EVANGELICALS AND EVOLUTION: AN ANALYSIS OF THE DEBATE BETWEEN THE CREATION RESEARCH SOCIETY AND THE AMERICAN SCIENTIFIC AFFILIATION

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The evolution controversy has often generated more heat than light among Bible-believing Christians, and the average believer often finds himself confused and uncertain of just what he should accept. Now two groups composed of Christian men and women within the scientific community claim to be offering the light needed to understand the evolution issue. This paper shall seek to explain, compare, and contrast the respective positions of these organizations as found within their journals: the Creation Research Society Quarterly and the Journal of the American Scientific Affiliation.

History, Organization, Purpose, Goals

The Creation Research Society (hereinafter referred to as CRS) was organized in 1964, and from an initial group of ten men, it has grown to a membership of 400 persons with graduate degrees in the sciences and 1,300 non-voting members.¹ Centered in the state of Michigan, the society is solely a research and publication organization; it holds no meetings. Its eventual goal "is the realignment of science based on theistic creation concepts and the publication of textbooks for high school and college use." The society has now authored three books, including a high school biology textbook. The creedal statement of the organization is *Exodus* 20:11 and appears on the cover of each quarterly: "For in six days the Lord made heaven and earth, the sea, and all that in them is and rested on the seventh." More specifically the society subscribers to a four-point statement of faith:

- 1. The Bible is the written Word of God, and because it is inspired throughout, all its assertions are historically and scientifically true in all the original autographs. To the student of nature this means that the account of origins in Genesis is a factual presentation of simple historical truths.
- 2. All basic types of living things, including man, were made by direct creative acts of God during the Creation Week described in Genesis. Whatever biological changes have occurred since Creation Week have accomplished changes only within the original created kinds.
- 3. The great Flood described in Genesis, commonly referred to as the
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- Creation Research Society Quarterly, vol. 9, no. 4 (March 1973): frontspiece.
 Creation Research Society 1965 Annual, vol. 2, no. 1 (May 1955): fontspiece.

Noachian Flood, was an historic event worldwide in its extent and effect.

4. We are an organization of Christian men of science who accept Jesus Christ as our Lord and Savior. The account of the special creation of Adam and Eve as one man and woman and their subsequent fall into sin is our basis for our belief in the necessity of a Savior for all mankind. Therefore, salvation can come only through our accepting Jesus Christ as our Savior.3

The CRS will not tolerate any compromise on these principles and openly rebukes the ASA for having capitulated to modern science: neoevangelicals have

...surrendered the plain teaching of God's Word 'out of respect for geology and paleontology.'... That evangelical scholars are increasingly surrendering to the theory of evolution should become evident from a quotation in an article in the Journal of the American Scientific Affiliation entitled 'The Evolution of Evangelical Thinking on Evolution,' by J. Frank Cassel, a recent president of the ASA (Dec. 1959, p. 27):

Thus, in 15 years we have seen develop in the A.S.A. a spectrum of belief in evolution that would have shocked all of us at the inception of this organization. Many still reserve judgment, but few, I believe, are able to meet Dr. Mixter's challenge of, 'Show me a better explanation.''

When once an attempt is made to harmonize the Word of God with 'the consensus of modern scholarship' it is difficult to terminate the compromise of Scripture which such an accommodation requires.4

No mediating position is tenable: either science must bow to scripture or science will break the back of scripture.

The ASA, on the other hand, seems quite befuddled by all this. Founded in Chicago in 1941, the ASA has tried diligently to bridge the gap between science and the Bible in a scholarly manner. Their stated purpose runs,

The American Scientific Affiliation is an association of men and women who have made a personal commitment of themselves and their lives to Jesus Christ as Lord and Savior, and who have made a personal commitment of themselves and their lives to a scientific understanding of the world. The purpose of the affiliation is to explore any and every area relating Christian faith and science. The Journal is one of the means by which the results of such exploration are made known for the benefit and criticism of the Christian community and of the scientific community.5

Thus, the conceived purpose of the ASA is much broader than that of the CRS. The journal reflects this, featuring articles on such diverse subjects

^{3.} Ibid.

^{5.} Arthur F. Williams, "The Genesis Account of Creation," Creation Research Society 1965 Annual, vol. 2, no. 1 (May 1965): 10.
5. Journal of the American Scientific Affiliation, vol. 24, no. 4 (December 1972):

as psychology, abortion, ecology, drug abuse, and so forth, in addition to the more physical sciences. This wider scope is also reflected in their scriptural motto: "The fear of the Lord is the beginning of Wisdom." Psalm 111:10. The ASA hoped to be the mediator between science and Christianity.

And yet after 27 years of work, bemoaned President Richard Bube in 1968, "Perhaps the simplest observation that can be made about the relationship between the ASA and the scientific community is that it is virtually non-existent." Even as late as September, 1973, the problem remained: on the cover of that issue was a cartoon portraying a group of scientists on one island and a huddle of Christians on another island with a bridge between them labeled "ASA." Only problem is, observed the inside flap, "Why isn't there somebody on the bridge?"7

Because of this frustration, the CRS seems to be a source of embarrassment and irritation to ASA leadership and members. The ASA tends to look down on the CRS as non-specialists speaking outside their fields⁸ and as a group of reactionary fundamentalists9—so harsh were the reviews in 1964 of Morris and Whitcomb's The Genesis Flood that book review editor Walter Hearn had to "tone them down" to make them suitable for publication in the journal.10 Four years later in 1968, President Bube called on the ASA to free itself from the tarbaby of the evolution debate, stating,

The choice is fairly clear. Is the ASA to be restricted to the activity of a small religio-scientific sect, forever fighting anew the battles of yesteryear and speaking aloud to a constantly diminishing audience? ...Will the ASA break clear of the dry bones of arguments about creation, evolution, Adam, and the flood, and combine scientific insight with the Gospel of Jesus Christ to speak to problems that concern today's world?11

But it was not that easy. Members of the ASA itself were deeply divided on the evolution question and some wanted more dialogue.¹² In December, 1968, Russell Maatman urged the ASA to get back to the question of "the use of the Bible in scientific problems."13 He protested the attitude of the ASA toward biological evolution as "one of live-and-letlive."14 But this will never do, he argued, for "it is impossible that both

14. Ibid.

^{6.} Richard H. Bube, "The Relationship Between the ASA and the Scientific Community," Journal of the American Scientific Affiliation, vol. 20, no. 1 (March 1968): 2.

