were to send the signed declaration to the corresponding secretary along with 25 cents. Yearly dues were \$1.00. \$20 bought one a lifetime membership.

It was at this convention that Alcott had insisted a vegetable diet was the basis for all other reform movements. The declaration was more than rhetoric. First and most obviously, the proper diet ensured one had the health and energy to undertake other reforms. Yet a proper diet equipped one morally, enabling him or her to overcome the body's base desires and act on moral and virtuous intentions. As a speaker to the APS declared in 1838:

Let, then, the science of Physiology be rightly and zealously inculcated, and intellect will be enlightened, and conscience aroused. Moral obligation will be perceived, reflected on, and felt. Appetite and passion would succumb to the might motives which are addressed to the moral susceptibilities. Truth would prevail. The propensities of the mind, which hold a physiological relation to the organic domain, would act, also, in their spiritual relations to the higher sentiments. Reforms would be effected with comparative ease.⁴⁴

Writ large, this physiological reformation would turn the tide in American society in favor of religion, piety, and morality.⁴⁵

The Bible-Christian Church remained close with the AVS, sometimes hosting the society's annual meetings in its church buildings.⁴⁶ Giving the blessing for the vegetarian feast at one such meeting, Metcalfe captured the religious impulse with which the movement was imbued: "May we partake thereof with such attention to Thy laws, as to

⁴⁴ Abel G. Duncan, *Evils of violating the Laws of Health, and the Remedy. An Address, Delivered Before the American Physiological Society, at Their Monthly Meeting, February 7, 1838* (Boston: Marsh, Capen and Lyon, 1838), 23.

⁴⁵ On April 1, 1840, the editor of Boston's *Health Journal and Advocate* wrote, "among the numerous subjects of reform which are now engaging the attention of the community, those who are interested in physiology reform should not permit it to fall behind the others...for it is second to no other in importance—we believe it lies at the foundation of all others, and that wherever this is effected, there will the efforts of other reforms be most effectual. It is peculiarly suited to raise man from a state of sensual degradation and raise him to the rank, which as a rational and immortal being, nature intended he should occupy.... Will not those who feel for the present and everlasting welfare of their race, come to our aid?" Quoted in Shryock, "Sylvester Graham and the Popular Health Movement, 1830-1870," 177.

⁴⁶ The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 158-179. The Bible-Christian Church in England maintained a similar relationship with the Vegetarian Society (UK) and likewise hosted the society's meetings. Calvert, "A Taste of Eden," 471.

promote our health, strength and usefulness to our fellow-beings, and whether we eat or drink, or whatsoever we do, may we glorify thy holy name. Amen.”⁴⁷ The fate of America’s reform movements and one’s own standing before God hung on the tines of a fork.

Alcott served as the president of the AVS until his death on March 29, 1859. Metcalfe was elected to follow him and he served as president until his death on October 16, 1862.⁴⁸ With no one appointed to follow him (Graham had died on September 11, 1851, and was never much of an institutional leader), and the country in the throes of the Civil War, the AVS died its own quiet death. The cause of physiological reform, however, was anything but finished. For even as the generation of Metcalfe, Graham, and Alcott ran its final laps, the next generation was taking up the baton.

Henry S. Clubb was born in Essex, England and became a vegetarian at an early age. He stayed for a stint at the vegetarian Alcott House (named for William’s relative, the transcendentalist Bronson Alcott) and worked with the Vegetarian Society in England. In 1853, Clubb immigrated to the United States to work as a journalist and allied himself with vegetarians, abolitionists, and other reformers. Clubb had a long and diverse career as a Pitman shorthand phonographer, reporter for Horace Greeley’s *New York Tribune*, writer, editor, pacifist quartermaster in the Union during the Civil War, and Michigan state senator (among other things). He was also integral to the cause of dietetic reform. At first a Swedenborgian, over the course of his life Clubb had frequent contact with Bible-Christians. In 1876, after the death of the second minister to succeed William

⁴⁷ The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 165.

⁴⁸ Metcalfe and Metcalfe, *Out of the Clouds*, 44.

Metcalf, Clubb took over the pastorate of the Bible-Christian Church in America. With it, he took up the mantle of vegetarianism. In 1886, Clubb founded the Vegetarian Society of America (VSA) to replace the defunct AVS and served as its president from 1889 to 1900. He edited the vegetarian periodical *Food, Home and Garden* until its consolidation in 1900 with Chicago's *Vegetarian Magazine*, which thereafter served as the official organ of the VSA.⁴⁹

Clubb was not alone in carrying the battle for religious-inspired vegetarianism late into the nineteenth century. He was joined by, among others, Seventh-day Adventist physician John Harvey Kellogg. The story of Kellogg's involvement in physiological reform begins with Metcalfe, Graham, and other early reforming authors—in particular the mid-century physiological reformer Larkin B. Coles. Dubbed by historian Ronald L. Numbers a “Millerite preacher-physician,” Coles was educated at the prestigious Castleton Medical College before joining William Miller in heralding the imminent return of Jesus Christ. Miller predicted that Jesus would return and establish his millennial reign no later than October 22, 1844. After the day came and went—known to history as the Great Disappointment—Coles joined the Boston Medical Association and Massachusetts Medical Society and spent the following years traveling the country, preaching as he went. Like many of his contemporaries, Coles believed that God had authored the laws governing the physical world as much as the laws governing the moral realm. Together, these constituted the “laws of life”—laws which must be religiously obeyed. Violations of God's physical laws were no less sins than moral infringements, complete with their own divine punishment built into the system in the form of sickness

⁴⁹ The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 67-89, 15; Clubb, “The Bible Christian Church,” 388.

and disease.⁵⁰ In *Philosophy of Health*, published in 1848, Coles prescribed a physiological regimen in harmony with these laws of life and which was necessary to true holiness. Coles's regimen largely agreed with the recommendations of Graham and others. His *Philosophy of Health* went to at least twenty-six editions and sold more than forty-four thousand copies before his death in 1856.⁵¹

In the 1860s, a young Kellogg set the type for the Seventh-day Adventist pamphlets *Health, or How to Live*. These pamphlets included reprints from the works of Coles, Graham, and other reformers. Kellogg studied these authors and soon became a vegetarian.⁵² The Adventists—whose roots were in the Millerite movement—had become involved in health reform a few years earlier. On June 6, 1863, Adventist prophetess Ellen G. White had an hour-long vision in “the Spirit of Inspiration.” She was instructed of the importance of eating only two meals per day and of consuming no meat, as it encouraged one's baser propensities and induced a thirst for whiskey. Instead, White was told, believers ought to eat Graham bread, fruits, and vegetables, and to drink only water. The next day White wrote down the dietetic instructions, the observance of which became a religious obligation. Like Coles before her, White wrote, “It is as truly a sin to violate the laws of our being as it is to break the ten commandments.”⁵³

⁵⁰ Whorton comments: “Regarded as the dictates of God, physiological laws could thus promote a quasi-Hebraic epidemiology which threatened illness and early death as punishment for violation of the divine laws of health, and promised patriarchal longevity as the reward for obedience.” Whorton, “Christian Physiology,” 470.

⁵¹ Coles, *Philosophy of Health*; Numbers, *Prophetess of Health*, 108-109.

⁵² Schwarz, *John Harvey Kellogg, M.D.*, 24-25. Later in life, Kellogg acknowledged his debt to Graham: “The Battle Creek Food business began in New England nearly a hundred years ago.” Quoted in Carson, *Cornflake Crusade*, 57.

⁵³ Quoted in Ronald L. Numbers and David R. Larson, “The Adventist Tradition,” in *Care and Curing: Health and Medicine in the Western Religious Traditions*, ed. Ronald L. Numbers and Darrel W.

White and her husband James then travelled to “Our Home on the Hillside,” the hygienic institute of James Caleb Jackson in Dansville, New York. Our Home followed the Graham diet, with two notable additions: Granula and Somo. Granula was a combination of Graham bread and water, twice-baked and twice-ground—resulting in, essentially, Grape-Nuts (developed later by C.W. Post). Somo was a coffee substitute. On December 25, 1865, White received a revelation instructing the Adventists to establish their own health institute. Thus, in September 1866, the Adventists opened the Western Reform Health Institute in Battle Creek, Michigan. Ten years later, after graduating medical school on the Whites’ dollar, Kellogg returned to his birthplace in Battle Creek to take over leadership of the institute. Although it went through a few names over the course of its life, the institute was thereafter known as the Battle Creek Sanitarium. The “San” served as the base of operations for Kellogg’s long career as a medical doctor, physiologist, and reformer.⁵⁴

While in medical school, Kellogg had breakfasted on Graham crackers and apples. This experience inspired his first creation at the Sanitarium: Granula, an oatmeal and corn meal combination that was baked and ground. After Jackson sued him, Kellogg changed the name to Granola.⁵⁵ Granola was the first of Kellogg’s many culinary innovations; between 1895 and 1905 the Sanitarium developed around one hundred new health foods.⁵⁶ In addition to Granola, Kellogg developed and sold zwieback, Graham

Amundsen (New York: Macmillan Publishing Company, 1986), 451. In *Prophetess of Health*, Numbers exposes and explores White’s unacknowledged debts to contemporary health reformers.

⁵⁴ Numbers, *Prophetess of Health*, 95-183.

⁵⁵ Carson, *Cornflake Crusade*, 67-94.

⁵⁶ Iacobbo and Iacobbo, *Vegetarian America*, 126.

crackers, Caramel Cereal Coffee (a coffee substitute), Protose (a beef substitute), Nuttose (a veal substitute), and most famously, Corn Flakes. Yet, like Graham before him, Kellogg was not chiefly interested in business. It was his brother, W.K., whose signature was on the box and who made Kellogg Company into a large and successful business.⁵⁷ John Harvey was concerned with medical science, the Sanitarium and its feeder-college, and physiological reform. Breakfast cereals and food substitutes were not a means to earn a profit. Rather, they were a means to properly nourish Americans, liberate them from their slavish appetites, and raise them to greater heights of holiness and true religion.

Kellogg was a prolific and popular writer; all together his books sold over a million copies.⁵⁸ In these books and at the Sanitarium, Kellogg carried on the labors of Metcalfe, Graham, Alcott, and Coles. All these reformers, though they spanned a century and reflected a broad theological spectrum, were members of a common band united in a common cause: the physiological reformation of humankind. This reformation was the first step in personal sanctification and the onward march of Christendom. As intellectual and organizational leaders of the nineteenth-century health reform movement, these reformers articulated a mission that was charged with spiritual, moral, and millennial import. They issued their physiological imperatives with urgency because they believed their dietary strictures were the key to a healthy body and an obedient soul. These reformers were nothing less than preachers of physiology, united in a religious movement.

⁵⁷ Carson, *Cornflake Crusade*, 108, 179-180, 186-187, 199.

⁵⁸ *Ibid.*, 245.

A Sympathetic Theological Anthropology

Beneath physiological reformers' bold assertions of the religious significance of their work lay a support structure of theological commitments and physiological reasoning. Speaking at the third annual meeting of the APS, a Reverend Burnap said, "I have often laid aside the ordinary subjects of my profession to lecture in regard to subjects not ordinarily considered religious,—the importance of bodily exercise and useful labor. But I call this an important branch of religious effort." He considered bodily health a religious matter because of the body's close connection to and influence upon the soul. "What could there be more evident," Burnap asked, "than that there is a most important connection between the mind, the body and the soul?"⁵⁹ This theological anthropology lay at the heart of the physiological reformers' elevation of physical regimen to religious obligation.

Theological anthropology contemplates the constitution of a person and his or her relation to God. It raises ontological questions about a person's constituent parts. Of the many words often used to describe an aspect of a person—body, soul, spirit, mind, heart, etc.—which exist? Which are manifestations of something else that exists? If more than one exists, what is their relationship? Theological anthropology bears on questions of health and healing. For example, if one believes that a person has both a material and spiritual existence, in what do those existences inhere? What is the relationship between them? Can one effect a change in the other? Pamela E. Klassen rooted her recent study of liberal Protestants and their understandings of medicine and healing in their theological anthropologies. All Christian systems of healing, she says, have been based

⁵⁹ Burnap, "The Body Must be Duly Regarded in all the Movements for the Renovation of Man," *Graham Journal of Health and Longevity* 3, no. 16 (1839): 256.

on these anthropologies: “Ontologically rooted, theological anthropology has provided a language, whether implicit or explicit, for Christians to articulate how they understood spiritual forces to have physical, and sometimes, healing effects on human beings.”⁶⁰ This was true for physiological reformers, although in the converse: their theological anthropology, infused with physiology, explained how physical forces had spiritual effects. The remainder of this chapter will trace the reformers’ anthropology, arguing that the elevation of regimen to the planes of religion and morality depended on the scaffolding of this anthropological reasoning.

For physiological reformers, God was a lawgiver. His laws governed all existence. Humans therefore stood before God as the ruled before their ruler. God’s laws created and dictated the terms on which he related to humans. God demanded obedience from humans, but the choice to obey was theirs. Their decisions triggered necessary consequences: obedience yielded harmony with God; disobedience produced dissonance. In this conception of God’s government, there was no hint of divine caprice—or even active divine will. Consequences followed actions according to the rational, inevitable operation of God’s preexisting and discoverable laws.⁶¹

Physiological reformers understood God to have two categories of laws: spiritual and moral laws on the one hand, and physical and natural laws on the other. Moral laws governed intangible spiritual matters like worship, love, and fidelity, and were to be

⁶⁰ Pamela E. Klassen, *Spirits of Protestantism: Medicine, Healing, and Liberal Christianity* (Berkeley: University of California Press, 2011), 33.

⁶¹ As Vermont physician Henry H. Brown explained, “God has established laws for our observance; not only moral, but also physical. Obedience to each one of these laws is attended with its appropriate reward, while disobedience is accompanied with its deserved punishment.” Henry H. Brown, “Physical Suffering the Consequence of Violated Physical Law,” *Graham Journal of Health and Longevity* 2, no. 15 (1838): 263.

found primarily in the Bible (especially in the Ten Commandments and in Jesus's teachings). Natural laws governed the physical realm and were discoverable through study and observation. Physiological reformers, however, put a twist on these natural laws—a twist that is at the heart of the religious and moral impetus of physiological reform. When these reformers spoke of natural laws they were not referring to laws like Newton's—descriptions of what must necessarily occur according to the way of things. Such laws are inviolable: the pull of gravity can be overcome, but it cannot be disobeyed. Rather, the physiological reformers' physical laws were hortatory. They were statements about the proper but not necessary ordering of things. Compliance with these laws was best but not required; they were violable. Physical laws thus understood were like moral laws. Congregational minister Abel G. Duncan, speaking at the monthly meeting of the APS in February 1838, explained:

All these laws, requiring voluntary action on our part, must be inculcated as involving moral obligation arising from the nature and relation of things. These laws, so far as they involve choice, are as much moral as natural laws, and obedience to them, or disobedience, goes to form our moral character, as much as do those laws which are generally termed moral laws.... The study of physiology, then, is absolutely essential to the perfection of Christian character.⁶²

God commanded men and women not to steal, but they still could. Likewise, the physiological reformers said, God created humankind to subsist on a vegetable diet. This is the proper order, within which is an implicit order to obey—to comply with God's intentions. Nevertheless, people were free to disobey. Thus, while gravity needed no champions, the hortatory nature of God's physiological laws required preachers to exhort their fellow men and women to obey.

⁶² Duncan, *Evils of violating the Laws of Health*, 21.

These laws of life were morally binding, first and foremost because they came from God. The same God was God of the Bible and nature. Thus, as Graham explained, nature's law "is as truly the law of God, and when accurately ascertained, is as truly obligatory in all its bearings upon man as any law or word of Revelation."⁶³ In his *Philosophy of Health*, Coles wrote strongly and clearly on this point, making the implication explicit:

To transgress physical law is transgressing God's law; for he is as truly the Author of physical law as he is Author of the moral law. Whoever, therefore, violates the laws of life and health, sins against God as truly as though he break the ten commandments.⁶⁴

This argument runs throughout the lectures, periodicals, and books of nearly all the physiological reformers; it is one of their most common refrains. The logic made the physical reforming endeavor—the striving for self-improvement and higher levels of spirituality—imperative for all who professed obedience to God. It was not sufficient to avoid the sins forbidden in the Bible; one also had to strive to live according to the dictates of natural laws. Together these constituted the two parts of God's revelation and God's normative laws.

Since God governed man through both moral and natural laws, man related to God along two channels. As Graham explained, "man, alone, of all terrestrial beings, is brought into a two-fold relation to his Creator."⁶⁵ Both channels of this two-fold interaction had their own set of rules governing that relationship. If God was the author

⁶³ Graham, *Philosophy of Sacred History*, 1-2.

⁶⁴ Coles, *Philosophy of Health*, 137.

⁶⁵ Graham, *Philosophy of Sacred History*, 7.

of both sets of laws and cannot contradict himself, then these two laws must necessarily agree. Graham explained:

Indeed, as the moral attributes of God are in systematic unity with his natural attributes, so is his moral government in systematic unity with his natural: and hence, truly speaking, the laws of the natural world and the laws of the moral and spiritual world constitute but one great and harmonious system of Divine government.⁶⁶

God's laws were in harmony. In the theological anthropology of the physiological reformers, harmony described the ideal. Harmony denoted the internal agreement of God's government, the proper operation of God's creation through obedience to his laws, and humankind's proper relation to God. A violation of one type of God's laws, however, whether spiritual or physical, created discord. Because of the necessary agreement and close relation between God's two sets of laws and the two channels through which he related to man, discord in one channel induced discord in the other. One's infraction of a physical law of life created dissonance which resonated with one's moral relationship with God. Because of the necessary consistency of God and his government, one could not simultaneously be right with God morally and in sin physically, or vice-versa. A physical violation, therefore, necessarily affected one's moral standing before God. As Graham explained,

...the highest and best condition of man's intellectual, and moral, and religious nature, requires a perfect obedience, not only to its own constitutional laws, but also the constitutional laws of the body as living organized matter; and consequently the violation of the constitutional laws of the one is necessarily attended with an infraction of the constitutional laws of the other.⁶⁷

⁶⁶ Ibid., 2.

⁶⁷ Ibid., 7.

Thus, the laws of life were morally and religiously obligatory not only because they issued from God, but also because they necessarily impinged upon one's morality and one's standing before God. "A true conscience," Kellogg wrote, "leads one to desire to be in harmony with all the laws of God, physical as well as moral.... It looks upon all natural laws as God's laws, and God as the author of law, and his government as the perfection of order and harmony."⁶⁸ True religion required one to study and observe proper physiology. "The study of physiology, then," Duncan said, "is absolutely essential to the perfection of the Christian character."⁶⁹

The sympathy that existed between the physical and moral dimensions of one's relationship to God likewise existed within one's own person. Physiological reformers, almost to the person, predicated reform on a holistic theological anthropology. While reformers enumerated humans' constituent parts differently, they all espoused an axiomatic belief in the connections between those parts. As "holism" is a twentieth-century neologism, the nineteenth-century reformers' theological anthropology might better be described with a contemporary word: sympathy.⁷⁰ The various systems encompassed by physiology, including physical and spiritual systems and capacities, operated in sympathy with one another: an effect on one affected the others. Most relevantly for physiological reformers, physical debility impaired spirituality. For reformers, wellbeing encompassed both physical and spiritual wellbeing. Because of the

⁶⁸ Kellogg, *Harmony of Science and the Bible*, 27-28.

⁶⁹ Duncan, *Evils of violating the Laws of Health*, 21.

⁷⁰ The Oxford English Dictionary traces "holism" back to Jan Christiaan Smuts, *Holism and Evolution* (London: Macmillan and Co., 1926).

integration of humankind, one could not be had without the other. As Burnap said, “If a man will not take care for his body, he shall not have comfort in his soul.”⁷¹

The belief in the reciprocal influence of one’s physical and spiritual capacities pervades the physiological reformer’s writings. Temperance advocate William Withington believed that this theological anthropology, although found in the Mosaic Law, was only recently gaining in popularity. He observed in 1836 that “an acknowledgment of the intimate connection between body and soul—of the necessity of thoroughly cultivating each in order to the perfection of the other” was “again attracting the attention of thinking men.”⁷² *GJHL* was certainly on board, excerpting Withington’s comments on the subject with approval.⁷³ These discussions of the constitution of human persons were hardly pedantic. Like the notion of God as the natural law giver, an integrated anthropology undergirded physiological reformers’ claim that physical health was a moral duty. The body’s affective role in spirituality elevated physiology to the level of religion.

In an address delivered to the APS on January 30, 1838, medical doctor Elisha Bartlett discussed this holistic theological anthropology. Bartlett was a dichotomist. Man, he said, “is made up of a soul and a body. He is constituted by the union of flesh and spirit. His nature is two fold.” Yet God had joined flesh and spirit together; “every attempt at their separation is a violence done to this nature.” Bartlett distinguished this anthropology from others on offer in American culture. It travelled between the Scylla of sensualism and Charybdis of transcendentalism, both of which tried “to sunder what God

⁷¹ Burnap, “Body Must be Duly Regarded,” 256.

⁷² William Withington, *Christian Radicalism* (Boston: Perkins and Marvin, 1836), 25-26.

⁷³ “Body and Soul,” *Graham Journal of Health and Longevity*, 1, no. 7 (1837): 52.

has joined together.”⁷⁴ While the sensualist neglected the spirit and the transcendentalist ignored the needs of the body, Bartlett espoused a view of humankind that embraced both in close operation together. Bartlett explained:

I wish, however, to insist particularly upon the *closeness*, the *intimacy*, of the relationship between the spiritual and the physical elements of humanity. This body is not the house, merely, of the soul. It is something more than an outside dwelling, within whose chambers, the spirit sits at ease, an independent occupant.... It is transfused with spirit, as the atmosphere of noon is with light. You can hardly touch one, without at the same time touching the other. They grow together.⁷⁵

Likewise, Graham recognized an ontological distinction between the physical and spiritual parts of humankind. Nevertheless, it was “entirely and incontrovertibly certain that all which is immaterial in man, is organically incorporated.”⁷⁶ For Kellogg, the connection between the physical and spiritual dimensions of humankind was more obvious. As a Seventh-day Adventist, Kellogg held a monist theological anthropology. “We are not made up of a moral part and a physical part,” Kellogg wrote. “Man is a unity. His moral, intellectual, and spiritual life are so interwoven that they cannot be separated.”⁷⁷ Nevertheless, Bartlett, Graham, and Kellogg all shared the belief that the physical and the spiritual (even if understood only as manifestations of a singular being) existed in sympathy. The fate of one was tied to the other.

