

*Journal of the Adventist Theological Society*, 14/1 (Spring 2003): 176–194.  
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## Ellen G. White and Earth Science

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This article will investigate Ellen G. White's statements on science, particularly in relation to the issue of origins and the study of earth science. We will introduce the material with a brief description of the historical situation in regard to the science of geology in the 19<sup>th</sup> century, when she wrote the majority of her statements on the topic.

### I. Historical Background

At the beginning of the 19<sup>th</sup> century the science of geology was still in its infancy. By the end of the century it had not only matured but played a prominent part in the debate on the question of origins. A decisive turning point in this development was the publication of Charles Darwin's book *The Origin of Species* in 1859,<sup>1</sup> which put the theory of evolution on the front burner of the scientific establishment at that time. Within twenty years of the publication of this book, "nearly every naturalist of repute in North America had embraced some theory of organic evolution."<sup>2</sup>

Darwin's book, however, was not a bolt out of the blue, but the apogee or culmination of a process that had begun centuries before. Nicolaus Steno (1638–1686), in his *Dissertationis* (1669), laid the foundation for modern stratigraphy and paleontology by suggesting "that fossils are the remains of ancient living organisms and that many rocks are the result of sedimentation."<sup>3</sup> Giovanni Arduino (1714–1795), in Italy, established the first stratigraphic chronology by dividing the crust of the earth into four layers: Primary, Secondary, Tertiary, and

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<sup>1</sup> Charles Darwin (1809–1882) completed the manuscript in 1844 but waited until 1859 before publishing it (Harold G. Coffin, *Creation Accident or Design?* [Washington, D.C.: Review and Herald, 1969], 403).

<sup>2</sup> Ronald L. Numbers, *The Creationists* (New York: Knopf, 1992), 3.

<sup>3</sup> *Encyclopaedia Britannica*, 15<sup>th</sup> ed., Micropaedia, s.v. "Steno, Nicolaus."

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Quaternary. “He also pioneered the use of fossils and chemical methods to determine the age of rock formations.”<sup>4</sup>

James Hutton (1726–1797), the father of uniformitarianism, opened the way for the acceptance of long ages for geologic time, and Sir Charles Lyell (1797–1875), in his book *Principles of Geology*, published in 1830, “brought together data from all over the earth, with the express purpose of showing that all past changes have been of the same nature as those now going on.”<sup>5</sup> The glacial theory of Swiss scholar Louis Agassiz (1807–1873) left very little to be credited to the Flood, and Robert Chamber’s *Natural History of Creation*, published in 1844, “advocated the development of man from the lower animals.”<sup>6</sup>

Through the publication of these theories as well as the writings of many other scientists, the public mind was prepared to receive Darwin’s *Origin of Species*. The book was readily accepted by many because it removed a major objection to the theory of uniformity—“how to account for the origin of species during long ages of geological time. Darwin’s theory of natural selection appeared to have solved the problem.”<sup>7</sup>

The impact the book made on the Christian churches was soon apparent. While the majority of Bible-believing Christians continued to hold to special creation, many clergymen warmed to the idea of evolution. In 1860 Darwin’s theory of natural selection was discussed at the meeting of the British Association for the Advancement of Science at Oxford. Bishop Samuel Wilberforce (1805–1873) intended to crush Thomas Huxley (1825–1895), who defended the new theory. The debate, however, was a complete victory for the Darwinians. “Wilberforce ridiculed Darwin’s theory and asked Huxley on which side of his family he claimed to be descended from an ape.”<sup>8</sup> Whereupon Huxley, after demolishing the Bishop’s arguments, claimed “that he would rather be descended from an ape than from a man of high position who misused his talents to attack a theory he did not understand.”<sup>9</sup>

Thereafter, many theologians began to interpret the six days of creation as long periods of time. In 1880 the editor of the weekly *Independent*, which held the line against evolution for a long time, estimated that “perhaps half of the educated ministers in our leading Evangelical denominations” believe “that the story of the creation and fall of man, told in Genesis, is no more the record of actual occurrences than is the parable of the Prodigal Son.”<sup>10</sup>

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<sup>4</sup> *Ibid.*, s.v. “Arduino, Giovanni.”

<sup>5</sup> Harold W. Clark, *The Battle over Genesis* (Washington, D.C.: Review and Herald, 1977), 79.

<sup>6</sup> *Ibid.*, 87.

<sup>7</sup> *Ibid.*, 89.

<sup>8</sup> Peter J. Bowler, *Evolution: The History of an Idea* (Berkeley: U of California P, 1984), 184.

<sup>9</sup> *Ibid.*

<sup>10</sup> William Hayes Ward, “Whether It Is Right to Study the Bible,” *Independent* 32 (February 26, 1880): 4; quoted in Numbers, 3. See also Jon H. Roberts, *Darwinism and the Divine in America: Protestant Intellectuals and Organic Evolution, 1859–1900* (Madison: U of Wisconsin P, 1988).

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By the turn of the century, the theory of evolution was firmly entrenched in the scientific community, particularly in regard to geology. A textbook on geology published in 1911 shows a well-developed history of geology based on the theory of evolution.<sup>11</sup>

This was the background against which Ellen G. White and the pioneers of the Seventh-day Adventist Church wrote on the subject of geology, creation, and evolution. In spite of the difficulties they faced in leading a fledgling church, they kept themselves informed concerning the creation-evolution debate during the second half of the 19<sup>th</sup> century. On average, two articles on these topics appeared every year in the *Review and Herald* between 1860 and 1890.<sup>12</sup>

### II. Ellen White and Science

The words “science” and “sciences” appear about 1850 times in the writings of Ellen White. Frequently she uses the word “science” in its root meaning of “knowledge,” from the Latin *scientia*. Thus she can speak of “the science of salvation” (AA 474)<sup>13</sup>, “the science of heaven” (CG 293), “the science of conversion” (CC 292), “the science of Christianity” (CG 296), or the “science of cooking” (CG 372). Similarly, she describes Paul’s labor in Athens as meeting “logic with logic, science [knowledge] with science, philosophy with philosophy” (AA 244). At times she describes intellectual training in contrast to practical physical labor as “knowledge of the sciences” (CG 358). “Science” in her writings can also be found as a synonym for “skill” (CG 356) that can be seen even in the humblest work (CG 348).

