# Points of Contact Between Modern Flood Models and the 'Fountains' and 'Windows' of Scripture

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Abstract. Dozens of different Flood models proposed in the last 50 years make reference to the 'fountains' and/or 'windows' of Gn 7:11. Collectively, the biblical claims of these models are based on more than two dozen different specific biblical interpretations. Some of those interpretations have already been rejected by biblical scholarship, and a number of others are at risk of being rejected. Since the greatest majority of Flood models include at least one of these at-risk interpretations, biblical studies focused on these critical interpretative claims could greatly impact creationist Flood modeling.

Key Words. flood, models, fountains, windows, canopy, firmament, comets, volcanoes, subterranean, geysers, expansion

### 1. Introduction

Many of those who have proposed a description or scientific model of the Flood have mentioned the 'fountains of the great deep' and the 'windows of heaven' in their model. This is almost certainly because both phrases are prominently mentioned in the biblical account of the first day of the Flood (Gn 7:11). As indicated in a previous historical survey, those same commentators have proposed a broad range of interpretations of the 'fountains' and 'windows', and a correspondingly broad range of physical phenomena to which these phrases supposedly refer. Relatively little has heretofore been done by Hebrew scholars to determine how these suggestions align with the biblical text.<sup>2</sup>

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<sup>1.</sup> Kurt P. Wise, "'Fountains' and 'Windows' in Genesis 7:11: An Historical Survey," *Journal of the Creation Theology Society* 1 [2022]: 3-50.

<sup>2.</sup> Notable exceptions are papers by David M. Fouts (and Kurt P. Wise, "Blotting Out and Breaking Up: Miscellaneous Hebrew Studies in Geocatastrophism," in *Proceedings of the Fourth International Conference on Creationism Held August 3-8, 1998, Pittsburgh, Pennsylvania, USA: Technical Symposium Sessions*, ed. Robert E. Walsh [Pittsburgh: Creation Science Fellowship, 1998, 217-228]) and William D. Barrick (and Roger Sigler, "Hebrew and Geological Analysis of the Chronology and Parallelism of the Flood: Implications for Interpretation of the Geological Record," in *Proceedings* 

The purpose of this paper is to review the critical biblical interpretations included in those Flood models proposed over the last fifty years that happen to mention 'fountains' and 'windows'.<sup>3</sup>

### 2. 'Fountains' in Modern Flood Models

### 2.1 'Fountains' and Vulcanism Models

Modern Flood models commonly associate volcanic activity with the Gn 7:11 'fountains of the great deep'.<sup>4</sup> However, exactly how the vulcanism and the 'fountains' relate to each other differs from one Flood model to another. Most of the models suggest that the volcanoes and 'fountains' are active at the same time,<sup>5</sup> while not clarifying any necessary causal link between the two. Most of the remaining models seem to restrict the volcanic activity to the 'breakup' of the 'fountains' on the first day of the Flood.<sup>6</sup> The vulcanism in this second set of

of the Fifth International Conference on Creationism Held August 4-9, 2003, Pittsburgh, Pennsylvania, USA: Technical Symposium Sessions, ed. Robert L. Ivey [Pittsburgh: Creation Science Fellowship, 2003, 397-408]), and papers and discussion by Steven W. Boyd, Douglas K. Smith, Jr., and William D. Barrick in the Interdisciplinary Session of the 2021 meeting of the Creation Theology Society (published in the vol. 1 of the Journal of the Creation Theology Society [2022, 51-158]). [Ed. For another article by Hebraists, see Boyd and Smith's in this volume.]

- 3. This paper was NOT intended to review all Flood models—only those Flood models where 'fountains' and/or 'windows' are explicitly mentioned. Also, this paper does not intend to cover all aspects of those Flood models, nor, in fact, all mentions of Scripture in those Flood models. This paper only intends to review claimed points of contact between Flood models and references to the 'fountains' and/or 'windows' of Gn 7:11. [Ed. "Critical" does not refer to biblical higher criticism.]
- 4. See, e.g., the list of sources in footnote 133 in Wise, "Historical Survey" (2022), 29. [Ed. "Modern" is not used here in a technical sense.]
- 5. From footnote 133 in Wise, "Historical Survey" (2022), 29 see the Morris references of 1963, 1976, 1984, 1993, and 1998, and the references by Whitcomb, Dillow, Darrall, and Oard and Reed. Parallel volcanic and 'fountain' activity may also be what is described in the Nolan reference.
- 6. Similar to the eighteenth century claims by William Cockburn (*A Letter to Professor Buckland, Concerning the Origin of the World* [London: Hatchard and Son, 1838], 15, 20, 22 [e.g., "Moses tells us that the fountains of the great deep were *broken up*—not broken in, but broken up—an expression which evidently indicates marine volcanoes." (15)] and *The Bible Defended Against the British Association: Being the Substance of a Paper Read in the Geological Section, at York, on the 27th of September, 1844, 5<sup>th</sup> edition [London: Whittaker and Co., 1848], 3, 50, 56-57, 61 [e.g., "... 'the fountains of the great deep were broken up,"—by which I understand that great volcanoes burst up from the bottom of the ocean..." (56)]), modern modelers who identify the breakup of the fountains with volcanic activity would include Alfred M. Rehwinkle (<i>The Flood in the Light of the Bible, Geology, and Archaeology* [Saint Louis, MO: Concordia, 1951], 100-102) and John Clement Whitcomb, Jr. and Henry Madison Morris, Jr. *The Genesis Flood: The Biblical Record and its Scientific Implications* (Phillipsburg, NJ; Presbyterian and Reformed, 1961), 122: "Great volcanic explosions and eruptions are clearly implied in the statement 'all the fountains of the great deep [were] broken up'").

vulcanism models only initiates the 'fountains' for the first time, or substantially increases their output. The remaining models<sup>7</sup> equate the 'fountains' with the release of volcanic products—i.e., extrusives and/or juvenile water. These last models argue that the fountains contributed water—technically 'fluid'8—in the form of magma and/or magmatic water.<sup>9</sup>

At least implied in all these vulcanism models is what I call CI-A—Critical Interpretation A—(that the Gn 7:11 'fountains' contributed water to the Flood from some source beneath the earth's surface) and CI-B (that the Gn 7:11 'fountains' were a substantial contributor to the water budget of the Flood). Hunter's model adds CI-C—that the 'fountains of the great deep' operated

Although it is not clear from whence Rehwinkle or Whitcomb and Morris derived their ideas, but it seems fairly clear that later Flood modelers more or less followed the lead of Whitcomb and Morris. For a list of those who seem to have done so, from footnote 133 in Wise, "Historical Survey" (2022), 29, see the Morris references of 1966, 1978, and 1995 and the references by Ham and Dinsmore, Jorgensen, Hughes et al., Oard, and Snelling. It is also possible that this is what Martin means as well.

- 7. The three models are: (1) that of Hamilton Duncan (Hamilton Duncan. "Volcanism, Fountains of the Great Deep, and 40 Days of Rain," *Creation Research Society Quarterly* 46, No. 3 [Winter 2010], 230-231; Hamilton Duncan, "Volcanism, 'Fountains of the Great Deep,' and Forty Days of Rain," *Creation Research Society Quarterly* 47, No. 1 [Summer 2010], 9-19; (2) the model suggested in the comment "...it is quite plausible that these fountains of the great deep involved a series of volcanic eruptions..." (Don Batten, David Catchpoole, Jonathan Sarfati, and Carl Wieland. *The Creation Answers Book* [Eight Mile Plains, Queensland, Australia: Creation Ministries International, 2006], 172; and Ken Ham and Tim Lovett, "Was there Really a Worldwide Flood?," In *A Pocket Guide to... The Global Flood: A Biblical and Scientific Look at the Catastrophe that Changed the Earth* [Hebron, KY: Answers in Genesis, 2009], 9-21 [p. 12]), although it is unclear whether the volcanic eruptions are merely a part of the 'fountains' or equated with the 'fountains'; and (3) that of Max Hunter (Max J. Hunter, "Is the Pre-Flood/Flood Boundary in the Earth's Mantle?," *CEN Technical Journal* 10, No. 3 [December, 1996], 344-357; Max J. Hunter, "The pre-Flood/Flood Boundary at the Base of the Earth's Transition Zone," *CEN Technical Journal* 14, No. 1 [April 2000], 60-74).
- 8. This seems to be the meaning of "Presumably great portions of the waters were entrapped below the crust and in pockets within the crust during the first three days of Creation. Because of the high temperatures and pressures, they undoubtedly were very effective solvents, creating either chemically-rich crustal waters or water-rich magmas." and "in the statement 'all the fountains of the great deep [were] broken up,' ... in the statement 'all the fountains of the great deep [were] broken up,' ... great quantities of liquids, perhaps liquid rocks or magmas, as well as water... burst forth through great fountains..." (Whitcomb and Morris, *The Genesis Flood* [1961], 242 and 122).
- 9. Duncan's model (Duncan, "Volcanism" [2010a] and Duncan, "Volcanism" [2010b]) equates the Gn 7:11 'fountains' with surface magmas (from volcanoes, flood basalts, and bolide impacts), and argues that the juvenile water released by these magmas explains the 40 days of intense rain. In Hunter's model (Hunter, "Boundary in the Mantle?" [1996] and Hunter, "Boundary at the Transition Base" [2000]) the 'fountains of the great deep' spewed out water that had been released from underlying rocks as juvenile water.

throughout the period from the Creation Week to the Flood<sup>10</sup>—, whereas Duncan's model and Morris's magma-as-fluid model<sup>11</sup> add CI-C'—that the 'fountains of the great deep' did not exist before the Flood.<sup>12</sup> Morris's magma-as-fluid model also adds CI-D—that the 'water' of the Flood includes non-H<sub>2</sub>O fluids (e.g., magma). My suspicion is that CI-A, CI-B, and CI-C will stand up to biblical scholarship, but CI-C' and CI-D will not.<sup>13</sup> See figure 1 [pages 8–9] for a visual summary of the critical interpretations of the vulcanism models.

### 2.2 'Fountains' and Sub-Surface Ocean Models

A number of Flood models have suggested that the water source for the Gn 7:11 'fountains' was an ocean-scale volume of water in or under the earth's crust. This water was kept pressurized during Antediluvian times by the weight of the overlying rock. Faulting of the overlying rock at the time of the Flood—the Gn 7:11 'breakup'—released the pressurized water through the Gn 7:11 'fountains'.