The business of physiology was to understand the operation of human systems. Physiological reformers were therefore willing to explain, in greater or lesser degrees of

⁷⁴ Elisha Bartlett, *Obedience to the Laws of Health, a Moral Duty. A Lecture, Delivered Before the American Physiological Society, January 30, 1838* (Boston: Julius A. Noble), 7.

⁷⁵ *Ibid.*, 13-14.

⁷⁶ Graham, *Philosophy of Sacred History*, 7.

⁷⁷ Kellogg, *The Living Temple* (Battle Creek, MI: Good Health Publishing Company, 1903), 483.

detail (Graham was the most exhaustive), *how* exactly the health of one's body affected one's moral and spiritual capabilities. For some, the process was simple. A contributor to *GJHL*, for example, explained how eating breakfast on Sunday used to leave him in a "dreamy, half-conscious state" during the sermon, seeming to dull his spiritual receptors. Eating a lighter breakfast and no dinner solved the problem: "I soon found that I could command my attention with perfect ease." In the writer's opinion, "The connexion between the state of the body and the devotional feelings" had been too little considered. Soon men must see "the duty of presenting the *whole* spirit, both *soul* and *body*, a living sacrifice to God."⁷⁸ This is perhaps how a holistic theological anthropology was understood by an average member of the physiological reform movement. The movement's leaders, however, had more explanatory work to do.

For physiological reformers—the archenemies of meat eating, alcohol drinking, and tobacco-using—reform began with the stomach. According to Duncan, physiology teaches "that the human stomach...is a grand central point of influence and sympathy in our physical system. It is the fountain head that feeds the stream of life. When it is disturbed or destroyed, that stream is disturbed in all its meandering courses, or ceases to flow."⁷⁹ Meat, according to reformed physiology, was not intended for human consumption. When ingested, it irritated the stomach. Once the stomach was irritated, sympathy between the body's systems kicked in. Most alarmingly, the irritation was passed on to the body's command center—the brain. Again, reformers described this process with more or less specificity, but belief in the principle was widespread. As

⁷⁸ B., "The Importance of Pure Air—Sleepiness in Churches," *Graham Journal of Health and Longevity* 3, no. 2 (1839): 29.

⁷⁹ Duncan, *Evils of violating the Laws of Health*, 7.

Graham understood it, the nervous system acted as web connecting the body's systems, along the strands of which irritation was transferred. "While the nerves of organic life are preserved in a perfectly healthy state," Graham wrote, "the mind is habitually serene and cheerful." Long-term or excessive irritation of one of the body's organs, however, would irritate one's nerves. Sympathizing, the mind would then suffer, becoming dark and brooding, for example. The nervous system thus connected the stomach with the brain. When the stomach was forced to digest meat, the brain would be harmed.⁸⁰

Duncan described the same process and suggested how popular this notion was, even if in a diluted form:

Every tyro in physiology knows that an immediate connection exists between the stomach and the brain, the grand organ, according to most physiologists, of mental manifestation, and, according to others, the organ, likewise, on which depends the manifestation of the moral feelings. What affects the stomach, affects the brain, and, consequently the mind. Food and drinks of improper quantities, or qualities, must, as they injure the former, inflict evil upon the latter.⁸¹

Duncan lighted upon the significance of implicating the brain in the process: the brain was the organ of morality and spirituality.

Physiological reformers understood the brain, as the engine and locus of conscious thought, to be the seat of one's moral and spiritual capacities.⁸² "The brain and

⁸⁰ Graham, *Lectures on the Science of Human Life*, 43-48, 209. See also Coles, *Philosophy of Health*, 66.

⁸¹ Duncan, *Evils of violating the Laws of Health*, 8-9.

⁸² Phrenology, which gained in popularity in American during the 1820s and 1830s, identified a person's various "faculties—including moral sentiments—with specific portions of the skull. These faculties could be judged according to their size and apparent development. John Lardas Modern explains that, during the 1840s, American phrenological firm Fowler and Wells introduced a new faculty of "spirituality." The religious impulse had previously been most closely associated with the organ of "veneration." It was not entirely unheard of, then, for physiological reformers to identify one's moral and spiritual capacities with the physical brain. John Lardas Modern, *Secularism in Antebellum America: With Reference to Ghosts, Protestant Subcultures, Machines, and Their Metaphors; Featuring Discussions of Mass Media, Moby-Dick, Spirituality, Phrenology, Anthropology, Sing Sing State Penitentiary, and Sex*

the nerves constitute the means through which man the creature comes closely in touch with God the Creator,” Kellogg wrote. “The brain and the nerves together constitute the seat of the mind, the consciousness, the will, the thinking, feeling, governing organs.”⁸³

A person’s ability to exercise his or her intellectual, moral, and spiritual natures depended upon the health of the brain. There was, then, a direct chain of sympathy and affect from one’s diet, through the stomach and then the brain, to one’s moral and spiritual capacities.

Pious Christians, Withington wrote, were right to turn to prayer and soul-searching in response to impiety or spiritual deadness. But they ought also to appreciate the physical roots of their troubles: “Few, I believe, justly estimate, how much may be traced to stomachs long irritated by ill-digestible materials.”⁸⁴ Coles summarized the process neatly:

The stomach is an organ of vast controlling power. If this organ is right in its functions, generally all is right that pertains to the health of the body. If it is wrong, then all is wrong. So, too, it has vastly to do with the right formation of moral character. Such is its strong sympathy with the brain and nerves, which form the bond of union between soul and body, that it bears a powerful sway over our moral sentiment. Hence, erroneous eating and drinking inevitably conduce to erroneous thinking and acting. Licentiousness in food and drinks lends to licentiousness in matters of moral feeling. A licentious body begets a licentious soul.⁸⁵

with the New Motive Power (Chicago: University of Chicago Press, 2011), 144-171. On the whole, physiological reformers were ambivalent towards phrenology. There was, however, considerable overlap between Grahamites and phrenologists. Fowler and Wells, for example, sold plaster casts of Graham’s head. Whorton, *Crusaders for Fitness*, 124-125.

⁸³ Kellogg, *The Living Temple*, 388. See also, Graham, *Lectures on the Science of Human Life*, 89.

⁸⁴ Withington, *Christian Radicalism*, 22.

⁸⁵ Coles, *Philosophy of Health*, 227. Or, as Duncan explained, by eating too much one’s “moral susceptibility is blunted, intellectual aptitude paralyzed, and the man loses the semblance of the rational intelligence above him, in an increasing likeness to the sensual brute.” Duncan, *Evils of violating the Laws of Health*, 20.

In the theological anthropology of these health reformers, natural causes had spiritual effects. Physiological reform encompassed both the body and the soul.

There was yet another layer of interaction between a person's physical and spiritual natures—an interaction with its own unique dynamics. Whereas harmony between these two natures was ideal, the reformers thought they naturally pulled in different directions. Thus, despite the reality of physiological integration, the body was the site of a Manichean struggle between spirit (good) and flesh (evil). Although health reformers placed religious importance on the body, the solution to the struggle was neither a balance between spirit and flesh nor the redemption of fleshly desires. Rather, the goal was to subdue the flesh and its brutish desires and give the spirit the upper hand. Proper physiology—including, especially, vegetarianism—would do just this and would thereby facilitate spirituality. Just as with the sympathy between the body and soul, health reformers had a physiological explanation for the battle between spirit and flesh.⁸⁶

Physiological reformers classified foods and beverages based on their inherent nature or propensity. These propensities, they said, were transferred to humans upon consumption. This could be explained somewhat esoterically: the “nature” of a food was somehow transferred to the consumer.⁸⁷ Graham and Kellogg offered more-scientific explanations, but reached the same conclusion: meat was bestial; by consuming it one became more beastly. In addition to irritating the stomach, meat also stimulated it. An unnatural aliment, meat required more energy to digest than did vegetable food. By

⁸⁶ “What is religion?” Nicholson asked. “It is glorifying God in the body and spirit, which are his. It is keeping the body in subjection, that the soul may have no obstructions in doing its appropriate work while the day lasts.” Nicholson, *Treatise on Vegetable Diet*, 65.

⁸⁷ As Nicholson explained, “When [blood] is taken into the system of any beast, it imparts a ferocity which often becomes dangerous: it drives him into fury, and the bloodhound, lion, and tiger, will make the stoutest warrior tremble.” *Ibid.*, 10.

being forced to devote extra energy to stimulate the stomach's digestive process, the human system was taxed. The stimulation of the stomach therefore did two things. First, by enflaming some of the body's baser, more instinctual processes, stimulation exacerbated one's animal propensities. As Graham explained,

Flesh-meat...develops and strengthens the animal propensities and passions, and especially those of a more exclusively selfish character, rendering man more strongly inclined to be fretful and contentious and quarrelsome and licentious and cruel and destructive, and otherwise vicious and violent and ferocious.⁸⁸

Coles argued that when vegetation is processed by animals, it undergoes "animalization." When these animals are then consumed by humans "the proportion of the animalism in our natures is increased."⁸⁹ As an example, Kellogg explained the effect improper diet had upon one's sexual purity:

The science of physiology teaches that our very thoughts are born of what we eat. A man that lives on pork, fine-flour bread, rich pies and cakes, and condiments, drinks tea and coffee and uses tobacco, might as well try to fly as to be chaste in thought. He will accomplish wonders if he remains physically chaste; but to be mentally virtuous would be impossible for him without a miracle of grace.⁹⁰

Second, by requiring energy (or vitality) from the body's zero-sum equation, the stimulation of the stomach necessarily weakened one's mental—and thereby moral and spiritual—capabilities. This gave the flesh the advantage over the spirit. It was a downward spiral, for one's moral powers would then be disadvantaged to resist future fleshly urges, whether to eat meat or to drink alcohol or simply to sin. Improper physiology gave the upper hand to fleshly tendencies, allowing them to overwhelm one's moral controls and thereby make one brutish and impervious to spiritual influence.

⁸⁸ Graham, *Lectures on the Science of Human Life*, 215.

⁸⁹ Coles, *Philosophy of Health*, 65.

⁹⁰ John Harvey Kellogg, *Plain Facts for Old and Young* (Burlington, IA: Segner and Condit, 1882), 391.

Indulging one's animal appetites, Coles wrote, "tends to animalize the soul, and brutify all the higher powers of man." This rendered a person "a servile captive to the sway of his own grovelling [*sic*], sensual passions." History bore out this truth, Coles said, for just as hunters served their dogs meat to incite ferocity so ancient soldiers dined on flesh to prepare for battle.⁹¹

Coffee, tea, and tobacco—classified by physiological reformers as stimulants—as well as alcohol, were supposed to operate in a similar fashion by acting directly on the nervous system. These substances were of no nutritional value, reformers said, and by causing the cerebral organs to dominate the others they increased one's selfish and combative propensities.⁹² Although the temperance movement is best remembered for its crusade against alcohol and tobacco, these physiological reformers declared the evils of tea and coffee to be as great, if not greater, than strong drink. Kellogg considered tea and coffee poisons, and listed them alongside alcohol and tobacco as "Drugs Which Enslave and Kill."⁹³ *GJHL* likewise insisted that tea and coffee were poisonous and that they were known to cause "headaches, hysterics, hypochondria, weak eyes, vertigo—the whole nameless legion of nervous diseases." So bad were tea and coffee, "alcohol has slain its thousands, but coffee and tea their tens of thousands!"⁹⁴ As Graham explained, any substance—whether meat or alcohol or even tea—that caused one's vicious propensities to dominate the human system "not only depraves the organs...but also

⁹¹ Coles, *Philosophy of Health*, 65-67. See also A Gleamer, "Tendency of Animal Food to Produce Ferocity of Disposition," *Graham Journal of Health and Longevity* 3, no. 1 (1839): 19.

⁹² Graham, *Lectures on the Science of Human Life*, 210-214.

⁹³ Kellogg, *The Living Temple*, 420, 508-537.

⁹⁴ "Are Coffee and Tea Poisons?" *Graham Journal of Health and Longevity* 3, no. 9 (1839): 137.

necessarily impairs the intellectual and moral and religious faculties.”⁹⁵ By proscribing these substances, physiological reformers were facilitating not only better bodily health but greater spirituality and devotion.

Conclusion

Nineteenth-century physiological reformers thus worked out a system by which bodily health became a moral and religious duty. Their reform movement spanned more than a century, beginning in the early nineteenth century in England and proceeding well into the twentieth on both sides of the Atlantic. It encompassed a similarly broad range of reformers—from Bible-Christians to Presbyterians to Adventists. Yet, despite their doctrinal disparities, these reformers rallied around physiology as the harbinger of better health, greater holiness, and truer religion. They shared a theological anthropology in which the body and the soul were wed before God, in sickness and in health. First, they developed a notion of hortatory natural laws—the so-called laws of life. These laws issued from God and were therefore morally binding. Second, God’s physical and spiritual laws governed his two-fold relationship with humankind. His necessary internal consistency meant one could not violate God’s physical laws without his or her spirituality suffering. Further, reformers believed the body and the soul existed in a close, sympathetic connection. They used a physiological logic to explain this connection, detailing the process by which bodily regimen either uplifted or depraved. Physiology showed how physical causes had spiritual effects. As Coles pithily said, “An irritated stomach and a deranged liver resist the Holy Ghost.”⁹⁶ Indeed, a holistic or

⁹⁵ Graham, *Philosophy of Sacred History*, 20.

⁹⁶ Coles, *Philosophy of Health*, 250.

sympathetic theological anthropology, infused with physiology, imbued bodily health with spiritual import. This, in turn, charged physiological reform with a religious urgency.

The task of physiology was to discover the morally-binding physical laws by which God governed his creation and to teach how one might live in harmony with his or her own nature as well as with God. It was therefore of utmost importance to heed its teachings. In this way, physiological reformers claimed a spot on the frontlines of the religious and moral reformations that swept America in the nineteenth century. Indeed, a medical doctor and clergyman, writing to *GJHL* under the initials E.M., believed health reform was integral to the very progress of the gospel:

The connections between physical and moral evil are numerous, close, and mighty. It is plain that the redemption of the moral world and the redemption of the physical constitution of mankind, must proceed together.... The cause of Physiological Reform, will be triumphant. The Gospel is to be triumphant. The system of the Gospel includes this Reform.... Where the Gospel goes, thither must this Reform proportionally go; and where this Reform goes, there will the Gospel more fully prevail.... That mankind may become emancipated from the dominion of sin—transgression of our Maker’s laws, Natural and Moral—and the pains and deaths which are sin’s wages: and that your labors may be so bestowed and blessed, as to aid in the hastening of the “consummation,” is the ardent desire and confident hope of, Dear Sir, Your fellow laborer, E.M.⁹⁷

Physiological reformers understood themselves to be on nothing less than a religious crusade to reform American bodies and thereby pave the way for gospel reformation and the coming kingdom of God.

⁹⁷ E.M. “Moral and Physical Reform Identical,” *Graham Journal of Health and Longevity*, 3, no. 4 (1839): 57.

CHAPTER THREE

Grahamism as a Hermeneutical Conflict

The Bible argument for Vegetarianism, or the disuse of animal food, is a very strong one, and should be examined by all who wish to square their lives by its teachings; and it is sustained, as many scientific authorities assert, by equally cogent arguments, drawn from Anatomy, Physiology, and Natural History.

—Thomas Low Nichols

“Not a sparrow falleth to the ground, but in accordance with the fixed laws of God in nature!”

—Sylvester Graham

Introduction

“We often hear people talking about ‘the system,’” William Andrus Alcott wrote in his journal *The Library of Health, and Teacher on the Human Constitution*. “‘Such an one,’ they will say, ‘is fast getting into your system.’” Alcott’s imaginary conversation partner was referring to physiological reform, or Grahamism as it was often known. Yet Alcott asked, “What do they mean?”

... Yes, we have a system, we must confess. It is the Bible system, or Christian system; or, to speak more strongly, but not less reverently, God’s system.... We teach nothing, so far as we know, that may not fairly be inferred from the Bible—the record of God’s spiritual law—both in the Old and New Testaments.¹

On March 27, 1837, fifty-one year old merchant Simeon Collins of Westfield, Massachusetts, wrote to *GJHL* to share his testimony of how he found health. After attending some of Graham’s lectures, Collins foreswore meat, coffee, tea, and condiments. He made his bread with unbolted wheat, drank only “pure cold water,” and slept on a bed of flowers. He became, in short, a dutiful Grahamite. As the reward for

¹ Alcott, *Library of Health*, 198-199.

his diligence, Collins boasted, “my health is and ever has been perfect. . . .” As an added bonus, he saved the money he used to spend on the family doctor. This system is called Grahamism, Collins noted, “but it is in fact Bibleism.”²

These two striking statements, both asserting that a reformed bodily regimen is no more than what the Bible teaches, are the tip of an iceberg that scholars have sailed smoothly past, often without so much as a glance. Alcott’s comment has gone unnoticed. Historian James C. Whorton quoted Collins, but only as evidence that the dictates of physiology were thought to agree with “Christian morality.” Other scholars have been content to cite Whorton’s quotation and to follow his interpretation.³ The role of the Bible in the physiological reform movement has gone entirely unexamined.

This oversight is significant considering that the Bible was one of three authorities physiological reformers consistently cited and relied upon (science and experience being the other two).⁴ Joseph Metcalfe, for example, said that before his father William took up vegetarianism, he first “examined the whole subject with great care, reviewing all the

² Simeon Collins, *Graham Journal of Health and Longevity* 1, no. 1 (1837): 4.

³ Whorton, *Crusaders for Fitness*, 44. Whorton mistakenly cites issue 5 of volume 1 of *GJHL* and wrongly identifies Collins as “one of [Graham’s] correspondents.” Collins was writing to David Cambell, the editor of *GJHL*. As an example of scholars who follow Whorton, see Abzug, *Cosmos Crumbling*, 163.

⁴ Maskell makes the same observation, saying that Graham relied on a “tripartite structure of authority.” Maskell, “Graham as a Religious Thinker,” 8. Physiological reformers explicated the science of physiology especially in books, like Graham, *Science of Human Life*; Coles, *Philosophy of Health*; and John Harvey Kellogg, *Home Hand-Book of Domestic Hygiene and Rational Medicine*, 2nd ed. (Battle Creek, MI: Good Health Publishing, 1891). The third authority was a form of empirical evidence: personal experience and the experience of others conveyed through testimonies. In 1834, Graham published a compilation of thirty-four letters of testimony to the effectiveness of the Graham system. Sylvester Graham, *The Aesculapian Tablets* (Providence, RI: Weedon and Cory, 1834). In the inaugural issue of *GJHL*, Cambell issued a call for personal testimonies and provided a series of questions to structure those testimonies and ensure they provided the right information. Dozens of testimonies were published in subsequent issues of the journal. David Cambell, “To the Public,” *Graham Journal of Health and Longevity* 1, no. 1 (1837): 1. Alcott likewise published a collection of testimonies to the vegetable diet. William Andrus Alcott, *Vegetable Diet: As Sanctioned by Medical Men, and By Experience in All Ages* (Boston: Marsh, Capen and Lyon, 1838).

evidences, scientific and Scriptural, and finally determined to test the system by a personal experiment.”⁵ E.M., quoted at the end of the previous chapter, investigated dietetics using the same methods:

Information was sought, first, from the works of the Creator, in the structure and constitution of man and the provisions obviously intended for his sustenance; secondly, in the Holy Scriptures; thirdly, in the experience of mankind.⁶

Reformers looked to this trinity of authority throughout the nineteenth century. Writing in 1903, Kellogg examined physiology via “the facts of science and experience” and “such instruction as we may [draw] from the teachings of Holy Writ.”⁷

While the “science,” or physiology, on which this reform movement relied has been well studied, the other two sources of authority have not. In 1982, Nathan O. Hatch and Mark A. Noll noted that a few major themes of the history of the Bible in America have been studied, such as the clash between biblicists and secularists. “Much less attention,” they said, “has been paid to the ways in which the Bible has interacted with other cultural forces in American history.”⁸ Bodily health and the physiological reform movement certainly fall into the category of “other cultural forces.” Accepting Hatch’s and Noll’s observation as a charge, and attempting to remedy the scholarly neglect of the Bible’s role in physiological reform, the present chapter will explore the Bible as one of the movement’s three chief authorities. I will examine the role of the Bible in the

⁵ Metcalfe and Metcalfe, *Out of the Clouds*, 12. In 1855, William Metcalfe wrote that Cowherd similarly proved “his views to be founded on the testimony of Divine Revelation, and occasionally confirming them by appeals to the facts taught by Physiology, Anatomy, Chemistry, and History, and corroborated by his personal experience.” Nichols, *Religions of the World*, 114.

⁶ E.M. “Moral and Physical Reform Identical,” *Graham Journal of Health and Longevity* 3, no. 4 (1839): 57.

⁷ Kellogg, *The Living Temple*, 161.

⁸ Nathan O. Hatch and Mark A. Noll, introduction to *The Bible in America: Essays in Cultural History*, eds. Nathan O. Hatch and Mark A. Noll (New York: Oxford University Press, 1982), 5.

movement, showing that physiological reformers turned to the Bible to promote their cause and that they were compelled to do so by the predominate Biblicism of contemporary American Christianity.⁹ In so doing, it will become clear that the Bible's teaching on diet was a real and substantial point of contention between reformers and other Americans. In the second part of this chapter, I will show that this biblical disagreement was ultimately a hermeneutical conflict. Health reformers considered the findings of physiology more reliable than human interpretations of the Bible. They therefore gave their physiological convictions priority over the Bible and used them as a lens through which to read and interpret it. Further, physiological reformers not only read the Bible in light of physiology, they also read physiology into the Bible itself. This yielded naturalized, anti-miraculous interpretations that served to affirm the teachings of physiology and to place responsibility for bodily health in the hands of each individual rather than in the hands of a superintending God.

The Bible's Role in the Physiological Reform Movement

Physiological reformers, from the Bible-Christians to John Harvey Kellogg, turned to the Bible to promote the proper diet for humankind. As recorded in the official *History of the Philadelphia Bible-Christian Church*, William Cowherd “founded his principles on the testimony of the Bible, and confirmed them by appeals to the facts taught by physiology, anatomy and personal experience.”¹⁰ Indeed, Cowherd and the Bible-Christian Church urged vegetarianism and teetotalism as biblical mandates. In an 1840 sermon entitled, “Bible Testimony on Abstinence from the Flesh of Animals as

⁹ In the first part of this chapter, I will examine the impulse and the requirement to use the Bible, not the actual use of it. I will take up the substance of the biblical debate in the following chapter.

¹⁰ The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 21.