^{7.} Journal of the American Scientific Affiliation, vol. 25, no. 3 (September 1973): 89. 8. J. R. Van de Fliert, "Fundamentalism and the Fundamentals of Geology," Journal of the American Scientific Affiliation, vol 21, no. 3 (September 1969): 60.

 ^{10.} Walter R. Hearn, "Book Reviews," Journal of the American Scientific Affiliation, vol. 16, no. 1 (March, 1964): 27.
 11. Bube, "The President Speaks," op. cit., p. 2.
 12. R. L. Mixter, "Choice," Journal of the American Scientific Affiliation, vol. 20, no. 2 (June 1968): 64; Leon W. Gillaspie, "Letters to the Editor," Journal of the American Scientific Affiliation, vol. 20, no. 3 (September 1968): 96.
 13. Russell Maatman, "From the Contributing Editors," Journal of the American Scientific Affiliation, vol. 20, no. 4 (December 1968): 119.
 14. Ibid

the evolutionary and the anti-evolutionary positions are true."15 As one writer put it in the same issue, "the battle is not over." 16

In September, 1969, the ASA printed an article against the CRS position that one suspects was supposed to be the decisive blow in the evolution debate. It was a long article written by J. R. Van de Fliert, a geologist with lengthy qualifications, and the article was interspersed with boxes containing quotations against flood geology from many impressive men in the Christian scientific community. Van de Fliert marveled that,

If I had been told a few years ago that an apparently serious attempt would be made to reintroduce the diluvialistic theory on Biblical grounds as the only acceptable working hypothesis for the major part of the geological sciences I would not have believed it.¹⁷

In the same article, Roger J. Cuffey asserted that the flood geologists ought to be "laughed out of court." But again, that was not so easy. Exactly one year later, in September, 1970, the entire fall issue of the journal was devoted to the evolution controversy. The question refused to die, and in September of 1973, the ASA journal still found itself reviewing CRS books in its book review section.

It seems to rankle the ASA to have an organization so looked down upon grow to nearly the size of their own affiliation in less than one-third the time and to have published several books when the ASA, as Bube lamented back in 1968, had at that time produced only two books in 26 years of existence—with a time interval between them of eleven years!19 (Since then the rate has increased.) It is a source of particular irritation that, as Cuffey bitterly remarked, the flood geologists "were widely accepted in the intelligent Christian community."20 The ASA finds itself in a difficult position: it is committed to exploring a broader range of topics than evolution, and yet it finds itself compelled by forces outside and inside the Affiliation to deal with the question in a substantive way. And the task is made all the more difficult by the fact that the ASA does not have a party platform on evolution as does the CRS and thus cannot speak decisively as a body to the issue, though a de facto position, somewhat nebulous, does arise. We turn now to an examination of these positions.

Philosophy of Science

CRS writers are very fond of viewing the evolution controversy as a dispute between two competing scientific paradigms or models. Arthur Jones argued that all science takes place within "conceptual frameworks" which are "informed by a philosophical view of reality." Henry Morris

Ibid.
 William F. Campbell, "Lettes to the Editor," Journal of the American Scientific Affiliation, vol. 20, no. 4 (December 1968): 122.
 Van de Fliet, op. cit.
 Ibid., p. 71.
 Bube, "Relationship," op. cit., p. 3.
 Van de Fliert, op. cit., p. 71.
 Arthur Jones, "The Nature of Evolutionary Thought," Creation Research Society Quarterly, vol. 8, no. 1 (June 1971): 45.

perceives in the debate what he terms a "Creation Model" versus an "Evolution Model."²² Elsewhere, he asserts, "Evolution is based on faith, rather than scientific proof, and is therefore simply a religious philosophy."23 R. J. Rushdoony argues in the same way that creation and evolution are not theories rising from the data, but

...just as the Christian will take God and the Bible as his 'given.' so the pragmatic naturalist should insist on taking the world as it exists today and the concept of evolution as his 'given,' has basic assumption about reality.24

But the upshot of all this is that since these two paradigms do not arise from the data, but represent a moral choice which governs how one will see the data, then they cannot be falsified, much less proven. Jones argues specifically that Popper's test of falsifiability does not apply to conceptual frameworks and that they "cannot be refuted by observation."25 Gary Schoepflin insists that

... observation is theory-laden. The idea that science is mainly done by 'simply' observation—'Just look, and see what happened!'—is an over-simplification....What we see is a function of what we are looking for....Pure, objective science is itself an abstraction, an idealization, a fiction!26

The CRS admits that their creation model cannot be falsified or proven, but they argue with equal conviction that "It is only fair to say that none of the ideas of the origin of life can be documented. We cannot prove the evolutionary account, neither can we prove the creation account."27 Iones concludes that "in the absence of revelation (i.e. the historical report of an eyewitness) we cannot scientifically investigate the past."28 But it is, indeed, such a revelation that the creationists claim to have.

But if neither of these two paradigms can be overthrown by the data, what is it that the creationists are about? Just this: they are out to prove, as Morris suggests, that both the evolution and creaion model are ultimately "religious in nature, since they deal with ultimate meanings and are both incapable of scientific proof" and that they are both scientific in nature in that they attempt to provide frameworks to interpret present phenomena.²⁹ The creationists argue that the creation model is "at least as satisfactory" in providing this framework as the evolution model and that their model

Henry Morris, "Comments from President Morris," Creation Research Society Quarterly, vol. 8, no. 4 (March 1972): 229.
 Henry Morris, "Die English Language Ist Funny," Creation Research Society Quarterly, vol. 8, no. 2 (September 1971): 146.
 R. J. Rushdoony, "The Premises of Evolutionary Thought," Creation Research Society Quarterly, vol. 2, no. 2 (July 1965): 16.