Three of the sub-surface ocean models referring to Gn 7:11 'fountains' postulated that the sub-surface water was located in caverns under that 70% of the present earth's surface that is currently covered by ocean. According to these models, as the 'fountains' drained the caverns, the roofs of the caverns collapsed

<sup>10.</sup> In Hunter's model, slow release of juvenile water fueled Antediluvian 'fountains' (Hunter, "Boundary at the Transition Base" [2000], 62), and a sudden decrease in the gravitational constant of the universe accelerated the release of juvenile water into catastrophic 'fountains' generation during the Flood (Hunter, "Boundary at the Transition Base" [2000], 60-62, 67-69).

<sup>11.</sup> What I am referring to as 'Morris's magma-as-fluid model' is the claim that the water of the 'fountains' (and of the Flood) includes magma (e.g. Whitcomb and Morris, *The Genesis Flood* [1961], 242 and 122). I am not referring to Morris's other vulcanism claims—e.g., that it co-occurs with 'fountains' and/or it is the Gn 7:11 'breakup'.

<sup>12.</sup> Since the magmas ('fountains') of Duncan's model generated the 40 days of rain of the Flood, the 'fountains' apparently did not exist before the Flood. In Morris's model "...between the fall of man and the resultant Deluge ... there were... probably no earthquakes nor volcanic emissions." (Whitcomb and Morris, *The Genesis Flood* [1961], 243), so there would have been no *volcanic* 'fountains of the great deep' [Note: Morris does argue for *water* 'fountains of the great deep—see this paper's next section.]

<sup>13.</sup> I know of no scholarly biblical studies research that directly addresses either of these interpretations, but my impression of where that research is heading is: (1) Re: CI-B, based on my discussions with Hebrew scholars, I get the impression that the unescapable understanding of Gn 7:11 is that both the 'fountains' and 'windows' are sources of Flood waters, (2) Re: CI-C & CI-C', the English Bible gives me the sense—from the Flood account, Prov 8:28, and Old Testament references to terrestrial springs—that the 'fountains' existed from the creation through to the Flood, and (3) although magma is, technically, a fluid, it seems unlikely that the Flood account could possibly be referring to something that is so unlike water as is magma.

to form the present ocean basins. Of the modern forms of these models, that of Henry Madison Morris, Jr. is the oldest. Morris believed that God created the original earth with most of the Gn 1:7 'waters below' in "...great underground reservoirs of water under pressure..." This left the earth's surface with "...no great deep and wide oceans, but rather a network of epicontinental seas..." Between the Creation and Flood, the water in these underground reservoirs supplied water to Antediluvian springs, streams, and rivers¹6 through 'fountains' from the 'great deep'.¹7 For some reason, the pressure in these underground reservoirs increased throughout the Antediluvian period,¹8 until (on the first day of the Flood) it exceeded the tensional strength of the crust at some point on the earth's surface, and then propagated fractures across the entire surface of the earth in a single day.¹9 Those fractures released the pressurized water in the form of "great fountains" or "great gushers" of the 'waters below' of

<sup>14.</sup> Henry Madison Morris, Jr. *The Bible and Modern Science*, 2<sup>nd</sup> edition (Chicago, IL: Moody, 1956), 77-78; Whitcomb and Morris, *The Genesis Flood* (1961), 9, 122, 242; Henry Madison Morris, Jr. *The Twilight of Evolution* (Grand Rapids, MI: Baker, 1963), 69; *ibid. The Bible and Modern Science*, 3<sup>rd</sup> edition (Chicago, IL: Moody, 1968), 77; *ibid., The Beginning of the World: A Scientific Study of Genesis 1-11* (Green Forest, AR: Master Books, 1977), 111, 266; *ibid., The Revelation Record: A Scientific and Devotional Commentary on the Book of Revelation* (Wheaton, IL and San Diego, CA: Tyndale and Creation-Life, 1983), 166; *ibid, The Biblical Basis for Modern Science* (Grand Rapids, MI: Baker, 1984), 282; *ibid., The Remarkable Record of Job: The Ancient Wisdom, Scientific Accuracy, and Life-Changing Message of an Amazing Book* (Grand Rapids, MI: Baker, 1988), 104; *ibid., Biblical Creationism: What Each Book of the Bible Teaches about Creation and the Flood* (Grand Rapids, MI: Baker, 1993), 24; and *ibid., The Defender's Study Bible* (Grand Rapids, MI: Word, 1995), 5. The quote is from Morris, *The Bible and Modern Science*, 2<sup>nd</sup> edition (1956), 77 and Morris, *The Bible and Modern Science*, 3<sup>rd</sup> edition (1968), 77.

<sup>15.</sup> Morris, *Remarkable Birth* (1972), 29; and *ibid.*, *Biblical Creationism* (1993), 23-24. The quote is from Morris, *Remarkable Birth* (1972), 29.

<sup>16.</sup> Morris, *The Bible and Modern Science*, 2<sup>nd</sup> edition (1956), 77-78; *ibid.*, *The Bible and Modern Science*, 3<sup>rd</sup> edition (1968), 77; *ibid.*, *Biblical Cosmology and Modern Science* (Phillipsburg, NJ: Presbyterian and Reformed, 1970), 32; *ibid.*, *The Remarkable Birth of Planet Earth* (San Diego, CA: Institute for Creation Research, 1972), 29; *ibid.*, *Scientific Creationism (General Edition)* (San Diego, CA: Creation-Life, 1974), 211; *ibid.*, *The Genesis Record: A Scientific and Devotional Commentary on the Book of Beginnings* (Grand Rapids, MI: Baker, 1976), 194; *ibid.*, *That You Might Believe*, 2<sup>nd</sup> edition (Westchester, IL: Good News, 1978), 90; *ibid.*, *The Revelation Record* (1983), 166, 266; *ibid.*, ed. *Scientific Creationism*, 2<sup>nd</sup> edition (Green Forest, AR: Master Books, 1985), 211; *ibid.*, *Biblical Creationism* (1993), 24; Morris, *Defender's Study Bible* (1995), 23.

<sup>17.</sup> Morris, Biblical Creationism (1993), 23-24.

<sup>18.</sup> Whitcomb and Morris, *The Genesis Flood* (1961), 242; and Morris, *The Genesis Record* (1976), 196.

<sup>19.</sup> Whitcomb and Morris, *The Genesis Flood* (1961), 242; and Morris, *The Genesis Record* (1976), 196.

<sup>20.</sup> Whitcomb and Morris, The Genesis Flood (1961), 122.

<sup>21.</sup> Morris, The Beginning of the World (1977), 111.

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Figure 1. Critical Interpretations of Modern Flood Models. Shaded interpretations are those not likely to stand up to modern biblical tal fracturing over pressurized sub-surface water; CI-G': 'breakup' was crustal fracturing from expanding earth; CI-G'': 'breakup' was portion of the rāgîa' was an Antediluvian crystalline canopy; CI-M: rāgîa' is composed of solid substance; CI-N: fountains' supplied stantially to Flood's water budget; CI-C: 'fountains' operated between Creation and Flood; CI-C': 'fountains' did not exist before the crustal fracturing from contracting earth; CI-H: 'breakup' was of all (ocean and terrestrial) Antediluvian 'fountains'; CI-I: 'fountains' scholarship. KEY: CI-A: 'fountains' contributed water to the Flood from below the earth's surface; CI-B: 'fountains' contributed sub-Flood; CI-D: 'water' of the Flood included non-H2O fluids—i.e., magma; CI-E: Antediluvian 'fountains' released water into ocean & water in subsurface caverns; CI-F': God created an ocean-scale volume of ice beneath earth's solid surface; CI-G: 'breakup' was crus-Flood; CI-P: 'waters above' were a water vapor canopy in the Antediluvian atmosphere; CI-P': 'waters above' were a water ice canosubsurface water accumulated between Creation and Flood; CI-L: rāqîas is to identified with the earth's solid crust; CI-L': at least a were geysers of escaping pressurized sub-surface waters; CI-J: 'fountains' and 'windows' closed on the 40th day of the Flood; CI-K: onto continent; CI-E': Antediluvian 'fountains' released water only onto continents; CI-F: God created an ocean-scale volume of windows'; CI-R: 'windows' non-global (snow at high latitudes; some water at mid latitudes); CI-R': 'windows' global rain; CI-S: all or nearly all the water that fell through the 'windows'; CI-O: 'windows' contributed substantially to the water budget of the fountains' = 'waters above'; CI-T: 'windows' is predominantly water, but can include minor non-water; CI-T': 'windows CI-Q: 'waters above' fell through the Gn 7:11 'windows'; CI-Q': 'waters above' water ice comets fell through the Gn 7:11 py over the Antediluvian equator; CI-P": 'waters above' are chunks of ice in the middle and outer Solar System; is predominantly non-water

Gn 1:7<sup>22</sup> through the Gn 7:11 'fountains of the great deep'.<sup>23</sup> "The earth's crust collapsed deep into the previous subterranean reservoir chambers, forming the present ocean basins..."<sup>24</sup>

The critical interpretations in Morris's subcrustal ocean model seem to be: CI-A (the Gn 7:11 'fountains' contributed water to the Flood from some source beneath the earth's surface), CI-B ('fountains of the great deep contributed substantially to the Flood's water budget), CI-C ('fountains of the great deep' operated from the Creation Week to the Flood), CI-E ('fountains of the great deep' released water beneath Antediluvian oceans and onto the Antediluvian land surface), CI-F (in the Creation Week, God placed an ocean-scale volume of liquid water in caverns beneath the earth's solid surface), CI-G (the Gn 7:11 'breakup' involved the fracturing of crust overlying pressurized sub-surface waters), CI-H (the Gn 7:11 'breakup' occurred through the Antediluvian 'fountains of the great deep'), and CI-I (the Gn 7:11 'fountains' are primarily geysers of pressurized water escaping from beneath the earth's solid surface). My suspicion is that

<sup>22.</sup> Henry Madison Morris, Jr. That You Might Believe (Chicago, IL: Good Books, 1946), 76.