Food,” Metcalfe likewise turned “to the evidence of the sacred pages” to discover the best diet for humankind.¹¹ It was not, however, only Bible-Christians who relied on the Bible to support their dietary prescriptions. In the spring of 1837, David Cambell summarized Sylvester Graham’s recent labors in Boston:

He has given, the past fall and winter, three courses on diet and regimen, one course on comparative anatomy and physiology, four lectures to young men, four lectures to mothers, and a course of Sabbath evening lectures on the Bible authority for the use of flesh and wine.¹²

Graham regularly gave such lectures during the 1830s. Kellogg likewise used biblical arguments throughout his works and issued tracts such as “Wine and the Bible.”¹³

Although less common than discussions of God’s laws and the connections between body and soul, biblical arguments were standard features in physiological reformers’ writings.

Granted, this was sometimes nothing more than “religious metaphor doing duty as medical logic,” in the words of historians Charles E. and Carroll S. Rosenberg.¹⁴ In these cases, reformers drew on the Bible as a bank of familiar language and imagery that resonated with them and their readers. Yet physiological reformers also turned to the Bible as an authoritative text that, when read correctly, affirmed their dietary

¹¹ Metcalfe and Metcalfe, *Out of the Clouds*, 154. In 1855, Metcalfe wrote, “There is this peculiarity in the Discipline of the religious community of Bible Christians, that their members are required to *abstain from all flesh, fish, or fowl as food; from intoxicating beverages of every kind*, and from war and human slavery, under the conviction that such a testimony or example is required of them as believers in the Scriptures.” Nichols, *Religions of the World*, 114-115.

¹² Cambell, *Graham Journal of Health and Longevity* 1, no. 1 (1837): 8.

¹³ An idea of the content of this tract may be seen in John Harvey Kellogg, “Wine in the Bible,” *The Health Reformer* 12, no. 4 (1877): 99-101.

¹⁴ Charles E. and Carroll S. Rosenberg, “Pietism and the Origins of the American Public Health Movement: A Note on John H. Griscom and Robert M. Hartley,” *Journal of the History of Medicine and Allied Sciences* 23, no. 1 (1968): 30.

recommendations. Their opponents met them point for point, and the Bible became much more than a common language—it became a battleground.

Before he began his biblical exposition, Graham had an argument to make about the relationship between special and natural revelation. He insisted that he did not want to look to the Bible for instructions regarding bodily health. Instead, he preferred to turn to the science of physiology and the empirical evidence of testimonies. “The question before us,” Graham wrote, “is not a question of Revelation, but of natural science.” Further, “the Bible was not given to teach us the natural sciences; and no correct philosopher thinks of going to the Bible to study these sciences.”¹⁵ This was in keeping with physiological reformers’ conception of the economy of God’s government, discussed in the previous chapter: the moral laws revealed in the Bible governed the soul, while the physical laws revealed in nature governed the body. Graham and the reformers were more eager to have their dietary principles taken as seriously as the Bible—as divine revelation—than they were to find them written on the pages of Scripture. Indeed, if both moral and physical laws issued from God, and therefore were both religiously binding, the search for biblical dietetics was unnecessary. God had revealed his will concerning humankind’s diet in the pages of nature. Graham’s supposed reluctance to use the Bible was a protest against the reflexive Biblicism that, as will be seen below, was used against him and his cause. Graham’s many lectures and hundreds of pages on the Bible’s dietary teachings belied this reticence. Indeed, Graham argued louder and longer than any other physiological reformer that vegetarianism and teetotalism were consistent with the Bible.

¹⁵ Graham, *Philosophy of Sacred History*, 103, 100.

During the Jacksonian Era, Graham was physiological reform's intellectual leader in the biblical defense of vegetarianism and teetotalism. No other reformer's biblical arguments compared to his in length, nuance, or comprehensiveness.¹⁶ Graham regularly lectured on the Bible's dietary teachings and their compatibility with his reforms.¹⁷ Cambell looked to these lectures as authoritative arguments and eagerly waited for them to be published. "Graham's Lectures on the Bible authority for flesh eating and wine drinking," Cambell wrote in *GJHL*, "go very ably and fully into a discussion of this subject; these lectures, we trust, will ere long be published."¹⁸ They were eventually published, in separate numbers: two in 1842 and one in 1846. A fourth section was still in manuscript form at the time of Graham's death in 1851. Henry S. Clubb gathered and edited all four parts and published them in 1855 as *The Philosophy of Sacred History*

¹⁶ For these same reasons, I will feature Graham prominently in my analysis. I will also rely on Metcalfe, whose "Bible Testimony on Abstinence from the Flesh of Animals as Food" is a distant second in terms of length of biblical exposition.

Graham may have been a leader even outside of physiological circles, serving as an early and vocal proponent of teetotalism. Origen Bachelier said that Graham, "on account of the public stand by him assumed, and in consideration of the number of his adherents, may be regarded as a representative of the ultra Temperance party." Origen Bachelier, *Graham's System Brought to the Test of Scripture: Using the Substance of a Lecture Delivered at Concert Hall, Broadway, New-York, on the Evening of Jan. 23, 1833; with Some Additional Remarks Interspersed, Together with an Appendix* (New York: T. Harries, 1833), 6. After attending the convention of the National Temperance Society in 1836, Harriet H. Noyes reported to her sister that she was only impressed with Graham and Lyman Beecher and valued "hearing the effusions of their giant minds." Harriet H. Noyes to Charlotte N. Miller, August 19, 1836, in *Religious Experience of John Humphrey Noyes: Founder of the Oneida Community*, comp. and ed. George Wallingford Noyes (1923; repr., Freeport, NY: Books for Libraries Press, 1971), 282-284.

¹⁷ In 1838, the APS supported two lecture series by Graham: one consisting of twelve lectures on diet, the other on the Bible's teaching regarding meat and alcohol. Hoff and Fulton, "Centenary of the First American Physiological Society," 702. For private contemporary commentary on Graham's lectures, see Theodore Dwight Weld to Sarah Grimké, February 8, 1838, in Gilbert H. Barnes and Dwight L. Dumond, eds., *Letters of Theodore Dwight Weld, Angelina Grimké Weld, and Sarah Grimké*, (New York: Da Capo Press, 1970), 2: 531-532.

¹⁸ A.N.D., "Bible Arguments for Flesh Eating," *Graham Journal of Health and Longevity* 3, no. 9, (1839): 147.

Considered in Relation to Human Aliment and the Wines of Scripture.¹⁹ Graham began with a thorough explanation of the first principles that informed his hermeneutic. He then systematically analyzed most of the biblical texts bearing on the consumption of meat and wine, from the Garden of Eden to the Mosaic Law to the Last Supper. Graham's work was thorough. For example, he spent nine pages discussing the meaning of the Hebrew term "mālāch" (messenger) in order to assess Moses's moral agency in the creation of the Sinaic Covenant.²⁰ Overall, Graham argued that the Bible was perfectly compatible with the recommendations of physiological science—including vegetarianism and total abstinence from alcohol.

Philosophy of Sacred History has been entirely overlooked by historians. Indeed, the four best and most comprehensive studies of Graham and physiological reform do not even mention the work.²¹ This oversight is striking for two reasons. First, in its original duodecimo form, the book ran to 580 pages—the longest of Graham's books.²² Second, Graham's most popular book (among both contemporaries and historians), *Lectures on the Science of Human Life*, was published in 1839, after which Graham is generally supposed to have retired. Instead, it seems likely that in addition to tending his Northampton farm, Graham spent much of the last decade of his life writing *Philosophy*

¹⁹ Henry S. Clubb, preface to *Philosophy of Sacred History*, iii-v; William Penn Alcott, "Sylvester Graham," *Good Health* 37, no. 2 (1902): 71.

²⁰ Graham, *Philosophy of Sacred History*, 187-196. Graham's biblical arguments will be analyzed in more detail in the following chapter.

²¹ Nissenbaum, *Sex, Diet, and Debility*; Whorton, *Crusaders for Fitness*; Abzug, *Cosmos Crumbling*; and Green, *Fit for America*. Maskell makes a similar observation. He, however, does incorporate the work in his study of Graham's religious thought. Maskell, "Graham as a Religious Thinker," 41, n. 13. While it is surprising that Graham's *Philosophy of Sacred History* is not so much as mentioned by historians treating Graham's religious thought, the omission is in keeping with the general neglect of the role of the Bible in the physiological reform movement.

²² William Penn Alcott, "Sylvester Graham," 71.

of *Sacred History*—a massive and thorough biblical exposition. Because historians have overlooked the book, they have also missed its implication: the Bible’s teaching on diet was of central importance to Graham specifically and to nineteenth-century health reform generally.²³

Even if Graham and other physiological reformers had been content to urge their reforms on the grounds of science and experience only, their Christian auditors and readers would not have been so contented. The America in which Graham lived and labored was populated by people who read and revered the Bible, in historian Mark Noll’s words, “as the supreme guide to life.”²⁴ For these Christians, all aspects of life—from the mundane to the eternal—were subject to the Bible’s authority. They therefore required physiological reformers to reconcile their principles and prescriptions with the Bible. As one of the opponents of physiological reform wrote, in direct refutation of Graham,

Ye need not tell me, that the Bible was not given to teach us *science*. Was it not given, I ask you, to teach us *duty*? And has duty no concern with our food and drink, which have a bearing on our health and morals? Surely, we *are* to look for instruction on such points from the Bible.²⁵

²³ Of the last decade of Graham’s life and *his Philosophy of Sacred History*, Nissenbaum has only this to say: “There [Northampton] he spent the last dozen years of his life, something of a crotchety local character, writing self-pitying poetry, letters to the editor of the local newspaper, and a lengthy defense of vegetarian diet on biblical grounds.” Nissenbaum, *Sex, Diet, and Debility*, 15.

²⁴ Mark A. Noll, *America’s God: From Jonathan Edwards to Abraham Lincoln* (New York: Oxford University Press, 2002), 377. From 1829 to 1831, the American Bible Society printed 500,000 Bibles. Paul S. Boyer, “From Tracts to Mass-Market Paperbacks: Spreading the Word via the Printed Page in America from the Early National Era to the Present,” in *Religion and the Culture of Print in Modern America*, eds. Charles L. Cohen and Paul S. Boyer (Madison, WI: University of Wisconsin Press, 2008), 15. For more publication statistics revealing the ubiquity and popularity of the Bible, see Noll, *America’s God*, 371-372.

²⁵ Bachelier, *Graham’s System*, 38.

Physiological reformers, for their part, were well aware of the necessity of rooting one's cause in the Bible. As a contributor to *GJHL* wrote,

It has become the custom now-a-days, to look in the Bible for every thing, almost: and whether we look with a bad or a good motive we generally find there, something to our purpose. The abolitionist and the slave holder, the total abstinence men and the drinker of strong drink, alike, go to the Bible for proof of their respective principles, and they find it there; or at least, think they do.²⁶

For many nineteenth-century American Christians, the Bible indeed had things to say about diet—things which on their surface appeared contrary to the physiological reformers' prescriptions. To reform the American diet, physiological reformers had to explain this discrepancy.

This imperative to make a biblical defense is evident in the physiological reformers' writings about the Bible. Metcalfe, for example, was keenly aware of the peculiarity of Bible-Christian doctrines. He knew this distinctiveness often led others "to inquire into the origin and foundation of such deviations from the prevailing opinions and practices of men." He reasoned, therefore, that the burden of proof was upon Bible-Christians. Alluding to I Peter 3:15, Metcalfe said,

In these cases it is a duty incumbent on the adopters of such peculiarities whether in faith or practice, or in both, to be 'always ready to give an answer to every man that asketh the reason of the hope that is in him.' These are precisely the circumstances, then, in which are placed: we differ from others, and should be ready to point out the cause; hence the duty of searching after truth devolves upon us imperiously....²⁷

Thus, on his church's twenty-third anniversary in 1840, Metcalfe preached the sermon entitled, "Bible Testimony on Abstinence from the Flesh of Animals as Food." He did so in order to equip his congregants to give an answer to those who asked. The Bible-

²⁶ B.B., "The Nature of the Permission Given the Jews, to Eat Flesh," *Graham Journal of Health and Longevity* 3, no. 11 (1839): 172.

²⁷ Metcalfe and Metcalfe, *Out of the Clouds*, 152-153.

Christian discipline of vegetarianism departed from the normal Christian practice and the normal Christian reading of the Bible. They therefore walked an uphill road. Indeed, Metcalfe had faced religious opposition since his arrival in America in 1817. By Metcalfe's own admission, it was incumbent upon him and the Bible-Christians to demonstrate that the Bible mandated vegetarianism.

The Bible-Christians were not alone. The same burden to defend the compatibility of vegetarianism and teetotalism with the Bible rested on other physiological reformers. Their fellow Americans evidently pressed them on the issue often. One Grahamite therefore wrote to Cambell at *GJHL* to ask for biblical defenses of vegetarianism—asking, in other words, for a biblical vegetarian apologetic. “It would be very gratifying, doubtless,” the correspondent wrote, “to many of your readers, if you or some of your able correspondents would answer through the Journal, some of the Scripture arguments, brought against us.” The correspondent then listed a few of the arguments brought against Grahamites:

“If God saw that the use of flesh was not for the well being of man, would he not have given some intimation of it in the Bible?” “Does not the fact of his appointing to the Israelites what kinds of flesh they might and what kinds they might not eat, decide that it is proper food for man?” “Would Christ have used fish, and have prepared it for his disciples, if it had not been proper food?”—are questions frequently asked, and which we hope to see satisfactorily answered in your Journal.²⁸

For the hypothetical interrogators, the Bible was indeed the supreme and definitive guide to life: God included in it all humankind needed to know concerning right and wrong.

The reformers' supposedly morally-binding dietary strictures could not therefore be left to science. The reformers' contemporaries held the Bible up as the chief authority in all

²⁸ A.N.D., “Bible Arguments for Flesh Eating,” *Graham Journal of Health and Longevity* 3, no. 9 (1839): 147.

of life, and they used this authority against dietary reform. Hence, reformers needed a biblical vegetarian apologetic.

In response to the request for biblical defenses of vegetarianism, Cambell issued an open call to his readers. The first response came a month later. In an article entitled, “The Nature of the Permission Given the Jews, to Eat Flesh,” a contributor who wrote under the initials B.B. took up a problematic feature of the Mosaic Law: it condoned eating clean animals. B.B. wrote that the Israelites “were a worldly and sensual people, in the extreme,” incapable of being moved by spiritual motives.” Their inchoate spiritual capacities could only appreciate external forms of piety and worship. God therefore allowed the sacrificial system. Ultimately, God “desired mercy, and not sacrifice.” The sacrificial system was therefore but a shadow of the age of spiritual worship that Jesus would inaugurate. As for other instances of meat-eating in the Old Testament, it was only permitted to the Israelites “on account of the hardness of their hearts.” Importantly, God only *permitted* and did not *appoint* meat-eating, just as with “the putting away of wives, and the law of retaliation.”²⁹ These were common tactics for dealing with the Old Testament’s dietetic precedents. B.B., like others in the physiological reform movement, strove to reconcile the Bible with vegetarianism. At the expense of the Israelites, B.B. exonerated God from abetting in meat eating and voided the precedent of the Mosaic dietetic laws.

Another respondent to Cambell’s call for biblical vegetarian apologetics, writing a month later, echoed the first in explaining that “Christ told the Jews that for the hardness of their hearts they were suffered to have more wives than one; and for the same reason

²⁹ B.B., “The Nature of the Permission Given the Jews, to Eat Flesh,” 172.

they were permitted to use many kinds of flesh for food....” The contributor then took up what was as problematic as the Mosaic Law: the precedents of Jesus’s life and ministry, which seemed to include both meat eating and wine drinking. Jesus, the writer explained,

ate and drank, and was the associate of publicans and sinners in order to meet the lowest capacity and redeem the most depraved and wicked. He was therefore, under the necessity of eating and giving to them such food as their departed natures required.³⁰

Jesus condescended to the wicked in order that they might be saved. This was like teaching a child to read, the contributor said: one had to begin simply, not with high-order philosophy and mathematics. Like barely literate children, the Jews were simple in spiritual matters. Had Jesus told them to abstain from meat and alcohol it would have been “altogether above their capacity and they could not possibly have comprehended it and he well knew it.” Now, however, it was not so: “light has succeeded light, and the minds of men are continually elevated above their former sensual state to one more rational.”³¹ Just like the first respondent, this biblical vegetarian apologist argued that God accommodated his requirements to his people’s spiritual capacities. Physiological reformers believed as surely as their detractors that Jesus’s precedent was normative and of central importance. They were at pains to show that Jesus did not condone the consumption of meat and wine precisely because Jesus’s teaching mattered so much. “Would Christ have used fish,” they were asked, “and have prepared it for his disciples, if it had not been proper food?” By meeting this challenge, the writer showed physiological reformers’ determination to reconcile their dietary convictions with the life and teaching of Jesus—and the Bible in which they were recorded.

³⁰ S., “Bible Argument for Flesh-Eating,” *Graham Journal of Health and Longevity* 3, no. 13 (1839): 212.

³¹ *Ibid.*

Graham was also pressed on the Bible's dietary teachings; his *Philosophy of Sacred History* reveals that he felt that pressure acutely. Graham adopted a defensive posture that marked many of the reformers' writings on the Bible. As Clubb explained in the preface, Graham used "scientific facts" to argue that meat and alcohol were "opposed to man's physical, moral, and spiritual interests." Nevertheless, he "became subject to attacks from men who professed to base their reasons for consuming these articles on Scripture testimony."³² In the book, therefore, Graham frames many of his biblical expositions as responses to hypothetical challenges.³³ Although he had positive biblical arguments to make, more often than not he labored to show that the Bible was not incompatible with vegetarianism or teetotalism. He explained:

I go to the Bible for the sole purpose of showing that all those particular portions of Scripture which seem to be at variance with the truths of natural science which I have advanced, may, by fair interpretation, be shown to harmonize perfectly with those truths....³⁴

The cultural demand for biblical proof that devolved upon reformers "imperiously" was therefore evident in the very writing and structure of Graham's arguments. He, like other physiological reformers, turned to the Bible to defend the causes of vegetarianism and teetotalism. As their own writings on the Bible reveal, these reformers were compelled to do so.

One man enforcing this requirement was Origen Bachelier. On the evening of January 23, 1833, Bachelier delivered a lecture in New York. Bachelier was a Christian

³² Clubb, preface to *Philosophy of Sacred History*, iii-iv.

³³ Metcalfe did the same. He wrote, for example, "Another objection will probably be raised on the misapprehended testimony of the Bible respecting the sacrificial worship of the Jews." Metcalfe and Metcalfe, *Out of the Clouds*, 171.

³⁴ Graham, *Philosophy of Sacred History*, 107.

apologist who had written against universalism and who would later oppose Mormonism.³⁵ His purpose that particular winter evening, however, was to put Grahamism “to the test of Scripture.” Graham, Bachelier explained,

is a preacher of the gospel, and *as such*, he is bound to advance no system of Dietetics, or any thing else, inconsistent with the Bible. I know full well, that many of his adherents care nothing for the Bible, but him *as a minister of the gospel*, I shall hold to it.³⁶

Hold him to it he did. Bachelier took up, in succession, the Bible’s teaching on the consumption of meat, spices, and wine—all of which Graham prohibited. He went verse by verse, cataloging all that the Bible had to say on each, and determined that the Bible sanctioned the use of all three.³⁷ Graham, he concluded, dangerously perverted the Scriptures to fit his dietetic regimen.

Bachelier subsequently published the lecture. He included an appendix outlining the ensuing biblical debate in which Bachelier, Graham, and a few Grahamites exchanged addresses, counter-addresses, and newspaper articles in the Graham-sympathizing *Moral Daily Advertiser*. (Graham refused to debate him in person, Bachelier said.)³⁸ This remarkable seventy-two-page pamphlet shows that not only did physiological reformers turn to the Bible, but the Bible was a real point of contention between them and their opponents. It is well known that mainstream medical doctors opposed Grahamism on

³⁵ Bachelier edited *The Anti-Universalist* and wrote a number of apologetic works: Origen Bachelier, *Address on the Subject of Universalism* (Boston: printed for the author, 1830); Origen Bachelier and Robert Dale Owen, *Discussion on the Existence of God, and the Authenticity of the Bible*, 2 vols., 2nd ed. (New York: A.J. Matsell, 1833); and Origen Bachelier, *Mormonism Exposed, Internally and Externally* (New York, 1838).

³⁶ Bachelier, *Graham’s System*, 6.

³⁷ Finding in Song of Solomon 8:2 a favorable reference to “spiced wine,” Bachelier wrote with sarcasm, “Spiced wine indeed! worse and worse! two abominations together! how very anti-Graham is the Bible.” *Ibid.*, 16.

³⁸ *Ibid.*, 49-72.

scientific grounds.³⁹ Bachelier's pamphlet, heretofore almost entirely unnoticed, casts new light on the physiological reform movement and its reception: for some nineteenth-century American Christians, the reformers' biblical arguments mattered as much their scientific evidence.⁴⁰ For them, any effort to redeem humankind required biblical sanction. Graham and the other physiological reformers were prepared to show they had just that. Thus, on the battlefield of the Bible, they met their opponents.

If, as argued here, the physiological reformers were under a cultural mandate to reconcile their reforms to the Bible, it does not follow that they revered the Bible any less than their peers or that their biblical vegetarian apologetics were necessarily disingenuous. On the contrary, their biblical arguments reveal a deep appreciation for the Bible's goodness, accuracy, and authority. That the two sides sparred over the Bible's teaching on food and drink reveals just how important biblical authority was to nineteenth-century American culture—including the reformers. If they had not cared for the Bible, they might not have bothered to make a biblical defense. Despite what their detractors said, physiological reformers believed that they respected and rightly interpreted the Bible. Indeed, the dispute was not *whether* the Bible was relevant to questions of bodily health, but *how*. It was, ultimately, a question of interpretation.

³⁹ To track the relatively quick rise and fall of Grahamism among mainstream medical doctors, see *The Boston Medical and Surgical Journal* from, roughly, the autumn of 1835 to the summer of 1836.

⁴⁰ The only reference to Bachelier's work of which I am aware, and to which I owe my own discovery, is Carson's 1957 *Cornflake Crusade*, on page 263. Of Graham and the Bible, Carson says, briefly, "Graham assured the timid and the devout that there was no conflict between sound dietetic principles and the Bible; and even called upon phrenology for support" (ibid., 49).