^{25.} Jones, op. cit., p. 45.
26. Gary L. Schoepflin, "On Assumptions and their Relation to Science," Creation Reseach Society Quarterly, vol. 9, no. 2 (September 1972): 126.
27. Douglas Dean, "Address Before the Texas Textbook Committee," Creation Research Society Quarterly, vol. 2, no. 4 (January 1966): 11.

^{28.} Jones, op. cit., p. 48. 29. Morris, "Proposals for Science Framework Guidelines," op. cit., p. 150.

has a better empirical fit with reality.30 The creationists would commend their model to us, not because it has been verified, but because it is simpler,31 more consistent,32 more effective in correlating the available data³³ and fitting the observed facts,³⁴ and provides the only basis for real meaning in life.35

The ASA, in discussing philosophy of science, subscribes to what Bube calls "Christian realim." This position recognizes the limitations inherent in experimentation and scientific language which "excludes large areas of life," but it also recognizes science as a legitimate enterprise for describing the world in "natural categories." Realism maintains that "a scientific theory can actually be true, that it is not just a useful fiction, but that it says something about the world."38 The acceptance of this view necessarily entails rejection of opposing philosophies of science such as positivism, idealism, and operationalism.³⁹ It also means that the subjectivism of Thomas Kuhn must be renounced.40

But given the influence of paradigms, how does one know which theory comes closest to representing reality? W. W. Watts lists eight criteria: simplicity, generality (comprehensiveness), internal consistency, falsifiability, repeatability, predictability, visualizability (can be pictured), and aesthetic nature. 41 When this is applied to evolution, the ASA takes a position similar to the CRS: "neither heredity nor anything else can prove or disprove evolution. It is a matter of faith."42

The ASA would argue for the existence of God as a necessary postulate to do valid science. Only when one has the Christian presupposition of the God of the Bible can one account for the regularity of the universe. Cook says, "When we accept that it is this Word which structures reality, it is not surprising that Kuhn, and also Conant, have to back away from their position, to account for the constancy which confronts them as they, or others, investigate reality."43

The CRS and ASA, then, seem relatively close in their philosophy of science, with the CRS lending more weight to the influence of paradigms in

 ^{30.} Ibid.
 31. Willem Ouweneel, "The Scientific Character of the Evolution Doctrine," Creation Research Society Quarterly, vol. 8, no. 2 (September 1971): 111.
 32. Thomas G. Barnes, "A Scientific Alternative to Evolution," Creation Research Society Quarterly, vol. 2, no. 4 (January 1966): 7.
 33. Morris, "Proposals," op. cit., p. 148.
 34. Morris, "Comments," op. cit., p. 230.
 35. Lorence of the 182.

^{35.} Jones, op. cit., p. 48.
36. Richard H. Bube, "Christian Responsibilities in Science," Journal of the American Scientific Affiliation, vol. 21, no. 1 (March 1969): 4.

^{37.} Ibid.

 ^{37.} Ibid.
 38. Peter Anton Pav, "Book Reviews," Journal of the American Scientific Affiliation, vol. 21, no. 3 (September 1969): 89.
 39. Bube, "Responsibilities," op. cit., p. 3.
 40. Harry Cook, "Book Reviews," Journal of the American Scientific Affiliation, vol. 25, no. 1 (March 1973): 37-38.
 41. W. W. Watts, "Natural Science and Christian Faith as Elements in a Cultural Continuum," Journal of the American Scientific Affilication, vol. 25, no. 2. (September 1973): 93.
 42. Martin La Bar, "Book Reviews," Journal of the American Scientific Affiliation, vol. 23, no. 2 (June 1971): 73.
 43. Cook, op. cit., p. 38.

^{43.} Cook, op. cit., p. 38.

determining scientific theory. But both emphasize that one's outlook on evolution is determined by pre-scientific assumptions of a religious nature, viz., is there a God? Both would suggest that should a person want to believe in God, evolution should not be a stumbling stone in his way, but that the evidence fits a theistic framework as well as a naturalistic one. But what that framework is and how it is arrived at forces the CRS and ASA to part company, leaving a wide rift between them.

The Bible and Science

Henry Morris maintains that after all is said and done, this is really the key issue, the fulcrum upon which the other issues will tilt toward one side or the other. He explains, "...the real issue is not the correctness of the interpretation of various details of the geological data, but simply what God has revealed in His Word concerning these matters." Morris seems on target here. If one subscribers to a literal, historical view of Genesis, one will find himself pushed toward the CRS camp; if one allows figure and symbol in Genesis, he will move toward another camp. We have already seen that the CRS is committed to a position holding that the Bible is historically and scientifically true.

For this reason the CRS vehemently opposes the so-called "double-truth theory" that God has revealed Himself in scripture and in creation and that these two revelations cannot contradict. Rushdoony charges that what this often boils down to is the Bible speaking spiritual truths while science speaks truths on biology, astronomy, and so forth, and thus on history. No longer is the Bible historically inerrant. Spiritual truths and natural truths lie in two autonomous realms.⁴⁵ The revelation seen by science in nature is used to interpret the revelation in scripture. The CRS maintains this is utterly backwards—the Bible must govern one's science. This is at least consistent with the CRS view of philosophy of science: paradigms do not arise from autonomous facts of nature; the CRS argues that the paradigm contained in the Bible is the best one to interpret the empirical world. Should the Bible and science contradict, science must be the loser, for the Bible is the authoritative Word of God.

On this basis the CRS not only opposes naturalistic evolution, but also any attempt at compromise, for this is surrending God's Word. Progressive creation is distasteful to the CRS. Morris writes, "There is no way is which a real and lasting peace can be worked out between evolution and special creation, between Baal and Christ, between Satan and God." Progressive creation assumes the geologic time table and validity of the fossil record. But Morris raises 15 contradictions between this and the Bible.

1. Matter existed in the beginning, versus matter created by God in the beginning.

^{44.} Henry Morris, "Book Reviews," Journal of the American Scientific Affiliation, vol. 16, no. 2 (June 1964): 60.

Rushdoony, op. cit., p. 16.
 Heny Morris, "Theistic Evolution," Creation Research Society Quarterly, vol. 8, no. 4 (Mach 1972): 269.