<sup>23.</sup> Morris, *The Bible and Modern Science*, 2<sup>nd</sup> edition (1956), 79; Whitcomb and Morris, *The Genesis Flood* (1961), 9, 122, 242; Henry Madison Morris, Jr. *The Twilight of Evolution* (Grand Rapids, MI: Baker, 1963), 69; Morris, *Remarkable Birth* (1972), 29; *ibid., Many Infallible Proofs: Practical and Useful Evidences of Christianity* (San Diego, CA: C.L.P., 1974), 287; *ibid., The Genesis Record* (1976), 196; *ibid., That You Might Believe*, 2<sup>nd</sup> edition (1978), 90; *ibid., The Revelation Record* (1983), 166; *ibid., Biblical Basis* (1984), 282; *ibid., Scientific Creationism*, 2<sup>nd</sup> edition (1985), 211; *ibid., Remarkable Job* (1988), 29, 104; *ibid., Biblical Creationism* (1993), 37; *ibid., Defender's Study Bible* (1995), 23; *ibid.* and Henry Madison Morris, III. *Many Infallible Proofs: Evidences for the Christian Faith*, 2<sup>nd</sup> edition (Green Forest, AR: Master Books, 1996), 297; Henry Madison Morris, Jr. *The Twilight of Evolution*, 2<sup>nd</sup> edition (El Cajon, CA: Institute for Creation Research, 1998), 52.

<sup>24.</sup> Morris, Defender's Study Bible (1995), 24.

<sup>25.</sup> Again, I know of no scholarly biblical studies research that directly addresses any of these interpretations, but my impression of where that research is heading is: (1) Re: CI-C, Scripture probably does require the 'fountains' to predate the Flood (see the second comment in footnote 13), (2) Re: CI-E, David M. Fouts, and Kurt P. Wise. "Blotting Out and Breaking Up: Miscellaneous Hebrew Studies in Geocatastrophism," In Robert E. Walsh, editor, *Proceedings of the Fourth International Conference on Creationism Held August 3-8, 1998, Pittsburgh, Pennsylvania, USA: Technical Symposium Sessions* (Pittsburgh, PA: Creation Science Fellowship, 1998), 217-228 seem to offer good reasons to believe (as Morris does) that the 'fountains' are both land and ocean phenomena (despite Robinson's counter-arguments: Steven J. Robinson. "The Then World with Water Having been Deluged Perished," *Origins [BCS] 29* [November, 2000], 15-24); (3) Re: CI-F, it seems to me that Scripture *allows* for the creation of underground caverns of water, although probably does not require it; (4) Re: CI-G, Fouts and Wise, "Blotting and Breaking" (1998) suggest the Gn 7:11 "breakup" involved fracturing of the rock orifices of the 'fountains'; (5) Re: CI-H, *ditto*, and (6) Re: CI-I, it seems to me that Scripture *allows* for the fountains to be geysers of water from underground water under pressure, although probably does not require it.

none of these interpretations will fall to biblical scholarship.<sup>25</sup> See figure 1 for a visual summary of the critical interpretations of Morris's model.

Steven J. Robinson and David J. Tyler seem to share a Flood model<sup>26</sup> that in several ways is identical to Morris's. As in Morris's model, Robinson and Tyler suggested (1) the sub-surface water supplied water to the Antediluvian surface through springs ('fountains'),<sup>27</sup> (2) on the first day of the Flood (Gn 7:11), the crust overlying the subsurface waters fractured worldwide, (3) the pressurized subsurface water was released through the Gn 7:11 'fountains of the great deep',<sup>28</sup> and (4) the crustal collapse into the emptying caverns produced the present ocean basins. In contrast to Morris's model, though, Robinson claimed that during Antediluvian times, the 'great deep' only referred to the water in caverns

<sup>25.</sup> Again, I know of no scholarly biblical studies research that directly addresses any of these interpretations, but my impression of where that research is heading is: (1) Re: CI-C, Scripture probably does require the 'fountains' to predate the Flood (see the second comment in footnote 13), (2) Re: CI-E, David M. Fouts, and Kurt P. Wise. "Blotting Out and Breaking Up: Miscellaneous Hebrew Studies in Geocatastrophism," In Robert E. Walsh, editor, *Proceedings of the Fourth International Conference on Creationism Held August 3-8, 1998, Pittsburgh, Pennsylvania, USA: Technical Symposium Sessions* (Pittsburgh, PA: Creation Science Fellowship, 1998), 217-228 seem to offer good reasons to believe (as Morris does) that the 'fountains' are both land and ocean phenomena (despite Robinson's counter-arguments: Steven J. Robinson, "The Then World with Water Having been Deluged Perished," *Origins [BCS]* 29 [November, 2000], 15-24); (3) Re: CI-F, it seems to me that Scripture *allows* for the creation of underground caverns of water, although probably does not require it; (4) Re: CI-G, Fouts and Wise, "Blotting and Breaking" (1998) suggest the Gn 7:11 "breakup" involved fracturing of the rock orifices of the 'fountains'; (5) Re: CI-H, *ditto*, and (6) Re: CI-I, it seems to me that Scripture *allows* for the fountains to be geysers of water from underground water under pressure, although probably does not require it.

<sup>26.</sup> Steven J. Robinson, "Can Flood Geology Explain the Fossil Record?," *CEN Technical Journal* 10, No. 1 (January, 1996), 32-69; ibid. "Was the Flood Initiated by Catastrophic Plate Tectonics?" *Origins (BCS)* 21 (July 1996), 9-16; ibid. "The Flood in Genesis: What Does the Text Tell Geologists?," In ed. Robert E. Walsh, *Proceedings of the Fourth International Conference on Creationism Held August 3 – 8, 1998, Pittsburgh, Pennsylvania: Technical Symposium Sessions* (Pittsburgh, PA: Creation Science Fellowship, 1998), 465-474; ibid. "The Then World" (2000); David J. Tyler, "A Tectonically-Controlled Rock Cycle," In Robert E. Walsh and Christopher L. Brooks, eds. *Proceedings of the Second International Conference on Creationism Held July 30 – August 4, 1990, Pittsburgh, PA, Volume II: Technical Symposium Sessions and Additional Topics* (Pittsburgh, PA: Creation Science Fellowship, 1990), 293-301 (p. 297); ibid., 2006, 74-75 [Much to my shame, in the course of my research I transcribed the relevant sections of Tyler's work, but failed to record the citation, and I have since not been able to relocate the citation.]. I infer Robinson and Tyler to hold to the same model because: (1) they each cite the other, (2) they both argue near-instantaneous flooding in the Flood (which seems unique to this model), and (3) they both live and share in the same (United Kingdom) community.

<sup>27.</sup> Robinson, "Flood Geology" (1996), 37, 45; Robinson, "Catastrophic Plate Tectonics" (1996), 12; and Robinson, "What Does the Text Tell" (1998), 467.

<sup>28.</sup> Robinson, "Flood Geology" (1996), 37.

located under the continents,<sup>29</sup> and, secondly, Robinson and Tyler argued that all of the earth's land was submerged within the first day of the Flood.<sup>30</sup> Robinson and Tyler's model shares all the critical interpretations of Morris's model (see figure 1) except for modifying CI-E<sup>31</sup> to CI-E' ('fountains of the great deep' released water only onto the Antediluvian land surface) and adding CI-J (the 'fountains'—and 'windows'—closed on the fortieth day of the Flood).<sup>32</sup> My suspicion is that neither critical interpretation modification of Morris's model is likely to stand up to biblical scholarship.<sup>33</sup>

In Philip G. Budd's 'Collapse Tectonics'<sup>34</sup> version of Morris's subcrustal ocean model, God created the original earth with a very shallow topographic profile—having neither high-standing continents, nor deep oceans, nor even subsurface oceans. Budd suggested that the crust of the original earth was approximately two-kilometers thick, and of uniform, water-impermeable composition. During Antediluvian times, mantle differentiation underplated about 30% of

<sup>29.</sup> Robinson, "Flood Geology" (1996), 37, 45; Robinson, "Catastrophic Plate Tectonics" (1996), 12; Robinson, "What Does the Text Tell" (1998), 467; and Robinson, "The Then World" (2000), 18-213. As far as I can tell, Morris never clarified this point, but I get the impression from Morris's writings that he believed the 'great deep' included surface oceans even before the Flood.

<sup>30.</sup> Robinson, "Flood Geology" (1996), 37; and Tyler (2006), 74. Tyler also argues that most land animals were dead at the end of the first day, and the rest did not live long after that (Tyler [2006], 74), and that the closing of the 'fountains' and 'windows' occurred on the 40<sup>th</sup> day of the Flood (Tyler [2006], 75). This seems to be based upon the assumption that pressurized water cannot be continuously released for 150 days. In contrast, Morris reads the biblical text to indicate that the 'fountains' and 'windows' were not closed until the 150<sup>th</sup> day of the Flood (e.g., Whitcomb and Morris, *The Genesis Flood* [1961], 77).

<sup>31.</sup> Regarding CI-C and CI-F through CI-I: The sub-surface water supplied water to the Antediluvian surface through springs ('fountains'), the pressurized subsurface water was released through the Gn 7:11 'fountains of the great deep', and the crustal collapse into the emptying caverns produced the present ocean basins.

<sup>32.</sup> The alternative claim—that the 'fountains' and 'windows' closed on the 150th day of the Flood—is not offered as a critical interpretation of Morris's model because (1) it seems to be unique to Robinson and Tyler's model, (2) it is not critical to Morris's (or any other model), and (3) it seems to depart from how everyone else has read the text.

<sup>33.</sup> Again, I know of no scholarly biblical studies research that directly addresses either of these interpretations, but my impression of where that research is heading is: (1) Re: CI-E', even in the light of the counter-arguments of Robinson ("The Then World" [2000]), Fouts and Wise's ("Blotting and Breaking" [1998]) arguments suggest that 'fountains' are both land and ocean phenomena; and (2) Re: CI-J, the belief that the 'fountains' and 'windows' were closed on the 150th day has a long history. It's not without precedent, but it seems unlikely that such a long- and widely-held belief is incorrect. Note that if my suspicions are confirmed, the first interpretation can probably be accommodated by a modification of Robinson and Tyler's model. The second interpretation, though, does seem fatal to Robinson and Tyler's model.

