

## THE AGE OF THE EARTH

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### ABSTRACT

Modern science had its roots in the Biblical Reformation, and early modern scientists believed in a young earth. Old earth proposals sparked by Leyell and Darwin became politically motivated, and opposition to Kelvin's science was accepted as the church swung toward these proposals. Unscientific schemes such as the Day-Age and Gap theories and Theistic evolution are defined. Scientific compatibility with a young earth is shown.

### INTRODUCTION

From presenting many seminars and lectures dealing with the topic of creation and evolution, I have repeatedly observed that almost invariably someone will ask a question about dating methods and the age of the earth. Sometimes the question will be phrased: "How reliable are dating methods such as carbon fourteen?" Sometimes it will be quite direct, as "How old do you think the earth is?"

These questions come both from Christians and non-Christians alike. Why is there such a high degree of interest in earth's chronology? I must confess that I had the same questions myself about earth age when I began considering the question of creation versus evolution. Accordingly, I started to do research on the topic of chronology and what follows will be a summary of some of my findings.

### BIBLICAL BASIS FOR MODERN SCIENCE

First, I noticed that historians of science stated that modern science traces its roots directly to the Biblical doctrine of creation stemming from the Protestant Reformation and its view of Scripture (1,2,3). Although many ancient cultures, for example Egyptian, Chinese, and Mayan, possessed a high level of technology, they never developed a significant science. The reason is that they lacked an adequate philosophical base or world-view. They fell away from knowledge of the one true God, a knowledge their ancestors once all possessed. They then came to believe that events occurred at the whim of one or more capricious gods. Thus, there were no dependable laws governing natural events.

However, with the Reformation view of Scripture, an adequate base for science was again provided. An all powerful Creator not only created the natural world, but created and sustained the laws by which it was to operate. In addition, he set man over the creation. Thus, culture was led out of the dark ages and into the modern scientific era. Creation provided an adequate base three ways: philosophically - the natural world was governed by law, ethically - a scientist must be truthful for he is morally responsible to his Creator; methodologically - one can confidently perform experiments and expect results since man was given dominion over nature. Thus, rooted in the Biblical doctrine of Creation, science blossomed and flourished.

Creation was the view held by most men of science up until after the time of Charles Darwin (4). These early modern scientists believed the world to have been created only about six thousand years ago by direct creative acts of the Creator. They also believed that much of the earth's geological strata and fossils were the result of a great catastrophic upheaval associated with the Flood described in the early chapters of Genesis. Scientific evidence was in accord with these views, a fact which even modern anti-creationists have admitted. "The reason why catastrophism was adopted by virtually all of the truly productive leading geologists in the first half of the 19th century is that the facts seemed to support it." (5)

## TIME

However, there also arose in the first half of the 19th century a movement whose aim was to destroy the credibility of the Mosaic account. Centered at first in England, the movement seems to have been politically motivated. Kings were believed to rule by divine authority. Political opposition therefore deemed it necessary to destroy the credibility of the Mosaic record and they used a well planned approach (6,7). One of the key leaders in this movement to destroy the credibility of the Genesis account of Creation and world history, was Charles Lyell. Lyell, though trained as a lawyer, became president of the Geological Society of London. His method of attack was to propose the idea of uniformitarianism and a great age for the earth. Lyell's uniformitarianism opposed the ideas of an earth created about 6000 years ago and a worldwide flood. It held that events of the past occurred at the same rates and in a manner similar to those observed in the present day. Uniformitarianism has been paraphrased as "the present is the key to the past."

Charles Lyell's theory of uniformitarianism provided the great amounts of time for earth history needed by Charles Darwin and encouraged him to present the evolutionary views for which he is credited. Scientists of the day, however, were reluctant to accept Darwin's ideas and many fought against them. Physical evidence including that relating to the age of the earth was against Darwinism and its requirement of vast time. Calculations by the famous scientist Lord Kelvin and based on hard physical data about how long it would take for an earth, originally white-hot to cool to its present state, yielded an upper limit to the age of the earth which was very much less than Darwin required. This caused Darwin to refer to Kelvin as "that odious spectre" but he had no answer to Kelvin's results (8).