Like Graham's *Philosophy of Sacred History*, Bachelier's pamphlet is long, nuanced, and comprehensive. I will therefore rely on it to portray the biblical opposition to Graham and physiological reform. Placing Bachelier's *Graham's System* side-by-side with Graham's *Philosophy of Sacred History* is both instructive and historically justified. Not only did Bachelier argue against Grahamism generally, in his appendix he took on the arguments Graham made in a few contemporaneous lectures. These lectures, it will be remembered, were later printed as *Philosophy of Sacred History*. The debate between the two men can therefore be loosely reconstructed.

Bachelor set out to put Graham and Grahamism to the biblical test. Graham was ready for the challenge. The ensuing debate reveals disagreements not simply over food and drink, but about the reliability and accessibility of language as well as the authority of science vis-à-vis the Bible. It was, in other words, a hermeneutical conflict.

The Physiological Hermeneutic

As Noll, Hatch, and others have shown, the common nineteenth-century American hermeneutic was a unique and exaggerated form of *sola scriptura*. The Bible alone was the ultimate authority—not creeds, church traditions, or human interpretations. This conviction, which stemmed from the Reformation and combined nicely with republicanism in post-revolutionary America, was decidedly democratic and anti-authoritarian. Individuals were believed to be capable of reading and understanding the Bible on their own. Without theological frameworks or church teachings to guide one's reading of the Bible, idiosyncratic interpretations proliferated in the early nineteenth century. This should not, however, be understood as hermeneutical chaos. For the affirmation of each person's ability to understand the Bible without assistance rested on a specific and ubiquitous hermeneutic: in Noll's phrase, commonsense literalism. This hermeneutic, influenced by the Scottish Commonsense school of philosophy, was premised on the accessibility and intelligibility of accurate knowledge. All of life, both the self and the world around it, were believed to be legible. To understand something, one had simply to examine it rationally and scientifically. If this were done with honesty and disinterest, the single truth would render itself plain and obvious. Thus, creeds and authorities could be dispensed with because of Americans' confidence in their own ability to apprehend the true and plain meaning of the Bible. Ironically, the

commonsense epistemology acted to limit the range of acceptable interpretations. If an interpretation could not be cast as plain, simple, and rational, it was considered dubious. The very hermeneutic that affirmed an individual's ability to interpret the world on his or her own was, then, normative. The insistence on the accessibility of knowledge produced a dominant literalism.⁴¹

The physiological reformers' insistence that God condemned the consumption of meat and alcohol jarred with a literal reading of the Bible, which turned up plenty of flesh eating and wine drinking with apparent divine approval. The reformers read the Bible differently. They read the Bible in the light of physiology. As the product of natural revelation, physiology was supposed to agree with Scripture. In practice, however, it often trumped plain readings of the Bible, yielding interpretations with a variety of relationships to the text—from literal to symbolic, from close to quite imaginative. Reformers read the Bible not only through the principles of physiology, but through the duty of physiological reform. They read the operations of physiology into the biblical text. This produced naturalizing and anti-miraculous interpretations, emphasizing the operation of God's natural laws over his providential intervention. This naturalizing reading took the responsibility for bodily health away from God and it placed it squarely on the individual's shoulders. The result of all of this was a distinct, physiologically-reformed hermeneutic.

⁴¹ Noll, *America's God*, 367-385; Nathan O. Hatch, "Sola Scriptura and Novus Ordo Seclorum," in *Bible in America*, 59-78; George M. Marsden, "Everyone One's Own Interpreter? The Bible, Science, and Authority in Mid-Nineteenth-Century America," in *Bible in America*, 79-100; John D. Woodbridge, Mark A. Noll, and Nathan O. Hatch, *The Gospel in America: Themes in the Story of America's Evangelicals* (Grand Rapids, MI: Zondervan Publishing House, 1979), 99-134. For a perceptive analysis of Americans' belief in "legibility," see Modern, *Secularism in Antebellum America*.

Hatch and Noll observed that “differences over interpreting Scripture have led Christians to dramatically different stances on social, intellectual, and political issues in the national arena....” Or, perhaps different stances led to different interpretations. Regardless, “it is obvious that the way people interpret the Bible is the most important variable affecting the interaction of Scripture with other cultural forces.”⁴² These observations hold true for the debate over physiological reform. As Cowherd presciently observed at the beginning of the nineteenth century,

If it be asked whether the Bible be really different from the *interpretations*, put upon it by the various denominations of professing Christians, it may be answered;—Were it not so, how could all the sects find Scripture in direct refutation of each other’s notions?⁴³

Physiological reformers, armed with their own way of reading the Bible, ran headlong into American commonsense literalism. At the heart of the biblical debate over food and drink lay this hermeneutical conflict.

Bachelor bore the banner for commonsense biblical literalism. He began his investigation of the Bible’s teaching on wine “by laying down the great fundamental rule for deciding the literal meaning of a word”: a word should be read according to its meaning when taken in isolation. Unless there was a compelling reason in a given verse to modify a word’s signification, “it always has its literal meaning.” This was the “great law of language”; any other approach frustrated understanding. Bachelor applied this literalism to the question of wine in the Bible. Graham, he noted, said the Bible condones unfermented grape juice, not wine. Given his literalist rule, however, Bachelor asked of the word “wine,”

⁴² Hatch and Noll, introduction to *Bible in America*, 11.

⁴³ William Cowherd, *Facts Authentic, In Science and Religion: Designed to Illustrate a New Translation of the Bible* (Manchester, UK: The Academy Press, 1818), iii.

What idea do you derive from hearing the term thus uttered alone? Is it not that of a stimulating, fermented liquor? a liquor which can intoxicate? If so, we have decided the proper or literal signification of the term, which it is to have assigned to it in all cases where the connexion or circumstances do not show to the contrary.⁴⁴

The process was therefore simple. Bachelier hunted down all the instances of “wine” in the Bible. Finding it generally approved of, Bachelier concluded that the Bible approved of wine drinking.⁴⁵ He used the same interpretive approach to show that meat and spices were also biblically sanctioned for humans’ use. Grahamism did not fare well at the bar of commonsense biblical literalism.

Graham’s biblical arguments also reveal his opponents’ literalism. To Graham, these arguments were crude and self-serving—mere proof-texting. He did not care to veil his impatience. Before explaining the story of Elijah being fed by ravens, Graham wrote, “But here we are interrupted by a vociferously reiterated question from a thousand noisy and carping tongues: ‘If flesh meat is not good for man, why did God cause the ravens to supply Elijah with it in the morning and evening?’”⁴⁶ Graham provided a catalog of his opponents’ arguments, revealing their commonsense interpretation of the Bible. As soon as he suggested that meat and alcohol were not well suited for human health, Graham explained,

immediately, a multitude of voices are heard vociferating, “You are wrong, Sir! you are wrong! The Bible explicitly declares that God gave Noah and his family permission to eat every moving thing that liveth; and that, Abraham the chosen of

⁴⁴ Bachelier, *Graham’s System*, 27.

⁴⁵ *Ibid.*, 27-37.

⁴⁶ Graham, *Philosophy of Sacred History*, 255. Indeed, referring to I Kings 17:6, Bachelier wrote, “Here is a case in which the use of animal food is sanctioned by miracle. God sends flesh to his servant Elijah by a raven—sends it miraculously *twice a day* to an individual *not engaged in labour*. Was it not right for Elijah to eat it? Yea, it would have been impious, had he under such circumstances refused it.” Bachelier, *Graham’s System*, 12.

God, gave the angels of the Lord flesh to eat; and that, God commanded the children of Israel to eat flesh at the supper of the Passover, and miraculously supplied them with flesh to eat in the wilderness; and that, Moses, under divine inspiration, permitted the Jews to eat flesh, and commanded them to supply the priests with it for food; and that, God caused the ravens to carry flesh to the prophet Elijah for his food; and that, our Saviour and his inspired apostles ate animal food; and Paul declared that ‘every creature of God is good, and nothing to be refused, if it be received with thanksgiving.’ And the Bible also, expressly permits the use of wine as a drink; and speaks of it as a blessing; and Christ drank it and gave it to his disciples; and made it for others to drink; and instituted it in the sacramental supper, as a perpetual memorial of his blood shed for a sinful race; and Paul ordered Timothy to drink it; and the primitive Christians drank under the apostolic sanction.”⁴⁷

Graham had little use for this literal, commonsensical approach. In fact, it was after this litany of counter-evidences that Graham insisted that the question was properly one of science. Not so for Bachelier. For him, the Bible made clear statements about humankind’s proper diet—a diet which rightly included meat, spices, and wine. Physiological reformers’ prescriptions violated this plain reading of the Bible. At best, reformers added to the Bible—calling something a sin which the Bible did not. At worst, they perverted and contradicted it—condemning that which God blessed.⁴⁸ Physiological reformers had an interpretive method, but it was neither plain nor necessarily literal.⁴⁹

⁴⁷ Graham, *Philosophy of Sacred History*, 102-103.

⁴⁸ This point was particularly important to Bachelier. As he emphasized multiple times in *Graham’s System*: “These men not only join in the general proscriptions of ardent spirits, but extend their denunciations to food and drink innocent in themselves, and sanctioned by the revelations of Heaven” (6); “But it seems good to Mr. Graham, not only to lay upon us greater burdens than did the Holy Ghost and the Apostles, but even to exceed Jewish strictness, and, instead of *allowing* use all kinds of meats, as a Christian minister should do, to *prohibit* them all, like another Pythagoras” (14); and “I object not to abstinence even from wine. But I *do* object to the condemnation of wine in itself considered; because this is no less than to condemn what the Bible sanctions, and to condemn those *who* do not feel themselves under obligation to abstain from wine, although they abstain from ardent spirit” (22).

⁴⁹ Bible-Christians, it should be noted, certainly claimed to read the Bible without comment or creed. Indeed, it was their *raison d’être*: at their founding, “disclaiming any human being or creed as authority... the members of the Conference desired to be known only as ‘Bible-Christians’.” Metcalfe and Metcalfe, *Out of the Clouds*, 16. Nevertheless, as will be seen, their interpretations of problematic passages were anything but plain or commonsensical, and at times they deviated from their Bible-alone standard.

First and foremost, physiological reformers believed that science and the Bible had to and did agree. They believed that God revealed himself and his will for humankind in two books: the Bible and the book of nature. Because both issued from God, and God cannot contradict himself, they were necessarily compatible.⁵⁰

Physiological reformers stressed their complete confidence in both books as congruent means of access to truth about God, the world, and humankind. Indeed, this refrain ran throughout their public writings. In 1879, for example, Kellogg wrote a book entitled, *Harmony of Science and the Bible on the Nature of the Soul and the Doctrine of the Resurrection*. Kellogg wrote,

There ought to be nothing in true science which disagrees with anything which is really true in either the Bible or true religion. There certainly ought to be no warfare between different departments of truth, since all truth has one and the same divine origin.⁵¹

The discoveries and subsequent recommendations of physiology, therefore, were presumed to agree with the Bible. What if, however, the Bible and physiological science appeared to disagree? Which would be made to flex in order to accommodate the other? The answers to these questions reveal physiological reformers' hierarchy of authority and provide the key to their hermeneutic.

⁵⁰ As Graham explained, "The truth of natural science, therefore, is the truth of God, and always comes with divine authority to man: and the Bible, as the revealed word of God, must, when accurately interpreted, be perfectly consistent with what is true in chemistry, and mineralogy, and botany, and zoology, and astronomy, and every other natural science...." Graham, *Philosophy of Sacred History*, 100.

⁵¹ Kellogg, *Harmony of Science and the Bible*, 9-10. The book arose from an address Kellogg gave at a Seventh-day Adventist General Conference, on October 8, 1878, entitled, "Harmonies of Science and Religion." In the book Kellogg distinguished between "true religion" and human religious formulations and between science and the teachings and doctrines of scientists. Religion and science agree to the extent that they are true. "Science is truth, religion is truth," Kellogg wrote. "Science deals chiefly with one sort of truths, religion chiefly with another class of truths. God is the author of all truth. There can be, then, no want of harmony between different classes of truths" (ibid., 28-29, 11).

Although God's natural and special revelations were supposed to agree, they need not be equals either in purpose or in precedence. As Graham expressed in no uncertain terms, physiological reformers gave pride of place to natural revelation. He considered "the volume of Nature as the primary and irreversible code of the omniscient and omnipotent Creator and Ruler of all things"; it was "the first great volume of divine Revelation, in which the deeply written will of God lies ever ready to be disclosed to the human mind by the true developments of science." While the Bible was the "volume of faith," nature was the "volume of knowledge." The Bible governed in moral and spiritual matters, but in questions about the world, it merely confirmed or remained silent on the insights of science.⁵²

Nature was the first and greatest revelation because it yielded more reliable knowledge. The true meaning of God's revelation in the Bible, Graham explained, was obscured by the ambiguity of human language. As a fallible human construct, language was incapable of accurately and precisely conveying God's truth across time and space. Not so with science. A scientific truth was

a truth of God, which comes not to you clothed in any of the ambiguity of human language; and therefore, that it cannot be rendered questionable on the ground of the uncertainty of the meaning of words.⁵³

Science, then, could come to the aid of biblical interpretation, alleviating ambiguity.

Indeed, only when read in the light of science was the Bible rightly interpreted. In *Facts*

⁵² Graham, *Philosophy of Sacred History*, 100, 67. For Graham, where the Bible was silent, science spoke. Bachelier disagreed. He said, for example, that the Bible did not condemn the use of spices. One should feel free to consume them, therefore, "silence in such a case giving consent. Besides, if the Bible does not absolutely condemn them, what right have we to do it?" Bachelier, *Graham's System*, 19.

⁵³ Graham, *Philosophy of Sacred History*, 102. Similarly, Elisha Bartlett said natural revelation "is universal revelation. It was made prior to all others. Its records are in the universal language of humanity, and it is liable to no interpretation." Bartlett, *Obedience to the Laws of Health*, 20.

Authentic in Science and Religion: Designed to Illustrate a New Translation of the Bible, published posthumously in 1818, Cowherd suggested that when the Bible was read in a consistent manner and in the light of natural revelation, its true meaning would become clear—resolving sectarian biblical disputes and answering the objections of deists.⁵⁴ Graham said that “the truth of natural science illuminates the pages of revelation, and enables us with more clearness and accuracy to ascertain and understand the true meaning of the revealed Word.”⁵⁵ As sure as physiological reformers were in their ability to accurately interpret the Bible, they were all the more confident in the findings of physiology.⁵⁶ They therefore used physiology to interpret the Bible’s statements on the bodily health and diet. Alcott favorably quoted Congregational minister Ezra Stiles Ely in saying that “no education should be deemed *biblical*, in which the students have not been introduced to an acquaintance with the general principles of jurisprudence, anatomy and physiology.” Yet Alcott went further, insisting “that the Bible cannot be understood otherwise.”⁵⁷ As Graham wrote,

Clear and unequivocal are the demonstrations of science that the use of flesh and wine is not consistent with the highest and best condition of human nature; and clearly and distinctly the spirit and design of the Bible, as a whole, corroborate the scientific demonstration.⁵⁸

⁵⁴ Cowherd, *Facts Authentic*, iv.

⁵⁵ Graham, *Philosophy of Sacred History*, 101.

⁵⁶ The constitution of the American Physiological Society captured this confidence: “The complaint has long been that, in regard to dietetic rules, ‘doctors disagree.’ But, whatever ground may exist for this complaint, it cannot be so well preferred against Physiology. Her language, when her voice is distinctly heard, is one and the same; and her rules, many of them, as fixed as those of mathematics.” Reprinted in Hoff and Fulton, “Centenary of the First American Physiological Society,” 726. Alcott wrote, “In the present blaze of physiological light, we can, in ways and processes almost innumerable, manufacture human health to an extent not formerly dreamed of.” Quoted in Whorton, “Patient, Heal Thyself,” 61.

⁵⁷ Alcott, “The Science of Human Life,” *Moral Reformer, and Teacher on the Human Constitution* 2 (Jan., 1836): 7.

⁵⁸ Graham, *Philosophy of Sacred History*, 313.

Physiology came first. Its findings were clear and certain. It therefore provided a lens through which to rightly interpreting the Bible. Indeed, one could not understand the Bible without it.

If natural revelation, as discovered by science, was more reliable than biblical interpretation, and if the light of science enabled one to better understand the Bible, it followed that the Bible should be reconciled with science, not vice-versa. Graham provided principles and instructions for doing just this. First, one had to remember that the conclusions of science were certain. The Bible, on the other hand, was conveyed in human language and was therefore ambiguous; there could be as many interpretations as interpreters. Further, the true meaning of the Bible could not contradict the truths found in nature. One should begin, therefore, by “fully ascertain[ing] the truth of science.” If such a truth appeared to contradict with some portion of the Bible,

he will, with the spirit of truth still ruling his soul, honestly set about such an examination of the matter, as will enable him to show that the disagreement is only apparent, and that when accurately understood, the Bible perfectly harmonizes with scientific truth; or at least, that, the true meaning of the revealed Word is not incompatible with the truth of natural science.⁵⁹

Graham’s instructions for that final step were murky. He did not explicitly say that one must always reinterpret the Bible to fit science. Rather, an undefined “examination of the matter” would reconcile the contradiction. Ultimately, Graham’s recommendation that one should “honestly and diligently study your Bible, not for the sake of proving from it that your truth of Nature is true,” lacked substance. For the conclusion of the “examination” was foregone; the Bible would always be shown to agree with the truth of science. The “truth of Nature must stand,” Graham wrote, “whether the apparent

⁵⁹ Ibid., 101.

meaning of any particular portion of the sacred Scriptures agrees with it or not.”⁶⁰ When physiological reformers interpreted the Bible, they began with their physiological convictions—proven beyond reasonable doubt by scientific methods. They read the Bible through these convictions. When the Bible appeared at odds with physiology, it was made to bend and flex into the shape prescribed for it by physiology.

Physiological reformers believed the Bible affirmed physiology both in its factual claims and its prescriptions for wellbeing. They thereby took the traditional two-books understanding of revelation one step further: the Bible was not only accurate in its statements about the body and health, but its recommendations were designed to optimize bodily health.⁶¹ Thus, for example, the Bible would not command fasting unless it was beneficial for one’s health.⁶² This belief rested on the assumption that true religion, as conveyed through the Bible, was designed not only for humans’ future salvation, but for their present wellbeing.⁶³ Part of Graham’s task in *Philosophy of Sacred History*, therefore, was to show that the Bible affirmed physiology’s recommendations for human health and happiness. As Clubb explained in the preface,

⁶⁰ Ibid., 101, 100.

⁶¹ Whorton suggests a similar point. He says that while it was common in the nineteenth century to see physical laws as God’s laws, “what was distinctive about Christian Physiology was the assumption that the books of revelation and of nature, coming from the hand of the same Author, must be mutually reinforcing, and that in particular natural law cannot possibly be immoral.” Whorton, “Christian Physiology,” 467.

⁶² On the physical healthfulness of fasting, see Nicholson, *Treatise on Vegetable Diet*, 64-69.

⁶³ Graham explained: “But, as the temporal interests of man are in perfect harmony with his eternal interests, that life which secures his highest good here fits him, also, for his highest good hereafter...and hence, also, as we have seen, the constitutional laws of man’s animal and intellectual and moral nature are established in systematic unity — associating intimately the present and future well-being of the soul with the true interests of the body, and rendering it as truly man’s religious duty to obey the laws which primarily relate to his body, as those which are peculiar to his soul.”⁶³ Graham, *Philosophy of Sacred History*, 33. “Surely our heavenly Father,” Graham wrote elsewhere, “cannot but prefer our happiness at every instant of our lives....” Sylvester Graham, “Study of Physiology a Duty,” *Graham Journal of Health and Longevity* 1, no. 28 (1837): 219.

believing it impossible that a system which his experience and observation, combined with scientific research, convinced him was highly beneficial to the human race, could be contrary to the teachings of the word of God; and with an earnest desire to arrive at the truth, [Graham] applied himself with great industry to this object, to discover the philosophy of sacred history in relation to human aliment.⁶⁴

A good God would not instruct his children to do something that was not only contrary to their physical comfort, but also, because of the sympathy that existed between body and soul, spiritually debilitating. Further, if God was the author of the physiological laws designed for human health, he could not also be the author of biblical recommendations to the contrary. Physiological reformers believed, therefore, that insofar as the Bible spoke of the body and bodily health, it affirmed the latest physiological recommendations for optimal health.

In reading the Bible through the lens of physiology, physiological reformers tended to naturalize the Scriptures. They looked to the normal operation of physical laws, rather than to divine or spiritual causes, to explain the Bible.⁶⁵ Thus, Graham misquoted Matthew 10:29, “Not a sparrow falleth to the ground, but in accordance with the fixed laws of God in nature!”⁶⁶ He meant that one ought to look to the operation of natural laws to explain health and disease, for these laws were God’s appointed means of governing this world. This interpretive tendency was part of the reformer’s larger agenda to replace providentialism with rational inquiry and personal responsibility. “*Every man*

⁶⁴ Clubb, preface to *Philosophy of Sacred History*, iv.

⁶⁵ Kellogg, for example, used photosynthesis to interpret Luke 11:36, in which Jesus says, “If thy whole body therefore be full of light, having no part dark, the whole shall be full of light, as when the bright shining of a candle doth give thee light.” As Kellogg explained, “Pure food is light,—light stored, done up in bundles convenient to enter into the service of the temple,—the vehicle by means of which God's own life and energy become a part of the living body.” Kellogg, *The Living Temple*, 103.

⁶⁶ Graham, *Philosophy of Sacred History*, 23. Matthew 10:29, in the King James Version, reads, “Are not two sparrows sold for a farthing? and one of them shall not fall on the ground without your Father.”

is the keeper of his own health,” a contributor wrote to *GJHL*. “We cannot throw off this responsibility upon the regular doctor, the nurse or the quack; upon chance, or fate, or the Divine decrees.”⁶⁷ Graham considered it a vestige of “the darker ages, and more benighted portions of the world” to explain sickness as a punishment or sanctifying warning from God. This was mere superstition which had crept into Christianity under the guise of “the dispensations of Divine Providence.” Because people looked to God as the source of their afflictions, Graham wrote,

it has never occurred to them that there is any relation between their own voluntary habits, customs, and indulgences, and the diseases with which they are afflicted. Consequently, they have never sought to find the causes of their diseases within the precincts of voluntary conduct; and have never taken any care to prevent disease by avoiding causes.⁶⁸

Reformers wanted to rid people of what they considered mystical fatalism and encourage them to take responsibility for their own health through the knowledge of natural processes. John H. Griscom, a Quaker, medical doctor, and popularizer of physiology, urged this transition more gently than Graham:

Our Creator afflicts us with diseases that we may know how frail and dependent we are. But he has also given us a knowledge of the laws which regulate our growth, and our lives, so that by attending to them, and living purely and uprightly, we may avoid those diseases, in a great degree.⁶⁹

⁶⁷ D., “Every Man Makes His Own Health,” *Graham Journal of Health and Longevity* 2, no. 4 (1838): 60. This writer revealed the Arminianism implicit in this view: “Has our Heavenly Father put the keeping of our souls into our own hands, and can we not secure the health of our bodies? Has he made every man responsible for his moral character—for the health of his soul, and does He law upon him no responsibility in regard to the health of the body? Has He suspended the soul’s eternal destiny upon our voluntary conduct, and left the welfare of the body at the mercy of chance or fate? No, no. We delight to recognize the superintending Providence of God in every event; but it is a providence which never interferes with man’s perfect free agency and consequent accountability.... One thing seems to be very certain, that the same general principles determine the guilt of a neglect of the means to secure the welfare of the body as the welfare of the soul” (ibid.).

