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Fifty Years of Earth Science in the *Creation Research Society Quarterly*

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Introduction

In 1964, the first issue of the *Creation Research Society Quarterly* (*CRSQ*) appeared in print; an annual issue, preceding volume 1, number 1. In it, Clifford Burdick published the first geological article, entitled "Streamlining Stratigraphy." Since then, 851 articles, letters, notes, and photo essays, contributed by 276 authors, have slowly developed geological thinking within the creationist framework.

At heart, the Creation Research Society (CRS) is a Christian organization, although people who are not Christians might agree with many of its positions, especially those warning about problems with the modern secular academic establishment. That CRS is Christian should not be surprising; science is, after all, a Christian endeavor. Although it was hijacked by secularists during the Enlightenment, its roots have always remained firmly embedded in biblical theology.

As a Christian organization in the midst of a secular intelligentsia, the path of CRS has been uphill. Money, power, numbers, publishing outlets, and honors are not the lot of creationists, and our work is often less polished and sophisticated than that of the world. But these things are not the measure of truth; truth has its own power, granted by the Author of truth. God does not work with the proud; instead, he uses the weak and foolish things of this world to shame the wise.

The power of truth is the most precious commodity of our work. It works through the balance between innovation and apologetically addressing the claims of secular natural history. In the first case, the work of creationists needs to be groundbreaking, questioning the most basic assumptions and methods. In the latter sense, the sheer volume of work generated by secular scientists inevitably drives their disciplines' trends, and so we must follow after, like janitors sweeping up the detritus of deceit from the floor of truth.

Creationists have done both, although perhaps not in a self-conscious manner. Fulfilling our apologetic duty, we have shed light on the false ideas of uniformitarianism, actualism, naturalism, deep time, evolution, and the twisted meme of "science vs. religion." But we also have been forced to address current theories, especially in stratigraphy and tectonics—two of the most powerful topics in today's earth sciences. We do not have the luxury of thousands of educated, trained, and paid staff. Instead, we must find the weaknesses in the edifice and bring the power of truth to bear on those parts. Doing so is not only a service to our faith, but it is a service to science, which, thanks to its Christian roots, has preserved at least a superficial regard for truth. Furthermore, we must be in the business of creating disciples, so that the next generation will not lose the light of truth.

It is in this context that the work of the past fifty years must be measured. An examination of trends, topics, and contributors to the geological corpus of the *CRSQ* reveals a long history of faithful service in search of truth. It shows the self-correcting benefits of scientific debate and the means by which such debate should (and should not) take place.

Please note that categorization of articles, especially the older ones, is largely based on abstracts and that a degree of error is unavoidable. Some contributions are not easily classified. However, these errors are small compared to the general trends shown, and the conclusions that can be drawn from them are probably sound. For convenience, we will examine the earth sciences in the *CRSQ* on a decade-by-decade basis.

Earth Sciences Articles

Over the past five decades, a variety of trends can be discerned from the *CRSQ* contributions in the earth sciences. During the 1970s, contributions

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climbed as authorship grew, although most of them were articles (Figures 1 and 2). Total contributions soared again in the 1990s, and many of these were letters to the editor, Panorama of Science notes, photo essays, and other special papers. That decade also marked more debate, as well as the introduction of a new generation of productive writers.