Although scientists were slow to accept evolution, theologians seemed strangely eager to embrace the evolutionary view of origins and earth history. Perhaps this was tied in with emerging rationalism and "higher criticism" of Scripture in Germany and elsewhere. At any rate, Darwin's highly speculative ideas began to be termed "scientific" and were gradually accepted more widely.

In response to Darwinism, the church had two options. It could follow the traditional approach and interpret and judge all data in light of Scripture as ultimate truth, or it could assume that "science" was the ultimate source of truth about the physical world and reinterpret Genesis in light of evolutionary presuppositions or "science" as Darwinism now called itself. History shows that much of the church chose to use the second approach perhaps out of a desire to retain "scientific respectability" in view of the assumed "fact" of the great age of the earth.

## CONCORDANT THEORIES

For those who accepted the great age of the earth as scientific fact, a need arose to find a way to make the Genesis account fit in with the assumed great age of the earth. Various schemes for doing this were suggested. None of them, however, was ultimately very satisfactory. Some of the more widely known harmonization schemes were the Gap Theory, Day Age Theory, Non-Consecutive Day Theory, Revelatory Day Theory and Theistic Evolution.

The Gap theory proposed an original complete creation in Genesis 1:1, then perhaps because of Satan's fall a divine judgement brought earth into chaos for vast geological ages and then a re-creation took place in Genesis 1:3 a few thousand years ago. In the Day Age Theory, the days in Genesis 1 are assumed to be non-literal, each day representing a long geological age. On the other hand, the Non-Consecutive Day Theory takes each day of Genesis 1 to be a literal day, but assumes the days are separated by long periods of time. The Revelatory Day Theory is the belief that each day of Genesis 1 is the time God used to explain to Moses what God did. In other words God used an actual week to fill Moses in. Perhaps a majority of modern theologians have given up altogether on any scheme for harmonizing vast evolutionary time with Genesis and simply assume theistic evolution. In their view evolution is the true case and Genesis chapters one to eleven are mythical and neither literal or historical.

## TIME AS AN ISSUE

Why then is time an issue? For an evolutionist it is necessary to escape from the improbabilities encountered in trying to explain the origin of life from non-life, a fact readily admitted by evolutionists (9). "Time is in fact the hero of plot. The time with which we have to deal is of the order of two billion years. What we regard as impossible on the basis of human experience is meaningless here. Given so much time, the 'impossible' becomes possible, the possible probable, and the probable virtually certain. One has only to wait: time itself performs the miracles." (10)

But why is time an issue for the Christian? It wasn't until I studied writings of the great scholar A. M. Rehwinkel that I realized why time was an issue for the Bible believing Christian. As Rehwinkel has shown so clearly, the genealogical data from the Bible form a chronology and have Messianic significance (11). The central theme of the whole Bible is Jesus Christ the Messiah, the Savior of the world. He is not only true God but as our Savior, he is also true man. Therefore, so that men might recognize that fact, scripture provides an unbroken genealogy from Adam to Christ. That genealogy limits the age of the earth. Some may wonder whether there are gaps in the genealogy, but it is not our purpose to discuss that point here. It has been adequately covered elsewhere (12,13). An attack on the age of the earth is therefore a back-door attack on the credentials of Christ as Messiah and on the reliability and trustworthiness of scripture.

Vast time for the age of the earth was the attacking point and the spearhead that launched the Darwinian revolution and this fact has been emphasized by evolutionists themselves. "The revolution began when it became obvious that the earth was very ancient rather than having been created only 6000 years ago. This finding was the snowball that started the whole avalanche" (14).