⁶⁸ Graham, *Aesculapian Tablets*, iv.

⁶⁹ John H. Griscom, *First Lessons in Human Physiology; To Which are Added Brief Rules of Health. For the Use of Schools*, 3rd. ed (New York: Roe Lockwood and Son, 1846), 132, quoted in Rosenberg and Rosenberg, “Pietism and the Origins of the American Public Health Movement,” 20.

This placed on each individual the responsibility for his or her health and thereby added an imperative and urgency to the reform movement. Like so many other nineteenth-century reform efforts, physiology was to be one of self-reform.⁷⁰

The physiological reformers' belief that the Bible both spoke accurately in its statements about bodily health and prescribed that which was most healthful combined with this naturalizing tendency to create a hermeneutic that read physiology into the biblical text. They saw in the Bible's stories and statements not only an affirmation of physiological principles (that meat was harmful to the body, for example), but also the very operation of physiological laws. They provided, for example, a physiological explanation of the Apostle Paul's spirit-flesh dichotomy. As discussed in the previous chapter, physiological reformers understood the body and its fleshly desires to be in opposition to the mental, moral, and spiritual capacities. Consuming meat was dangerous and spiritually harmful because it inflamed the bowels and with them the animal passions, while also taxing the nervous system. This thereby gave flesh the upper hand over spirit. As Graham explained, the undue "influence of the propensities, desires and appetites of the body, on the intellectual and moral faculties" leads not only to disease and death, "but also necessarily impairs the intellectual and moral and religious faculties," rendering them incapable of receiving spiritual truths. "Hence," Graham wrote, quoting I Corinthians 2:14, "the Scriptures declare that 'the *animal* man receiveth

⁷⁰ Withington emphasized the same point. Christians, he said, wrongly looked to God's providence to explain the deaths of so many useful Christians. "The plain truth is," he said, "...we have been living in flagrant violation of laws open to our investigation in the works of nature, and not obscurely intimated (many of them) in the word of God; and we have only suffered the penalty consequent on such transgression." Withington hoped Christians would start eating "plain and wholesome food" and recommended Alcott's journal. Withington, *Christian Radicalism*, 24-25. See also *A Defence of the Graham System of Living: Or, Remarks on Diet and Regimen* (New York: W. Applegate, 1835), 27. Alcott also opposed a fatalist resignation to God's will, calling it Islamic. Whorton, *Crusaders for Fitness*, 54-55.

not the things of the Spirit of God.”⁷¹ For Graham, Paul encapsulated the conflict between one’s carnal and spiritual natures in Galatians 5:17: “For the flesh lusteth against the spirit of truth, and the spirit of truth striveth against the flesh....”⁷² Coles and Kellogg agreed.⁷³ Kellogg went so far as to equate becoming physically healthy with the conversion described by Paul in Ephesians 4:22-24. As Kellogg wrote,

This renewal of the body, this renovation of the constitution, this reconstruction of the temple which is promised to the man who obeys, who puts himself in harmony with God and his laws, is a veritable new creation. It is the replacement of a diseased, perverted, sinful soul and body by a soul and body which are sound morally and physically. The apostle refers to such a change when he speaks of putting off the old man and putting on the new....⁷⁴

A physiological reading of the Bible, therefore, revealed the workings of the machinery that governed the physical world. Paul did not offer mysterious, spiritual truths; he simply described the natural operation of the bowels in sympathy with the body’s systems. Further, just as Kellogg said renewal was promised to those who obey God’s laws, the physiological hermeneutic read into the Bible the personal obligation to reform one’s regimen.

Conclusion

The Bible was important to physiological reform; reformers looked to it as an authority that confirmed their dietary prescriptions. The Bible was just as important to their fellow American Christians. Hearing the gospel of physiology, they searched the

⁷¹ Graham, *Philosophy of Sacred History*, 20.

⁷² *Ibid.*, 12.

⁷³ Coles, *Philosophy of Health*, 250-251. Coles cited Galatians 5:16 and Romans 8:1 to the same effect.

⁷⁴ Kellogg, *The Living Temple*, 445.

Scriptures to see whether those things were so. Ultimately, the reformers and the unreformed reached different conclusions. They read the Bible differently. Most nineteenth-century Americans interpreted the Bible through commonsense literalism, with confidence in the reliability of the meaning that sat plainly on the surface of the text. Physiological reformers, however, had their own hermeneutic. They were more confident in the science of physiology than they were human interpretations of the Bible. They therefore read the Bible in the light of physiology's findings. When the two apparently parted ways, the Bible was made to concur with physiology. Further, health reformers used physiology as an explanatory key that revealed a naturalistic Bible that emphasized human agency and responsibility. When read through this physiological hermeneutic, the Bible was indeed an ally for reform: it sanctioned vegetarianism and teetotalism and urged its readers to reform their ways—to obey and live.

CHAPTER FOUR

The Biblical Debate over Meat and Drink

Lo, the World is rich in blessings,
Thankful all, His praise repeat.
“Every herb and each tree yielding,
Seed and fruit, shall be our meat.”
Nature’s banquet, pure and peaceful,
Is a “feast of reason” too;
Every healthful sense delighting,
Ever changing, ever new.

—Amphions, sung at the Great Vegetarian Banquet, September 3, 1853

Introduction

The first annual meeting of the American Vegetarian Society convened in Philadelphia on Wednesday, September 4, 1850. Throughout the day society members listened to addresses by William Andrus Alcott and others. On Thursday evening, a dinner was held featuring bread, potatoes, pies, nuts, and more. Flowers, evergreens, and fruit decorated the banquet room. Behind the table reserved for the officers of the society hung a banner, reading, “God said, ‘Behold I have given you every herb, bearing seed, and every tree in the which is the fruit of tree yielding seed, to you it shall be for meat.’—Gen. 1:29.”¹ The AVS could not have chosen a more appropriate verse. Genesis 1:29 was the starting point for all vegetarian biblical arguments and it was one of the reformers’ strongest scriptural supports. It also demonstrates how physiological reformers used the Bible: God’s dietary provision in Genesis blessed their movement just as it blessed their vegetarian feast. In this chapter, I will show the physiological

¹ The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 162-164.

hermeneutic in action by examining the reformers' biblical defenses of vegetarianism and teetotalism. As these reformers navigated biblical passages that were conducive to their program and those which were not, the lodestar of physiology cast light on their interpretive path. Reformers at times offered quite literal interpretations, but with their own physiological twist. Other biblical passages required more novel explanations. Yet throughout, the reformers were guided by physiology. In the second part of this chapter, I will focus on the hermeneutical conflict between Sylvester Graham and Origen Bachelier. This debate raised questions bigger than what to do with the Bible's dietary teachings. At stake were reverence for the Bible, the scope of the Bible's authority, and even orthodoxy itself.

The Old Testament

Some of the physiological reformers' biblical interpretations were fairly standard. Even in these cases, however, the reformers naturalized the verses and offered physiological explanations for them. Metcalfe made the mold, beginning with Genesis 1:29. He interpreted the verse literally as the first divine dietary recommendation. "This primeval law of Divine Revelation," William Metcalfe wrote, "was undoubtedly given to direct the families of mankind in the selection of their appropriate food. That food, according to the precept, was to be wholly vegetable food."² The injunction was thought to be all the more forceful for being given in the Garden of Eden before the fall. Genesis 1:29 revealed God's provision and wishes for humankind before he was forced to accommodate humans' fallen nature and hardened hearts. Further, God never withdrew

² Metcalfe and Metcalfe, *Out of the Clouds*, 155.

or overturned the injunction. Physiology confirmed the wisdom of God’s original dietary recommendation, as Metcalfe explained:

The diet God prescribed for man in Eden, He pronounced to be “very good;” a diet which, from experience and observation, we can honestly say is fully adapted to our nature, preservative of our health, calculated to prolong our days upon earth, to give vigor and energy to both our physical and our mental faculties, and, as such, is a diet worthy of universal acceptance.³

William Cowherd, Sylvester Graham, Larkin B. Coles, John Harvey Kellogg, and Henry S. Clubb all cited Genesis 1:29 to make similar arguments.⁴

The belief that Genesis 1:29 reflects God’s best intentions for humankind even to the present was one of the most popular biblical arguments among vegetarian reformers. As the editor of the *Temperance Mirror* wrote to David Cambell at *GJHL*, “Truly, brother Cambell, this is a blessed text among the ten thousand heavenly oracles affording the precious Scriptures. It is a wedge of gold....”⁵ Physiological insights confirmed that the Edenic diet was the healthiest for humankind. Kellogg found it “an interesting fact that the description of the dietary assigned by the Creator to the human family, according to Genesis, agrees precisely with the bill of fare that science assigns man by the consideration of his anatomical structure and his physiological needs.”⁶ Here was a

³ Ibid., 138.

⁴ Cowherd, *Facts Authentic*, 11; Graham, *Philosophy of Sacred History*, 110; Coles, *Philosophy of Health*, 52; Kellogg, *The Living Temple*, 192 ; and Henry S. Clubb, *Thirty-nine Reasons Why I am a Vegetarian* (Philadelphia: Vegetarian Society of America, 1903).

⁵ “What is Temperance?” *Graham Journal of Health and Longevity*, 1, no. 26, (1837): 204; “Our Text,” *Graham Journal of Health and Longevity* 1, no. 35 (1837): 277. The editor suggested another verse (Genesis 2:10) which, when taken literally, “in point of importance, may equal or surpass it; it is this: ‘And a river went out of Eden to water the Garden.’”

⁶ John Harvey Kellogg, *Shall We Slay to Eat?* (Battle Creek, MI, 1899), 125. Similarly, in *The Living Temple*, Kellogg writes about this verse: “The most thoroughgoing scientific research upon this question leads most certainly and unequivocally to the conclusion that the dictum of Holy Writ in relation to man’s diet is the expression of a profound biological fact” (74). In another instance, Kellogg wrote, “The divine order of life is revealed in Gen. 1:29, which presents, as man’s bill of fare, a dietary of fruits, nuts, and seeds. That this was the original and natural diet of man is a demonstrable scientific fact.

forceful example in which the Bible affirmed the latest and best discoveries of physiological science, just as physiological reformers promised it would.

Another of the physiological reformers' favorite biblical passages was the story of the Daniel and his friends thriving on a vegetarian diet. One contributor to *GJHL* suggested that, rather than Graham and other contemporaries, Daniel and his friends should be considered "the founders of the present system of vegetable diet, with pure water only for drink."⁷ In 1897, Kellogg wrote to Clubb's vegetarian periodical to report that "Our Daniel's Band is growing and thriving, other bands are being organized in different parts of the United States, and we hope that many may be led to vegetarian principles through this influence."⁸ The story was, in fact, quite conducive to the physiological argument. The first chapter of Daniel tells the story of four young Israelites—Daniel, Shadrach, Meshach, and Abednego—who were captives in Babylon serving in the court of Nebuchadnezzar. They refused the king's meat and wine and took only pulse and water for ten days. After the ten days "their countenances appeared fairer and fatter in flesh than all the children which did eat the portion of the king's meat." Further, "God gave them knowledge and skill in all learning and wisdom." For Metcalfe, this was proof positive "that vegetable food was not only the most nutritive...but that it contributes exceedingly to strengthening the intellectual faculties of man."⁹ As Graham explained, Daniel subdued his body "and brought it into subjection to enlightened and

According to the most eminent naturalists, this bill of fare is clearly indicated by man's very structure; his hands, his teeth, his stomach and intestines, his entire body, indicate that his food should be drawn from the higher products of the earth, the fruits and nuts and herbs" (ibid., 102).

⁷ H.J., "Daniel, Shadrach, Meshach and Abednego," *Graham Journal of Health and Longevity* 1, no. 17 (1837): 131.

⁸ *Food, Home and Garden* 1, no. 9 (1897), 136.

⁹ Metcalfe and Metcalfe, *Out of the Clouds*, 169.

sanctified reason, by rigidly observing such a dietetic regimen as was best adapted to the highest and best condition of his whole nature.”¹⁰ Daniel and his friends obeyed the laws of nature and were thus rewarded.

The reformers’ naturalizing, anti-miraculous hermeneutic is especially clear in the case of Daniel and his friends. The *GJHL* contributor mentioned above retold the story using the same form and language that many of the writer’s contemporaries used to describe their own experiences with Grahamism. The four Israelites “made a full experiment at once,” the contributor wrote, “on the ground of teetotalism in regard to all their former improper meats and drinks.” They “realized all their expectations to the full proof of the experiment.” By interpreting the story in the contemporary language of empirical experimentation and self-reform, as opposed to the miraculous blessing of God in response to his people’s faithfulness, the writer self-consciously bucked what he or she considered to be standard interpretations:

Although so nearly all our ministers and physicians have heretofore gravely told us that in the peculiar abstinence of these four young Israelites, God wrought a special miracle to prevent their suffering, emaciation and death, as the consequence; we have now fallen on an age of different testimony entirely; which is beginning to be known, and to carry conviction wherever known, and that is that the miracle of Daniel and companions was *not special*....¹¹

The happy outcome was simply the result of the normal operation of God’s natural laws. Far from being the result of God’s special favor, the health which Daniel and his friends experienced was accessible to everyone, even the “whole kingdom of Nebuchadnezzar.” Should they follow Daniel’s diet, “they might have expected the same miracles wrought

¹⁰ Graham, *Philosophy of Sacred History*, 259.

¹¹ H.J., “Daniel, Shadrach, Meshach and Abednego,” 131.

of the Lord for *their* health, great promotion, &c.”¹² Graham agreed. Daniel and his friends were made healthy not by a miracle, he said, for God “always operates by and through the ordinary laws which He has established in the constitutional nature of things....”¹³ Physiological reformers did not need a miracle in order to understand the captive Israelites’ health and acumen. These benefits were to be expected when one lived in accordance with the dictates of physiology. This was simply the natural operation of God’s physical government.¹⁴

Not all passages in the Bible were so conducive to a vegetarian reading. Beginning with Genesis 9:3, the Old Testament is replete with meat eating and wine drinking with apparent divine approval. After the Deluge, God said to Noah and his sons, “Every moving thing that liveth shall be meat for you; even as the green herb have I given you all things.” As the anti-vegetarian Bachelier said,

Here then is an express sanction for the use of animal food; a sanction *after* the flood, and therefore applicable to *our* case; a sanction to Noah, the second great progenitor of our species, and consequently not a Jewish ordinance, but a general one to the whole progeny of Noah—to the whole postdiluvian world.¹⁵

With complete faith that the Bible recommended only that which is most healthful for humankind, physiological reformers were forced to find alternative interpretations for verses like Genesis 9:3. The teachings of physiology—particularly vegetarianism and teetotalism—predetermined the result of these interpretive efforts. It only remained for

¹² Ibid.

¹³ Graham, *Philosophy of Sacred History*, 260.

¹⁴ As another Grahamite wrote, “This simple narrative is so much in accordance with the known principles of diet, that it requires no comment.” *Defence of the Graham System*, 121.

¹⁵ Bachelier, *Graham’s System*, 12.

the reformers to develop the means. In so doing, they infused the Bible with physiological explanations.

Metcalfé offered the most novel interpretations—ironically, given the Bible-Christians self-professed devotion to following the Bible alone according to its plain meaning. Genesis 9:3, Metcalfé said, “relates wholly to the productions of the vegetable kingdom” and is therefore only an extension of Genesis 1:29. He explained: “*every moving thing*” can be translated as “*every creeper.*” There are vegetable creepers (like vines) and animal creepers (like reptiles). Since the latter were not permitted as food, the verse referred to eating vines or, more specifically, grapes. Metcalfé’s vegetarian interpretation, however, introduced a new threat: wine-drinking. Metcalfé had a solution. The prohibition in Genesis 9:4 of eating “flesh with the life thereof, which is the blood thereof” Metcalfé took to mean “the *pulp* with the *juice.*” Noah and his sons, in other words, were not to eat the fruit of the vine when it “had acquired a *life* or *spirit* by standing together in a crushed state till they had spontaneously fermented....” Thus, in Metcalfé’s reading, Genesis 9 was in strict agreement with both vegetarianism and teetotalism. Metcalfé was unworried about his interpretive methods. This interpretation was, he explained, “the plain, unvarnished sense of our understanding of the law before us....”¹⁶

¹⁶ Metcalfé and Metcalfé, *Out of the Clouds*, 161. Kellogg granted that humankind was given permission to eat flesh after the flood. The laws restricting its use, however, meant that people would eat very little meat in practice and should do so only when, literally, their life depended on it. The requirement of Genesis 9:4 that flesh not be eaten with its blood (an injunction passed down to the present by the Apostles, Kellogg said) ensured that “flesh meats are nearly tasteless, and would be by no one considered a desirable article of food, except in case of great emergency and in the absence of other food.” Kellogg, *The Living Temple*, 538. See also 192-195.

The experience of the Israelites and the Mosaic Law were particularly problematic for physiological reformers.¹⁷ Not only did the Israelites eat meat, but God provided it for them and codified the practice into law. As recorded in Exodus 16, God provided quail for the Israelites after they fled from Egypt into the wilderness. How could God, who, as the author of the laws of life, knew meat was physically and spiritually harmful, provide meat for his people? Metcalfe offered the commonest type of explanation: God permitted, but did not appoint meat eating.

He *appointed* from the beginning that mankind should live on vegetable food alone; but when the people of Israel, in their disobedience to God's will, and in the wickedness of their hearts, *lusted* for flesh, and longed to return to the fleshpots of Egypt, He *permitted* them to eat flesh....¹⁸

The appointment-permission distinction applied in this case; God intended his people to subsist on manna alone. But it was also true throughout the Bible: “whenever Jehovah *prescribes* or *appoints* a diet for mankind He never mentions the flesh of animals as constituting any part of that which ‘is good for food’.... He appointeth one thing, and yet, under certain circumstances, He permitteth another that is opposed to this appointment.”¹⁹ In a comparison common among physiological reformers, Metcalfe likened God’s permission to eat meat to the provision in the Mosaic Law for divorce. God intended marriages to last, but, because of the hardness of his peoples’ hearts, he allowed divorce. God’s laws concerning divorce should not be seen as giving implicit approval to the practice; rather, they were designed to mitigate the harmful consequences

¹⁷ As Bachelier wrote, “In Chapter. xiv. of Deut. a list of clean and unclean beasts, birds, and fishes is given; the clean to be eaten, the unclean not to be eaten. What more could be said to show the propriety of eating flesh?” Bachelier, *Graham’s System*, 12.

¹⁸ Metcalfe and Metcalfe, *Out of the Clouds*, 167.

¹⁹ *Ibid.*

of his people's sinfulness. Likewise with meat eating: God allowed it because of the hardness of his people's hearts.²⁰

The distinction between God's prescriptions and his permissions also explained the Mosaic Laws concerning clean and unclean animals as well as the sacrificial system. Yet Metcalfe doubly covered his bases. The clean-unclean distinction, he said, referred to those animals whose milk was fit for human consumption and those whose milk was not.²¹ Further, Metcalfe was confident that the Israelites never offered living animals as sacrifices to God, "and we think our principles are borne out by Scripture testimony."²² Metcalfe took as an example Solomon's dedication of the temple. Surely 120,000 sheep and 22,000 oxen were not sacrificed in one temple on one day. It was logistically impossible. Rather, in the line with the common practice of giving the names of animals to items made of their skin or that bore their image, "the sheep and the oxen offered by Solomon at this consecration were doubtless pieces of money at the value of the animal with whose image they were impressed and by whose name they were designated." Metcalfe said that he analyzed this passage "not according to our prejudices, but in the light of impartial reason...."²³

Graham similarly explained problematic verses, using history or alternative translations of words to find more suitable interpretations. Yet Graham also had a more systematic approach. He developed what he called an "infallible criterion" in his

²⁰ Ibid.

²¹ Ibid., 169-179.

²² Ibid., 172.

²³ Metcalfe and Metcalfe, *Out of the Clouds*, 172-174. At the beginning of his vegetarian ministry, in a sermon preached on January 29, 1809, Cowherd explained the Old Testament sacrifices as "no more than animals skins stuffed with fruit and vegetables." Quoted in Calvert, "A Taste of Eden," 464.

Philosophy of Sacred History. Graham believed the meaning of the biblical text was often obscured by the uncertainty of human language. If, however, one understood God's intentions and the condition of humankind, these would cast light on the true meaning of revelation.²⁴ God, Graham explained, adapted his revelations to the "condition and circumstances of man's complex nature, at the time in which they are received."²⁵ This condition included humankind's physical, mental, moral, and spiritual development—and it changed over time.²⁶ God therefore revealed himself according to the present needs and capabilities of his people. Thus, Graham had a "twofold rule" of biblical interpretation:

The real state of man, in relation to the true nature and character of God, and with reference to the highest and best condition of which his own nature is capable, always accurately indicates the character of the contemporaneous revelations and dispensations of God, as understood by man: and, the character of the revelations and dispensations of God as understood by man, always accurately indicated the contemporaneous state of man.²⁷

As has been seen, many physiological reformers suggested that God accommodated for the hardness of his people's hearts. Graham, however, was the only one to have a fully-wrought theory of the adaptation of God's revelation.

The law of adaptation in the moral economy of the divine administration, is, therefore, a fundamental principle in the philosophy of sacred history, and the

²⁴ Graham, *Philosophy of Sacred History*, 4. Graham wrote, "For a genuine revelation from God must necessarily be consistent with his true nature, character, and purposes; and a genuine Revelation from God concerning man, must necessarily be consistent with the real nature, and condition, and constitutional character of man."

²⁵ *Ibid.*, 97.

²⁶ *Ibid.* Graham explained, "By '*the condition*' of man's whole complex nature, I mean to comprehend the condition of his body as to perfectness or imperfectness of organization and development, as to the perfectness and imperfectness of its physiological or vital condition and action, and as to the purity or depravity of its organic and animal sensibilities, instincts and appetites: and the condition of the soul as to its degree of intellectual, moral and religious development, and the correctness or erroneousness of its intellectual, moral and religious education."