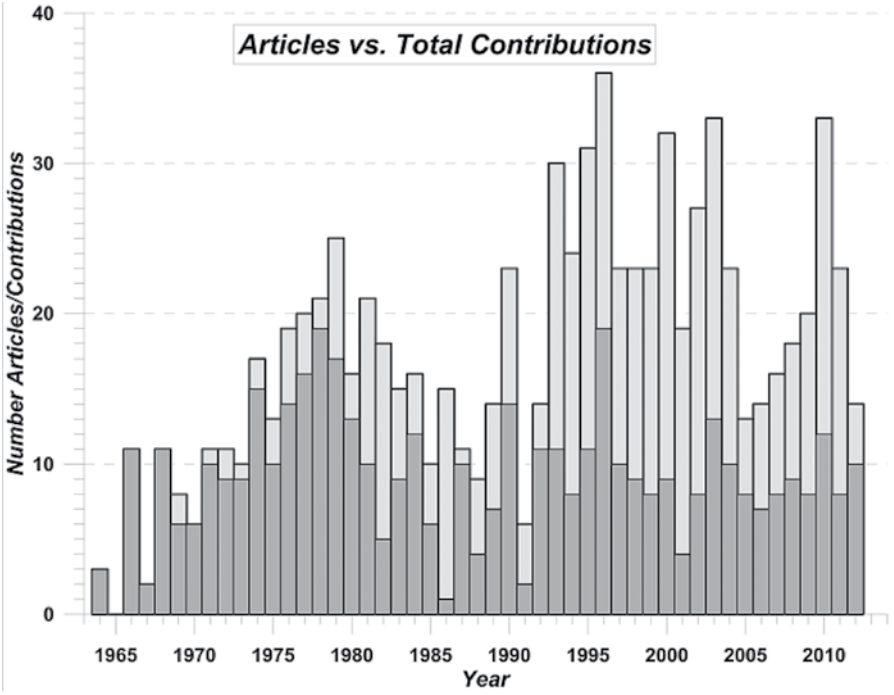

Figure 1. Comparison of total earth science articles (dark gray) and contributions (light gray) by year. Articles peaked in the 1970s, but total contributions soared in the 1990s with an increase in letters, Panorama of Science notes, and special papers.

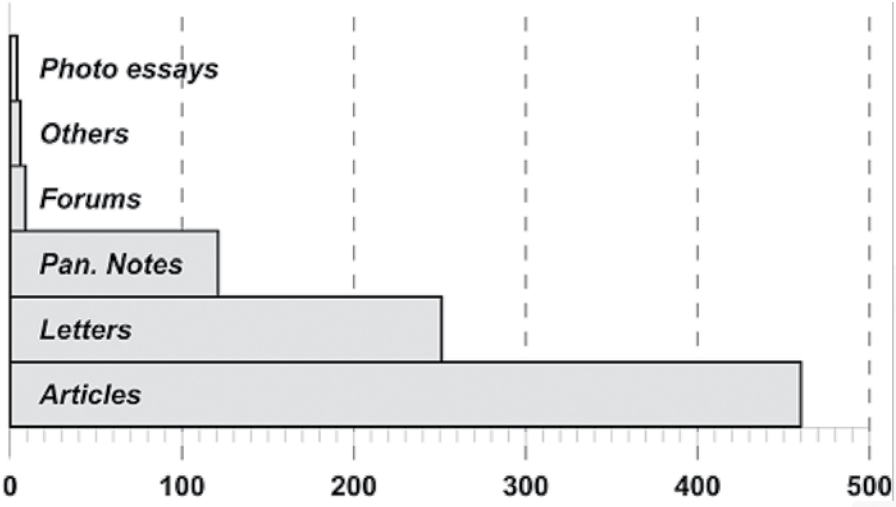

Figure 2. Total contributions by type over the history of the *CRSQ*. The large number of letters indicates an informed readership and many good discussions.

Articles have been the staple of the *CRSQ*, as would be expected (Figure 3). In addition, a steady stream of letters to the editor developed into a number of good exchanges on controversial topics. Current policy allows one letter and response per published paper; those desiring a more in-depth discussion can participate in an Editor's Forum, which allows several exchanges.

1960s

The first six volumes of the *CRSQ* saw 35 contributions in earth sciences and related fields by 22 authors. Clifford Burdick wrote 5 of these; Henry Morris and Harold Slusher contributed 3 apiece. Eight authors wrote multiple pieces, while 14 others wrote one. Of the 35 articles, 33 were written by a single author. Whether this was from the individualistic nature of the men or from the newness of the concept is not clear.

I would classify 21 of the articles as "field studies" in the sense that they worked with specific data or at specific locations. Eight of the others were general conceptual articles, and 6 others were critiques of secular ideas. Most of the papers dealt with radiometric dating, paleontology (including paleoanthropology), and sedimentation/stratigraphy.

This decade saw several significant articles. Robert Gentry wrote on the significance of pleochroic haloes. His research was later summarized in a book (Gentry, 1986). Harold Coffin began his decades-long study of petrified, polystrate trees at Joggins. He would later do definitive research at the Yellowstone fossil forests. Clifford Burdick reported fossil pollen in Precambrian strata in Grand Canyon—a report that still generates interest and controversy.