- 2. Sun and stars before the earth, versus earth before the sun and stars.
- 3. Land before the oceans, versus oceans before the land.
- 4. Sun the earth's first light, versus light before the sun.
- 5. Contiguous atmosphere and hydrosphere, versus atmosphere between two hydrospheres.
- 6. Marine organisms first forms of life, versus land plants first life forms created.
- 7. Fishes before fruit trees, versus fruit trees before fishes.
- 8. Insects before birds, versus birds before -insects ("creeping things.")
- 9. Sun before land plants, versus land vegetation before sun.
- 10. Reptiles before whales, versus whales before reptiles.
- 11. Reptiles before birds, versus birds before reptiles" ("creeping things").
- 12. Woman before man (by genetics), versus man before woman (by creation).
- 13. Rain before man, versus man before rain.
- 14. "Creative" processes still continuing, versus creation completed.
- 15. Struggle and death necessary antecedents of man, versus man the cause of sin and death.47

Of course, the non-Christian evolutionist would simply sneeze at such foolishness, but it puts the progressive creationist in a very difficult position: how can he believe in the geologic time-table and the Bible at the same time? The CRS is particularly adroit at pressing such objections.

For themselves, such problems do not arise, for the CRS believes in a literal seven day week in which all creation was consummated. They argue vigorously that the Genesis days are 24 days long; they point out that "nowhere else in the five books of Moses" does yom have the meaning of an indefinite period of time. As for the broader use of "day" in Genesis 2:4, Williams sees a parallel in Numbers 7.49 There it describes twelve days of anointing, summarized at the end by these words: "This was the dedication of the altar, in the day when it was annointed...." The word "day" is used as a comprehensive summary of several literal days, so it is in Genesis 2:4; after describing seven literal days, it sums it up by saying "...in the day that the Lord God made the earth and the heavens..."

Nor will the CRS allow refuge in gap theories as popularized by the Scofield Reference Bible. Whitcomb reports, "One graduate student questioned twenty of the leading Hebrew scholars of America concerning the exegetical evidence for a gap in Genesis 1:2. They unanimously replied there was no such evidence."50 Moreover, the distinction between the verbs "create" (bara) and "made" (asah) is untenable. Otherwise one must believe that God created (bara) the sea monsters but the land animals merely

Henry Morris, "The Day Age Theory," Creation Research Society Quarterly, vol. 8, no. 1 (June 1971): 74.
 Williams, op. cit., p. 8.
 Ibid., p. 10.
 John C. Whitcomb, "The Ruin-Reconstruction Theory of Genesis 1:2," Creation Research Society 1965 Annual, vol. 2, no. 1 (May 1965): 3.

came forth. Man is referred to in 1:26 as made (asah) in God's image and in the next verse as created (bara).

Nor will the CRS accept theories that place gaps between the days or regard the days as days of revelation not creation. The former is unnecessary since if everything was created on each of the six days, why posit great gaps between them? The latter is contrived, for every time a vision in Scripture occurs, the text says so. Moreover, why would God rest on the seventh day if all the work He did on the previous six days was about one minute of speaking?51

Finally the creationists level one last blast against all who interpret Genesis other than literally: to do so is to malign God's character. Evolution is inconsistent with God's omnipotence, omniscience (there are many dead ends and blind alleys in evolution), purposiveness (what good were the dinosaurs?), and love (all that competition and death).⁵² Thus anyone not hypnotized by the mesmerizer of science will certainly agree that creation took place in one week.

Again the ASA does not seem to know just what to do with all thishow does one deal with such literalists? We have seen that Maatman urged his fellows to speak to the issue of the Bible and scientific statements, but no consensus has emerged. Perhaps this is best illustrated by the confused statement of Donald Boardman.

Van de Fliert is absolutely right when he says that 'We deal a death blow to the Christian religion when we bring the Holy Scriptures down to scientific world picture....' I do not think this means we cannot rely on the scriptures to be scientifically correct, but we cannot make the teaching of the Bible dependent upon scientific knowledge.53

The creationists would certainly agree that the scriptures can be relied on to be scientifically correct and especially that we cannot make its teaching dependent on scientific knowledge. Van de Fliert misses the point, too; he charges that the CRS is trying to base people's faith on scientific evidence for a six-day creation and this is a foundation of "loose sand."54 But clearly, this is just the opposite of the CRS position: they contend the scripture is to be believed at all costs and if science be contradictory, so much the worse for science! The CRS argues that it is the progressive creationists who are building their view of what-the-Bible-says on science.

The ASA accepts the double revelation theory. On the inside cover of the September, 1973 issue, one Herbert Morris is quoted,

Two great Volumes have been laid before man....While in the Bible we have a verbal revelation..., in material nature, we have a pictorial revelation of the same....⁵⁵

54. Ibid., p. 70.
55. Herbert W. Morris, Journal of the American Scientific Affiliation, vol. 25, no. 3

^{51.} Morris, "Day Age," op. cit., p. 75.
52. Henry Morris, "Comments from President Morris," Creation Research Society Quarterly, vol. 7, no. 3 (December 1970): 136.
53. Van de Fliert, op. cit., p. 75.

They emphasize that the Bible does not speak as a science textbook. Van de Fliert urges,

The reliability of the Word of God...is beyond the reach of scientific control, because the Bible is not a science book. As such it is not vulnerable to the results of science.56

But if this be true, what does one do with biblical statements that touch on scientific matters, as in the early chapters of Genesis? Paul Seely gives his view.