“Science” in the modern sense of “natural science,” like physiology, Ellen White calls “the science of life” (ChS 152), “the science of human life” (CME 33), or the “science of health” (ChS 138). The study of nature she calls “natural science” (COL 125), or simply “science” (CE 196), and she referred to the work of medical missionaries as “scientific work” (CH 370).

Ellen White wrote extensively on the topic of health and made some statements in the fields of nutrition and physiology that have sometimes only been scientifically corroborated long after she published them. For example, in 1861 she warned overweight individuals who subsisted primarily on a meat diet that they were “liable to acute attacks of disease, and to sudden death” if they continued their dietary program (2T 61). Medical science during the 20<sup>th</sup> century

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<sup>11</sup> J. Brigham, *A Text Book of Geology* (New York: Appleton), 1911.

<sup>12</sup> Stoy E. Proctor, “Historical Context and Proposed Interpretation for Representative E. G. White Statements on Creation,” Term paper, Andrews University Theological Seminary (1970): 8. Some of these articles were: D. T. Bourdeau, “Geology and the Bible,” *Review and Herald* (Feb. 5, 1867): 98, 99; A. T. Jones, “‘Evolution’ and Evolution,” *Review and Herald* (March 11, 1884): 162, 163; *Ibid.* (March 18, 1884): 178, 179; *Ibid.* (March 25, 1884): 194, 195. Sometimes they reprinted articles from other papers; for example, in 1860 the front page of the *Review and Herald*, July 3, carried an article on geology from *The Bible True* (47–51).

<sup>13</sup> A key to the abbreviations used here may be found at the end of this article.

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recognized the risk of heart attacks and strokes from the use of certain kinds of meat and saturated fats.<sup>14</sup>

It was particularly in the area of health and medicine that Ellen White appreciated the findings of science, and she encouraged Seventh-day Adventists to enter these fields (DG 95).<sup>15</sup> She had a great burden for the training of nurses. “I could wish that there were one hundred nurses in training where there is one,” she wrote from Australia in 1892. She felt that “both men and women can be so much more useful as medical missionaries than as missionaries without the medical education” (CH 503).

Ellen White, on the basis of her visions, warned against the use of tea, coffee (MH 326), tobacco (MH 327), alcohol (Te 59), the use of meat (MH 313), and the consumption of large quantities of sugar (CH 154) and salt (MH 305) long before the dangers of these items became common knowledge. She was not a trained scientist—she wrote what the Spirit of God moved her to write. In regard to the moderate use of salt she wrote, in 1901, “The whys and wherefores of this I know not, but I give you the instruction as it is given me” (CD 344).

Some of her statements in the area of science and health have been challenged over the years as to their scientific accuracy: e.g., the “amalgamation of man and beast” (3SG 64)<sup>16</sup>; “self-abuse [masturbation]” (*An Appeal to Mothers*, 27); wigs leading to insanity (HR, October 1, 1871, 120–121); and phrenology and mesmerism as being “good in their place” (2SM 352). Since this article is focusing on the Ellen G. White statements in relation to the earth sciences, we will not investigate these particular statements. They have been dealt with in other places.<sup>17</sup>

### III. The Relationship between Scripture and Science

Under inspiration Ellen White wrote the following chapters and articles concerning the relationship between Scripture and the natural sciences:

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<sup>14</sup> *Journal of the American Medical Association* (June 3, 1961): 783.

<sup>15</sup> At the same time she counseled, “Great care should be taken not to encourage persons who might be useful in some less responsible position, to study medicine at a great outlay of time and means, when there is no reasonable hope that they will succeed” (CT 473).

<sup>16</sup> See Gordon Shigley, “Amalgamation of Man and Beast: What did Ellen White Mean?” *Spectrum* (June 1982): 10–19. The difficulty with her amalgamation statements is that on the one hand she wrote that “if there was one sin above another which called for the destruction of the race by the flood, it was the base crime of amalgamation of man and beast which defaced the image of God” (3 SG 64). This would fit the concept of cohabitation of man with beast. However, she also stated that “since the flood there has been amalgamation of man and beast, as may be seen in the almost endless varieties of species of animals, and in certain races of men” (*Ibid.*, 75). This seems to indicate that she had in mind the mixing of different races of humans and the mixing of different races of animals. Why this should be such a terrible sin is explained by Nichol with references to Genesis 6:2, 3 and statements in *Patriarch and Prophets*, pages 60–63 and 81, 82.

<sup>17</sup> See F. D. Nichol, *Ellen White and Her Critics* (Washington, D.C.: Review and Herald, 1951); Roger W. Coon, *The Writings of Ellen White: Sourcebook*, (Berrien Springs: Andrews University, 1992); Herbert H. Douglass, *Messenger of the Lord* (Nampa, ID: Pacific Press, 1998).

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1. 1864 “Disguised Infidelity” (3 SG 90–96)
2. 1884 “Science and Revelation” (ST March 13, 1884)
3. 1884 “Science and the Bible in Education” (ST March 20, 1884)
4. 1884 “Erroneous Doctrines Dangerous” (ST March 27, 1884)
5. 1903 “Science and the Bible” (Ed 128–134)

The platform from which Ellen White considered the natural sciences was the Bible. She had absolute confidence in Scripture and believed that everything, including scientific theories, had to be measured by the Word of God. “The Bible,” she said, “is not to be tested by men's ideas of science, but science is to be brought to the test of the unerring standard” (CT 425). Scripture was for her “the foundation of all true knowledge” (FE 393). She compared it to a fountain—“The more you look into it, the deeper it appears” (Ibid.). The Word of God, therefore, took precedence over any of the sciences. “Apart from Christ we are still incapable of interpreting rightly the language of nature” (8T 257).