<sup>34.</sup> Philip G. Budd. Earth in Cataclysm (self-published, 2014).

that crust (to generate what we now know of as continents), and released waterdominated volatiles that accumulated under the remaining crust. By the time of the Flood, the volatiles had created a subsurface ocean beneath the 70% of the crust not underplated. The remainder of Budd's model is identical with Morris's: beginning on the first day of the Flood, fracturing of the crust over the subcrustal ocean released high-pressure water from that ocean through the Gn 7:11 'fountains', and as the 'fountains' drained the subcrustal ocean, the crust atop it collapsed into it to generate the deep basins of modern oceans. Budd's model seems to accept CI-A (the Gn 7:11 'fountains' contributed water to the Flood from some source beneath the earth's surface), CI-B ('fountains of the great deep contributed substantially to the Flood's water budget), CI-G (the Gn 7:11 'breakup' involved the fracturing of crust overlying pressurized subsurface waters) and CI-H (the Gn 7:11 'breakup' occurred through the Antediluvian 'fountains of the great deep') of Morris's model<sup>35</sup> (see figure 1), replaces CI-C of Morris's model with CI-C' (the 'fountains of the great deep' did not operate from the Creation Week to the Flood), and adds CI-K (the ocean-scale volume of liquid water was not created beneath the earth's solid surface, but accumulated there between the Creation and the Flood). My suspicion is that neither of Budd's critical interpretation modifications of Morris's model is likely to stand up to biblical scholarship.36

The other two sub-surface ocean models referring to Gn 7:11 'fountains' postulated the sub-surface water to be more or less evenly distributed under the entire solid surface of the Antediluvian earth. In his "Hydroplate Model," mechanical engineer Walter Tarleton Brown, Jr. (1937–2008) identified the Gn 1:6–8

<sup>35.</sup> That the Gn 7:11 'breakup' involved the fracturing of crust overlying pressurized sub-surface waters, and the Gn 7:11 'fountains' are primarily geysers of pressurized water escaping from beneath the earth's solid surface.

<sup>36.</sup> As in the case of the previous two models, I know of no scholarly biblical studies research that directly addresses either of these interpretations, but my impression of where that research is heading is: (1) Re: CI-C', as per reasons given in the second point of footnote 13, the Bible probably does require the 'fountains' to predate the Flood; and (2) Re: CI-K, if there are Scripture passages that refer to water in large caverns beneath the solid surface of the earth, it seems that those same passages indicate that God did it in the Creation Week (not between the Creation and the Flood). Note that if my suspicions are confirmed, Budd's model can probably be modified to avoid conflict with Scripture.

<sup>37.</sup> Walter Tarleton Brown, Jr. *In the Beginning: Compelling Evidence for Creation and the Flood*, 5<sup>th</sup> edition (Phoenix, AZ: Center for Scientific Creation, 1989); *ibid.*, 8<sup>th</sup> edition, (*ibid.*, 2008). The earliest edition I could access when writing this paper was the 5<sup>th</sup> edition, but I would assume Brown's hydroplate model dates back the 1<sup>st</sup> edition of Brown's publication *In the Beginning.*.. The oldest edition listed on WorldCat is the 4<sup>th</sup> edition, published in 1981, so I assume the Hydroplate Model dates back to the 1970s.

—without the 'of heaven' qualifier—as earth crust,<sup>38</sup> specifically about 10 miles of granitic crust.<sup>39</sup> With this definition of דָקיש, Brown identified the Gn 1:7 'waters above' with the Antediluvian surface oceans, and the Gn 1:7 'waters below' as interconnected chambers of water beneath the granitic crust and overlying basaltic crust. 40 Then, according to Brown's model, Antediluvian tidal flexing heated the 'waters below', steadily increasing pressure in the underground chambers between the Creation and Flood.<sup>41</sup> On the first day of the Flood in Brown's model, pressure in the underground chambers exceeded the tensional strength of the granitic crust and fractured it, initiating the 'breakup' of Gn 7:11, and propagating, in about two hours, the fracture of Antediluvian granitic crust into crustal plates.<sup>42</sup> The Gn 7:11 'fountains' in Brown's model are many-mileshigh geysers of pressurized water from the intra-crustal chambers<sup>43</sup> that propelled water and rock debris out of the earth's atmosphere to produce the asteroids, meteoroids, and comets of the Solar System.<sup>44</sup> When Brown's Gn 7:11 'fountains' had eroded a wide enough swath to allow the basaltic crust beneath it to isostatically rebound upward, the granitic crust on either side of the rift hydroplaned away from the rising bulge over still-sealed intra-crustal water chambers and buckled into fold-belt mountains as they encountered resistance.<sup>45</sup> Brown's model accepts CI-A, CI-B, CI-F, CI-G, and CI-I of Morris's model<sup>46</sup> (see figure 1), accepts the CI-C' modification of Morris's model,47 and adds the additional interpretations CI-L (the Gn 1:6-8 רקיע is to be identified with the earth's solid crust) and CI-M (the Gn 1:6–8 רקיע is composed of solid substance). Once again,

<sup>38.</sup> Brown, In the Beginning, 8th edition (2008), 176-177, 363, 365-367.

<sup>39.</sup> Brown, In the Beginning, 8th edition (2008), 105.

<sup>40.</sup> Brown, *In the Beginning*, 5<sup>th</sup> edition (1989), 184-185; Brown *In the Beginning*, 8<sup>th</sup> edition (2008), 117, 120, 354-356.

<sup>41.</sup> Brown, In the Beginning, 8th edition (2008), 118, 120.

<sup>42.</sup> Brown, *In the Beginning*, 5<sup>th</sup> edition (1989), 184; Brown *In the Beginning*, 8<sup>th</sup> edition (2008), 105, 118, 120, 354-356.

<sup>43.</sup> Brown, In the Beginning,  $5^{th}$  edition (1989), 184-185; Brown In the Beginning,  $8^{th}$  edition (2008), 118, 354-355.

<sup>44.</sup> Brown, In the Beginning, 8th edition (2008), 121, 295-296, 373.

<sup>45.</sup> Brown, In the Beginning, 8th edition (2008), 122-125.

<sup>46.</sup> That in the Creation Week, God placed an ocean-scale volume of liquid water in caverns beneath the earth's solid surface, the Gn 7:11 involved the fracturing of crust overlying pressurized sub-surface waters, and the Gn 7:11 'fountains' are primarily geysers of pressurized water escaping from beneath the earth's solid surface.

<sup>47.</sup> That the 'fountains of the great deep' did not operate from the Creation Week to the Flood.

my suspicion is that none of the modifications from Morris's model is likely to stand up to biblical scholarship.<sup>48</sup>

In Douglas E. Cox's Flood model,<sup>49</sup> the Gn 1:7 'waters below' was a layer of water ice created below the Gn 1:6–8 רְקִישׁ, like Brown, Cox identified with the earth's crust. Cox argued that during the Flood much or all of this ice layer melted and contributed to the waters of the Flood by being passed through the crust via the Gn 7:11 'fountains'. Cox's model accepts CI-A, CI-B, CI-H and CI-I<sup>50</sup> (see figure 1), modifies the CI-F of Morris's model to CI-F' (in the Creation Week, and accepts the solid interpretations of region of Morris's model will not stand up to biblical scholarship.<sup>51</sup>

# 2.3 'Fountains' and the Vaporized Seawater Model

In the catastrophic plate tectonics (CPT) Flood model,<sup>52</sup> the Gn 7:11 'fountains' are miles-high geysers created by rapidly emplaced mantle magma along spreading centers in oceans. The CPT geysers are driven upward by the flash

<sup>48.</sup> Once again, I know of no scholarly biblical studies research that directly addresses either of these interpretations, but my impression of where that research is heading is: (1) Re: CI-C', as per reasons given in point two of footnote 13, the Bible probably does require the 'fountains' to predate the Flood; and (2) Re: CI-L, even though the Septuagint translated בְּקִיעַ as firmamentum (suggesting something 'firm'), and Josephus and early targums referred to crystalline heavens, my impression from Hebrew scholars I talk to is that בְּקִיעַ cannot refer to anything solid. If that turns out to be true, בְּקִיעַ cannot refer to the earth's crust—with or without the modifier 'of the heavens'. Note that if my suspicions are confirmed, Brown's model can probably be modified to avoid conflict with Scripture—especially by simply dropping any equation of יְקִיּעַ with the earth's crust.

<sup>49.</sup> Douglas E. Cox, "Scripture and Geologic Discovery," In *Proceedings of the 1992 Twin-Cities Creation Conference* (Minneapolis-St. Paul, MN: The Twin-Cities Creation-Science Association, Northwestern College, The Genesis Institute, and The Creation Health Foundation, 1992), 53-56.

<sup>50.</sup> That the Gn 7:11 'breakup' occurred through the Antediluvian 'fountains of the great deep', and the Gn 7:11 'fountains' are primarily geysers of pressurized water escaping from beneath the earth's solid surface.

<sup>51.</sup> Re: CI-C', as per reasons given in point two of footnote 13, the Bible probably does require the 'fountains' to predate the Flood. I am less certain about the fate of Cox's CI-F', but as long as what is stored beneath the earth's solid surface is some form of water, and the primary effluent of the Gn 7:11 'fountains' is liquid water, it may not matter that the water is stored between the Creation and the Flood as ice.

<sup>52.</sup> Introduced by Steven A. Austin, John R. Baumgardner, D. Russell Humphreys, Andrew A. Snelling, Larry Vardiman, and Kurt P. Wise, "Catastrophic Plate Tectonics: A Global Flood Model of Earth History," In editor Robert E. Walsh. *Proceedings of the Third International Conference on Creationism Held July 18-23, 1994, Pittsburgh, Pennsylvania, USA: Technical Symposium Sessions* (Pittsburgh, PA: Creation Science Fellowship, 1994), 609-621.

vaporization of seawater that is contacted by the magma, and the geysers are primarily composed of the vaporized seawater, juvenile water vapor released from the magma, and non-vaporized seawater captured by the rapidly rising steam. According to the CPT model, geyser water falling back down to the earth's surface constituted the Gn 7:11 'windows of heaven'. The CPT model accepts CI-A and CI-B of Morris's model (see figure 1), the CI-C' modification of Morris's model,<sup>53</sup> and adds CI-N (the Gn 7:11 'fountains' supplied all or nearly all the water for the 'windows of heaven'). Of the critical interpretations of CPT, the absence of 'fountains of the great deep' before the Flood (CI-C') is not likely to stand up to biblical scholarship.<sup>54</sup>

### 2.4 Chittick's Contracting Earth Model

In Donald Chittick's Flood model,<sup>55</sup> it seems clear that the water that spews out of the Gn 7:11 'fountains' comes from within the solid earth, but it is not clear whether the water was in subterranean oceans, or dissolved in magma, or in some other form altogether. Thus, Chittick's model is dealt with here under a separate heading. In Chittick's model, the earth gravitationally contracted throughout the Antediluvian period as it cooled from its initially warm condition at creation. With that contraction, the volume of the crust would contract faster than the surface area of the crust, causing buckling forces to increase throughout Antediluvian times. According to Chittick, on the 17th day of the 2nd month of Noah's 600th year, the buckling forces exceeded the crust's fracture failure point at locations all over the planet, and the crust fractured all over the planet. Chittick suggested that fluids forced out of these fractures were the 'fountains' of Gn 7:11. It would seem, then, that Chittick's model accepts

<sup>53.</sup> CI-C' is that the 'fountains of the great deep' did not exist before the Flood. Since the CPT suggests that sea-floor spreading began at the beginning of the Flood, and the Gn 7:11 'fountains' were generated by sea-floor spreading, 'fountains of the great deep' did not pre-exist the Flood.