²⁷ *Ibid.*, 109.

grand key to all that would otherwise be mysterious or absurd, in the record of the revelations and dispensations of God to man.²⁸

This theory was Graham's chief tool for reconciling the Bible with physiology. Graham explained:

If, therefore, we find in the volume of the inspired word, any law, commandment, precept, permission, promise, or statement, which does not correspond with the true nature and character of God, nor is compatible with the highest and best condition of man, we know with entire certainty, that, just so far as it is at variance with these, if it is a genuine portion of the inspired word, it was accommodated to the contemporaneous state of those to whom it was given....²⁹

If God adapted his revelations to yet imperfect humans by allowing meat eating or wine drinking, these allowances were not normative for all people at all times. Rather, they were "of a particular, limited, and temporary bearing."³⁰ In this way, Graham attempted to prove that the Bible did not condone that which physiology condemned.³¹

The sophistication of Graham's theory of God's adaptive revelations notwithstanding, his interpretive results were largely the same as others' crude assertions of past hard-heartedness. After Noah quitted the ark, he offered burnt sacrifices to God (Genesis 8:15-22). This was, Graham explained, a pious act of worship, but it "demonstrates the darkness of his understanding and erroneousness of his theological and religious thinking," for God did not desire sacrifices. Nonetheless, God "accepted his service as the best which in the particular condition and circumstances of his complex nature he was able to render." Likewise with meat and wine under the Mosaic Law. The

²⁸ Ibid., 96.

²⁹ Ibid., 96-97.

³⁰ Ibid., 97.

³¹ Maskell offers an excellent explanation of what he describes as Graham's "progressive hermeneutic." Maskell, "Graham as a Religious Thinker," 21-27.

condition of the Israelites was such that “flesh-meat and wine, were among the very strongest, or most efficacious motives, which, in the nature of things, could possibly be brought to bear on them as moral agents....” The Israelites’ innate impulse to worship God was uninformed and their spiritual faculties were imperceptive. External ritual and the use of meat and wine were the only things capable of turning them to worship. God therefore deemed them acceptable. Like Metcalfe and other physiological Bible interpreters, Graham compared God’s allowance of meat to the allowance for retaliation, slavery, polygamy, “concubinage,” and divorce. In all these instances, God accommodated his wishes to the capabilities of his people, mitigating the harm of their sinfulness while slowly accomplishing the greater good. When properly understood, the Old Testament did not sanctioned the use of meat and wine.³²

The New Testament

The New Testament, especially the record of Jesus’s life and ministry, posed another set of interpretive challenges. Metcalfe again offered an array of creative interpretations. Some New Testament passages could be taken quite literally. Thus, Metcalfe said, to be “harmless as doves” (Matthew 10:16) meant to eat like one. Just as doves are herbivores, so should be “the *circumspection* of character, and such the *dietetic conduct*, of all [Jesus’s] faithful followers.”³³ Other passages, however, required a bit of decoding. Because John the Baptist lived on honey and locusts, it was clear to Bachelier “this extraordinary, this inspired, this abstemious precursor of the Messiah, subsisted

³² Graham, *Philosophy of Sacred History*, 125-127, 222, 226-229.

³³ Metcalfe and Metcalfe, *Out of the Clouds*, 176.

continually on animal food.”³⁴ On the contrary, Metcalfe said; John the Baptist lived on “the fruit of the locust-tree.”³⁵ Metcalfe expanded the prohibition on eating the flesh of strangled animals to include all animals “‘which have suffered a violent death.’ But do not all animals which fall a sacrifice to the butcher’s knife suffer a *violent death*?”³⁶ Fish, of course, featured prominently in the Gospels.³⁷ Metcalfe, a Bible-Christian who professed to follow the Bible alone, cited “the justly celebrated *Calmet*” as saying that the fishermen Peter, James, and John “never ate fish or flesh or fowl.” He explained:

...first, that there are various sorts of fishermen, as pearl-fishers, coral-fishers, fishers of submarine and water-plants of various kinds, as well as of the living or animal fish; and secondly, that the term used for fish the Gospel does not mean fish in its common acceptance. Parkhurst, in his Greek Lexicon says, ... ‘It signifies some other kind of provision, of the *delicious sort*, that may be eaten with bread.’ In short, we believe there is reasonable ground for our argument that the Scriptures, rightly interpreted, do not sanction the eating of either fish or flesh or fowl.³⁸

So much for specific instances of meat-eating. What of Jesus’s pronouncement in Matthew 15:11 that it was “Not that which goeth into the mouth defileth the man; but that which cometh out of the mouth, this defileth a man.” The Pharisees, Metcalfe explained, were offended that Jesus and his disciples ate with unwashed hands. Jesus meant,

³⁴ Bachelier, *Graham’s System*, 12.

³⁵ Metcalfe and Metcalfe, *Out of the Clouds*, 175. Kellogg agreed with Metcalfe: “It is a well-attested fact that the locusts which abound in the localities which [John the Baptist] frequented, and which he undoubtedly ate, are a vegetable production. They are the fruit of a tree which is a species of locust.” John Harvey Kellogg, “Grasshopper Soup,” *The Health Reformer* 10, no. 9 (1875): 284.

³⁶ Metcalfe and Metcalfe, *Out of the Clouds*, 176.

³⁷ “I will next instance,” Bachelier wrote, “the miracle of the loaves and fishes—another miraculous sanction, nay provision, of animal food. Was it wrong for the multitudes to eat of it? Would it not have been wrong for them to refuse? And was not this case a sufficient sanction for the use of the food in question? Again, Christ, after his resurrection, partook of broiled fish and honey comb. Was it for the best, or not? Was it a sanction, or not?” Bachelier, *Graham’s System*, 13.

³⁸ Metcalfe and Metcalfe, *Out of the Clouds*, 177. Metcalfe referred to Antoine Augustin Calmet (1672-1757), a French Benedictine monk and Bible commentator.

therefore, that a little dirt would not hurt. “This,” Metcalfe said, “...is the plain and obvious meaning of the passage.”³⁹

Jesus turning water into wine at the wedding feast in Cana, recorded in John 2:1-11, was another hard text for physiological reformers. “This has long been,” Graham wrote, “a favourable argument in the mouth of every sensual professor of the Christian religion....” There was, however, a better interpretation. To make this clear, Graham paraphrased Jesus’s words to his mother: “Woman, what have I to do with this matter? Why dost thou come to me concerning their wine? It is not fitting that I should exercise my divine power to furnish these people with an intoxicating liquor.”⁴⁰ Yet wine was the common drink among Jesus’s contemporaries, and neither his mother nor his disciples would have understood his refusal. To disobey his mother would have appeared, then, “as an act of undutifulness.” Jesus therefore acquiesced. Not much harm was done, however, for Jesus provided the best wine—that “which was richest in its delicate flavor and bland and grateful qualities, with its alcoholic properties subdued and imperceptible to the palate.”⁴¹ The novelty of Graham’s interpretation may be measured by Bachelier’s reaction:

Really, to pretend in earnest that Christ performed a miracle, against his own sense of its propriety, at the implied injunction of his mother, is theology worthy of the source whence it emanated, and deserves to be treated only with ridicule.⁴²

Bachelier insisted that “the law of language”—literalism—mandated that the miraculous wine be understood as “a liquor that could inebriate.” Since Jesus provided this wine at a

³⁹ Ibid., 175-178.

⁴⁰ Graham, *Philosophy of Sacred History*, 297.

⁴¹ Ibid., 295-298.

⁴² Bachelier, *Graham’s System*, 68.

wedding, “Here then we have a miraculous sanction for the social use of wine.”⁴³

Graham, nevertheless, was convinced that the wine Jesus provided “contained not a drop of alcohol.”⁴⁴

The Last Supper was the physiological reformers’ biggest problem in the New Testament. Jesus both drank wine and told his followers to do likewise. Not only was this a clear precedent for drinking wine, it implicated the Eucharist. “Here then,” Bachelier wrote, “is the highest and most sacred sanction for the use of wine which can be conceived.”⁴⁵ If physiological reformers forbade wine, how were Christians to celebrate the sacrament?⁴⁶ Graham found an interpretive key in Jesus’s language. In Matthew 26:29, Jesus says, “I will not drink henceforth of this fruit of the vine, until that day when I drink it new with you in my Father’s kingdom.” The crucial word was “new.” Graham explained:

By the new fruit of the vine, in our text, Jesus literally meant the newly expressed and unfermented juice of the grape.... He did not so much intend...to affirm that He would drink the new fruit of the vine with them in His Father’s kingdom, as He did to affirm that He would not drink the fermented juice of the grape, nor any other intoxicating liquor, with them in His Father’s kingdom.⁴⁷

⁴³ Ibid., 33.

⁴⁴ Graham, *Philosophy of Sacred History*, 298.

⁴⁵ Referring to Mark 14:25, Bachelier wrote, “And here we have an institution of Christianity, to be observed till the second coming of Christ, in which the use of the ‘fruit of the vine’ as a drink, in memory of the death of Christ, is not only permitted, but enjoined. It is to be understood as fermented of course, seeing there is nothing to qualify the passage, and to show it to have been otherwise, and seeing the grape season does not last the year round, to furnish the unfermented juice.” Bachelier, *Graham’s System*, 35.

⁴⁶ The importance and sensitivity of this issue is suggested in an article in *GJHL* entitled, “The Wine Question.” Cambell writes, “Some of our readers have been disturbed by that portion of the article on Thirst in our 10th No. which relates to the use of intoxicating liquor or fermented wine at the communion table.” “The Wine Question,” *Graham Journal of Health and Longevity* 2, no. 13 (1838): 204.

⁴⁷ Graham, *Philosophy of Sacred History*, 282. Just as Jesus would drink only grape juice in his father’s kingdom, Graham said, so would he teach his followers to abstain from alcohol. As for what Jesus drank during the Last Supper, Graham suggested it was probably “light wine, or wine and water” (ibid., 282-283).

Graham was confident that his reading of the text was “beyond all controversy true” and “perfectly certain.”⁴⁸ Other physiological reformers, like Isaac Jennings, certainly agreed with him. Jennings was a medical doctor, organizer of a physiological society at the Oberlin Collegiate Institute, member of the American Vegetarian Society, and sometime mayor of Oberlin, Ohio. He likewise argued that “no alcohol was used by the Savior at the institution of the ordinance.” Grapes were not in season during the Last Supper, Jennings explained, and therefore fresh grape juice was not available. So, “the Savior obviously implied that that form of it [fresh grape juice] was to be preferred.” In the meantime, Jesus and his disciples used “the nearest to the unchanged matured juice of the grape that could be procured.”⁴⁹ When the verses relating Jesus’s institution of communion were rightly interpreted, physiological reformers maintained, it was clear that Jesus neither drank nor prescribed wine. This was to be expected, of course: God would not require his people to do something contrary to the laws of physiology (which he wrote) nor contrary to their physical wellbeing (which implicated their spiritual wellbeing).

If Jesus neither drank nor prescribed wine for communion, and the findings of physiology showed it to be harmful to both body and soul, surely Christians had no excuse to partake.⁵⁰ Indeed, physiological reformers were strongly opposed to the use of wine in communion. At best, the practice was inconsistent with the church’s pursuit of

⁴⁸ Ibid., 282.

⁴⁹ Isaac Jennings, *Medical Reform: A Treatise on Man’s Physical Being and Disorders, Embracing an Outline of a Theory of Human Life, and a Theory of Disease—Its Nature, Cause, and Remedy* (Oberlin, OH: Fitch and Jennings, 1847), 180-183; Hoff and Fulton, “Centenary of the First American Physiological Society,” 709; Suzuki, “Popular Health Movements,” 129.

⁵⁰ Jennings expected that, thanks to “the glorious ‘heaven-born’ temperance movement” the last hold outs of alcohol-drinking would be “in the sick room and on the communion table.” Jennings, *Medical Reform*, 180.

purity and righteousness. At worst, it was an abomination.⁵¹ Graham, for one, was indignant. In this case, the light of physiology burned as hotly as it did brightly:

What! use an intoxicating liquor as the symbol of the blood of Christ? Use that, the only and the necessary effect of which is to deprave, defile, pollute, as the symbol of that which cleanseth from all impurity? Horrible abomination! The times of this ignorance hath God winked at, but now commandeth all men everywhere to repent. The light hath come into the world, and he that resisteth it shall be filled with darkness.⁵²

Around 1820, Metcalfe wrote what his son and Clubb believed to be one of the first teetotal tracts in America, *The Duty of Total Abstinence from all Intoxicating Drinks*. In it, Metcalfe argued that alcohol rendered all religious teaching ineffectual. “All ministers of the gospel and all sincere reformers,” he said, must not only preach against alcohol but also set “an example of *entire abstinence from this baneful liquor*.”⁵³

The Bible-Christians, therefore, did not use wine in their celebration of the Lord’s Supper. Instead, “the wine used for sacramental purposes was expressly made in such a manner as to remain unfermented and, consequently, unintoxicating.”⁵⁴ In so doing, the Bible-Christians were the first to take on a problem that vexed nineteenth-century teetotal

⁵¹ Referring to the use of wine in communion by Christians who had signed temperance pledges, one *GJHL* contributor wrote, “Surely here is an inconsistency so palpable—so monstrous, that none but the totally blind can help seeing it.” “What is Thirst? To Those Who Advocate the Cause of Temperance in the Disuse of Intoxicating Drinks,” *Graham Journal of Health and Longevity* 2, no. 10 (1838): 145. Likewise, Cambell wrote, “How far the Righteous Judge hath hitherto winked at this sin of ignorance, it is not for us to decide. But we are bold to declare, that now God commandeth all men every where, to repent, and to sanctify themselves as individuals and as the church of Christ, from so shocking an abomination.” “The Wine Question,” 204. Note the similarity between Graham’s and Cambell’s language.

⁵² Graham, *Philosophy of Sacred History*, 309.

⁵³ Quoted in Metcalfe and Metcalfe, *Out of the Clouds*, 32.

⁵⁴ Metcalfe and Metcalfe, *Out of the Clouds*, 31-33; The Maintenance Committee, comp., *History of the Philadelphia Bible-Christian Church*, 38-39; Clubb, “The Bible Christian Church,” 387-388. Joseph Metcalfe claimed that because the Bible-Christian Church used unfermented wine in communion, it was the first total-abstinence organization in America. In 1821, British Bible-Christian Joseph Brotherton published one of the first teetotal tracts in England, entitled (appropriately enough) *First Teetotal Tract*. Calvert, “A Taste of Eden,” 467.

and temperance advocates: what were they to drink in communion? There was a large overlap between Protestant churches and anti-alcohol crusaders; indeed, many reformers opposed alcohol consumption for the sake of the gospel and Christian morality. How, then, were conscientious Christians to both forswear alcohol and respect Jesus's instructions to drink of "the fruit of the vine" in remembrance of him? Physiological reformers, as teetotal advocates, were in the same bind. Physiology taught them that alcohol was harmful. Yet, as followers of the Bible, they needed to obey Jesus' commandment respecting the Eucharist.

Graham's interpretation of Matthew 26 offered a solution to the problem of the Lord's Supper, one that ratified the Bible-Christians' practice: just as Jesus spoke of drinking "new," freshly-pressed and therefore unfermented grape juice in his father's kingdom, so might his followers celebrate the Eucharist. Cambell took up the communion question in *GJHL* in 1838. Like Graham, Cambell said the solution was to drink fresh, unfermented grape juice. "Every correctly informed mind knows perfectly well" that the wine to which Jesus referred was "literally the recently expressed or unfermented juice of the grape." By using grape juice rather than wine, therefore, Christians "may easily adhere to the letter as well as the spirit of the scriptures, and still avoid the abomination of which we speak."⁵⁵ Using grape juice in the Lord's Supper enabled the physiologically-reformed to satisfy their two-fold concern: to drink of the fruit of the vine as Jesus commanded while also avoiding even a drop of alcohol.

This was not a strictly hermeneutical problem, however; it was also practical. Grapes do not grow everywhere the church does, nor do they grow year-round. Further,

⁵⁵ "The Wine Question," 204.

unfermented grape juice does not keep. The problem, then, as Cambell explained, was that “grape juice cannot be preserved in an unfermented state” long enough to be shipped to churches that needed it. There were, however, a few other options. Cambell recommended three ways by which churches could acquire grape juice for communion: by importing or raising grapes which may be pressed on the spot; by importing jarred grape jelly (which can be preserved) and diluting it with hot water as needed; and by evaporating the water out of grape juice, reducing it to a sugar which can be reconstituted with water at the time of use.⁵⁶ “The question,” one contemporary commentator wrote, “appears to be deemed by many of the clergy of this country a very important one, and is awakening much discussion.” Churches, he noted, were trying a number of other substitutes for wine: cider, tamarind water, molasses and water, and even buttermilk.⁵⁷ Cambell noted that Pomeroy & Bull, New York merchants, could supply churches with an “abundance of the best grape jelly or sugar.” Thus, there was “no longer any valid excuse for retaining intoxicating liquor at the communion tables.”⁵⁸ Pomeroy & Bull also sold a “pure” wine—what they called the “pure juice of the grape, entirely free from all admixture of distilled spirits”—“in the belief that such wines would be preferred for the churches.”⁵⁹

⁵⁶ Ibid.

⁵⁷ Amariah Brigham, *Observations on the Influence of Religion Upon the Health and Physical Welfare of Mankind* (Boston: Marsh, Capen, and Lyon, 1835): 120-122.

⁵⁸ “The Wine Question,” 204.

⁵⁹ These quotations are from an advertisement Pomeroy & Bull ran in New York in October 1834, entitled, “Pure Wine for Churches,” quoted in Brigham, *Observations on the Influences of Religion*, 120-121. Brigham said the advertisement was “extensively circulated in the religious papers of the country.” Cambell may have referred only to Pomeroy & Bull’s jelly and sugar for good reason: their wine was neither uncontroversial nor entirely non-alcoholic. In defense against some temperance advocates who claimed it was much higher, Pomeroy & Bull reported that their wine was roughly ten percent alcohol. In comparison, cider, which was thought to be safer than wine, was anywhere from five to ten percent alcohol

Writing in 1835, Massachusetts physician Amariah Brigham thought Pomeroy & Bull had not been very successful and that their pure wine had not been widely adopted.⁶⁰ A more popular solution awaited the next generation, and one man in particular: Thomas B. Welch. The multi-talented Welch was a Wesleyan Methodist preacher, a physician, and a dentist. Welch was also opposed to the consumption alcohol. In 1865, he and his family moved from Minnesota to Vineland, New Jersey—a new temperance town that forbade the sale of alcohol. There Welch served as a communion steward for the Methodist church. He determined to develop a non-alcoholic substitute for wine to ensure that the Eucharist was not a stumbling block. In 1869, using Louis Pasteur’s discoveries of the previous two decades, Welch figured out how to pasteurize—and thereby preserve—grape juice. He marketed “Dr. Welch’s Unfermented Wine” to churches as a wine-substitute. Over the next few decades, Welch and his son Charles turned “Welch’s Grape Juice” into a thriving business. In 1875, Charles—presenting his father’s argument—condemned the “sacred use of wine which God condemns.” Fortunately, this abomination was no longer necessary “because Welch’s Grape juice is now available.”⁶¹ This was no mere advertiser’s boast; Welch’s unfermented grape juice

(according to contemporary tests). Nevertheless, one drop of alcohol was too many for teetotal Grahamites. Caleb Ticknor, *The Philosophy of Living; Or, The Way to Enjoy Life and Its Comforts* (New York: Harper and Brothers, 1836), 333-336. Pomeroy & Bull’s wine would have likely satisfied less radical reformers, like Edward Hitchcock. He distinguished between the wine of Judea—“the pure juice of the grape”—and adulterated American wines, which were often no more than “ardent spirit in diluted form.” He explained further that Jesus prescribed wine for communion in wine country, which was no more harmful than prescribing cider in cider country. These drinks, drunk in their respective regions where people are accustomed to them, are relatively harmless. Because America was cider country, Hitchcock recommended American Christians consider using cider in communion. Edward Hitchcock, *Dyspepsy Forestalled & Resisted: or Lectures on Diet, Regimen, & Employment; Delivered to the Students of Amherst College; Spring Term, 1830* (New York: J.S. and C. Adams, 1830), 172-174.

⁶⁰ Brigham, *Observations on the Influences of Religion*, 121.

⁶¹ Arden D. Christen and Joan A. Christen, “Thomas B. Welch, MD, DDS: Journalist, Innovator and Grape Juice King,” *Journal of the History of Dentistry* 49, no. 1 (2001): 3-8; “Welch’s History,” Welch’s, accessed March 10, 2013, <http://www.welchs.com/about-welchs/history>.

was the fruition of a decades-long pursuit to reconcile two competing convictions. With a ready supply of grape juice, or “new” wine, that did not spoil, Christians everywhere could both abstain from alcohol and obey Jesus’s command to drink of the fruit of the vine in remembrance of him. Louis Pasteur and Thomas B. Welch enabled and actualized the physiological reformers’ interpretation of the Last Supper.

Graham, of course, did not live to see Welch’s invention. Because the unfermented grape juice of his day spoiled, Graham said it was better yet for Christians to use pure water. It was significant, he said, that Paul only referred to the “cup” when writing about the Eucharist and did not specify its contents. If the sacrament had to be the fruit of the vine, would the writers not have said so? Besides, it was faith, Graham said, not the actual food and drink that made communion effective.⁶² “I am confident,” Graham wrote, “that the use of pure water, instead of wine... would be most consistent with the true spirit and design of the gospel as a whole, and with the particular design of the Lord in instituting that ordinance.”⁶³ Convinced by physiology that water was healthy and that wine was harmful, Graham was sure the Bible agreed.

In line with his argument that physiological reformers sacralized mundane bodily regimen, historian Robert H. Abzug says that “the Graham cracker and cold water symbolized moral physiology’s communion....”⁶⁴ This is well said, but does not tell the full story. Just as the reformers elevated their dietary convictions to the planes of spirituality, they also infused those convictions into the Bible and Christianity. Graham

⁶² This was, then, a one-street: bad food and drink could defile a man but good food and drink could not sanctify him.

⁶³ Graham, *Philosophy of Sacred History*, 309-312.

⁶⁴ Abzug, *Cosmos Crumbling*, 182.

bread and water not only symbolized communion, for Graham at least, they quite literally were communion. When reading the Bible, physiological reformers were guided by the beliefs that meat and wine were not good for human consumption and that a good God would only prescribe that which was most healthful for humankind. These convictions yielded a variety of interpretations, all of which insisted that God did not condone the consumption of meat and wine. Many of these interpretations departed sharply from the norm. For Bachelier, this was no trifling matter.