1970s

The 1970s (volumes 6–16) saw an explosion of earth science publications in the *CRSQ* with 124 articles, 6 notes, and

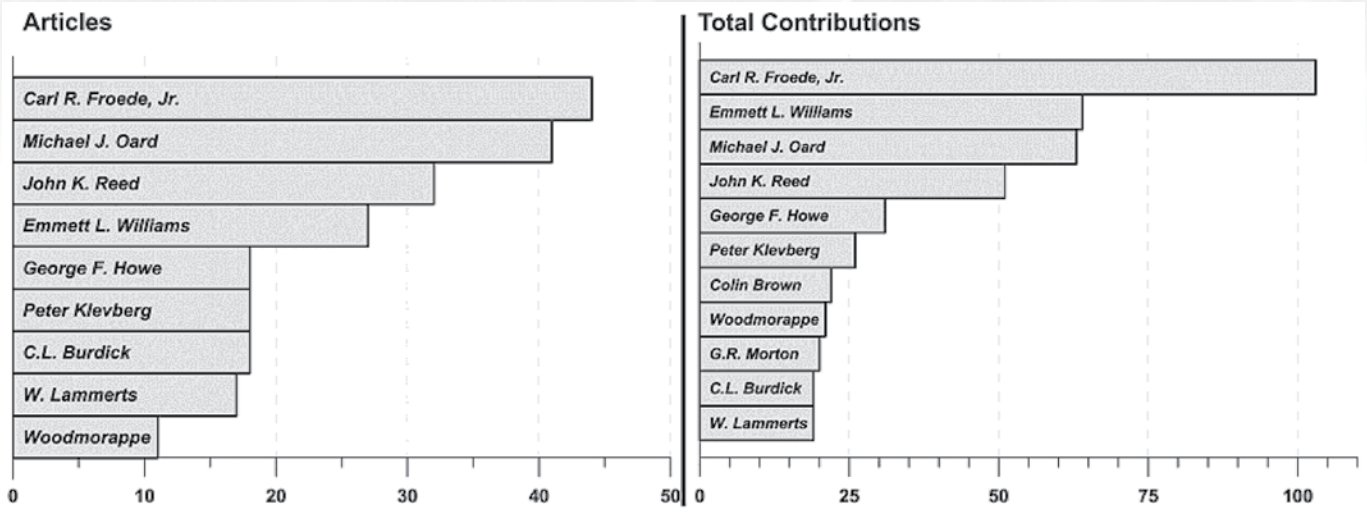

Figure 3. Many authors have contributed to the *CRSQ*. These graphs show contributions by article and by total contributions, including articles, panorama notes, letters to the editor, photo essays, and editor's forums. These include single and multiauthor efforts.

23 letters. Of the articles, only 8 were by multiple authors, suggesting that creationism was still a highly individualistic endeavor. Clifford Burdick wrote 12 articles, Douglas Cox contributed 8 articles and a letter, and Joseph Dillow published 5 articles and a letter, setting the stage for his book on the vapor canopy (Dillow, 1982). Altogether, 26 authors published multiple papers, with early efforts from later prolific authors like George Howe and Emmett Williams, and those of leaders in the field like Don DeYoung, D. Russell Humphreys, and Steve Austin (writing as Stuart Nevins).

This decade also saw the initial publications by two prominent contributors to the *CRSQ*, Michael Oard and John Woodmorappe. Oard was to become one of the most prolific writers in creationism, while Woodmorappe would set high standards for exhaustive research and technical insight.

I would classify 64 of the articles as "field studies" in the sense that they worked with specific data or at specific locations. Another 43 were general conceptual articles, and 17 were critiques of secular or creationist ideas or responses. Most of the papers dealt with sedimentation/stratigraphy, radiometric dating, and paleontology. But the 1970s saw an increase in the variety of papers, especially in glaciology and meteorology. Some of these reflect a growing interest and investigation into the possibility of a pre-Flood vapor canopy and into the post-Flood Ice Age.

The late 1970s marked the beginning of a protracted debate about a pre-Flood vapor canopy. Today, few believe that such a canopy could have accounted for the total rainfall of the forty days and nights of rain. Others think a canopy existed but was not a significant source of the Flood's rain. In either case, the debate itself marked a high point in the history of the *CRSQ*. An important idea was discussed in a professional and courteous fashion, stimulating new research. It largely stayed on subject, kept to the substance of the issue instead of the personalities, and moved creationist thinking forward. In these ways, it provides a template for addressing controversial topics.