Nevertheless, she recognized that science can teach the laws of nature, and in the area of health science had a contribution to make provided it was guided by the presupposition of Scripture that God is the creator of all laws of nature.

For Ellen White nature and the Bible had the same author; therefore, there had to be harmony between them. “Rightly understood, science and the written word agree, and each sheds light on the other” (CT 426). If there was a conflict, she saw the cause in “inferences erroneously drawn from facts observed in nature” (Ed 128). Case in point—geology. In the chapter “Science and the Bible,” in the book *Education* she wrote:

Geology has been thought to contradict the literal interpretation of the Mosaic record of the creation. Millions of years, it is claimed, were required for the evolution of the earth from chaos; and in order to accommodate the Bible to this supposed revelation of science, the days of creation are assumed to have been vast, indefinite periods, covering thousands or even millions of years. Such a conclusion is wholly uncalled for. The Bible record is in harmony with itself and with the teaching of nature. (128, 129)

She acknowledged that remains of animals much larger than any now known have been found, but she felt that the Flood recorded in Genesis 7–9 provided an explanation for these facts. “Before the Flood the development of vegetable and animal life was immeasurably superior to that which has since been known” (Ibid., 129). Then, at the Flood, tremendous changes took place, and “in the re-formation of the earth's crust were preserved many evidences of the life previously existing” (Ibid.).

#### **IV. True and False Science**

Ellen White frequently used the expression “true science,”<sup>18</sup> by which she understood science in harmony with Scripture. “All true science,” she wrote, “is but an interpretation of the handwriting of God in the material world” (CE 66). This kind of science “brings from her research only fresh evidences of the wisdom and power of God” (Ibid.).

We may question this understanding of science, but we must remember that her paradigm, into which everything else had to be fitted, was the infallibility of the Word of God. Scientific theories in her day, like those today, were frequently changing, Scripture, by contrast, was “the unerring counsel of God” (4 T 441). “God has permitted,” she wrote, “a flood of light to be poured upon the world in discoveries in science and art; but when professedly scientific men lecture and write upon these subjects from a merely human standpoint, they will assuredly come to wrong conclusions” (3 SM 307).

In contrast to “true science,” Ellen White often referred to “science, falsely so called,”<sup>19</sup> a phrase she borrowed from 1 Tim. 6:20. This kind of science, based on the conceptions and theories of men to the exclusion of the wisdom of God, was for her “stamped with idolatry” (CE 84). Why? Because “science, falsely so-called, has been exalted above God” (Ibid.), thereby placing that which has been created above its creator. This, she wrote “is wearing away the foundation of Christian principle” (RH, Dec. 29, 1896), and destroys “faith in the direct interposition of Providence, attributing all such manifestations to natural causes” (2 BC 1011). Christians therefore need to guard continually “against the sophistry in regard to geology and other branches of science falsely so called, which have not one semblance of truth” (RH, Mar 1, 1898).

#### **V. Fire in the Mountains**

Ellen White, it seems, loved mountains. But she recognized that they too are the products of the Flood. Speaking of the Alps in Europe she said, “In the rocks and mountains are registered the fact that God did destroy the wicked from off the earth by a flood” (OHC 252). This is a good illustration of how Ellen White integrated the facts of science with the Bible. She saw everything through the eyes of Scripture, and she firmly believed that the rocks and mountains supported the biblical record of the Flood.

As far as the existence of fossils of sea animals on top of the mountains was concerned, she did not believe that these mountains were once covered by water, as was held by some Christians in her time. She believed that

Clay, lime, and shells that God had strewn in the bottoms of the seas,  
were uplifted, thrown hither and thither, and convulsions of fire and

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<sup>18</sup> The Ellen G. White CD Rom gives 123 references for this expression. While many are undoubtedly copies, a sizeable number of original references remain.

<sup>19</sup> The Ellen G. White CD Rom lists 66 references for this expression.

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flood, earthquakes and volcanoes buried the rich treasures of gold, silver, and precious stone beyond the sight and reach of man. Vast treasures are contained in the mountains. There are lessons to be learned in God's book of nature. (2MR 307)

The Flood also provided for her the explanation for the existence of coal beds and oil deposits underground. At the time of the Flood “immense forests were buried,” she wrote. “These have since been changed to coal, forming the extensive coal beds that now exist, and also yielding large quantities of oil” (PP 108). These coal and oil fields, she believed, were responsible for some of the earthquakes and volcanoes,

The coal and oil frequently ignite and burn beneath the surface of the earth. Thus rocks are heated, limestone is burned, and iron ore melted. The action of the water upon the lime adds fury to the intense heat, and causes earthquakes, volcanoes, and fiery issues (ibid.).

In the late 19<sup>th</sup> century scientists discussed whether the core of the earth was a spheroid of molten matter, as vulcanologists believed, or a solid core with pockets of magma. The 1911 edition of the *Encyclopedia Britannica* states that

When physicists urged the necessity of assuming that the globe was practically solid, vulcanologists were constraint [sic] to modify their views. Following a suggestion of W. Hopkins of Cambridge, they supposed that the magma instead of existing in a central cavity, was located in comparatively small subterranean lakes. Some authorities again, like Rev. O. Fisher, regarded the magma as constituting a liquid zone, intermediate between a solid core and a solid shell.<sup>20</sup>

We do not know how much Ellen White was aware of these scientific discussions, but while admiring the mountains in Italy in 1885, she wrote, “These mountains to me are significant. Subterranean fires, although concealed in them, are burning” (2 MR 305). Then referring to God’s demonstration of his power at the end of time, she continued, “There is a sea of fire beneath our feet. There is a furnace of fire in these old rocky mountains. The mountain belching forth its fires tells us the mighty furnace is kindled, waiting for God's word to wrap the earth in flames” (ibid., 305–306). How much, if at all, she was influenced by the discussion among geologists at that time we shall probably never know this side of heaven.

Warren H. Johns made a study of her statements on subterranean fires and compared them with similar statements made before or at her time and with some of the findings of modern science. He discovered that during the 18<sup>th</sup> century Abraham Werner arrived at “the highly probable conjecture that most, if not

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<sup>20</sup> “Volcano,” *Encyclopedia Britannica*, eleventh edition (New York, 1911), 28:191.