The Bible at Stake

Both Graham and Bachelier appreciated that theirs was not just a battle over food and drink, but a battle for the Bible. It was a hermeneutical conflict that raised questions about the Bible, its authority, and even orthodoxy. Graham was eager to defend his use of the Bible. “And let no one suspect,” he wrote, “that I am decoying him into a labyrinth of subtleties, or endeavouring to distort the Scriptures into a forced meaning, in order to establish a favourite theory.” He claimed that he had “no theory to establish” and that he did not intend “to advance anything which will impinge any of the fundamental principles, in the orthodox evangelical Christian faith.”⁶⁵ Graham responded to those who suggested he put his own wisdom above the Bible’s: “I trust that I love and reverence the Bible as truly and as much as you do.” But he did not love merely “the print and the paper and the binding”; he loved “the divine truth and spirit of the Bible.”⁶⁶ For Graham, science was the key to that truth and spirit:

⁶⁵ Graham, *Philosophy of Sacred History*, 79.

⁶⁶ *Ibid.*, 106.

And now, I am ready to take the Bible and sit down with you, and, in the light of the scientific demonstrations before us, carefully and prayerfully study it from beginning to end; and show you that every part of the Bible, when accurately interpreted, is perfectly consistent with these scientific demonstrations.⁶⁷

Graham insisted that he was neither dispensing nor toying with the Bible. Rather, the “correct interpretive principles” opened the blinds to let the light of science shine on the pages of Scripture. In this way, the Bible might be read correctly.

Armed with the belief that science was on his side, Graham turned the tables on his accusers: it was they, not he, who disrespected the Bible. By insisting that the Bible condoned meat-eating and alcohol-drinking as consistent with humankind’s best interest, contrary to the clear and certain findings of physiology, Graham’s opponents set the Bible against science. They thereby set the Bible up to be scorned and discredited. They might just as well have said that the Bible affirmed a geocentric view of the galaxy.

Graham used the debate over heliocentrism to illustrate the roles of science and the Bible in the debate over physiological reform. Tellingly, he placed himself in Galileo’s shoes:

“Thus, for instance, suppose I affirm that the sun is the centre of our planetary system....”⁶⁸ He cast his opponents as Galileo’s benighted persecutors, who were on the wrong side of both science and the Bible. Graham urged his opponents not to array the Bible against science:

...Man, do you indeed reverence your Bible and wish others to reverence it? Then strive not to dash it against this immoveable rock of truth: for, although your efforts may never succeed in shaking your own superstition, yet be assured they will serve to convince others of the blindness of your superstition, or to impair their confidence in the authority of your Bible....⁶⁹

⁶⁷ Ibid.

⁶⁸ Ibid., 105-106, 101.

⁶⁹ Ibid., 102.

Graham insisted that he revered the Bible as much as any nineteenth-century American. He believed that by reading it in the light of natural revelation, he was rightly interpreting it. His opponents, meanwhile, closed the Bible to light of science and thereby did it a great disservice.

Bachelor brought the Graham system to the “test of scripture,” systemically analyzing—verse by verse—the Bible’s teaching on meat, spices, and wine. Yet he did more than this; Bachelor took on Graham’s hermeneutic. It was Graham, he argued, that disrespected and even disregarded the Bible. Because of the ambiguity of human language, Graham insisted that one could not understand revelation through the biblical text alone (and normal interpretive tools, like grammar). One needed to understand the character of God and the condition of man, both of which were to be found in natural revelation. “If the Bible is not to be explained according to the ordinary rules of language,” Bachelor asked, “of what use is it?”

If we are first to learn by other means what it *ought* to teach, what need of seeing what it *does* teach? Our knowledge would in this way be acquired independently of the Bible, and prior to its perusal. Besides, this mode of treating language makes it utterly unmeaning and useless. If we are to decide by extraneous circumstances what language *ought* to teach, then we are no longer taught *by* language, but are the teachers of *that*.... It is almost unnecessary to add, that this departure from the settled rules of language, opens the door to every conceivable error....”⁷⁰

For Bachelor, literalism was the only approach to language. Graham’s interpretive method rendered language so flexible as to be useless. Graham dispensed with the biblical text as an authoritative guide. Instead, he placed his wisdom—and that of physiology—above the Bible’s. When Bachelor met with Graham, he asked him about Paul’s recommendation to Timothy to “use a little wine for thy stomach’s sake and thine

⁷⁰ Bachelor, *Graham’s System*, 57.

often infirmities” (I Timothy 5:23). According to Bachelier, Graham replied, “Paul was not more inspired when he wrote that passage, than I am.”⁷¹ This was, Bachelier said, “faithful to his rule of *rejecting* the *Divine authority* of those parts of *scripture* which sanction the use of wine.”⁷² This interpretive method provided license to do whatever one willed with the Bible. “If one passage of scripture may be thus rejected, why not another?” The tendency of Graham’s hermeneutic was “to destroy the confidence of men in the Bible, and to make them feel it to be an erroneous guide.”⁷³ Bachelier entertained no hopes of winning the biblical dispute with Graham, for Graham trusted more in himself and physiology than in the Bible. Bachelier quoted Graham as saying, “The Bible does not sanction the use of wine; but *if it did*, I would reject that part of it as being of Divine authority.” Here was a damning accusation. Graham was willing to dispense with those portions of the Bible that could not be reconciled with physiology. He thereby placed his own authority above the Bible’s and, therefore, God’s. Surely, Bachelier said, this hermeneutic was the “high road to infidelity.”⁷⁴

Bachelier distinguished between Graham and his hermeneutic. He therefore stopped short of accusing Graham the person “with intentional error, or with latent infidelity.” Graham’s method of reading the Bible was another story. Graham “does *in fact* most flagrantly pervert scripture, teaching doctrines at variance with it, and which tend directly to infidelity.”⁷⁵ Referring to Graham’s requirement that one must

⁷¹ Bachelier was likely telling the truth here, for Graham made the argument in his *Philosophy of Sacred History*. See Graham, *Philosophy of Sacred History*, 301.

⁷² Bachelier, *Graham’s System*, 36-37.

⁷³ *Ibid.*, 69.

⁷⁴ *Ibid.*, 26, 37.

⁷⁵ *Ibid.*, 47.

understand the nature of God and the condition of man to interpret the Bible, Bachelier wrote,

The rule under consideration is absolute deism. There is no possible escape from the conclusion. The deist refers us to nature, to learn the character of the Deity: so does this rule. Both refer us to the same teacher. The only difference is, that, after having learned our lesson, deism bids us reject the Bible, because it does not correspond with it; whereas this rule bends the Bible *to* it, and may therefore be denominated *Bible Deism*.⁷⁶

Bachelier therefore perceived it as a religious duty to oppose Graham. He insisted that he undertook to disprove Graham's biblical arguments not from animosity towards the man, but from devotion to the Bible. Graham had "no inconsiderable number of adherents, many of whom are respectable." Bachelier knew that many of them believed and followed the Bible. He wanted "to prevent their being led astray by a man who, professing to be its expounder, perverts it, and who is prepared to reject it, unless he can pervert it *sufficiently* to correspond with his own visionary speculations."⁷⁷ Clearly, for both Graham and Bachelier, far more was at stake than food and drink alone. Should the other's interpretive methods take hold, the very security and authority of the Bible was at risk.

As well as Graham and Bachelier appreciated that theirs was a debate about how to read the biblical text, they likewise understood that they parted ways at the intersection of the Bible and science. Both realized that when science and the Bible appeared in conflict, then their respective hermeneutics would bear fruit, for better or worse. Graham said one should begin with a "clearly, fully, certainly ascertained" truth of science and only then turn to the Bible. If one found an apparent contradiction between the two, he

⁷⁶ Ibid., 58.

⁷⁷ Ibid., 47, 27.

should return to the Bible, remembering that the Word of God was conveyed through ambiguous human language; “it is only the divine meaning of the revealed Word, which is of divine authority.” One must interpret individual passages in light of the “general scope and spirit of its meaning as a whole.” Graham was sure the “divine meaning” of the Bible would be found to be “perfectly compatible with the truth of Nature, in whose light you study the Scriptures....” For Graham, science was certain and unquestionable while the Bible was open for reinterpretation. His recommendations for resolving an apparent conflict between science and the Bible required only the Bible to make concessions. Graham believed science and the Bible agreed. Yet when they did not, he would bend the Bible to meet the demands of science.⁷⁸

Bachelor disagreed. For him, all that mattered was what the Bible said. As he frankly stated,

Now then, suppose it to be shown, clear as the light, that fermented liquor is injurious to man. Admit to me that God in his word has sanctioned it, and I ask no more.... Away then with your physiology, and your ‘science of human life,’ so far as they go to impugn the Book of God. Our only inquiry, as far as relates to the system of *Mr. Graham*, is, ‘What saith scripture?’ Hence, all his anatomical, and physiological, and phrenological, and philosophical array...go for just nothing at all.⁷⁹

For Bachelor, the Bible was certain and unquestionable. If science and the Bible appeared to disagree, science should be reinterpreted—if not thrown out.⁸⁰ Bachelor was confident that he had “*fairly and fully*” shown that the Bible condoned wine drinking. “If

⁷⁸ Graham, *Philosophy of Sacred History*, 102.

⁷⁹ Bachelor, *Graham’s System*, 38.

⁸⁰ Congregational minister Abel G. Duncan believed that the Bible and physiology agreed, but he nevertheless gave primacy to the Bible. As physiology’s “truths or laws are fully developed, they will be found to harmonize with all the doctrines and duties of the Bible.... [T]hose alleged facts of Physiology, which seem to conflict with the real teachings of the Bible, need revision, and will be found to be prematurely deduced.” This ordering is exceptional for physiological reformers. Duncan, *Evils of violating the Laws of Health*, 23-24.

it does, then it matters not what objections may be urged against it.”⁸¹ Bachelier had no use for physiology—even if true and accurate—if it contradicted the Bible’s teaching on food and drink. The Bible was the ultimate authority.

Conclusion

Physiological reformers apparently lost the biblical argument. Thirty-six years after Cambell solicited for biblical defenses of vegetarianism in *GJHL*, Kellogg made a similar plea. In 1875, in response to “urgent requests” from Kellogg, James White published a series of articles on “Bible Hygiene” in *The Health Reformer*, a Seventh-day Adventist periodical that Kellogg edited. White’s intention was to show “that the plain testimony of the sacred Scriptures upon life and health is in harmony with the restrictions and general principles of the hygienic system.” The situation had changed little in the three and half decades. White knew that for many Americans, “the Bible is the highest and safest authority in all matters of truth and duty.” If they could be shown “that existing reformatory movements are in strict harmony with the teachings of the sacred Scriptures” they might be convinced. Unfortunately, despite four decades of physiological biblical argument, it was “the very general impression that the restrictions of the hygienic practice are not sustained by the word of God.”⁸²

Another three decades passed and Kellogg was still locked in the same struggle. “*Does the Bible forbid the use of flesh food?*” was an “oft-repeated question,” Kellogg wrote in 1903. He was frustrated with people who violated the laws of health because “there is no express Bible command to the contrary.” Without one, these people were not

⁸¹ Bachelier, *Graham’s System*, 37.

⁸² James White, “Bible Hygiene,” *The Health Reformer* 10, no. 1 (1875): 1. For White’s subsequent articles in the series, see *The Health Reformer* 10, nos. 2, 3, 4, and 6.

to be convinced. Their position, which must be read through Kellogg's disapproval, was remarkably similar to Bachelier's seventy years before:

Such persons make no attempt to answer the scientific argument or to controvert the evidence of science and experience. If only a passage of Scripture can be quoted which may possibly be so construed as to support the favorite sin, those persons are content.

This interpretative method, Kellogg argued, "arrays God against himself, for the revelation of God in nature is as truly divine as is the revelation of God in the inspired Word." If one found an apparent contradiction between the two, Kellogg was sure they could be "harmonized" without denying either's authority. Yet for his detractors, like Bachelier before them, all that mattered was "What saith scripture?" Indeed, they cited the same biblical passages as Graham's opponents, asking Kellogg about God's permission given to Noah to eat meat, about meat eating in the Jewish sacrificial system, and about Jesus himself partaking. Kellogg took up the Bible in response, beginning, as had two generations of physiological reformers before him, with Genesis 1:29.⁸³

For many nineteenth-century American Christians, a plain, commonsense reading of the Bible simply did not sustain vegetarianism.⁸⁴ To read the Bible otherwise, as

⁸³ Kellogg, *The Living Temple*, 190-196. See also Kellogg, *Shall We Slay to Eat?*, 124-137; Kellogg, *Home Hand-Book*, 499-502.

⁸⁴ The biblical argument for temperance and teetotalism, of course, fared better than that for vegetarianism. This warrants a separate investigation, but one may briefly be suggested here. Less radical individuals, like the popular and authoritative Bible commentator Moses Stuart, were able to square temperance and the Bible without threatening the biblical text. Stuart, for example, wrote a prize-winning essay for the American Temperance Society in which he argued that the Bible condemns the use of liquor and that total abstinence from it can and should be required for church membership. He did this, however, not by reinterpreting Jesus's miracle at Cana or the Last Supper, but by qualifying the type of wine use in contemporary Palestine. Jesus and his contemporaries, Stuart said, drank pure wine which was no more harmful than Americans' cider. This wine could be consumed in moderation. Moses Stuart, *Essay on the Prize-Question, Whether the Use of Distilled Liquors, or Traffic in Them, is Compatible, At the Present Time, With Making a Profession of Christianity?* (New York: John P. Haven, 1830).

physiological reformers insisted, threatened the authority of the Bible and thereby the very foundation of orthodox Christianity.⁸⁵

Christian vegetarians today are different than their nineteenth-century forbearers in many respects. Yet they appear to have inherited the same biblical predicament. A member of the Christian Vegetarian Association UK (founded in 2004), writing in the organization's study guide for their Veg4Lent campaign, said, "At a time when reasoned and compassionate understanding of animals and their interests is increasing in most areas of society, there are still far too many Christians reaching for the Bible in an attempt to justify needless bloodletting."⁸⁶ The Bible has endured as the supreme guide to life and the arbiter of orthodoxy. After two centuries of biblical vegetarian arguments, a great many Christians remain unconvinced.

⁸⁵ I have modeled this argument on the biblical debate over slavery described by Mark A. Noll in *The Civil War as a Theological Crisis* (Chappell Hill: University of North Carolina Press, 2006).

⁸⁶ John Michael, "Why do we lack compassion for animals?" in "Introduction to Study Guide," Christian Vegetarian Association UK, accessed March 15, 2013, <http://www.christianvegetarian.co.uk/pdf/sgintro.PDF>, quoted in Calvert, "Taste of Eden," 480. Other articles in the study guide include Geoffrey L. Rudd, "The Bible and Vegetarianism," V.A. Holmes-Gore, "Was the Master a Vegetarian?" and Neville Fowler, "Is a Vegetarian Diet Biblical?"

CHAPTER FIVE

Conclusion

To Heal Bodies as well as Souls

In 1902, Henry D. Perky, a vegetarian health reformer and the inventor of shredded wheat, suggested that it was the duty of preachers to teach “not only doctrine and forms of obedience, but also the way of bodily health and life.”¹ What led Perky to believe bodily health was a topic worthy of the pulpit? The preceding investigation has offered an answer to just that question.

William Andrus Alcott declared physiology was a “*means to an end*”; he and his fellow reformers ultimately strove for “moral or spiritual advancement.”² The history sketched at the beginning of this study indeed reveals that religious convictions and goals lay at the heart of this movement. The members of the American Physiological Society believed their efforts were essential to the establishment of God’s kingdom on earth. A reader of *The Graham Journal of Health and Longevity* declared that physiological reform marched hand in hand with the gospel itself. When rightly understood, one reformer said, physiology was nothing less than the handmaid of religion. Indeed, physiological reformers consistently and explicitly articulated theological claims and religious purposes. Though representing a broad chronological and theological spectrum, these reformers rallied to a single cause: to redeem humankind, body and soul.

¹ Henry D. Perky, *Wisdom vs. Foolishness*, 2nd ed. (Worcester, MA: Perky Publishing, 1902), 90; “Henry D. Perky Dead,” *New York Times*, June 30, 1906. The only book on Perky is Jim Holechek’s self-published *Henry Perky: The Shredded Wheat King* (New York: iUniverse, 2007).

² Quoted in Whorton, “Christian Physiology,” 470.

The key to understanding the religious significance with which physiological reformers imbued bodily regimen is their theological anthropology, which may be described as holistic or sympathetic. They believed that God related to humans along two frequencies: the spiritual and the physical, each of which was governed by its own set of laws that humans were obliged to obey. Because of God's necessary consistency, one could not violate his physical laws without his or her spiritual standing suffering. Dissonance in one frequency induced dissonance in the other. Likewise, reformers believed a person's physical and spiritual dimensions operated in sympathy with one another: a change in one effected a change in the other. By locating the spiritual faculties in the brain, they were able to work out the actual physiological processes by which the body impinged on the soul. Physiological reformers thus began with metaphysical convictions about the economy of God's governance and the proximity of body and soul. They then used physiology to explain how these convictions operated within the human person. In so doing, they charged bodily regimen with religious import. What one ate or drank had spiritual consequences.

If this was true, it was fitting indeed for preachers to take up the issue of bodily health. Roughly a century before Perky's recommendation, William Cowherd said, "Christ's followers should heal bodies as well as souls, after their Master's example."³ Cowherd did just that, preaching without compensation and practicing medicine to support himself. In so doing, he inaugurated a tradition: that of the preacher-physician or preacher-physiologist.⁴ Thus, William Metcalfe and Larkin B. Coles were both ministers

³ Quoted in Carson, *Cornflake Crusade*, 17.

⁴ I owe the former term to Numbers, who calls Coles a "Millerite preacher-physician." Numbers, *Prophetess of Health*, 108.

and doctors.⁵ Alcott, Sylvester Graham, and John Harvey Kellogg were not trained in both vocations, but they all embodied the preacher-physiologist type.⁶ Indeed, physiological reformers explicitly enjoined this dual responsibility on pastors, theologians, and missionaries. “Every Gospel preacher,” Coles wrote, “ought evidently so to study the laws of physical life, and their bearings on the soul” that he might teach and model them.⁷

The preacher-physiologist ideal reveals the confluence of the two contexts out of which emerged physiological reform. On the one hand, flowing from the headwaters of the Second Great Awakening, was the nineteenth-century religious project to redeem humankind and herald Christ’s millennial reign. That this project included bodily health reveals just how expansive it was. On the other hand was the opportunity for new approaches to physical wellbeing. As orthodox medicine temporarily lost its ascendancy in American culture, physiologists joined many others in imagining alternatives to bleeding, purging, and heroic medication. These two tributaries converged in physiological reform, producing a unique message: one that was not theological *and* physiological, but both simultaneously. Physiology infused theology, and vice-versa. This confluence is pithily captured in the preacher-physiologist. By both embodying and

⁵ Metcalfe and Metcalfe, *Out of the Clouds*, 36; Numbers, *Prophetess of Health*, 108-110. According to his son, Metcalfe thought “the union of the medical and ministerial duties was eminently proper and desirable.” Metcalfe and Metcalfe, *Out of the Clouds*, 36.

⁶ Kellogg, for example, was a medical doctor and accomplished surgeon but not a minister. He nevertheless held a special position in the Seventh-day Adventist church: he was known as the “Physician to the Faithful” and wore a silk robe at church gatherings. Carson, *Cornflake Crusade*, 109. On Kellogg’s “medical missions” to the poor of Chicago, see Schwarz, “Dr. John Harvey Kellogg As a Social Gospel Practitioner,” 5-22.

⁷ Coles, *Philosophy of Health*, 209-210. For other examples, see “The Graham System Important to the Success of Missions,” *Graham Journal of Health and Longevity* 1, nos. 2 and 3 (1837): 21; A.N., “Physiology Important to Theologians,” *Graham Journal of Health and Longevity* 1, no. 30 (1837): 237.

preaching this ideal, physiological reformers challenged the *de facto* bifurcation of body and soul that relegated each to its own specialist, the body to doctors and the soul to preachers. The body and soul were closely connected, these reformers said; to care for one you must care for the other.

The Dietetics of the Bible

If ministers were to preach the way of bodily health, Perky said, they ought to “preach from one of the many good texts found in the Bible on the food subject.”⁸ It is clear that physiological reformers did in fact rely on the Bible to promote their cause. Indeed, Metcalfe believed that insofar as people heeded “the *dietetics* of the Bible” they would save themselves from suffering and liberate their religious capacities.⁹ When physiological reformers read the Bible, however, they did so with a physiological hermeneutic. They believed God’s special and natural revelations were both true and compatible. Yet the insights of natural revelation were more reliable than human interpretations of the Bible. Thus, when the two appeared to conflict, reformers squared the Bible to the plumb-line of physiological science. Further, they read the operations of physiology into the biblical text, yielding naturalized interpretations. By thus reducing God’s agency in the governance of the body to mere lawmaking, physiological reformers pressed the burden of health—and thereby the duty of self-reform—into the hands of each individual.

Physiological reformers interpreted the Bible under a cultural mandate to do so. For most nineteenth-century Americans, all questions of moral and religious duty were

⁸ Perky, *Wisdom vs. Foolishness*, 99.

⁹ Metcalfe and Metcalfe, *Out of the Clouds*, 182-183.

subject to the authority of the Bible—particularly, the Bible plainly read. As an examination of their biblical arguments for vegetarianism and teetotalism reveals, the physiological reformers' hermeneutic ran afoul of the dominant commonsense literalism with which most Americans read the Bible. This led to a hermeneutical conflict. The biblical argument between Graham and Origen Bachelier reveals just how high the stakes were in this conflict. It implicated fundamental questions of language, authority, and even orthodoxy. For nineteenth-century American Christians, a challenge to the Bible was a challenge to the faith.

Significance

Examining the physiological reformer's use of the Bible casts new light on the movement. The Bible was clearly important to the reformers; it was one of the three authorities on which they consistently relied. If physiological reform was a religious movement, an examination of their hermeneutic begins to reveal the nature of that religion. For example, the movement can appear reactionary, responding to industrialization and urbanization with tighter moral regulations. Their use of the Bible, however, suggests just the opposite. By using physiological science to interpret the Bible, they presaged the modernists of the later nineteenth century. Further, a close study of the reformers' use of the Bible serves not only to put the movement into religious context, but also to put it into *conversation* with contemporary American religion. Whereas historians have noted the scorn heaped on Grahamites by medical scientists, they have paid little attention to religious commentary outside of the circles of radical reform. By placing Bachelier's argument side by side with Graham's, this study has

begun to do just that. This is revealing, for it shows that physiological reformers failed the religious and biblical tests just as they did the scientific one.