<sup>54.</sup> Re: CI-C', as per reasons given in point two of footnote 13, the Bible probably does require the 'fountains' to predate the Flood. I think it is safe to say that Scripture will allow the 'windows of heaven' water to be from the 'fountains of the great deep'. It might be added that there are other problems with associating the Gn 7:11 'fountains' with sea-floor spreading. Scripture indicates that the Gn 7:11 'fountains' burst open at the beginning of the Flood and closed only 150 days into the year-long Flood. Since according to the CPT model, the Flood generated Paleozoic and Mesozoic sediments, 'fountains' should be functioning during the deposition of lower Paleozoic sediments, and probably not during the deposition of Mesozoic sediments. However, (1) most of the evidence for lower Paleozoic motion may not be due to sea-floor spreading, and (2) most of the (remaining) evidence for sea-floor spreading is found in post-Paleozoic sediments.

<sup>55.</sup> Donald E. Chittick, *The Controversy: Roots of the Creation-Evolution Conflict* (Creation Compass, 1984), 208.

CI-A, CI-B, and CI-I of Morris's model (see figure 1), as well as the CI-C' modification of that model, and modifies CI-G to CI-G' (the Gn 7:11 'breakup' was crustal fracturing from an expanding earth).<sup>56</sup> Of these critical interpretations, CI-C' is the one I suspect least likely to stand up to biblical scholarship.

### 3. 'Windows' in Modern Flood Models

# 3.1 'Windows' and Canopy Models

Canopy models have largely fallen out of favor in modern creationism.<sup>57</sup> However, some<sup>58</sup> still believe that some form of greenhouse-causing Antediluvian canopy collapsed through the 'windows of heaven' of Gn 7:11.

# 3.1.1 'Windows' and 'Waters Above' Canopy Models

The oldest canopy model<sup>59</sup> seems to be that introduced<sup>60</sup> by the Ohio<sup>61</sup> Quaker<sup>62</sup>

<sup>56.</sup> It is interesting that Hunter's model (Hunter, "Boundary in the Mantle?" [1996] and Hunter, "Boundary at the Transition Base" [2000]) suggests a *contracting* earth, rather than Chittick's expanding earth, thus adopting a CI-G"—that the Gn 7:11 'breakup' was crustal fracturing from a contracting earth (see figure 1).

<sup>57.</sup> E.g., In the author's survey (Kurt P. Wise, "'Fountains' and 'Windows' in Genesis 7:11: An Historical Survey," *Journal of the Creation Theology Society* 1 [2022], 3-50), the canopy was presented as a substantial source of Flood water in 10 young-age creationist publications in the 1970s, 9 in the 1980s, 15 in the 1990s, 2 in the 2000s, and 1 in the 2010s.

<sup>58.</sup> E.g., (1) John T. Anderson, *In the Beginning: Everything I Needed to Know I Learned in Genesis* (self-published, 2015), (2) Carl Baugh advocates a crystalline canopy on his 2013 Creation Evidence Museum of Texas website (www.creationevidence.org, accessed 3 September 2022); (3) Dave Woetzel advocates a canopy model on his 1999-2022 Genesis Park website (www.genesispark.com, accessed 3 September 2022), and (4) I regularly encounter canopy advocates among church laity in my speaking engagements.

<sup>59.</sup> Though proposed more than 50 years ago, the models of Vail, Kellogg, and Schwarze are included in discussion because they almost certainly constituted many of the intellectual roots of Morris's 'modern' canopy model.

<sup>60.</sup> Ronald L. Numbers, *The Creationists: From Scientific Creationism to Intelligent Design*, 2<sup>nd</sup> edition (Cambridge, MA: Harvard University Press, 2006), 347-348 also claims Vail to be the originator of the canopy model.

<sup>61.</sup> Isaac Newton Vail was born in January 1840 (1900 U.S. Census) in Belmont Co., OH.

<sup>62.</sup> Donald Wesley Patten, *The Biblical Flood and the Ice Epoch: A Study in Scientific Prehistory* (Seattle, WA: Pacific Meridian Publishing, 1966), 16 claims Vail was a Quaker. This is confirmed by Isaac N. Vail, who married Rachel D. Wilson was granted certificate to the Stillwater [Belmont Co., OH] Monthly Meeting by the Plainfield [Belmont Co., Ohio] Monthly Meeting on 19 Oct. 1869 (William Wade Hinshaw, Thomas Worth Marshall, and Harlow Lindley. *Encyclopedia of American Quaker Genealogy, Volume IV: The Ohio Quaker Genealogical Records* [Baltimore, MD: Genealogical Publishing, 1946, 355]) and was granted certificate with his wife Mary C. Vail to the Pasadena

farmer<sup>63</sup>, Isaac Newton Vail (1840<sup>64</sup>–1912<sup>65</sup>). Vail proposed that idyllic greenhouse conditions<sup>66</sup> once existed on the earth because of a 'canopy'<sup>67</sup> in the earth's upper atmosphere. Vail equated this canopy with the last upper atmosphere remnant of the 'deep' of Gn 1:2,<sup>68</sup> as well as both the "waters above the

[CA] Monthly Meeting by the Stillwater [Belmont Co., OH] Monthly Meeting on 20 March 1895 (Hinshaw et al., *Ohio Quaker Genealogical Records* [1946], 449).

- 63. Vail was living in the household of his father in the 1840, 1850, and 1860 U.S. Censuses. The latter two give the profession of the head of household, and it was farmer in both cases. Vail is also listed as a farmer in the first three extant censuses where he is head of household (the 1870, 1880, and 1900 U.S. Censuses, the 1890 U.S. Census being lost). He is listed as 'author' on the voter registration records of San Diego Co., CA in 1890 and 1892, 'editor on the voter registration records of Pasadena, CA in 1896, and 'author and teacher' on the 1910 U.S. Census, two years before his death. Vail's first publication was in 1874, and the oldest extensive publications I have seen date from 1897 and 1902. I infer 'farmer' is the best description of Vail's profession when he developed his model.
- 64. Isaac Newton Vail was born in 1840 in Belmont Co., OH to John and Abigail Vail (findagrave.com; confirmed by a male less than 5 years old in the home of John Vail in Union Twp., Belmont Co., OH in the 1840 U.S. Census and Isaac Vail, age 10 in the home of John and Abigail Vail in Union Twp., Belmont Co., OH in the 1850 U.S. Census, Isaac Vail, age 40, and wife Mary C. Vail, age 41 in Belmont Co., OH in the 1880 U.S. Census, and Isaac N. Vail age 60 born in Jan. 1840 living with his wife Mary C. Vail, age 62, in the 1900 U.S. Census.
- 65. Isaac Newton Vail died 26 January 1912, Los Angeles Co., CA according to findagrave.com, which is consistent with his last known census record (author and teacher Isaac N. Vail, age 70, born in Ohio, living on Kensington Place, Pasadena, Los Angeles Co., CA on 19 Apr. 1910 according to the 1910 U.S. Census).
- 66. As far as I can tell, the earliest use of the word 'greenhouse' to describe the manner in which an upper atmospheric water canopy produced idyllic conditions on the Antediluvian earth is in Vail (Isaac Newton Vail, *The Waters Above the Firmament; or, The Earth's Annular System: The Mosaic Record Scientifically Explained.* 2<sup>nd</sup> edition (Philadelphia: Ferris and Leach, 1902, iv).
- 67. As far as I can tell, the first use of the word 'canopy' in this regard is by Isaac Newton Vail. I have not yet seen a copy of Vail's 1874 publication (Isaac Newton Vail, *The Waters Above the Firmament: The Earth's Aqueous Ring: Or, the Deluge and its Cause* [Pasadena, CA: Annular World Co., 1874]), but Isaac Newton Vail, *The Deluge and its Cause: Being an Explanation of the Annular Theory of the Formation of the Earth, with Special Reference to the Flood and the Legends and Folk Lore of Ancient Races* (Chicago, IL: Suggestion Publishing, 1905, 9) described the contents of the 1874 publication using the word 'canopy'. If that word was actually used in that publication, Vail's 1874 publication would be the first use of the word 'canopy' to describe upper atmosphere greenhouse-causing water. Otherwise, the earliest use of the word I have found is Vail, *The Waters Above*, 2nd edition (1902), iv.
- 68. According to Vail, the early (molten) earth drove off its surface water as vapor (along with some minerals and metals) into orbit around the earth (presumably the fathomless watery *tehom* of Gn 1:2). The water in orbit froze in the cold of the earth's upper atmosphere as a series of dirty ice rings, rather like the rings currently around Saturn. Each of these ice rings, in turn, collapsed and formed (for a time) a thick cloud layer that resulted in a greenhouse earth for the millions of years it took for these clouds to migrate to the poles and then (catastrophically) collapse dirty ice and snow onto the earth's poles. Vail believed that these cycles of ice ring collapse, greenhouse canopy, and

firmament" of Gn 1:7<sup>69</sup> and the 'fountains of the great deep' that hung above the earth before the Flood.<sup>70</sup> Vail claimed that the Gn 7:11 "breakup" of the 'fountains'—which 'fountains' Vail equates with the canopy<sup>71</sup>—dropped rain in the middle latitudes, but mostly as "avalanches of snow" on the poles.<sup>72</sup> And, since Vail's canopy supplied all the water which dropped through the 'windows of heaven',<sup>73</sup> its collapse in the Flood guaranteed that the Flood would never recur.<sup>74</sup> In Vail's model, the Antediluvian canopy was a planet-covering,

canopy collapse explained the long series of geological ages on earth and the ever deepening oceans. The very last ice ring collapsed to produce the 'waters above' of Gn 1:7—a canopy separated by the Antediluvian atmosphere from the previously fallen 'waters below'. It was this last canopy that created the greenhouse Antediluvian climate collapsed through the 'windows of heaven' to produce the Flood.