The Bible assumes that the universe consists of three stories. The top story consists of a hard firmament which serves to divide a part of the primeval ocean from the other part of that ocean which is on the earth. The middle story, the earth, is where flesh and blood men live. The bottom story, Sheol, is where the souls of the departed

The Bible assumes that the universe is three storied; but, we do not believe that Christians are bound to give assent to such a cosmology since the purpose of the Bible is to give redemptive, not scientific truth. The relation of science to scripture is this: the Bible gives redemptive truth through the scientific thoughts of the times without ever intending that these scientific thoughts should be believed as inerrant.57

So now we have a Bible speaking redemptive truth but full of scientific errors. The same approach can be used to solve the antiquity of man issue. Seely contends that the Bible dates Adam culturally as a Neolithic man (the CRS would agree), but anthropologists have clearly proven man existed before 10,000 B.C. The solution? Just regard *Genesis* 2 and 3 as figurative and "...purely symbolic. The underlying history really happened; but the form in which that history is portrayed is purely imaginary."58 Between Genesis 3 and 4 is a break of several hundred thousand years, and the neolithic Adam of Genesis 4 has merely the same name as his forefather of the previous two chapters. Walter Hearn suggests a slightly different scheme along the same line: Genesis 1-11 are regarded as "parable;" true history begins with Abraham.59 George Horner attempts to solve the problem by suggesting that "unless one pushes 'Adam' back further and further in Time..., it would appear that the first man (Adam) mentioned in the Scripture is perhaps best considered as our Spiritual First Ancestor rather than our biological first ancestor."60 William Pollard comes right out and espouses theistic evolution as his solution. 61

^{56.} Van de Fliert, op. cit., p. 80.
57. Paul Seely, "The Three-Storied Universe," Journal of the American Scientific Affiliation, vol. 21, no. 1 (March 1969): 18.
58. Paul Seely, "Adam and Anthropology: A Proposed Solution," Journal of the American Scientific Affiliation, vol. 22, no. 3 (September 1970): 89.
59. Walter R. Hearn, "Letters to the Editors," Journal of the American Scientific Affiliation, vol. 16, no. 3 (September 1964): 94.
60. George R. Horner, "The Bible and Human Evolution: Problems in the Classification and Change in Man," Journal of the American Scientific Affiliation, vol. 19, no. 4 (December 1967): 110.

Now this bothers a large segment in the ASA. The whole point of the double revelation theory was supposed to prove that "these two revelations must agree; if they do not appear to do so, it must be because we are misinterpreting either one or both."62 But the Bible always seems to come out on the short end. R. Laird Harris notes that Seely's three-story cosmology argument is exactly the same argument used by demythologizer Rudolf Bultmann,63 who dismisses a literal ascension and second-coming of Christ on that basis.

Arthur Custance observes that the Bible just will not allow the gaps of time advocated by the above positions: "...the gaps in the biblical genealogies...are not really gaps at all since they are filled elsewhere in scripture. Were this not the case, we could never have known of their existence"64 But this creates more problems than it solves. Every attempt to move toward a literal biblical view runs aground because it contradicts the time-factor demanded by geology and paleontology. But to attempt to allow vast spans of time necessitates a less than literal interpretation of the Bible and makes one prey to all the CRS objections against progressive creation, which the ASA writers do not answer. This is undoubtedly the ASA's weakest point; they cannot decide to what degree the scientific statements in the Bible as to be taken as literally true. And until this issue is resolved, their position remains murky and unconvincing.

Fossil Record

Though there are many smaller issues, the problem of the fossil record is certainly the datum towering above all others to be dealt with. The CRS flies willingly in the face of modern science in its handling of this issue. Their attack begins at the fundamental level of the presupposition underlying modern earth sciences: uniformitarianism, the doctrine that natural processes are going on at the same rate now as in the past.65 Obviously, if this is true, the earth would be very old indeed. But the doctrine is, the

61. William G. Pollard, "Man On A Spaceship," Journal of the American Scientific

61. William G. Pollard, "Man On A Spaceship, Journal of the American Scientific Affiliation, vol. 21, no. 2 (June 1969): 34.
62. William F. Tanner, "Letters to the Editor," Journal of the American Scientific Affiliation, vol. 18, no. 2, (June 1966): 64.
63. R. Laird Harris, "Communications," Journal of the American Scientific Affiliation, vol. 21, no. 3 (September 1969): 93. Four years later, obviously saddened by attacks on Biblical inerrancy by Journal writers, Harris wrote: "I am sorry that the Journal ASA feels that this sort of thing needs to be publicized in its pages. I am aware that the doctrinal basis of the ASA has been changed. I spoke and page and page the results. It seems that the ASA founded to against the change and now I see the results. It seems that the ASA, founded to support the historic Christian doctrine, has become the sounding board for divergent ideas." [R. Laird Harris, "Communications," Journal of the American Scientific Affiliation, vol. 25, no. 4 (December, 1973): 167.] In the same issue, J. Barton Payne disputed Daniel P. Fuller's argument for limited inerrancy in J. Barton Payne disputed Daniel P. Fuller's argument for limited inerrancy in the Bible. Thus, behind what may appear to some as a curious and somewhat irrelevant debate concerning evolution looms an even larger issue of towering significance that will pull theologian and scientist alike into the controversy: the issue of Biblical authority and infallibility.
64. Arthur D. Custance, "Letters to the Editor," Journal of the American Scientific Affiliation, vol. 20, no. 3 (September 1968): 92.
65. Henry Morris, "Science versus Scientism in Historical Geology," Creation Research Society Quarterly, vol. 2, no. 2 (July 1965): 21

Research Society Quarterly, vol. 2, no. 2 (July 1965): 21.

CRS asserts, unjustified, and they go to great lengths to substantiate catastrophism, which maintains that the geologic record can only be explained by positing non-uniform, cataclysmic events in the past. 66

The next step is to assert that a world-wide flood would so alter the sediments and surface of the earth that the resultant apparent age would be misleading. And that is exactly the case: the Bible says there was no rain before the flood, hence little erosion. Suddenly the "windows of heaven were opened" as great rains began to fall, and "the fountains of the deep were broken up," likely meaning volcanic activity; the ocean basins were uplifted, flooding all the continents. During one year of the flood almost all the sediment was laid down. As the waters drained, a second period of erosion occurred. Due to atmospheric changes, the world's temperature dropped, and the ice age covered much of the earth.⁶⁷ CRS writers differ on the date of the flood; one suggests 2,444 B.C.;68 another says he would tend to say about 2,500 years ago, but the biblical record pushes the date to over 4.000!69

It was during the flood that all the fossils were laid down—up to that time all forms of plant life, dinosaurs, mammals, and homo sapiens co-existed. 70 The CRS draws on several lines of data to substantiate this claim. They point with obvious enthusiasm to fossil human footprints beside dinosaur prints.71 They also argue that the presence of complex fossils appearing suddenly in the Cambrian rocks refutes any slow evolutionary scheme which would require that simple forms would appear first gradually.72 They call attention, too, to the fact that no real geologic column of strata exists anywhere in the world. Willem Ouweneel states, "Nowhere more than two or three geological "periods" are found above each other....It is an established fact that every known rock (from Cambrian to Quaternary) has been found to be somewhere directly on the Precambrian."73 These sediments were all laid down by the flood, and the geologic column is a mere construct in the imagination of the scientist.