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all, volcanoes arise from the combustion of underground seams of coal.”<sup>21</sup> According to Johns, the idea of subterranean coal fires, however, was dead by 1850.<sup>22</sup> Thus Ellen White’s statements in 1885 would have been an idea from a bygone era. But in 1940 the translation of Otto Stutzer’s *Geology of Coal* documented the fact that “subterranean coal beds are ignited through spontaneous combustion, resulting in the melting of nearby rocks that are classed as pseudo-volcanic deposits.”<sup>23</sup> Examples of burning coal beds have been found in Germany and Serbia as well as in America.<sup>24</sup> Thus modern science seems to confirm Ellen White’s statement that “coal and oil frequently ignite and burn beneath the surface of the earth” (PP 108). Johns concludes that it is highly unlikely that Ellen White read the scientific description of these fires in the scientific literature of the 18<sup>th</sup> and 19<sup>th</sup> century; therefore, her statements, he says, “must have been inspired.”<sup>25</sup> While God could certainly have told her this in a vision, he could also have led her to such a concept in some of the books she was reading.<sup>26</sup>

**VI. The Challenge of Evolution**

The evolutionary theory, by denying a creation in six days, as recorded in Genesis 1, challenged not only the 19th century Christian worldview, but also the truthfulness of Scripture. George Marsden aptly describes the situation at the end of the 19<sup>th</sup> century by stating:

Whether in South or North, the larger issue was the truth of the Bible. The authority for their whole belief system seemed to rest on this foundation. If the Bible were not true, then on what did Protestantism, the religion of scripture sola [sic], rest? And what if there were scientific and historical errors in Scripture? Would not such flaws call into question other biblical claims? With both Darwinist and highly sophisticated higher critics suggesting that there were serious errors in Scripture, many of the faithful of the turn-of-the-century generation had to be deeply disturbed.<sup>27</sup>

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<sup>21</sup> Archibald Geikie, *The Founders of Geology*, 2<sup>nd</sup> ed. (New York: Macmillan, 1905), 56; quoted in Warren H. Johns, “Ellen G. White and Subterranean Fires,” Part 1, *Ministry* (August 1977): 11.

<sup>22</sup> *Ibid.*

<sup>23</sup> Johns, “Ellen G. White and Subterranean Fires,” Part 2, *Ministry* (October 1977): 11.

<sup>24</sup> A fire along a 400 meter outcrop in the Blucher coal bed in Germany “lasted over 150 years, and the adjacent shale has been baked to a blue and red porcelain jasper and to a solid red slate” (Stutzer, 310; quoted in Johns, [October 1977], 20).

<sup>25</sup> *Ibid.*, 21, 22.

<sup>26</sup> On the issue of the Holy Spirit supervising the biblical writers in their research see George Rice, *Luke a Plagiarist?* (Mountain View, CA: Pacific Press, 1983), 19–29.

<sup>27</sup> George M. Marsden, *Understanding Fundamentalism and Evangelicalism* (Grand Rapids: Eerdmans, 1991), 37, quoted in Fernando Canale, *Understanding Revelation-Inspiration in a Post-modern World* (Berrien Springs, MI: Andrews University Lithotech, 2001), 209.



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Christian scholars responded to this challenge in different ways. Some rejected the claims of the theory of evolution and emphasized the inerrancy of Scripture; others preempted the conflict between science and theology by proposing a dichotomy between salvific and scientific issues in Scripture. Matters of salvation belong to theology, while questions concerning the origin of the world belong to science.<sup>28</sup> Thus, one could “simultaneously believe in evolution and in justification by faith in the cross without contradiction.”<sup>29</sup>

Ellen White was aware of these issues, and in 1894 she wrote, “Science, so-called, human reasoning and poetry, cannot be passed on as of equal authority with revelation” (RH, Nov. 20, 1894). She defended the authority of the Bible, and strongly objected to any tampering with Scripture. In the year 1900 she wrote:

Many professed ministers of the gospel do not accept the whole Bible as the inspired word. One wise man rejects one portion; another questions another part. They set up their judgment as superior to the word; and the Scripture which they do teach rests upon their own authority. Its divine authenticity is destroyed. (COL 39)

### **VII. Infidel Geologists**

In 1864, Ellen White addressed herself specifically to the topic of geology. “Infidel geologists claim,” she wrote, “that the world is very much older than the Bible record makes it. They reject the Bible record, because of those things which are to them evidences from the earth itself, that the world has existed tens of thousands of years” (3 SG 91, 92).

What in particular were the claims of these infidel geologists with which Ellen White disagreed? She listed the following:

1. That the six days of creation were six “vast, indefinite periods.”
2. That “the day of God’s rest was another indefinite period.”
3. That the world “was populated long before the record of creation, by a race of beings vastly superior in size to men now upon the earth” (ibid., 92, 93).

Ellen White dismissed all three propositions as out of harmony with God’s Word. “The Bible recognizes no long ages in which the earth was slowly evolved from chaos,” (PP 112) she declared. “Each successive day of creation . . . consisted of the evening and the morning, like all other days that have followed” (ibid.). This was not something she believed because she took Genesis 1 seriously; she “was shown,” she wrote, “that the first week, in which God performed the work of creation in six days and rested on the seventh day, was just like every other week” (3 SG 90). The first and second proposition, of course, made “senseless the fourth commandment of God’s holy law” (ibid., 92).

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<sup>28</sup> This, however, was only possible by redefining the revelation-inspiration process. See Canale, 224–225.

<sup>29</sup> Ibid., 225.

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They aimed directly at the foundation of the Sabbath commandment. Ellen White called it “the worst kind of infidelity” (ibid., 91), because with many who professed to believe the creation record yet accepted these claims, “it is infidelity in disguise. It charges God with commanding men to observe the week of seven literal days in commemoration of seven indefinite periods, which is unlike his dealings with mortals, and is an impeachment of his wisdom” (Ibid.).