The conflict over the physiological hermeneutic also reveals much about contemporary American Christianity. When reformers wrote about the Bible, they were keenly aware of the literalist Biblicism of their readers. That Bachelier was willing to forsake the teachings of physiology regardless of their veracity, so long as they apparently contradicted the Bible, reveals the power of the nineteenth-century commitment to biblical authority. Yet, even as the story of physiological reform reinforces this picture of nineteenth-century Biblicist Christianity, it also complicates it by revealing another interpretive option. It shows a movement that encompassed a wide variety of Christians, all of whom were willing to make physiology their hermeneutical key—to let physiology color their reading and dictate the conclusions of their interpretations. The biblical conflict over vegetarianism shows that, even if only for reformers on the fringes of American Christianity, rival commitments could compete with those of commonsense literalism at no cost—in the reformers’ minds—to reverence for the Bible. For Bachelier, the alternative to literalism was disrespect for the Scripture. Graham pushed back, insisting that he of all people respected the Bible by not holding it up for the scorn of physiological science.

On November 12, 1851, two months after Graham’s death, *The Boston Medical and Surgical Journal* published an unsympathetic retrospect on his life and labors. “Mr. Graham’s fame is a local one,” the journal stated, “which will not survive the lifetime of some of his disciples. His memory is associated with bran-bread—and not with any striking event, principle or doctrine, that will carry it onward upon the wave of time as a

benefactor of the human race.”¹⁰ Writing eight years earlier, abolitionist William Lloyd Garrison entertained higher hopes for Graham’s legacy. Garrison was not a convert, he admitted, but he admired Graham’s dauntlessness and his “martyr’s spirit and front in giving utterance to his convictions of truth, as it relates to the bodily as well as spiritual redemption of mankind.” Garrison feared that although “tens of thousands” had profited from Graham’s teachings, few acknowledged this debt. “But this is the fate of every reformer, in his day and generation. Time and posterity will take care of his memory.”¹¹ Whether Graham and the physiological reformers were benefactors of the human race is beyond the scope of this study. Yet one may hazard that in casting Graham as a prophet scorned in his hometown, Garrison more accurately captured the spirit of nineteenth-century physiological reform. Theological convictions about God, humankind, and the Bible were built into the very foundations of the movement. These convictions were intertwined with physiology in the pursuit, as Garrison said, of the bodily and spiritual redemption of humankind.

¹⁰ “Sylvester Graham,” *The Boston Medical and Surgical Journal* 45, no. 15 (1851): 317.

¹¹ William Lloyd Garrison to *The Liberator*, July 14, 1843, in *The Letters of William Lloyd Garrison: No Union with Slaveholders*, ed. Walter M. Merrill, vol. 3, 1841-1849 (Cambridge, MA: Belknap Press of Harvard University Press, 1973), 175.

BIBLIOGRAPHY

Primary Sources

Periodicals

The Boston Medical and Surgical Journal

Food, Home and Garden

The Graham Journal of Health and Longevity

The Health Reformer (1866-1878)

Good Health: A Journal of Hygiene (1879-)

The Moral Reformer, and Teacher on the Human Constitution (1835-1836)

The Library of Health, and Teacher on the Human Constitution (1837-1842)

The Teacher of Health and Laws of the Human Constitution (1843)

The Oberlin Evangelist

Books, Pamphlets, and Published Letters

Alcott, William Andrus. *Forty Years in the Wilderness of Pills and Powders; Or the Cogitations and Confessions of an Aged Physician*. Boston: John P. Jewett, 1859.

———. *The Library of Health, and Teacher on the Human Constitution*. Boston: printed for the author, 1849.

———. *Vegetable Diet: As Sanctioned by Medical Men, and By Experience in All Ages*. Boston: Marsh, Capen and Lyon, 1838.

———. *The Young Man's Guide*. 2nd ed. Boston: Lilly, Wait, Colman, and Holden, 1834.

The Anniversary Report of the Managers of the Pennsylvania Society for Discouraging the Use of Ardent Spirits. Philadelphia: Literary Rooms, 1831.

Bachelor, Origen. *Address on the Subject of Universalism*. Boston: printed for the author, 1830.

- . *Graham's System Brought to the Test of Scripture: Using the Substance of a Lecture Delivered at Concert Hall, Broadway, New-York, on the Evening of Jan. 23, 1833; with Some Additional Remarks Interspersed, Together with an Appendix*. New York: T. Harries, 1833.
- . *Mormonism Exposed, Internally and Externally*. New York, 1838.
- Bachelor, Origen and Robert Dale Owen. *Discussion on the Existence of God, and the Authenticity of the Bible*. 2 vols. 2nd ed. New York: A.J. Matsell, 1833.
- Barnes, Gilbert H. and Dwight L. Dumond, eds. *Letters of Theodore Dwight Weld, Angelina Grimké Weld, and Sarah Grimké*. 2 vols. New York: Da Capo Press, 1970.
- Bartlett, Elisha. *Obedience to the Laws of Health, a Moral Duty. A Lecture, Delivered Before the American Physiological Society, January 30, 1838*. Boston: Julius A. Noble, 1838.
- Brigham, Amariah. *Observations on the Influence of Religion upon the Health and Physical Welfare of Mankind*. Boston: Marsh, Capen and Lyon, 1835.
- Clubb, Henry S. *Thirty-nine Reasons Why I am a Vegetarian*. Philadelphia: The Vegetarian Society of America, 1903.
- Coles, Larkin B. *Philosophy of Health: Natural Principles of Health and Cure; or, Health and Cure Without Drugs. Also, the Moral Bearings of Erroneous Appetites*. 26th ed. Boston: Ticknor, Reed, and Fields, 1851.
- Cowherd, William. *Facts Authentic, In Science and Religion: Designed to Illustrate a New Translation of the Bible*. Manchester, UK: The Academy Press, 1818.
- A Defence of the Graham System of Living: Or, Remarks on Diet and Regimen*. New York: W. Applegate, 1835.
- Duncan, Abel G. *Evils of violating the Laws of Health, and the Remedy. An Address, Delivered Before the American Physiological Society, at Their Monthly Meeting, February 7, 1838*. Boston: Marsh, Capen and Lyon, 1838.
- Eddy, Mary Baker. *Science and Health with Key to the Scriptures*. Boston: The Writings of Mary Baker Eddy, 2000. First published in 1875.
- Graham, Sylvester. *The Aesculapian Tablets of the Nineteenth Century*. Providence, RI: Weedon and Cory, 1834.

- . *A Lecture on the Responsibilities of Human Beings in the Exercise of Their Moral Power: Occasioned by the Visit of the New England Guards to Northampton on the 13th of July, 1840; And Publicly Delivered Before a Northampton Audience on the Evening of the 10th of March, 1841*. Northampton, MA: J.H. Butler, 1841.
- . *Lectures on the Science of Human Life*. London: Horsell, 1839.
- . *The Philosophy of Sacred History Considered in Relation to Human Aliment and the Wines of Scripture*. Edited by Henry S. Clubb. London: Horsell and Caudwell, 1859.
- . *Thy Kingdom Come; A Discourse, On the Importance of Infant and Sunday Schools, Delivered at the Crown St. Church, Philadelphia, December 13th, 1829*. Philadelphia: William F. Geddes, 1831.
- . *A Treatise on Bread and Bread-Making*. Boston: Light and Stearns, 1837.
- . *The Young Man's Guide to Chastity; Being Sylvester Graham's Address on that Subject, Somewhat Abridged; Intended also for the Serious Consideration of Parents and Guardians*. London: J. Watson, 1834.
- Griscom, John H. *First Lessons in Human Physiology; To Which are Added Brief Rules of Health. For the Use of Schools*. New York: Roe Lockwood and Son, 1846.
- Hitchcock, Edward. *Dyspepsy Forestalled & Resisted: or Lectures on Diet, Regimen, & Employment; Delivered to the Students of Amherst College; Spring Term, 1830*. New York: J.S. and C. Adams, 1830.
- Jennings, Isaac. *Medical Reform: A Treatise on Man's Physical Being and Disorders, Embracing an Outline of a Theory of Human Life, and a Theory of Disease—Its Nature, Cause, and Remedy*. Oberlin, OH: Fitch and Jennings, 1847.
- Kellogg, John Harvey. *Harmony of Science and the Bible on the Nature of the Soul and the Doctrine of the Resurrection*. Battle Creek, MI: Review and Herald Publishing Association, 1879.
- . *Home Hand-Book of Domestic Hygiene and Rational Medicine*. 2nd ed. Battle Creek, MI: Good Health Publishing, 1891.
- . *The Living Temple*. Battle Creek, MI: Good Health Publishing Company, 1903.
- . *Plain Facts for Old and Young*. Burlington, IA: Segner and Condit, 1882.
- . *Shall We Slay to Eat?* Battle Creek, MI: Good Health Publishing Company, 1899.

- Merrill, Walter M., ed. *The Letters of William Lloyd Garrison*. Vol. 3, *No Union with Slaveholders, 1841-1849*. Cambridge, MA: Belknap Press of Harvard University Press, 1973.
- Metcalf, Joseph and William Metcalfe. *Out of the Clouds: Into the Light. Seventeen Discourses on the Leading Doctrines of the Day, In the Light of Bible Christianity By the Late Rev. Wm. Metcalfe, M.D. Together with a Memoir of the Author, By His Son, Rev. Joseph Metcalfe*. Philadelphia: J. B. Lippincott and Co., 1872.
- Nichols, Mary Gove. *Lectures to Ladies on Anatomy and Physiology*. Boston: Saxton and Pierce, 1842.
- Nichols, Thomas Low. *Religions of the World. An Impartial History of Religious Creeds, Forms of Worship, Sects, Controversies, and Manifestations, From the Earliest Period to the Present Time*. Cincinnati, OH: Valentine Nicholson, 1855.
- Nicholson, Asenath. *Nature's Own Book*. 2nd ed. New York: Wilbur and Whipple, 1835.
- . *A Treatise on Vegetable Diet, with Practical Results; Or, a Leaf From Nature's Own Book, Illustrated by Facts and Experiments of Many Years' Practice*. Glasgow: John M'Combe, n.d.
- Noyes, George Wallingford, comp. and ed. *Religious Experience of John Humphrey Noyes: Founder of the Oneida Community*. Freeport, NY: Books for Libraries Press, 1971. First published in 1923.
- One Hundred Years of Temperance. A Memorial Volume of the Centennial Temperance Conference Held in Philadelphia, PA., September 1885*. New York: National Temperance Society and Publication House, 1886.
- Perky, Henry D. *Wisdom vs. Foolishness*. 2nd ed. Worcester, MA: Perky Publishing, 1902.
- Stowe, Harriet Beecher. "The Chimney-Corner For 1866. VII. Bodily Religion: A Sermon on Good Health." *The Atlantic Monthly* 18, no. 105 (1866): 85-93.
- Stuart, Moses. *Essay on the Prize-Question, Whether the Use of Distilled Liquors, or Traffic in Them, is Compatible, At the Present Time, With Making a Profession of Christianity?* New York: John P. Haven, 1830.
- Ticknor, Caleb. *The Philosophy of Living; Or, The Way to Enjoy Life and Its Comforts*. New York: Harper and Brothers, 1836.
- Towgood, Frederic. *The Life and Character of Sylvester Graham*. London: Wm. Horsell, n.d. [185-?].
- Trollope, Frances. *Domestic Manners of the Americans*. Edited by Richard Mullen. Oxford: Oxford University Press, 1984. First published in 1832.

Williams, Howard. *The Ethics of Diet. A Catena of Authorities Deprecatory of the Practice of Flesh-Eating*. London: F. Pitman, 1883.

Withington, William. *Christian Radicalism*. Boston: Perkins and Marvin, 1836.

Secondary Sources

Articles and Books

Abzug, Robert H. *Cosmos Crumbling: American Reform and the Religious Imagination*. New York: Oxford University Press, 1994.

Albala, Ken and Trudy Eden, eds. *Food & Faith in Christian Culture*. New York: Columbia University Press, 2011.

Apple, Rima D., Gregory J. Downey, and Stephen L. Vaughn, eds. *Science in Print: Essays on the History of Science and the Culture of Print*. Madison, WI: University of Wisconsin Press, 2012.

Blake, John B. "Mary Grove Nichols, Prophetess of Health." *Proceedings of the American Philosophical Society* 106, no. 3 (1962): 219-234.

Bush, Lester E., Jr. *Health and Medicine among the Latter-day Saints: Science, Sense, and Scripture*. New York: Crossroad, 1993.

Calvert, Samantha Jane. "A Taste of Eden: Modern Christianity and Vegetarianism." *Journal of Ecclesiastical History* 58, no. 3 (2007): 461-481.

Carson, Gerald. *Cornflake Crusade*. New York: Rinehart, 1957.

Christen, Arden G. and Joan A. Christen. "Thomas B. Welch, MD, DDS: Journalist, Innovator and Grape Juice King." *Journal of the History of Dentistry* 49, no. 1 (2001): 3-8.

Cohen, Charles L. and Paul S. Boyer, eds. *Religion and the Culture of Print in Modern America*. Madison, WI: University of Wisconsin Press, 2008.

Divett, Robert T. *Medicine and the Mormons: An Introduction to the History of Latter-day Saint Health Care*. Bountiful, UT: Horizon Publishers and Distributors, 1981.

Du Puis, E. Melanie. "Angels and Vegetables: A Brief History of Food Advice in America." *Gastronomica: The Journal of Food and Culture* 7, no. 3 (2007): 34-44.

- Engs, Ruth Clifford. *Clean Living Movements: American Cycles of Health Reform*. Westport, CT: Praeger, 2000.
- . *The Progressive Era's Health Reform Movement: A Historical Dictionary*. Westport, CT: Praeger, 2003.
- Finlay, Mark R. "Quackery and Cookery: Justus Von Liebig's Extract of Meat and the Theory of Nutrition in the Victorian Age." *Bulletin of the History of Medicine* 66, no. 3 (1992): 404-418.
- Fletcher, Robert Samuel. "Bread and Doctrine at Oberlin." *Ohio State Archaeological and Historical Quarterly* 49 (January-March, 1940): 58-67.
- . *A History of Oberlin College: From Its Foundation Through the Civil War*. 2 vols. Oberlin, OH: Oberlin College, 1943.
- Fuller, Robert C. *Alternative Medicine and American Religious Life*. New York: Oxford University Press, 1989.
- Gevitz, Norman, ed. *Other Healers: Unorthodox Medicine in America*. Baltimore: Johns Hopkins University Press, 1988.
- Gleason, Philip. "From Free-Love to Catholicism: Dr. and Mrs. Thomas L. Nichols At Yellow Springs." *The Ohio Historical Quarterly* 70, no. 4 (1961): 283-307.
- Green, Harvey. *Fit for America: Health, Fitness, Sport, and American Society*. New York: Pantheon Books, 1986.
- Gregory, James. *Of Victorians and Vegetarians: The Vegetarian Movement in Nineteenth-Century Britain*. London: Tauris Academic Studies, 2007.
- Haley, Bruce. *The Healthy Body and Victorian Culture*. Cambridge, MA: Harvard University Press, 1978.
- Haller, John S. Jr. *Medical Protestants: The Eclectics in American Medicine, 1825-1939*. Carbondale, IL: Southern Illinois University Press, 1994.
- Hankins, Barry. *The Second Great Awakening and the Transcendentalists*. Westport, CT: Greenwood Press, 2004.
- Hatch, Nathan O. and Mark A. Noll, eds. *The Bible in America: Essays in Cultural History*. New York: Oxford University Press, 1982.
- Haydu, Jeffrey. "Cultural Modeling in Two Eras of U.S. Food Protest: Grahamites (1830s) and Organic Advocates (1960s)." *Social Problems* 58, no. 3 (Aug., 2011): 461-487.

- Hickman, Russell. "The Vegetarian and Octagon Settlement Companies." *Kansas Historical Quarterly* 2, no. 4 (1933): 377-385.
- Hoff, Hebbel E. and John F. Fulton. "The Centenary of the First American Physiological Society Founded at Boston By William A. Alcott and Sylvester Graham." *Bulletin of the Institute of the History of Medicine* 5, no. 8 (1937): 687-734.
- Holecheck, Jim. *Henry Perky: The Shredded Wheat King*. New York: iUniverse, 2007.
- Horrocks, Thomas A. "'The Poor Man's Riches, The Rich Man's Bliss': Regimen, Reform, and the *Journal of Health*, 1829-1833." *Proceedings of the American Philosophical Society* 139, no. 2 (1995): 115-134.
- Iacobbo, Karen and Michael Iacobbo. *Vegetarian America: A History*. Westport, CT: Praeger, 2004.
- Klassen, Pamela E. *Spirits of Protestantism: Medicine, Healing, and Liberal Christianity*. Berkeley: University of California Press, 2011.
- Le Duc, Thomas H. "Documents: Grahamites and Garrisonites." *New York History* 20, no. 2 (1939): 189.
- The Maintenance Committee, comp. *History of the Philadelphia Bible-Christian Church For the First Century of Its Existence, From 1817 to 1917*. Philadelphia: J. B. Lippincott, 1922.
- Maskell, Caleb J.D. "The Great Natural Kingdom of God: Reading Sylvester Graham as a Religious Thinker." Unpublished manuscript, n.d.
- Modern, John Lardas. *Secularism in Antebellum America: With Reference to Ghosts, Protestant Subcultures, Machines, and Their Metaphors; Featuring Discussions of Mass Media, Moby-Dick, Spirituality, Phrenology, Anthropology, Sing Sing State Penitentiary, and Sex with the New Motive Power*. Chicago: University of Chicago Press, 2011.
- Money, John. *The Destroying Angel: Sex, Fitness & Food in the Legacy of Degeneracy Theory, Graham Crackers, Kellogg's Corn Flakes & American Health History*. Buffalo, NY: Prometheus Books, 1985.
- Naylor, Mildred V. "Sylvester Graham, 1794-1851." *Annals of Medical History* Series 3, 4 (1941): 236-240.
- Nissenbaum, Stephen. *Sex, Diet, and Debility in Jacksonian America: Sylvester Graham and Health Reform*. Westport, CT: Greenwood Press, 1980.
- Noll, Mark A. *America's God: From Jonathan Edwards to Abraham Lincoln*. New York: Oxford University Press, 2002.

- . *The Civil War as a Theological Crisis*. Chapel Hill: The University of North Carolina Press, 2006.
- Numbers, Ronald L. *Prophetess of Health: A Study of Ellen G. White*. 3rd. ed. Grand Rapids: William B. Eerdmans, 2008.
- Numbers, Ronald L. and Darrel W. Amundsen, eds. *Caring and Curing: Health and Medicine in the Western Religious Traditions*. New York: Macmillan, 1986.
- Rosenberg, Charles E., ed. *Right Living: An Anglo-American Tradition of Self-Help Medicine and Hygiene*. Baltimore: Johns Hopkins University Press, 2003.
- Rosenberg, Charles E. and Carroll S. “Pietism and the Origins of the American Public Health Movement: A Note on John H. Griscom and Robert M. Hartley.” *Journal of the History of Medicine and Allied Sciences* 23, no. 1 (1968): 16-35.
- Ross, Alice. “Health and Diet in 19th-Century America: A Food Historian’s Point of View.” *Historical Archaeology* 27, no. 2 (1993): 42-56.
- Salomon, Louis B. “The Least-Remembered Alcott.” *The New England Quarterly* 34, no. 1 (1961): 87-93.
- Schlesinger, Arthur Meier. “A Dietary Interpretation of American History.” *Proceedings of the Massachusetts Historical Society* 68 (Oct., 1944-May, 1947): 199-227.
- Schwartz, Hillel. *Never Satisfied: A Cultural History of Diets, Fantasies and Fat*. New York: Free Press, 1986.
- Schwarz, Richard W. “Dr. John Harvey Kellogg As a Social Gospel Practitioner.” *Journal of the Illinois State Historical Society (1908-1984)* 57, no. 1 (1964): 5-22.
- . *John Harvey Kellogg, M.D.* Nashville: Southern Publishing Association, 1970.
- Shryock, Richard Harrison. “Sylvester Graham and the Popular Health Movement, 1830-1870.” *The Mississippi Valley Historical Review* 18, no. 2 (Sep., 1931): 172-183.
- Sigerist, Henry E. “The Philosophy of Hygiene.” *Institute of the History of Medicine, Bulletin* 1 (1933): 323-331.
- Smith, Timothy L. *Revivalism & Social Reform: American Protestantism on the Eve of the Civil War*. Baltimore: Johns Hopkins University Press, 1980. First published 1957 by Abingdon Press.
- Smith, Virginia. *Clean: A History of Personal Hygiene and Purity*. New York: Oxford University Press, 2007.

- Sokolow, Jayme A. *Eros and Modernization: Sylvester Graham, Health Reform, and the Origins of Victorian Sexuality in America*. Rutherford, NJ: Fairleigh Dickinson University Press, 1983.
- Stearns, Bertha-Monica. "Two Forgotten New England Reformers." *The New England Quarterly* 6, no. 1 (1933): 59-84.
- Suzuki, Nanami. "Popular Health Movements and Diet Reform in Nineteenth-Century America." *The Japanese Journal of American Studies* no. 21 (2010): 111-137.
- Tompkins, Kyla Wazana. "Sylvester Graham's Imperial Dietetics." *Gastronomica: the Journal of Food and Culture* 9, no. 1 (2009): 50-60.
- Turner, James. *Reckoning with the Beast: Animals, Pain, and Humanity in the Victorian Mind*. Baltimore, MD: Johns Hopkins University Press, 1980.
- Walters, Ronald G. *American Reformers, 1815-1860*. New York: Hill and Wang, 1978.
- Whorton, James C. "'Christian Physiology': William Alcott's Prescription for the Millennium." *Bulletin of the History of Medicine*, 49, no. 4 (1975): 466-481.
- . *Crusaders for Fitness: The History of American Health Reformers*. Princeton: Princeton University Press, 1982.
- . "'Tempest in a fleshpot': The Formulation of a Physiological Rationale for Vegetarianism." *Journal of the History of Medicine and Allied Sciences* 32, no. 2 (1977): 115-139.
- Woodridge, John D., Mark A. Noll, and Nathan O. Hatch. *The Gospel in America: Themes in the Story of America's Evangelicals*. Grand Rapids, MI: Zondervan Publishing House, 1979.