But the favorite argument of the CRS in regard to the fossil record is that the record is often found completely out of order, with "older" fossil forms lying atop "younger" fossils! Burdick points out that "...in numerous places in the world a reversed order exists, as in Glacier National Park,

^{66.} Clifford L. Burdick, "The Structure and Fabric of Geology," Creation Research Society Quarterly, vol. 7, no. 3 (December 1970): 144; Stuart E. Nevins, "The Mesa Basalt of the Northwestern United States," Creation Research Society Quarterly, vol. 7, no. 4 (March 1971): 223.
67. Arthur W. Kuschke, "Book Reviews," Journal of the American Scientific Affiliation, vol. 16, no. 2 (June 1964): 61.
68. H. L. Armstrong, "An Attempt to Correct for the Effects of the Flood in Determining Dates by Radioactive Carbon," Creation Research Society Quarterly, vol. 2, no. 4 (January 1966): 28.
69. Walter E. Lammerts, "On the Recent Origin of the Pacific Southwest Deserts," Creation Research Society Quarterly, vol. 8, no. 1 (June 1971): 53.
70. Harold Clark, "Letters to the Editor," Creation Research Society Quarterly, vol. 8, no. 3 (December 1971): 221.
71. Dean, op. cit., p. 11.

^{71.} Dean, op. cit., p. 11.
72. Harold W Clark, "Paleoecology and the Floord," Creation Research Society Quarterly, vol. 8, no. 1 (June 1971): 19-20.
73. Ouweneel, op. cit., pp. 112, 115.

Montana; in Banff, Canada; Wyoming; Arizona; and the Alps."74 Furthermore, in some of these places, no evidences exist that the lower layer was thrust over the upper by movements of the earth's crust. Ouweneel observes, "...in Montana a reversed sequence of earth strata is found over thousands of square miles without any trace of a cataclysm...."75 The CRS charges that the only way evolutionists get out of this dilemna is by resorting to circular reasoning: certain life forms (such as dinosaurs) lived during certain periods of time only; thus, whenever their fossils are found, the geologic layer must be of that time period. How does one know that dinosaurs only existed at that time period? The answer is because their fossils are found only in those layers of rock representing that time period. 76 As a result of this reasoning, wherever fossils are found out of the "proper" order, it must be because of overthrusting, even if no evidence for such exists.

But nevertheless, the CRS seems forced to admit that these examples are exceptions and that generally the fossil record does manifest a progression from reptiles to mammals to man. Various attempts are made to explain this.⁷⁷ One of the most interesting, by Hedtke,⁷⁸ suggests that on the basis of habitat+population size+size and structure, one can compute a Relative Fossil Production Potential for groups of organisms. One discovers that protozoans have the largest potential, while mammals have the least; thus, more fossils will be found of the groups with a large RFPP than those with a small RFPP. In addition to this, the available outcrops of rock decreases the further down one goes in the strata. Thus, when one superimposes the RFPP over the available out-crops for study, it only makes sense that the further down one goes in the strata, the less he will find organisms with a low RFPP. Hedtke notes that only about "1% of the possibly ten million species of plants and animals that may be preserved in rocks"79 has been represented in the fossil record and he predicts that higher life forms will be discovered in lower layers as research progresses.

When it comes to science, the ASA is now arguing on its own ground, and its case is strongest here. ASA writers attempt to explode the whole flood geology theory as ridiculous, a throwback to days before modern geology.80 To begin with, the CRS totally misunderstands uniformitarianism; they have set up a straw man to knock down. Clarence Menninga points out that the true meaning of uniformitarianism does not involve the processes always operating at a uniform slow rate, but only that

^{74.} Burdick, op. cit.

Burdick, op. cit.
 Ouweneel, op. cit., p. 112; Clifford Burdick, "Book Reviews," Creation Research Society Quarterly, vol 9, no. 3 (December 1972): 196; Walter E. Lammerts, "The Clarus Overthrust," Creation Research Society Quarterly, vol. 8, no. 4 (March 1972): 255.
 Morris, "Day-Age," op. cit., p. 75.
 Clark, op. cit., p. 23.
 Randall Hedtke, "A Geo-ecological Explanation of the Fossil Record Based Upon Divine Creation," Creation Research Society Quarterly, vol. 7, no. 4 (March 1971): 214-221

^{1971): 214-221.} 79. Ibid., p. 220. 80. Van de Fliert, op. cit., p. 70.

"the laws that apply to matter and energy are unchanging."81 Even the CRS accepts this, so they have proved nothing.

The question is, could a world-wide flood in just one year lay down all

the sediments? Frank Roberts states,

Sedimentary rock, which is very widespread, is usually deep—up to many miles deep. Where did these sediments come from? 'Flood geology' will not permit the erosion of a slowly rising mountain range. The swirling waters of the flood would have to erode many thousands of cubic miles of rock, hold the material in suspension, and gradually deposit it as alternate layers of sandstones, shales, and limestones in various sequences. The theory simply does not give an adequate explanation 82

In the same connection the beautifully layered sediments evidence a slow process of formation. Kuschke writes,

Such orderly structures seem to have been laid down slowly under non-violent conditions and not in the great flood because, as J. Lawrence Kulp observes..., 'If the sedimentary rocks were at once unconsolidated debris at the same time and the entire muddy mass was subjected to compressional stress, the result would be a chaotic mixture of the material.'83

The conclusion seems clear that all the geologic strata could not be the result of a single flood, no matter how immense!