Concerning the third proposition she wrote, “I have been shown that without Bible history, geology can prove nothing” (Ibid., 93). While she acknowledged that “the bones of human beings and of animals found in the earth, are much larger than those of men and animals now living,” she added, “The time of their existence, and how long a period these things have been in the earth, are only to be understood by Bible history” (Ibid.). And Bible history for her was to be measured in terms of “about 6000 years” (LHU 52).

**VIII. The Issue of Origin**

In 1904 Ellen White wrote: “The work of creation can never be explained by science . . . the theory that God did not create matter when He brought the world into existence is without foundation. In the formation of our world, God was not indebted to pre-existing matter” (8T 258).

The question is, was Ellen White referring to the earth’s foundation material (i.e., the planet itself) when she used the word ‘world,’ or was she speaking of the ordered, living biological world with its ancillary support system? When did God bring the planet itself into existence? Was it a few thousand years ago, or was it millions of years ago, and a few thousand years ago God only created the organic world and its support system in six days?

The timing of this statement is interesting. From the 1860s on, the pioneers of the Seventh-day Adventist Church had been discussing this issue. Uriah Smith, editor of the *Review and Herald*, in 1860 published several pages from a book or pamphlet entitled *The Bible True* which stated:

Nor is there anything in revelation which forbids us to believe that the substance of the earth was formed long before it received its present organization. The first verse of Genesis may relate to a period millions of ages prior to the event noticed in the rest of the chapter. Commentators who wrote hundreds, and some of them fifteen hundred years ago, seem to have understood the first verse as relating to a period far anterior to the creation of man. This interpretation, therefore, is not modern, nor made merely to obviate a difficulty. But if it were, it is so perfectly coincident with the just rules of interpretation, that there can be no just objection to it.<sup>30</sup>

J. N. Andrews, eighteen months later, however, seemed to object to Uriah Smith’s argument when he wrote in the *Review and Herald*, “Out of nothing

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<sup>30</sup> Uriah Smith, “Geology,” *Review and Herald* 16.7 (July 3, 1860): 49.

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God created all things ‘so that things which are seen were not made out of things which do appear.’ This act of creation is that event which marks the commencement of the first week of time.”<sup>31</sup>

In 1874, Andrews reiterated his position of 1861 and made it quite clear that in his view everything was created some six thousand years ago:

But if we could be placed back some 6000 years in the past, and from that point survey the vast abyss of space now studded with the stars of heaven, what should we behold? Blank nothing. The host of heaven did not then exist. Our earth itself had not risen into being. The vast infinity of space was literally, as Job expresses it, “the empty place,” and that which filled it was “nothing.” Job 26:7. Utter and profound darkness rested upon the great void. Even the materials which subsequently formed the worlds had no existence.<sup>32</sup>

Andrews’ view, however, did not prevail. In 1898 Milton C. Wilcox wrote an editorial in the *Signs of the Times* in which he stated:

When did God create, or bring into existence, the heaven and the earth?—“In the beginning.” When this “beginning” was, how long a period it covered, it is idle to conjecture; for it is not revealed. That it was a period which antedated the six days’ work is evident.<sup>33</sup>

Similarly George McCready Price, who became best known for his writings in the field of geology, wrote in 1902:

This [creation in Gen 1:1], be it clearly understood, and as other writers have so clearly pointed out, was *before* the six days of our world’s creation proper began. The six literal days of creation, or peopling of our world with life forms, begin with verse 3. *They begin with the whole body of our world already in existence.* How long it had been formed before this we are not told, and whether by a slow or rapid process we have no information.<sup>34</sup>

Ellen White’s statement two years later that “in the formation of our world, God was not indebted to pre-existing matter” (8T 258) may have clarified the issue at the time; she may have given further verbal explanations when asked. One hundred years later, however, when we can no longer ask her, her written words can be understood in two ways:

1. God created the globe on day one of the creation week.

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<sup>31</sup> J. N. Andrews, “History of the Sabbath,” *Review and Herald* 19/1 (Dec. 3, 1861): 1.

<sup>32</sup> Idem, “The Memorial of Creation,” *Review and Herald* 43/17 (April 7, 1874): 129.

<sup>33</sup> M. C. Wilcox, “The Gospel in Genesis One,” *The Signs of the Times*, 24/27 (July 7, 1898): 16.

<sup>34</sup> G. M. Price, *Outlines of Modern Science and Modern Christianity* (Pacific Press, 1902), 271.

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2. God was not indebted to pre-existing matter when he created the globe itself millions or billions of years ago.

Considering all her writings on the topic, it is unlikely, though not impossible, that she made a distinction between the Precambrian or pre-fossil material of the earth and the fossil bearing strata of the earth.

Many Adventist theologians and scientists today hold to the two-stage-creation theory. Millions of years ago God created the core globe of our earth, and 6–10,000 years ago he created all living organisms and their habitations in six days. W. H. Shea, for instance, writes, in reference to Genesis 1:1, “The text acknowledges the fact that the inert earth was in a watery state before the events of the creation week, but it is not especially concerned with identifying how long it may have been in that state.”<sup>35</sup>

However, a straightforward reading of Fundamental Belief number six, which is largely a quote from Exodus 20:11, gives the impression that the globe itself was created during the six days:

God is Creator of all things, and has revealed in Scripture the authentic account of His creative activity. In six days the Lord made “the heaven and the earth” and all living things upon the earth, and rested on the seventh day of that first week.<sup>36</sup>

If “all living things” refers to the organic creation, “heaven and earth” could refer to the inorganic creation.

**IX. Six Thousand Years**

According to the E. G. White laser-disc concordance, there are forty-two 6000-year and forty-one 4000-year statements in her writings.<sup>37</sup> The former refers to the time since creation, the latter to the time from creation to the birth of Christ. It is from these statements that Spirit of Prophecy support has been garnered among Seventh-day Adventists for the commonly held belief that the earth is only about six thousand years old.