69. Though I have not seen Vail's first publication (Vail, *The Waters Above* [1874]), the title of the publication (*The Waters Above the Firmament: The Earth's Aqueous Ring: Or, the Deluge and its Cause*) suggests that Vail equated his canopy with the 'waters above' of Gn 1:7 as early as 1874. Vail explicitly equates his canopy and the 'waters above' in Gn 1:7 in: Isaac Newton Vail, *Alaska, Land of the Nugget: Why?: A Critical Examination of Geological and other Testimony, Showing how and why Gold was Deposited in Polar Lands* [Pasadena, CA: G. A. Swerdfiger, 1897], 17; Vail, *The Waters Above*, 2nd edition (1902), 105; Vail, *The Deluge* (1905), 58-59, 77, 81; Isaac Newton Vail, *The Earth's Annular System; Or, The Waters Above the Firmament: The World Record Scientifically Explained*, 4th edition (Pasadena, CA: Annular World Co., 1912), 105; and Isaac Newton Vail, Alice Vail Holloway, and Lydia C. Vail, *The Misread Record; or, The Deluge and its Cause: Being an Explanation of the Annular Theory of the Formation of the Earth, with Special Reference to the Flood and the Legends and Folk Lore of Ancient Races*, 2nd edition (Seattle, WA: Simplex Publishing, 1921), 40–41, 54, 56, 64.

70. Vail may have made the claim as early as 1874, but Vail explicitly equates his canopy with the 'fountains of the great deep' in Vail, *The Waters Above*, 2<sup>nd</sup> edition (1902), 101-106, 109 and Vail, *The Deluge* (1905), 79, 81, 83, 84, 90, 92 and Vail, *The Waters Above*, 4<sup>th</sup> edition (1912), 101-106, 109 and Vail, *The Deluge*, 2<sup>nd</sup> edition (1921), 55-56, 58-59, 64.

- 71. That the canopy 'broke up' is claimed in: Vail, *The Deluge* (1905), 81; and Vail, *The Deluge*, 2<sup>nd</sup> edition (1921), 56.
- 72. Vail claimed that the canopy collapsed as rain at middle latitudes (Vail, *The Deluge* [1905], 18-19; *The Deluge*, 2<sup>nd</sup> edition [1921], 14), but mostly (Vail, *The Deluge* [1905], 25, *The Deluge*, 2<sup>nd</sup> edition [1921], 18) as "avalanches of snow" at the poles (Vail, *The Waters Above* [1874], according to Vail, *The Waters Above*, 4<sup>th</sup> edition [1912], v; Vail, *The Deluge* [1905]; and Vail, *The Deluge*, 2<sup>nd</sup> edition [1921], 14, 18, 65).
- 73. That the canopy supplied all the water that fell through the 'windows of heaven' is argued in: Vail, *The Waters Above*, 2<sup>nd</sup> edition (1902), 103; Vail, *The Deluge* (1905), 85; Vail, *The Waters Above*, 4<sup>th</sup> edition (1912), 103; and Vail, *The Deluge*, 2<sup>nd</sup> edition [1921], 59.
- 74. That the breakup of the canopy guaranteed no recurrence of the Flood is argued in: Vail, *Alaska* (1897), 21; Vail, *The Waters Above*, 2<sup>nd</sup> edition (1902), 101-103, 105; Vail, *The Deluge* (1905), 106; Vail, *The Waters Above*, 4<sup>th</sup> edition (1912), 101-103, 105; and Vail, *The Deluge*, 2<sup>nd</sup> edition (1921), 73.

translucent<sup>75</sup> cloud layer, such as currently surrounds Jupiter,<sup>76</sup> which collapsed during the Flood with heavy rain in the intermediate latitudes, and "vast avalanches of snow" and mineral debris at high latitudes.<sup>77</sup> Vail accepted CI-N (the Gn 7:11 'fountains' supplied all or nearly all the water for the Gn 7:11 'windows of heaven'), proposed CI-O (the 'windows of heaven' contributed substantially to the water budget of the Flood), CI-P (the 'waters above' constituted a water vapor canopy in the Antediluvian atmosphere), CI-Q (the 'waters above' fell through the Gn 7:11 'windows of the heaven'), and CI-R (the Gn 7:11 'windows of heaven' did not precipitate across the whole globe, but primarily dropped snow at the poles and some water at middle latitudes), and accepted CI-B (the 'fountains' of Gn 7:11 contributed substantially to the water budget of the

<sup>75.</sup> Vail's canopy was "sun-concealing" (Vail, *The Deluge* [1905], 77; Vail, *The Deluge*, 2<sup>nd</sup> edition [1921], 54, 64 and a "sun-concealer" (Vail, *The Deluge* [1905], 93), resulting in a "hidden sky and a hidden sun" (Vail, *Alaska* [1897], 16). However, he seemed to believe that enough light got through the canopy for the 'greater' and 'lesser' light of Gn 1:16 to light the earth (see the discussion of these 'lights' in Vail, *The Deluge* [1905], 59 and Vail, *The Deluge*, 2<sup>nd</sup> edition, [1921], 41-42).

<sup>76.</sup> Vail, The Waters Above (1874) described the canopy as "supra aerial vapors" (non vide, as reported by Vail, Alaska (1897), 2), a "...vast cloud-canopy of primitive earth-vapors, such as now envelop the planets Jupiter and Saturn" (non vide, as reported by Vail, The Waters Above, 2nd edition [1902, 9-10]), and "aqueous vapor" and a "Jupiter-like 'Cloud-Ocean'" (non vide, as reported by Vail, The Waters Above, 4th edition (1912), v]). Vail, Alaska (1897) described the canopy as a "vapor heaven" (pp. 14, 16), "vapor canopy" (pp. 16, 17), "water heaven" and "watery expanse—a canopy of vapors" and "revolving canopy" (p. 17), and "vapor heavens" (p.21). Vail, The Waters Above, 2nd edition (1902) describes the canopy as "watery vapors" (p. iv), "shining vapors" and "sun-lit clouds" (p. v), "...like that which now surrounds the planet Jupiter" (p. iv). Vail, The Deluge (1905) describes the canopy as a "vapor canopy" (p. 6), "revolving waters or vapors" (p. 101), "waters on high" (p. 103) and "celestial fountains" and "waters above" the clouds (p. 104), and a "great deep" and "fountains of the great deep placed on high" (p. 105). Vail, The Deluge (1905) and Vail, The Deluge, 2nd edition (1921) describe the canopy as a "world-roof of watery vapors" and an "'upper Deep' of waters" (1905, 10; 1921, 8), a "Jupiter-like canopy" (1905, 11; 1921, 8), "...a measureless ocean of vapors on the very outskirts of the molten sphere" (1905, 13; 1921, 10), "a vast ocean of watery vapors" (1905, 14; 1921, 10), "ring vapors" (1905, 17; 1921, 12) and "cloud satellite" (1905, 17; 1921, 13), "a universal watery heaven" (1905, 18; 1921, 14), "a great ocean of vapors [in] the heavens" (1905, 22; 1921, 16), "a shining ephemeral canopy" (1905, 65; 1921, 46), "a bottomless deep of waters" (1905, 67; 1921, 47), "a sun-concealing canopy" (1905, 77; 1921, 54), "the Celestial Ocean" (1905, 82; 1921, 57), a "bottomless deep or abyss of waters" and "the upper ocean" (1905, 83; 1921, 58), "heavenly waters" (1905, 85; 1921, 59), "a water heaven" (1905, 90), "heavenly waters" (1921, 59), "watery heaven" (1905, 93; 1921:64), "sun-concealer" (1905, 93), "a sun-concealing canopy" (1921:64), "a vapor roof" (1905, 95; 1921, 65), "all shining heaven" and "all shiner" (1905, 100; 1921, 68), and "anchored to the skies" (1905, 121; 1921, 83).

<sup>77.</sup> According to Vail, *The Waters Above* (1874) the canopy collapsed in the polar regions as 'vast avalanches of snow', laden with minerals and metals (*non vide*, but as claimed by Vail, *Alaska* (1897), 2, 68 and Vail, *The Waters Above*, 4th edition (1912), v). According to Vail, *Alaska* (1897), 19,

Flood) by proposing CI-S (the Gn 7:11 'fountains' are to be equated with the 'waters above'). Also because of Vail's CL-S, Vail deduces (a) that the Gn 7:11 'breakup' was of the 'fountains', (b) only one water source dropped through the Gn 7:11 'windows' (i.e., the canopy), and (c) the Flood could never recur because the Flood's sole water source was irretrievably lost. See figure 1 for a visual summary of the critical interpretations of Vail's model.

Beginning in 1936, Bible professor<sup>78</sup> Howard Warner<sup>79</sup> Kellogg (1864<sup>80</sup>–1952<sup>81</sup>) adopted most of Vail's water vapor canopy model.<sup>82</sup> Kellogg, however, suggested that the 'fountains of the great deep' constituted a (second) water source, as 'waters below' the firmament,<sup>83</sup> and implied, at least, that the 'windows of heaven' dropped rain over the whole earth. Kellogg's critical interpretations (see figure 1) would then include accepting CI-A (the Gn 7:11 'fountains' contributed water to the Flood from below the earth's surface) along

the canopy collapsed onto the poles. According to Vail, *The Deluge* (1905) and Vail, *The Deluge*, 2<sup>nd</sup> edition (1921), the canopy collapsed as a "flood-plunge in medial latitudes, and vast snow avalanches in polar lands" (1905, 18-19; 1921, 14), fell "…largely in polar lands, and… there as immeasurable reaches of snow…" (1905, 25; 1921, 18); Note that in Vail's model, water from the canopy raised sea level during Noah's Flood, it did not submerge the continents in water (low areas would have been below sea level, much of the high latitude land was covered with continental glaciers, but the rest was no more than "deluged universally when the oceans fell to its surface" [Vail, *The Waters Above*, 2<sup>nd</sup> edition (1902), 106; Vail, *The Waters Above*, 4<sup>th</sup> edition (1912), 106]).