Moreover, the biblical accounts do not necessitate the CRS explanation of events. Kuschke observes that canopy of waters above the firmament is not a necessary inference; the absence of rain may only refer to the Garden of Eden; the flood may not have been universal; nor does the Bible mention great tidal waves.84 In addition, the ice age does not fit neatly into the flood chronology. William Tanner asserts that a conservative summary of glacial history will have to include three major glaciations of North America.85 The CRS argues that there was only one glaciation and that within two centuries after the flood.86

The corollary of this is that if the sediments were laid down over the ages, then all life forms did not coexist. This would be the natural interpretation of the data since higher forms only appear in the uppermost layers. As for the fossil human footprints, Van de Fliert indignantly dismisses them as "pretended—but definitely not—human footprints."87 As for the sudden appearance of fossils in the Cambrian, the progressive creationists push this argument just as strongly as the CRS, claiming it provides

(December 1973). 82. Frank H. Roberts, "Book Reviews," Journal of the American Scientific Affiliation, vol. 16, no. 1 (March 1964): 29.

83. Kuschke, op. cit., pp. 62-63.

84. Ibid., p. 62.
85. William F. Tanner, "Chronology of the Ice Ages," Journal of the American Scientific Affiliation, vol. 17, no. 4 (December 1965): 113.
86. William A. Springstead, "Monoglaciology and the Global Flood," Creation Research Society Quarterly, vol. 8, no. 3 (December 1971): 180.

^{81.} Clarence Menninga, "Book Reviews," Journal of the American Scientific Affiliation, vol. 2, no. 3 (September 1973): 123. See also the discussion of catastrophem in the Journal of the American Scientific Affiliation, vol. 25, no. 4

evidence of spontaneous creation of certain Genesis "kinds."88 They even have a few arguments of their own to prove the geologic timetable: for example, the famous Specimen Ridge in Yellowstone Park, where thirty layers of successive forests exist with a layer of volcanic ash that burned down each forest and provided soil for the next in between each layer of trees. The CRS is reduced to claiming that each layer of stumps was washed in by the waves before being buried by volcanic activity. [89] Another factor requiring long time spans is the presence of buried fossil reefs, which would be formed slowly over the ages. 90 In response, the CRS recognizes this as a difficulty, but in a sponsored research project to the Capitan reef in the American Southwest, they claim to have proven that at least this "reef" is not really a reef at all, but merely limestone deposits.91 But this does not go far to nullify the force of the objection which is not based on one example and did not even mention the Capitan.

A second corollary of slow sedimentation is the validity of the geologic column. Van de Fliert maintains, "...the geological time scale is based on a factual superposition of rocks yielding a factual superposition of paleontological criteria which has proved to be the same all over the world."92 He emphasizes that the geologic column of sediments has been constructed on the basis of comparison of relatively stable areas while tectonic activity is at a minimum.

What about instances when the fossil order is reversed? This is simply the result of tectonic activity, in which folding over of the strata or overthrusts of the strata may occur. This will be easily spotted by hinge zones in the rock, crushed rock and other evidence of crustal movements; by a reversed fossil order; and by upside-down fossils in the strata, such as fossil mud cracks or water ripple marks facing downwards.93 Thus, it is possible to use fossils as indices to the layers representing the time periods in which they lived.

Nor is this arguing in a circular fashion, retorts the ASA. Roberts explains,

... evolution does not determine the ages of fossils: the stratigraphic sequence determines the relative age. One must keep in mind that Lyell and others worked out the whole story of historical geology thirty years before Darwin, assuming successive divine creations!94

This last statement is not much different from what many ASA members accept: that God over the geologic ages created the special "kinds" of Genesis, and these then evolved separately. Thus no problem is encountered in harmonizing this view with the fossil record, though, as we have seen, the ASA has yet to demonstrate that it can be harmonized with Scripture.

^{87.} Van de Fliert, op. cit., p. 70.
88. John N. Moore, "Evolution: Required or Optional in a Science Course?" Journal of the American Scientific Affiliation, vol. 22, no. 3 (September 1970): 83.

<sup>OF. KUSCIKE, Op. CIT., p. 63.
90. Van de Fliert, op.. cit., pp. 79-80.
91. Stuart E. Nevins, "Is the Capitan Limestone a Fossil Reef?" Creation Research Society Quarterly, vol. 8, no. 4 (March 1972): p. 231.
92. Van de Fliert, op. cit., p. 74.
93. Ibid., p. 76.
94. Reheart op cit. p. 20.</sup>

^{94.} Roberts, op. cit., p. 29.

"After their Kinds"

The CRS argues that during the creation week, God created various kinds of animals and plants, which then could diversify. They believe the fossil record bears this out. John Moore reports,

Geological researchers have confirmed the existence of gaps in the fossil record across which no "link" may be stretched, and also gaps that would require entire chains of links to cross from one major group to another major group.95

A good example of this is the lack of a transitional form between amphibians and reptiles.96 The CRS does not suggest this involves "fixity of the species;"97 instead, Iones maintains that the Mosaic food lists reveal to us some of the "kinds." The Hebrew min (kind) is shown to be a technical term98 and

"...in the vertebrates the min of the Mosaic food lists generally lie at the family level in current classification systems. In the case of the Orthoptera, however, the sub-family would often seem to be the min grouping...the difference may only reflect the inadequacy of present classifications.99

Within the created min, variation and development does occur. This the CRS terms "micro-evolution," and remarks that "no scientist questions the validity of variety, change, and development within groups of living things."101 But these groups are utterly distinct. The CRS believes genetics supports this. Moore emphasizes "that inviolate genetic barriers exist between major groups of living things may be stated conclusively on the basis of available genetic evidence. 102 Moore also suggests that if organisms have a monophyletic origin, then as they increase in complexity, chromosome count should show a pattern of increase and closely related organisms should have a roughly similar count. But he provides a chart to show how distinct the groups are.