However, most of her references to these time periods are not for the sake of establishing the age of the earth, but incidental to some other thought she wanted to present. For example, “The continual transgression of man for six thousand years has brought sickness, pain, and death as its fruits” (3T 492). The point she was making was that since the fall man’s transgressions have had terrible consequences; the “six thousand years” can easily be replaced with “since the fall” without any loss of meaning to her statement. The same applies to her “four thousand year” statements.

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<sup>35</sup> William H. Shea, “Creation,” in *Handbook of Seventh-day Adventist Theology*, ed. Raoul Dederen (Hagerstown, MD: Review and Herald, 2000), 419.

<sup>36</sup> *Seventh-day Adventists Believe . . .* (Silver Spring, MD: Ministerial Association, 1988), 68.

<sup>37</sup> Warren H. Johns, “Ellen G. White and Biblical Chronology,” *Ministry* (April 1984): 20.

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The phrases “six thousand years” and “four thousand years” are variations of “since the beginning,” “since the fall,” or “during Old Testament times.” Since she was not making a precise statement of time, she used various phrases, such as “for six thousand years” (CD 117), “nearly six thousand years” (CT 467), “about six thousand years” (1 SP 87), and even “over six thousand years” (CTBH 154), and “more than six thousand years” (HS 133) to summarize the time period since the six-day creation in Genesis 1.

Only once did she actually refer to the age of the earth. This was in connection with her statements concerning infidel geologists, when she wrote, “the world is now only about six thousand years old” (3SG 92).<sup>38</sup> Why “six thousand years”? There is no indication that she was ever told in vision that the earth is only six thousand years old. Why then six and not eight or ten thousand years?

The explanation is most likely found in the fact that whenever she opened her King James Bible she saw on every page in the margins Ussher’s dates.<sup>39</sup> On the first page of the Bible next to the creation account she, like every Bible believing Christian at that time, read the date 4004 BC. Short of a revelation from heaven, why should she have used any other date?

We know from her son W. C. White that she did not consider herself to be an authority on the details of history and chronology. In his 1912 letter to W. W. Eastman, head of the publishing department of the Southwestern Union Conference, W. C. White explained: “Regarding Mother’s writings and their use as authority on points of history and chronology, Mother has never wished our brethren to treat them as authority regarding the details of history or historical dates.<sup>40</sup> While in the context of the letter, his words referred primarily to the historical dates in the *Great Controversy*, the general principle in the background of this saying applies equally to the chronologies in the Old Testament. Nevertheless, this does not mean that tens of thousands or millions of years can be inserted into her chronology. When she disclaimed being an authority, she was referring to details of history and chronology.

### **X. Biblical Chronology<sup>41</sup>**

Many people past and present have tried to calculate the age of the earth by means of the biblical genealogies. In contrast to the millions of years imagined by the Indian philosophers, and the 155,625 years of the Egyptian Apollonius

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<sup>38</sup> This statement was republished in *Spirit of Prophecy* (1870), 1:87, and *Signs of the Times*, March 20, 1879.

<sup>39</sup> While she never mentions archbishop Ussher by name, she was familiar with his chronology. Warren H. Johns, after investigating all 2500 chronological references made by Ellen White, writes, “She sided with Ussher not only upon the issue of the 6,000 years but also upon the dating of numerous biblical events” (Johns, 21).

<sup>40</sup> Arthur L. White, *Ellen G. White: The Later Elmshaven Years* (Washington, D.C.: Review and Herald, 1982), 331.

<sup>41</sup> I am indebted to Dr. W. H. Shea for material in this section of the paper.

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(2nd century BC), all calculations based on the Bible have a very short time span for the existence of the world.

Philo of Alexandria (1st Century AD) counted 5169 years from Adam to Christ; Clement of Alexandria (2nd century AD) 5624 years. Rabbi Hillel, a contemporary of Jesus, believed that the world was created 5761 years before his time.

In the 17th century, the Irish archbishop James Ussher (1581–1656) calculated that the world was created on October 2, 4004 BC.<sup>42</sup> Using this time period as his overall framework, he attempted to support it through an elaborate chronology that he believed was fully based on the Bible. “But in fact, he could make everything fit only by considerable manipulation.”<sup>43</sup> Nevertheless, his dates were used for centuries in the King James Version.

Ussher believed that the genealogies in the Bible were complete and could be used for working out the age of the earth. Unfortunately, this is not the case. When we study the genealogies in the Bible we discover that, contrary to Ussher’s claim, they do contain gaps.<sup>44</sup> Some gaps may even be present in the genealogies in Genesis 11.<sup>45</sup> These gaps are based on the Father-Son principle. In Hebrew every ancestor can be called *father* and every descendant can be called *son*, for example, “Jesus the son of David, the son of Abraham” (Matt 1:1).

The fact that there are gaps in these genealogies was of no great concern for the people of the Old Testament because the purpose of biblical genealogies was not to work out the date of the Flood or the creation of the world, but to help the people of Israel maintain their social fabric. The genealogies served to:

1. Identify landowners. Land was given by God and could not be sold (Lev 25:23);
2. Validate the continuity of the priestly office;
3. Validate the continuity of the kingly office;
4. Express continuity through times of political transition and disruption:
  - Ruth 4:18–22 joins the times of the judges and kings;
  - Ezra 7 bridges the gap of the exile;

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<sup>42</sup> Ussher obviously accepted the rabbinic saying found in the Babylonian Talmud that says, “The world is to exist six thousand years. In the first two thousand there was desolation [no Torah]; two thousand years the Torah flourished; and the next two thousand years is the Messianic era, but through our many iniquities all these years have been lost” (Sanhedrin 97a, b). Hence, Ussher believed that Jesus was born exactly 4000 years after the creation of the world. He knew that Dionysius Exiguus in the 6th century had made a mistake of at least four years as far as Christ’s birth was concerned, so he added four years to the OT and came to 4004 BC for the creation of the world.

<sup>43</sup> Robert Johnston, “6000 Plus 1000,” *Adventist Review* (October 29, 1998): 55. See also James Barr, “Why the World was created in 4004 B.C.: Archbishop Ussher and Biblical Chronology,” *Bulletin of the John Rylands University Library of Manchester* 67 (Spring 1985): 575–608.