1980s

The 1980s (volumes 16–26) saw a leveling off of earth science publications in the *CRSQ* with 85 articles, 19 notes, and 41 letters. Of the articles, 11 were by multiple authors, an increasing percentage suggesting the development of networks among creationists. There were fewer articles in the 1980s than the 1970s, but a greater number of Panorama of Science notes and letters. Glenn Morton led the way with 18 contributions, Walter Lammerts wrote 12 papers, Emmett Williams had 13 contributions, and George Howe, 11. During the early part of the decade, the debate on the vapor canopy came to an end, although the total count for meteorology remained high, as the debate was intense before it ended. Many of Morton's articles were skeptical of creationist ideas, marking his evolution to an old-earth opponent of the movement. Old stalwarts, such as Clifford Burdick and Thomas Barnes published several articles apiece.

This decade also saw the detailed and comprehensive papers of John Woodmorappe on the rock and fossil

records. He would later use them as the basis for a book on the Flood in 1993 that was later republished by the Institute for Creation Research (Woodmorappe, 2000). These articles remain examples of some of the finest work the *CRSQ* has published.

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Another debate focused on the earlier discovery of fossil pollen in the Precambrian Hakatai Shale by Clifford Burdick. George Howe and Emmett Williams addressed criticisms of Burdick. Another interesting research project was the work done by Eugene Chaffin on the Oklo natural reactor.

1990s

The 1990s (volumes 26–36) saw a significant jump in the number of earth science publications, with 233, including 103 articles, 44 Panorama of Science notes, 82 letters, a photo essay, and three Van Andel Center research notes. Of the articles, 31 were by multiple authors, an increasing percentage suggesting increasing networking. Fourteen other contributions were also from groups. This decade saw a mix of new and established authors. Carl Froede Jr. wrote an amazing 45 contributions to the *CRSQ*, followed closely by Emmett Williams with 34. Michael Oard followed with 22, John Reed with 15, and George Howe with 14. This decade saw the beginnings of debates over Flood models: the hydroplate model introduced by Walt Brown and the catastrophic plate tectonics model presented by a group of six scientists and since pursued most vigorously by John Baumgardner (Austin et al., 1994; Baumgardner, 2003). Other creationists began to develop their own comprehensive Flood models (Bardwell, 2011). Other discussions addressed the role of the geologic timescale in creationist geology, with an array of opinions, ranging from full acceptance of the chronostratigraphic timescale through a rejection of both the chronostratigraphic and geochronologic scales.

I would classify 57 of the articles as "field studies" in the sense that they worked with specific data or at specific locations. Another 29 were general conceptual articles, and 17 were critiques of secular or creationist ideas. There was a marked increase in the percentage of field articles, helped by a CRS research project at Big Bend and fieldwork by Carl Froede Jr. Most of the papers dealt with sedimentation/stratigraphy or paleontology, with an increasing focus on geomorphology, Flood models, and the history and philosophy of science.

2000s

The 2000s (volumes 36–46) remained at historically high levels for earth science publications, with 215, including 84 articles, 44 Panorama of Science notes, 72 letters, 9 forum contributions, and 6 others. Of the articles, 21 were by multiple authors, although groups of authors tended to remain fairly fixed. Fifteen of the other contributions also were from groups. This decade saw a decrease in the total number of authors from the previous decade, with several of the older members completing their writing careers or passing away. Carl Froede Jr. remained the most prolific writer with 39 contributions to the *CRSQ*, followed by John Reed, Michael Oard, Peter Klevberg, Emmett Williams, Colin Brown, and Jerry Akridge. This decade saw growing debates over Flood models, and the review group sponsored by *In Jesus' Name Productions* compiled a voluminous but helpful e-book on the most prominent (Bardwell, 2011). Another source of controversy was the use of the standard geologic timescale in Flood geology, which prompted an anthology by CRS in 2006 (Reed and Oard, 2006).

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Contributors

Over 250 authors have contributed to the geology section of the *Quarterly*, including such notables as Dr. Henry Morris, Dr. Walter Lammerts, Dr. Thomas Barnes, Dr. Emmett Williams, Dr. George Howe, Dr. Russell Humphreys, Dr. Harold Coffin, Dr. Robert Gentry, Dr. Steve Austin, Dr. Andrew Snelling, and John Woodmorappe. However, the most prolific authors are Carl R. Froede Jr., Dr. Emmett L. Williams, and Michael J. Oard (Figure 3). Nineteen authors have authored 10 or more contributions, 98 authors have authored between 2 and 9, and 159 authors have made a single contribution.