Now that we have traced the basis for the question of the age of the earth as an issue in the creation/evolution conflict, we come to the crux of the issue as far as science is concerned. The bottom line, so to speak, is the basic question: Granted that the Bible indicates an age for the earth of about 6000 years, can the data from science fit within this time frame without straining the facts? As I have discussed elsewhere, the answer to that question is a definite yes! (15,16,17)

#### THE DATA

It is now generally admitted even by geologists of evolutionary persuasion that geology does not provide a time clock (18,19,20). They fall back on radioactive "dating." However, even data from this process, e.g., carbon fourteen, potassium-argon, rubidium-strontium, etc., is not absolute, but must be interpreted in terms of assumptions. One's conclusions regarding time using data from radioactivity are no more reliable than one's starting assumptions. Evolutionists assume a priori that the data are a time index. Obviously, however, that is not the only assumption one can make. It is also possible to assume that the data from radioactivity are an indicator of geochemical-geophysical processes, such as how rocks are formed. In fact, this latter assumption has been shown to be more in accord with the actual data and is even used by evolutionists themselves when explaining results they can't agree with (21,22,23). To use this second assumption, however, destroys completely the idea that "radiodating" firmly establishes an earth of great age. On the contrary, data from radioactivity may actually indicate an earth with age of only a few thousand years (24).

However, those who were opposed to the Scriptural account of origins and earth history carefully maneuvered themselves into gaining control of science curricula in key educational institutions (25). The theories of Charles Lyell and Charles Darwin eventually came to predominate at most other universities as well. Even seminaries yielded to peer pressure and adopted uniformitarianism and evolution. Those who opposed the new approach were accused of being unscientific and ignorant of the facts of science, especially geology.

A sad result of the new scientism was that young people, even from solidly Christian homes where the Bible was taught as absolute truth, were overwhelmed. When attending universities, students were assured that scientific facts especially from geology showed beyond any reasonable doubt that the earth was very ancient. On the other hand a recent creation as described in the Bible was disparaged or even ridiculed as having been replaced by the supposed facts of modern science. It is easy to find examples of this attitude even in current literature both scientific and popular (26,27). One might expect non-Christians to side with those who attack a recent creation, but attacks come even from those who wish to be known as traditional Bible believers (28,29,30). A case in point is the recent book, Christianity & The Age of The Earth by Davis Young (31).

Facts, however, are stubborn things! Over and over again those who have doubted Scripture have been shown to be in error and Scripture correct. Since Lord Kelvin's time, many new facts relating to earth's age have been discovered. But just as in Kelvin's case, they also do not support the idea of vast amounts of time.

As an illustration coral reefs were assumed to form so slowly that their presence was used as one proof of vast amounts of time for earth history. But recent studies have shown that even the famous Great Barrier Reef was formed within the last few thousand years. Abraham would not have seen it had he sailed to Australia! (32)

Other lines of physical evidence also point to the correctness of a Biblical time scale. Many of the geological processes which had been assumed to support vast amounts of time have now been shown to occur quickly when actually studied either in the laboratory or observed in nature. This is true for stalactite and stalagmite formations in limestone caverns, for coal and oil formation as well as for weathering of rock (33,34,35). In fact, so much new evidence militates against uniformitarianism that a sizeable move toward catastrophism is occurring again (36,37).

One of the newer and more interesting lines of evidence in support of the accuracy of Biblical chronology is based on the Hebrew calendar in combination with astronomical dating. With the aid of modern computers, positions of astronomical objects can be related to times and dates of Hebrew feasts and other historical events based as they are on lunar time. This has afforded a reliable and independent check of the chronology of the Bible. It provides hard evidence for the correctness of the genealogies from Adam to Christ and the time associated with them (38).

#### CONCLUSION

In summary, the question of the age of the earth is not only central to the creation/evolution debate, but it is also tied in with the very basic Biblical doctrine of Jesus as the Christ, the Messiah, the Savior of the world. As ideas have consequences, it is both instructive and sad to observe that those educational institutions and church denominations which have adopted an old age earth view have also slowly and surely moved away from other fundamental Biblical doctrines as well. The move results from a hermeneutic which forces the Scriptures to conform to man's philosophy rather than vice versa. Science as well as theology suffers. Science is greatly hindered when operating from wrong theories, and cannot advance as well as it might.

Either God's inerrant Word takes first place and judges all other areas of man's endeavor or else man sets himself up as the standard and judges God's Word. The stakes are high and have lasting, even eternal consequences.

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