<sup>44</sup> See appendices A and B.

<sup>45</sup> At least one gap can be shown by comparing Genesis 11:12 with Luke 3:36. According to Luke, who used the LXX, the son of Arphaxad was Cainan, who became the father of Salah.

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5. Express continuity through times of historical obscurity that lacked great religious significance:

- Gen 10 and 11 fill the vacuum between the flood and Abraham;
- Exodus 6 bridges the gap of the time spent in Egypt;
- Matt 1 bridges the intertestamental time period.

It is important to note that nowhere does the Old Testament add up the numbers mentioned in any genealogy to calculate creation, the flood, or any other event. When genealogies are used to cover times of obscurity, the emphasis is on the people at the beginning and the end of these lists (Noah – Abraham). This emphasis lends itself to gaps in the genealogies. Ussher’s chronology, therefore, is not a reliable guide when it comes to dating the Flood or the creation of the world.

**XI. Teaching Science**

From the very beginning of our church Ellen White was concerned about our children and young people. Speaking of the early years she wrote, “The Lord directed our minds to the importance of the educational work. We saw the need of schools, that our children might receive instruction free from the errors of false philosophy, that their training might be in harmony with the principles of the word of God” (TM 27).

In her 1884 article on “Science and the Bible in Education” (ST March 20, 1884), Ellen White began with the statement, “The foundation of all right education is a knowledge of God.” Contrary to many parents who thought that a well-trained intellect was more important than a knowledge of God, she called on parents and teachers to put God first.

“The true object of education,” she said, is to fit us for service to God, but Satan seeks to defeat this object by introducing the wrong education.

The conclusions which learned men have reached as the result of their scientific investigations are carefully taught and fully explained; while the impression is distinctly given that if these learned men are correct, the Bible cannot be. These philosophers would make us believe that man, the crowning work of creation, came by slow degrees from the savage state, and that farther back, he was evolved from the race of brutes. They are so intent upon excluding God from the sovereignty of the universe, that they demean man, and defraud him of the dignity of his origin. Nature is exalted above the God of nature; she is idolized, while her Creator is buried up and concealed from sight by science falsely so-called. (ST, March 20, 1884)

Then she referred to some of the scientific ideas that the theory of evolution put forward—that matter possesses vital power and that the operations of nature are carried on according to fixed laws that even God himself cannot change. “This is false science,” she wrote; “nature is not self-acting; she is the servant of her Creator” (Ibid.). Nature is not an inherent power that guides the planets and

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keeps them in position, but the hand of God. Parents and teachers, therefore, “should aim to impress the young minds with the beauty of truth. They should realize that the safety of the young depends upon combining the religious culture with general education” (Ibid.).

She concluded with the foundational thought that dominates all her writings on science, that all true science is in harmony with the works of God. “Science opens new wonders to our view; she soars high and explores wonderful depths, but she brings nothing from her research that conflicts with divine revelation . . . the book of nature and the written word do not disagree, each sheds light on the other” (Ibid.).

At the 1896 General Conference she spoke on “Our Duty and Responsibility.” One of the responsibilities she mentioned were schools for the young people. In these schools students were to study not only the will of God, but they were to “reach to the very highest branches of science” (GCB Oct. 1, 1896) in order to better understand God and his work. She encouraged parents and students to aim high.

On January 18, 1894, she wrote to W. W. Prescott, “All who engage in the acquisition of knowledge should aim to reach the highest round of progress. Let them advance as fast and as far as they can; let their field of study be as broad as their powers can compass” (2MR 211). Yet at the same time she reminded him that they must make God their wisdom.

On another occasion she wrote that “too often the minds of students are occupied with men’s theories and speculations, falsely called science and philosophy” (COL 25). Therefore, she urged teachers to bring their students in close contact with nature. “Let them learn that creation and Christianity have one God. Let them be taught to see the harmony of the natural with the spiritual” (Ibid.).

In regard to the earth sciences in our schools, Ellen White strongly warned against the teaching of false theories in the classroom. “Before the theories of men of science are presented to immature students, they need to be carefully sifted from every trace of infidel suggestions” (CT 390), she counseled. “One tiny seed of infidelity sown by a teacher in the heart of a student may spring up and bring forth a harvest of unbelief” (Ibid.). Even schoolbooks did not escape her attention: “We need to guard continually against those books which contain sophistry in regard to geology and other branches of science” (Ibid.). She saw all this in the framework of the great controversy and identified Satan as the originator of these false theories. “Therefore, let our teachers beware lest they echo the falsehoods of the enemy of God and man” (Ibid.).

## **XII. Conclusion**

Ellen White’s understanding of the relationship between science and Scripture was fairly straightforward. Since God is the author of science, rightly understood, science and God’s Word had to agree. Both were to lead us to God by



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teaching us something of the physical and spiritual laws through which He works.

This harmony between Scripture and science was a key theme in her thinking. If there was an apparent difference, it was due to man’s faulty scientific theories, not because of what Scripture said. “True science,” she maintained, would never contradict Scripture.

Although she had no scientific training, Ellen White, on the basis of her visions, made some interesting comments on geology. The biblical Flood was for her the explanation for many features scientists attributed to evolution, and as for the origin of the world, she seemed to believe that God created planet earth and everything on it in six days, though a two-stage-creation, as advocated by some Seventh-day Adventists, cannot be ruled out.

The “four thousand” and “six thousand” years were primarily used respectively as metaphors for the Old Testament period and the history of mankind. As far as we know, she never had a vision concerning the 6000 years. Only once, most likely because of Ussher’s dates in her Bible, did she refer to the age of the earth as “six thousand years.”

As in all her writings, so also when writing on the topic of science, she pointed her readers to Jesus, the Savior of mankind, the creator of heaven and earth, and the re-creator of individuals who yield their hearts to the fountain of wisdom.