From 1964 to 1993, from volumes 1 through 29, editorial direction of the earth sciences was undesignated. The senior editor was able to call on the expertise of engineer Henry Morris and geophysicists Thomas Barnes and Donald Acrey. Acrey ended his service

in 1978, during volume 14. Barnes and Morris continued until 1993, when they completed their long and distinguished service to the *Quarterly*. At that time, senior editor Donald DeYoung called on the expertise of geologist Robert Gentet and physicist Russell Humphreys to provide editorial direction in the earth sciences. In 1998, during the tenure of Eugene Chaffin, John K. Reed became the geology editor and has since served under Chaffin, Emmett L. Williams, and Kevin Anderson.

A summary of broad topics shows significant diversity of interests (Figure 4) but emphases that mimic the secular earth sciences. Field studies combined with articles critiquing secular stratigraphy lead the way, with paleontological articles and notes following after. Isotopic dating methods have always been of interest, and the subject is well represented. Creationism diverges slightly from secular earth history in an ongoing emphasis on geomorphology, especially by those authors who believe that many extant landforms are relics of the Flood rather than post-Flood processes. Michael Oard has been a leader in this field. There also has been a strong interest in the assumptions and methods underlying earth history research, as is reflected by a steady stream of articles within the topics of the philosophy and history of science. An area that is gaining in popularity over the past decades is the creation and debating of various Flood models and their ability to explain Earth's tectonic features and new data from its interior.

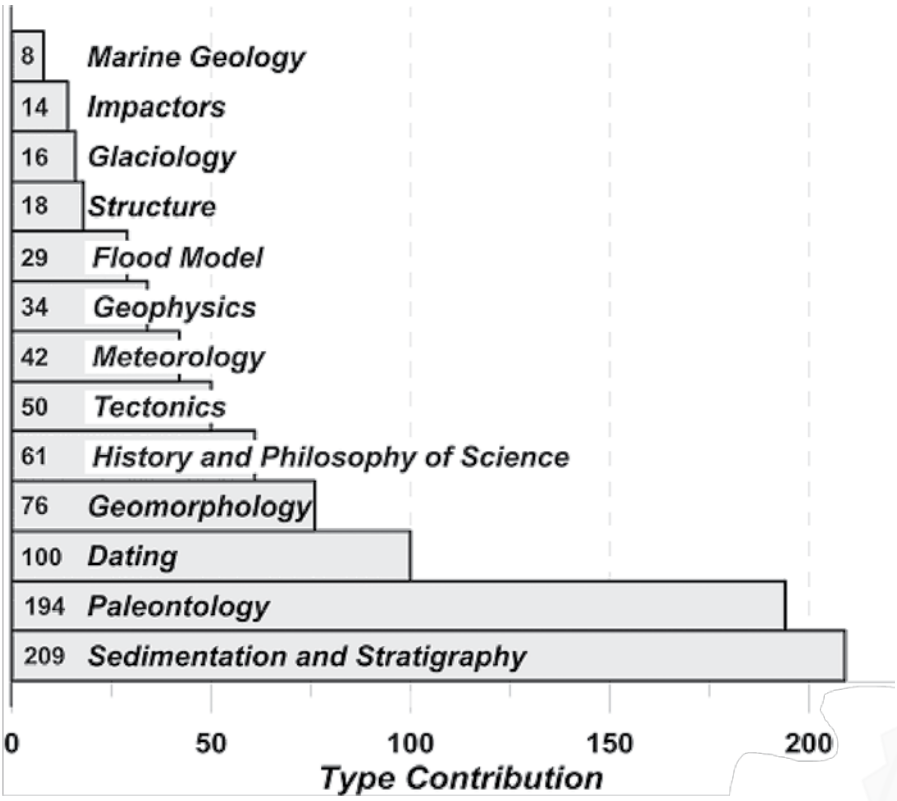

Figure 4. A breakdown of the categories covered by papers, notes, and letters is shown above. While stratigraphy, paleontology, tectonics, and dating methods are of obvious interest, the number of papers on geomorphology illustrates that this relatively minor discipline in secular geology is of great interest to creationists. Papers on the history and philosophy of science indicate a concern with the extent to which the worldview of naturalism has infiltrated the sciences over the past two centuries.