- 78. Howard W. Kellogg taught at Occidental College, Los Angeles CA in 1912 and 1913 (Los Angeles City Directories for 1912 and 1913), was Professor of Biblical Literature at Occidental College in 1917 (1917 Occidental College yearbook), and taught theology at the Bible Institute of Los Angeles from at least 1925 through the 1930-31 academic year (*Los Angeles Bulletin 9*[1] [Jan. 1925], 3; *10* (3) (July 1925), 4; *11*[1] [Jan. 1926], 5; *12*[1] [Jan. 1927], 5; *July 1929*, 6; *1930-1931*, 3).
- 79. Most often known as Howard W. Kellogg, his middle name was Warner (gravestone and Ancestry.com. *California, U.S., Death Index* [Ancestry.com online database, 2000]), his mother's maiden name (alumni records of Wesleyen University, 3<sup>rd</sup> edition).
- 80. Howard W. Kellogg was born 13 Apr. 1864 (Howard W. Kellogg's 14 Dec. 1951 Social Security application and Ancestry.com. *California, U.S., Death Index* [Ancestry.com online database, 2000]).
- 81. Howard W. Kellogg died 1 April 1952 (Ancestry.com. *California, U.S., Death Index* [Ancestry.com online database, 2000]).
- 82. "It is the present purpose to utilize the [Vail's] theory as a commentary on the Scriptural account of creation..." (Howard Warner Kellogg. *The Canopied Earth: A Study of the World that Then was, the Heavens that Now are, the New Heavens and the New Earth* [Los Angeles, CA: Research Science Bureau, n.d., WorldCat suggests that it was published sometime in the 1940s], 6). Note that "The Scripture states plainly that there has been an initial creation, that the earth become a waste or ruin..." (Kellogg, *The Canopied Earth* [1940s], 7) suggests Kellogg interpreted Genesis 1 according to the gap theory.
  - 83. Kellogg, The Canopied Earth (1940s), 17.

with Vail's CI-B, CI-O, CI-P, and CI-Q, and modifying Vail's CI-R to CI-R' (the Gn 1:7 'windows' involved global rain).

Beginning in 1942, the civil engineer<sup>84</sup> Carl Theodore Schwarze (1877–1956<sup>85</sup>) modified Vail's model into an ice canopy.<sup>86</sup> Schwarze's canopy was a one-to-three-mile-thick dome of water ice arching high over the equator and supported on the earth's surface at the poles.<sup>87</sup> Schwarze believed that the ice canopy was shattered at the beginning of the Flood by the ejection of the moon from the solid earth,<sup>88</sup> an event that he claimed was described in Scripture as the Gn 7:11 "springing up" of the 'fountains of the great deep'.<sup>89</sup> Schwarze believed the canopy collapsed in the form of equatorial rain and sheets of ice at higher latitudes.<sup>90</sup> While accepting Kellogg's CI-A (the Gn 7:11 'fountains' contributed water to the Flood from below the earth's surface), Schwarze accepted Vail's CI-B, CI-O, and CI-Q (see figure 1), and modified Vail's CI-P and CI-R, respectively to CI-P' (the Gn 1:7 'waters above' constituted a water ice canopy arching high over the equator of the Antediluvian earth) and CI-R" (the Gn 7:11 'windows of heaven' dropped rain on the equator and sheets of ice on higher latitudes).

In 1946, hydraulics engineer Henry Madison Morris, Jr. (1918–2006) also adopted Vail's canopy model.<sup>91</sup> Similar to Kellogg and Schwarze, Morris separat-

<sup>84.</sup> Carl Theodore Schwarze was chairman of the department of Civil Engineering at New York University in 1933 and 1934 (1933 and 1935 yearbooks for New York University) and is listed as retired Professor of Applied Science at New York University on his death certificate)

<sup>85</sup>. According to his death certificate, Carl Theodore Schwarze was born 12 Aug. 1877 and died 28 June 1956.

<sup>86.</sup> Schwarze modified Vail's model in ways not relevant to Scripture's 'fountains' and 'windows'. Most notably, although Schwarze, like Vail, believed the vapor was thrust up from the earth's surface billions of years in the past (Carl Theodore Schwarze, *The Marvel of Earth's Canopies: A Fascinating Book on the Harmony of True Science and the Bible* [Chicago, IL: Good News, 1957], 12... apparently believing some sort of gap theory), Schwarze thinks it was probably a thermonuclear explosion (Carl Theodore Schwarze, *The Harmony of Science and the Bible* [Grand Rapids, MI: Zondervan, 1942], 59-61; Schwarze, *Marvel* [1957], 12, 55) produced by Satan and his followers in pre-Adamic times (Schwarze, *Harmony* [1942], 60, *Marvel* [1942], 55), producing the earth condition described in Gn 1:2 (Schwarze, *Harmony* [1942], 61-62, *Marvel* [1957], 12). Schwarze believes that vapor froze (not, as in the case of Vail, as a series of rings which, upon collapsing one after another, creating a series of canopies and geologic ages), but as a single ice canopy that fell out at the time of the Flood (Schwarze, *Harmony* [1942], 72; *Marvel* [1957], 24).

<sup>87.</sup> Schwarze, Marvel (1942), 71-72, Harmony (1957), 14-15.

<sup>88.</sup> Schwarze, Harmony (1957), 31.

<sup>89.</sup> Schwarze, Harmony (1957), 34-35.

<sup>90.</sup> Schwarze, Harmony (1957), 33, 35.

<sup>91.</sup> Morris, That You Might Believe (1946).

ed the 'fountains of the great deep' from the canopy as a separate 'waters below' water source for the Flood. Plotherent from both Vail and Schwarze, Morris argued that the 'windows of heaven' dropped rain over the whole earth. Morris also suggested that the canopy was fully transparent. All subsequent advocates—i.e., all modern vapor canopy models—seem to have adopted Morris's revision of Vail's water canopy model. The critical interpretations for all modern vapor canopy Flood models are then (see figure 1): CI-A (the Gn 7:11 'fountains' contributed water to the Flood from below the earth's surface), Vail's CI-B, CI-O, CI-P, and CI-Q, and a modification of Vail's CI-R to CI-R' (the Gn 1:7 'windows' involved global rain).

Unfortunately for the 'waters above' canopy models, Scripture teaches that the 'waters above' are located beyond the stars of the universe<sup>96</sup> and did not contribute—and, in fact, could not have contributed—to the water of the Flood. Thus Scripture denies CI-P, CI-P', and CI-Q. This does not deny that there could have been some sort of water canopy that contributed to the Flood. But if there was such a canopy, it was not the 'waters above' of Gn 1:7.

# 3.1.2 'Windows' and 'Firmament' Canopy Models

In the last couple decades, some have advocated a much thinner, crystalline canopy in the form of a hollow sphere above the lower atmosphere.<sup>97</sup> But, rather

<sup>92.</sup> Morris's first such claim was "... 'the fountains of the great deep were broken up', implying a tremendous tidal upheaval of the 'waters that were under the firmament'." (Morris, *That You Might Believe* (1946), 74-76). This equation of the 'fountains of the great deep' with waters *below* the firmament is reaffirmed in nearly every one of Morris's later works (see, e.g., Morris's publications in Wise, "Historical Survey" (2022).

<sup>93.</sup> Morris, *That You Might Believe* (1946), 75 explicitly claims the canopy condensed and fell as rain. Morris, *The Bible and Modern Science*, 2<sup>nd</sup> edition (1956), 76 claims it "condensed and descended upon the earth". Whitcomb and Morris, *The Genesis Flood* (1961), 258 explicitly states that it condensed and precipitated "all around the earth".

<sup>94.</sup> E.g., "This great canopy of vapor... would probably have been invisible to the inhabitants of the earth..." (Morris, *The Bible and Modern Science*, 2<sup>nd</sup> edition [1956], 76 and *ibid.*, 3<sup>rd</sup> edition [1968], 75). That the canopy was invisible is claimed in Morris, *Many Infallible Proofs* (1974), 287 and Morris and Morris, *Many Infallible Proofs*, 2<sup>nd</sup> edition (1996), 296. It does not impact how he deals with the 'fountains' and 'windows', Henry Morris only adopted Vail's most recent canopy collapse, thus transforming Vail's canopy model into a young-age creationist model.

<sup>95.</sup> See Wise, "Historical Survey" (2022) for a list of proponents of the water vapor canopy model.

<sup>96.</sup> Terry Mortenson, "The Firmament: What did God create on Day 2?", *Answers Research Journal 13* (2020), 113-133. [Ed. Mortenson's work on this subject is not original. Many biblical commentators (including some in the creationist movement) addressed this issue far earlier and in greater depth.]

<sup>97.</sup> E.g., Carl Baugh (Carl Edward Baugh. "Crystalline Canopy Theory" [self-published, ca. 2011 (paper is undated, but posted on a website with a 2013 copyright, and August 2009 is the most recent

than equate the canopy with the 'waters above' the רָקִיעָ of Gn 1:7, these models equate the canopy with the רְקִיעַ itself. The advocates claim that the Hebrew word יְקִיעַ of Gn 1:6–8 (translated firmamentum in the LXX) is best translated as a thin solid. Thus the critical interpretations of the firmament canopy models (see figure 1) are CI-L' (at least a portion of the Gn 1:6-8 רְקִיעַ was made up of a crystalline canopy in the upper atmosphere of the Antediluvian earth) and CI-M (the Gn 1:6–8 רְקִיִּעַ is composed of solid substance).

Scripture does teach that the רְקִיעָ extends from the earth's surface up to include all the universe's astronomical bodies. Thus, although this precludes the identification of a greenhouse canopy for the earth with the 'waters above' the Gn 1:6–8 רְקִיעַ, it does not preclude a canopy that is actually part of the structure of the רָקִיעַ. So, CI-L' is not precluded. However, if the רָקִיעַ of Scripture cannot be composed of solid material—which the author suspects is the case biblically justified. Again, this does not mean that there was not a canopy of some sort of hollow solid material around the earth before the Flood. But it does mean that if such a canopy exited, it cannot be equated with the representation of Scripture, and the existence of such a hollow sphere cannot be defended biblically. Thus 'firmament' canopy Flood models cannot claim biblical justification for their claims about the firmament.

# 3.2 'Windows' and Astral Injection Models

Some modern Flood models suggest that the fall of astronomical objects, such as meteors, meteorites, asteroids, or comets, is included in the Gn 7:11 phrase 'windows of heaven'. Henry M. Morris, Jr., in 1984, may have been the first among modern Flood modelers to suggest that besides water, some sort of

publication data among the paper's references), http://www.creationevidence.org/evidence/crystillane\_canopy\_theory.php, accessed 3 September 2022]) offers eight different crystalline canopy possibilities, including the silicate sugillite canopy of Edward A. Boudreaux, and Eric C. Baxter, "A New Model of the Earth's Pre-Flood Canopy," in Edward A. Boudreaux, and Eric C. Baxter. God Created the Earth: Genesis of Creation Chemistry (Littleton, CO: Rocky Mountain Creation Fellowship, ?date), 114-122. RoseAnn Salanitri, GUTs All Tied Up with Strings: The Key to Understanding the Creation of the Universe (Mustang, OK: Tate Publishing, 2005), 168-170 suggests a crystalline hydrogen canopy.