**Exhibit A**

**Typical Examples of Genealogies with Purposeful Gaps in Them**

**I. Ezra’s Genealogy—Ezra 7:1–5**

|                                |   |   |
|--------------------------------|---|---|
| 15 <sup>th</sup> century B. C. | Aaron<br>Eleazar<br>Phineas<br><br>Abishua<br>Bukki<br>Uzzi<br>Zerahiah<br>Meraiaoth<br>Azariah | Priests at the foundation of the tabernacle |
| Later 11 <sup>th</sup> century | Amariah   | Priest at the foundation of the temple      |
| Early 10 <sup>th</sup> century | Ahitub<br>Zadok<br><br>Shallum  | (Skips the rest of the monarchy)            |
| Late 7 <sup>th</sup> century   | Hilkiah   | Priest at the end of the temple             |
| Early 6 <sup>th</sup> century  | Azariah<br>Seriah   | (Skips the Exile)                           |

|                             |      |  |
|-----------------------------|------|--|
| Mid-5 <sup>th</sup> century | Ezra |  |
|-----------------------------|------|--|

**II. An Extra-Biblical Example of a Similar Priestly Genealogy**

The Give at Hamivtar Tomb Inscription from Jerusalem that was found in 1972. The script of the text is Palaeo-Hebrew, but its language is Aramaic, and it is currently dated to the 2<sup>nd</sup> century B.C.:

“I, Abba, son of the priest Eleazar, son of Aaron the high priest, I, Abba, the oppressed and the persecuted, who was born in Jerusalem, went into exile in Babylonia and brought back to Jerusalem Mat-tathiah the son of Judah, and I buried him in the cave, which I ac-quired by writ.” (From *Jerusalem Revealed*, ed. Y. Yadin [Jerusalem: The Israel Exploration Society, 1975], 73)

**Exhibit B**

An Example of a Genealogy which is Numerically at Variance with its own Contents and with known Genealogical Sources from the Old Testament.

**Matthew 1**

|  |   |   |
|--|---|---|
| <p>“So all the generations from Abraham to David were 14 generations”</p> <ol style="list-style-type: none"> <li>1. Abraham - ca. 2000</li> <li>2. Isaac</li> <li>3. Jacob</li> <li>4. Judah</li> <li>5. Perez</li> <li>6. Hezron</li> <li>7. Ram</li> <li>8. Amminadab</li> <li>9. Nahshon</li> <li>10. Salmon</li> <li>11. Boaz</li> <li>12. Obed</li> <li>13. Jesse</li> <li>14. David - ca. 1000</li> </ol> <hr style="width: 20%; margin-left: 0;"/> <p>13 sons born in 1000 yrs.= average birth age 70 yrs. Biologically unlikely. See the birth-ages in Gen. 11. (Terah, Abraham, Isaac, and Jacob were exceptions rather than the rule).</p> | <p>“And from David to the deportation to Babylon 14 generations”</p> <ol style="list-style-type: none"> <li>1. Solomon - ca. 1000</li> <li>2. Rehoboam</li> <li>3. Abijah</li> <li>4. Asa</li> <li>5. Jehoshaphat</li> <li>6. Joram</li> <li>(7.) Ahaziah</li> <li>(8.) Joash</li> <li>(9.) Amaziah</li> <li>(10.) 7. Uzziah</li> <li>(11.) 8. Jotham</li> <li>(12.) 9. Ahaz</li> <li>(13.) 10. Hezekiah</li> <li>(14.) 11. Manasseh</li> <li>(15.) 12. Amon</li> <li>(16.) 13. Josiah</li> <li>(17.) - Jehoiakim</li> <li>(18.) 14. Jehoiachin ca. 600</li> </ol> <hr style="width: 20%; margin-left: 0;"/> <p>Total - 18 generations (400 years)<br/>Matthew - 14 generations</p> | <p>“And from the deporta-tion to Babylon to the Christ 14 generations”</p> <ol style="list-style-type: none"> <li>1. Shealtiel - ca. 600</li> <li>2. Zerubbabel</li> <li>3. Abiud</li> <li>4. Eliakim</li> <li>5. Azor</li> <li>6. Zadok</li> <li>7. Achim</li> <li>8. Eliud</li> <li>9. Eleazar</li> <li>10. Matthan</li> <li>11. Jacob</li> <li>12. Joseph</li> <li>13. Jesus - B. C./A. D.</li> </ol> <hr style="width: 20%; margin-left: 0;"/> <p>Total - 13 generations (600 years)<br/>Matthew - 14 generations</p> |
|--|---|---|

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### **Abbreviations of E. G. White Publications Cited in this Article**

AA *Acts of the Apostles*,  
1BC, 2BC, . . . 7aBC *Seventh-day Adventist Bible Commentary*  
CC *Conflict and Courage*  
CCh *Counsels for the Church*, 1957  
CD *Counsels on Diet and Foods*  
CE *Christian Education*  
CG *Child Guidance*  
CH *Counsels on Health*  
ChL *Christian Leadership*  
ChS *Christian Service*  
CL *Country Living*, 1946  
CM *Colporteur Ministry*, 1953  
CME *A Call to Medical Evangelism and Health Education*  
COL *Christ's Object Lessons*  
CT *Counsels to Parents, Teachers, and Students*,  
CTBH *Christian Temperance and Bible Hygiene*  
DG *Daughters of God*  
Ed *Education*  
FE *Fundamentals of Christian Education*  
GCB *General Conference Bulletin*  
HS *Historical Sketches of the Foreign Missions of the Seventh-day Adventists*  
LHU *Lift Him Up*  
MH *Ministry of Healing*  
1MR, 2MR, etc. *Manuscript Releases*. 21 vols.  
OHC *Our High Calling*  
PP *Patriarchs and Prophets*  
RH *Review and Herald*  
1SG, 2SG, etc. *Spiritual Gifts*, 4 vols.  
1SM, 2SM, 3SM *Selected Messages*  
1SP, 2SP, etc. *Spirit of Prophecy*. 4 vols.  
ST *Signs of the Times*  
1T, 2T, etc. *Testimonies for the Church*. 9 vols.,  
Te *Temperance*  
TM *Testimonies to Ministers and Gospel Workers*