A Look Ahead

What does the future hold for the earth sciences in the *CRSQ*? It remains the grandfather of creationist journals, celebrating its 50th anniversary, and today is joined by the *Journal of Creation* and the *Answers Research Journal*. It has seen a wide variety of papers submitted both by degreed professionals and enthusiastic amateurs. Although articles provide the bulk of the *CRSQ* publications (Figure 2), the increase of notes, letters, and debates has produced a lively and interesting mix. The combination has resulted in a diversity of opinion that has stimulated a number of welcome discussions. Professional and courteous discussion of the many issues that face creationism will continue to be an emphasis of the *CRSQ*. Especially welcome are the numerous letters and the new Editor's Forum debates.

CRS is unique in several ways. It is a professional society that relies on the volunteer efforts of its members to do research and publish articles in the *CRSQ*. It is not an organization that focuses on public presentation by paid staff, although some staff provide popular presentations to church and parachurch organizations. The society welcomes and supports any efforts that promote the truth of Genesis and its application to science, religion, and life.

We thank God for the faithful work of many people over the past 50 years to maintain the quality of the *CRSQ*. It is truly a team effort. We also hope to see a new generation of scientists dedicate themselves to the work of the society and to the continued publication of interesting and informative technical articles for another 50 years, if God allows it.

The *CRSQ* is dedicated to professional and courteous discussions of

topics related to Creation and Earth's history. Reinterpreting the vast data of related secular sciences is an enormous task, and there are still foundational issues that are not well understood or have not reached consensus among creationists. Many secular academic debates appear to be founded on pride. We must make sure our arguments are directed toward pursuit of truth within the biblical framework of Earth history.

Conclusion

Over the past five decades, more than 250 authors have expressed their support for biblical truth in a dedicated, insightful, and professional effort. Many subjects of the earth sciences have been discussed; many more require work. It is my profound hope that God will raise up many more workers in this field—"the harvest is plentiful, but the workers are few" (Matthew 9:37 NASB).

In addition to addressing current topics in the earth sciences, creationists need to develop their own ideas and models. While a comprehensive Flood model may not yet be possible, models of smaller, more specific processes and events within the Flood would be welcome, both to pave the way to a fuller understanding of this great event and to provide greater explanatory value to creationist work.

Finally, as we see ourselves in God's economy—the weak and foolish things that shame the wise (I Corinthians 1:27)—let us make sure we do not become so caught up in shaming the wise that we lose sight of the fact that even the best of us are still weak and foolish. We can do anything through Christ who strengthens us, but apart from Him, we can do nothing.

References

Austin, S.A., J.R. Baumgardner, D.R. Humphreys, A.A. Snelling, L. Vardiman, and K.W. Wise. 1994. Catastrophic plate tectonics: a global Flood model of Earth history. In Walsh, R.E. (editor), *Proceedings of the Third International Conference on Creationism* (technical symposium sessions), pp. 609–621. Creation Science Fellowship, Pittsburgh, PA.

Baumgardner, J.R. 2003. Catastrophic plate tectonics: the physics behind the Genesis Flood. In Ivey, R.L. Jr. (editor), *Proceedings of the Fifth International Conference on Creationism*, pp. 113–126. Creation Science Fellowship, Pittsburgh, PA.

Bardwell, J. (editor). 2011. *The Flood Science Review* (e-book). In Jesus' Name Productions e-book, Great Falls, VA.

Brown, W.T. 2008. *In the Beginning: Compelling Evidence for Creation and the Flood*, eighth edition. Center for Scientific Creation, Phoenix, AZ.

Dillow, J.C. 1982. *The Waters Above: Earth's Pre-Flood Vapor Canopy*. Moody Press, Chicago, IL.

Gentry, R.V. 1986. *Creation's Tiny Mystery*. Earth Science Associates, Knoxville, TN.

Reed, J.K., and M.J. Oard (editors). 2006. *The Geologic Column: Perspectives within Diluvial Geology*. Creation Research Society Books, Chino Valley, AZ.

Woodmorappe, J. 2000. *Studies in Flood Geology*. Institute for Creation Research, San Diego, CA.