<sup>98.</sup> Mortenson, "The Firmament" (2020).

<sup>99.</sup> See, e.g., the second point of footnote 48.

astronomical material, such as "a cloud of cometary debris," entered the earth's atmosphere as part of what fell as the Gn 7:11 'windows of heaven'.¹00 The critical interpretation of Morris's astral debris model (see figure 1) is CI-T—that although the primary function of the Gn 7:11 'windows' is contributing water to the Flood, this sense would not be compromised by astronomical bodies that might be falling along with the water.

After Morris's 1984 publication, others<sup>101</sup> have suggested that the Gn 7:11 'windows of heaven' refer to the fall of astronomical bodies through the earth's atmosphere—everything from comets, to asteroids, to meteors and/or meteorites. In contrast to Morris, these modelers do not consider the composition of the astronomical bodies—e.g., whether ice or mineral—to be of any consequence to the model. Thus, the critical interpretation of these astral window models (see figure 1) is CI-T'—that the Gn 7:11 'windows of heaven' can primarily refer to the fall of astronomical bodies not made of water.

Physicist John Gideon Hartnett suggested that the Gn 7:11 'windows of heaven' referred to the fall of water ice comets, but for the explicit purpose of contributing water to the Flood. 102 According to Hartnett's model, the comets that fell onto earth during the Flood were a few of the many pieces of water ice that made up the Gn 7:11 'waters above'. 103 The critical interpretations of Hartnett's model (see figure 1) are CI-O (the primary function of the Gn 7:11 'windows of heaven' was to contribute water for the Flood), CI-P" (the Gn 1:7 'waters above' are chunks of ice—including comets—in a hollow spherical

<sup>100.</sup> Morris, ibid., Biblical Basis (1984), 184.

<sup>101.</sup> Melvin Cook suggested that the 'windows of heaven' could refer to meteors and/or comets (Melvin Alonzo Cook. *Noah's Flood, Earth Divided and Earthquakes at the Crucifixion* [no publisher listed, n.d. (the most recent publication cited dates from 1994; Cook's death in 2000 then suggests a publication date between 1994 and 2000]). Steven J. Robinson claimed there were "...scriptural grounds for associating the opening of the windows of heaven with bombardment by comets or asteroids..." (Robinson, "The Then World" [2000], 15-24 [p. 23]). Hughes et al. suggested that opening the 'windows of heaven' opened "portals to space" to permit "meteorite/comet impacts" (Bryan Hughes, Mark Amunrud, and Michael Oard, "The Real Flood," *Creation Research Society Quarterly* 5.2, No. 1 [Summer, 2015], 46-47).

<sup>102. &</sup>quot;...a bombardment of comets contributed to the precipitation of the global Flood, adding water to planet Earth as part of the 'windows of heaven'..." (John G. Hartnett, "Look-Back Time in our Galactic Neighborhood Leads to a New Cosmogony," *TJ* 17, No. 1 [April, 2003], 73-79 [p. 73]).

<sup>103.</sup> Hartnett claimed that the Gn 1:7 "The 'waters above' are distributed mostly in a spherical shell of dispersed frozen chunks of ice of varying sizes and are situated out to a few astronomical units outside the orbit of Pluto." (Hartnett, "New Cosmogony," [2003], 78).

region of our middle and outer Solar System), and CI-Q' (the Gn 7:11 'windows of heaven' were water ice comets that fell into the earth's atmosphere during the Flood).

Since the Gn 1:7 'waters above' are located beyond the stars, <sup>104</sup> comets and other chunks of ice in our Solar System cannot be part of the 'waters above' as suggested in Hartnett's model. This does not preclude comets contributing to the waters of the Flood, but if they did, those comets were not part of the 'waters above' of Gn 1:7. <sup>105</sup> My overall suspicion is that among the current astronomical intrusion Flood models, only Morris's model may ultimately survive biblical scholarship. <sup>106</sup> Again, this would not mean that astronomical impacts did not occur during the Flood—only that such impacts were not part of the 'windows of heaven' and could not be justified biblically in this manner.

# 3.3 'Windows' and Geyser Models

The already-discussed catastrophic plate tectonics model explicitly identifies that which fell through the Gn 7:11 'windows of heaven' as water returning to the earths surface after being injected into the upper atmosphere by geysers. It would seem that the geysers of Brown's hydroplate model would have also contributed water to the Gn 7:11 'windows' in a similar manner. The critical interpretation of these and similar models is CI-N (the Gn 7:11 'fountains' supplied all or nearly all the water that fell through the 'windows') or variations on CI-N as to how much of the water of the 'windows' came from the 'fountains'.

<sup>104.</sup> Mortenson, "The Firmament" (2020).

<sup>105.</sup> Hartnett's model is rejected because it includes comets among the Gn 1:7 'waters above'. However, if falling ice turns out to be an acceptable understanding of the Gn 7:11 'windows of heaven', then a suggestion like Hartnett's—that water-ice comets substantially contributed to the water budget of the Flood—might permit a cometary flux meaning for the Gn 7:11 'windows of heaven'.

<sup>106.</sup> The sense I get from discussions with biblical studies scholars is that the primary purpose of the 'windows of heaven' is delivering water to the Flood from above. If this is so, this would preclude any model that exclusively equates the 'windows of heaven' with the fall of asteroids and/or meteors and/or meteorites, or with the fall of astronomical bodies without respect to the composition of those bodies. The intermingling of astronomical bodies with water without compromising the water contribution (as in Morris's 1984 model) would probably be permitted. What is less clear is whether the fall of water ice comets would be permitted (since they would not primarily fall as liquid water, but would ultimately contribute to the overall water budget of the Flood.

## 4. Future Research in Biblical Studies

Most modern Flood models would be substantially impacted by biblical scholarship focused on several interpretive issues. If Mortenson's conclusions are affirmed that Scripture requires the 'waters above' of Gn 1:7 to be located beyond the stars, then all the 'waters above' Flood models require revision. If it was determined that the Gn 1:7 רַקיע cannot be solid, then Cox's model, the hydroplate model, and the crystalline canopy models require revision. If the Gn 7:11 'fountains of the great deep' were active in Antediluvian times across both ocean and land, then Morris's magma model, catastrophic plate tectonics, the hydroplate model, and the models of Duncan, Budd, Robinson, Tyler, and Chittick require revision. If what was released by the Gn 7:11 'fountains' cannot include fluids as viscous as magma, then Morris's magma model requires revision. If what fell from the Gn 7:11 'windows of heaven' cannot be primarily something like non-water astral debris, then most of the astral injection models need revision. If the Gn 8:3 'fountains' and 'windows' did not close until the 150th day of the Flood, then Robinson and Tyler's models need revision. And these are just the topics that I currently believe to be critical. Appropriately careful biblical research is likely to reveal other critical interpretative issues impacting modern Flood models.

### 5. Discussion

Many modern Flood models make reference to the 'fountains' and/or 'windows' of Gn 7:11 (see, e.g., the list of rows in figure 1). Collectively, those references assume at least several dozen different critical interpretations of the biblical text (e.g., the key to the critical interpretations in the caption of figure 1). And, a fair number of those critical interpretations may not stand up to biblical scholarship (the shaded CI's of figure 1). In fact, so many of those interpretations are questionable, that most modern Flood models are probably wrong in their reference to Scripture (the few number of rows in figure 1 without shaded CI's). On the one hand, this can be seen as exciting news, for biblical research has the potential of bringing great benefit to the building of Flood models.

On the other hand, this paper's conclusions—and the shortcomings of those conclusions—suggest that Flood models are not what they should be. First, I suspect that many will read this paper and be upset that I missed their favorite Flood model and/or their favorite modeler(s). And I admit that this paper is incomplete, as is the historical survey upon which it is based. However, this incompleteness is not intentional. Most creationist Flood models were never published in peer-reviewed literature—even peer-reviewed creationist literature.

They are in a wide range of lay journals, pamphlets, and books published by everything from major publishers to print-on-demand to self-publishing venues. As much as I tried to be thorough in my survey and this paper, they are both incomplete. I am still collecting references, visiting libraries, and receiving interlibrary loans. Creationism has had peer-reviewed journals for decades, and those who wish to contribute to creation research should do so through such peerreviewed venues—and refrain from publishing their ideas if they are unable to get them through peer review. Second, there will be those who disagree with where I think ideas came from, or how those ideas were altered through time. And again, I admit fallibility in this regard, and claim the failure was not intentional. The major problem in this regard is that Flood model publications rarely cite anyone else's work. Not only does this make it difficult to collect all that has been written on the topic, but it makes it difficult to assign priority and trace the history and evolution of ideas. Not understanding what ideas are being responded to, can even make it difficult to understand what is being said in a given publication. Creationists need to get into the habit of fully and properly citing all their ideas. Third, the fact that most Flood models pose critical interpretations of Scripture that are questionable or wrong, suggests creationists tend to make claims about Scripture without proper biblical exegesis. It seems that Flood modelers typically create some sort of physical model and then search Scripture for proof-texts. Instead, creationists should begin with Scripture-mine it for its truths, and then use those truths to understand the physical world (and build their Flood models).

On the subject of proper biblical study, I also admit that this paper woefully lacks proper biblical scholarship. The original intent of my project was much grander than what was actually achieved. When I set out to work with the Creation Theology Society on an inter-disciplinary research project on the Gn 7:11 'fountains' and 'windows', I thought I could get to the point I achieved in this paper sometime in late 2020 or early 2021. That way I could pass on these results to the capable Creation Theology scholars to begin working through what the Bible actually says about these issues. In fact, it was not until a year later (and six months after the first meeting!) that I was even able to 'complete' the literature survey for the project. At that first meeting, rather than truly generate an interdisciplinary work, I only presented an incomplete status report of my

<sup>107.</sup> Published as Wise, "Historical Survey" (2022).

historical survey. Even by the second CTS meeting a year later, I was only able to present an early, incomplete version of this paper—still not actually getting to the interdisciplinary research to which I had been striving from the beginning. I have finally gotten to where I wanted to be two years ago, and the interdisciplinary research has still not occurred—and it is admittedly not in this paper. I ask your forgiveness and hope that this paper stimulates the research I had intended for it in the beginning.