The CRS also argues against the possibility of chance development of transitional forms because until the new features of the emerging form were completely developed they would be a hindrance, not a benefit, to continued survival. 103

- John N Moore, "On Chromosomes, Mutations, and Phylogeny," Creation Research Society Quarterly, vol. 9, no. 3 (December 1972): 166.
 P. W. Davis, "Land Dwelling Vertebrates and the Origin of the Tetrapod Limb," Creation Research Society 1965 Annual, vol. 2, no. 1 (May, 1965): 28-29.
 John N. Moore, "Neo-Darwinism and Society," Creation Research Society Quarterly, vol. 2, no. 4 (January 1966): 17.
 Arthur Jones, "A General Analysis of the Biblical 'Kind' (Min)," Creation Research Society Quarterly, vol. 9, no. 1 (June 1972): 53-57.
 Arthur Jones, "Boundaries of the Min: An Analysis of the Mosaic Lists of Clean and Unclean Animals," Creation Research Society Quarterly, vol. 9, no. 2 (September 1972): 120.
 Dean, op. cit., p. 9.
- (September 19/2): 120.
 100. Dean, op. cit., p. 9.
 101. Thomas G. Barnes, "A Scientific Alternative to Evolution," Creation Research Society Quarterly, vol. 2, no. 4 (January, 1966): 5.
 102. Moore, "Chromosomes," op. cit., p. 161.
 103. Willis E. Keithley, "Feathers: Flight or Fancy?" Creation Research Society Quarterly, vol. 9, no. 4 (March, 1973): 203; Harold Armstrong, "Comments on Scientific News and Views," Creation Research Society Quarterly, vol. 7, no. 4 (March 1971): 934 (March 1971): 234.

Moore provides a helpful chart contrasting the monophyletic view of origins with the biblical polyphetletic view.

The ASA follows a similar line of argument. They emphasize gaps in the fossil record as evidence of God's creative activity 104 and point to the lack of transitional forms between all the major groups, Harold Wiebe notes the lack of any invertebrate ancestor for vertebrates: with tongue in cheek, he wonders if the Annelid worms, which have a nerve cord running along the underside of their bodies, could have turned over to become the first vertebrates.105

The major differences between the CRS and the ASA here are that the CRS holds the kinds were created in one week while the ASA spreads out creation progressively, and the CRS seems to specify more narrowly the limits of the kinds than does the ASA.

Human Origins

The CRS believes that a neolithic cultured Adam was the first man, specially created by God. They emphasize the discontinuity between man and the annuals, as evidenced in what some suggest to be an innate—not learned—language ability in man:

Language is therefore peculiar to our species. Moreover, it is not directly tied to intelligence...language develops in the human child because of a special, inborn linguistic capacity. Apes cannot learn to talk because they do not possess this innate structure. 106

How old is man? The CRS turns to Carbon-14 dates of man indicating about 10,000 years ago. They find this acceptable though they point out that these figures may be too large because neither cosmic radiation nor the carbon-dioxide in the atmosphere has ben proved to be constant, which would affect the dates. 107

But what about hominids earlier than modern man? The CRS seems groping here for an answer. They state that no animal ancestor of hominids can be found.108 True, but this helps little, since hominids were still antecedent to Adam. They suggest that homo-fossil men existed as early as Australopithecines. 109 This helps a little, but homo-fossils still precede Adam, and what were the Australopithecines, if not men? Armstrong suggests that the latter were perhaps degenerate descendants of Adam, but he leaves us without any substantive proof. 110 Elsewhere Armstrong gloats

J. Frank Cassel, "Book Reviews," Journal of the American Scientific Affiliation, vol. 20, no. 2 (June 1968): 64.
 Harold T. Wiebe, "What Can be Learned from the Evolutionist Who Takes a Hard Look at His Own Theory," Journal of the American Scientific Affiliation. vol. 18, no. 3 (December 1966): 114.
 Ronald W. Langacker, "Excerpt from Language and Its Structure," Creation Research Society Quarterly, vol. 8, no. 3 (December 1971): 194.
 Harry V. Wiant, Jr., "How Reliable is Carbon 14 Dating?" Creation Research Society Quarterly, vol. 2, no. 4 (January 1966): 31.
 Harold Armstrong, "Comments on Scientific News and Views," Creation Research Society Quarterly, vol. 9, no. 2 (September 1972): 133.
 Donald T. Gish, "Book Reviews," Creation Research Society Quarterly, vol. 7, no. 3 (December 1970): 175.

no. 3 (December 1970): 175.

110. Harold Armstrong, "Book Reviews," Creation Research Society Quarterly, vol. 9, no. 3 (December 1972): 192.

over the discovery that Neanderthal man had rickets—and promptly concludes that fossil men may have been different due to disease not evolution! —but he never bothers to explain how major skull differences between hominids can be the result of rickets. 111 So the creationists are less than convincing here. If one grants the seven day recent creation, the hominids must have been one of the "kinds" or a degenerate descendant of man. The former seems purposeless, and one wonders if there has been sufficient time—given creationist chronology—for the latter. Both views appear untenable.

But the ASA is in little better condition on this issue. They are reluctant to dismiss early hominids as non-human. Horner calls Zinjanthropus human because of his culture. 112 James Buswell III asserts Adam could have been homo habilis. And yet interpretations like these run aground of the neolithic culture of the biblical Adam. We have already seen Horner's and Seely's solutions to that problem. The ASA is caught between the rock and the hard place: they cannot close their eyes to obvious early human forms, but neither can they blatantly contradict scripture's picture of a Neolithic Adam. Even asserting that all the hominids were mere annials and that only homo sapiens is true man would not. Murk confesses, solve the Neolithic problem.¹¹⁴ The author is surprised that, given a progressive creatioinist's expanded time scale, no writer suggested a post-Adamic degeneration of man. No solution seems yet in sight.

Conclusion

There are other fascinating aspects of the CRS-ASA debate that we shall not look at here; many of these would be simply subsidiary issues of the major points of contention discussed in this paper. The author is convinced that these two organizations are healthy counterparts is the evolution debate. The CRS calls Christians to examine their Bible more closely, while the ASA prevents a fundamentalist obscurantism by its persistent demand for scientific respectability. Any view of evolution that will demand our attention and respect, they tell us, must accord with both God's Word and scientific fact.

^{111.} Armstrong, "Comments," (March 1971), op. .cit., p. 233.

^{112.} Horner, op. cit., p. 108.
113. James O. Buswell III, "Homo Habilis: Implications for the Creationist," Journal of the American Scientific Affiliation, vol. 17, no. 3 (September 1965): 74.
114. James M. Murk, "Evidence for a Late Pleistocene Creation of Man," Journal of

the American Scientific Affiliation, vol. 17, no. 2 (June 1965): 47.