

(in Ecclesiastes 1:5), the sun “hasteth to his place where he arose”.

There is not a hint in Scripture that these statements were understood in any other way than at their face value, corresponding with the beliefs of other ancient nations. And, contrary to what our senses tell us, the only reason why we do not now take them literally can be summed up in one word—science; in particular, the theories of men such as Copernicus and Galileo. All of us are prepared to reject a literal understanding of over fifty Scriptural statements concerning a natural phenomenon. Nor is it a sufficient answer to the questions this raises to say that the language is simply describing how things appeared to men and women. By hindsight we now know that that is so, but it is also an admission that these descriptions themselves are not literally true.

The lesson from Galileo is, therefore, that we should be wary of accepting any Scriptural statements about the natural world as necessarily literally true, even though believed to be so for many generations. We should be prepared for the possibility that accumulating evidence from science may require us to view those statements in a different light. And the lesson from the Catholic Church in its attitude to Galileo is that those among us who hold to a Creation in six literal consecutive days of twenty-four hours 6,000 years ago should be wary of making heretics of those who do not share their view.

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I read with interest the article by Brother Alan Fowler, [“Interpreting the fossil record”](#), in the recent *Testimony* Special Issue, *Science and the Bible*. The author appears to interpret God’s revelation of Creation in terms of the geological errors of orthodox geology. I believe, however, and proffer some of my reasons below, that the commonly accepted geological column with its assignments of ages and biological populations is far from established fact, and should in no way influence belief away from a literal six days of Creation.

Such use of evolutionary theory is made in interpreting geological data. The geological column (which does not, incidentally, exist complete in any part of the world) has been constructed by comparing rock sequences of segments of the column in different parts of the world, and creating alignments where those sequences have similarities. As with any calibra-

tion exercise of this kind (see [Brother John Watts’ article](#) in the same issue on the difficulties of calibrating radiocarbon dating), piecing together the geological column is accompanied by many uncertainties.

The evolutionary geologist therefore uses his ‘knowledge’ of evolution to assign a particular layer or sequence of layers to a particular geological era. Use is made of ‘index fossils’—fossils of creatures whose stage of evolutionary development is ‘known’ on the evolutionary scale—to attribute an age or geological era to the particular layer of rock which contains that fossil. That life has evolved from simple to complex over vast periods of time is the assumption used in the ordering of rocks with this method. Clearly, if evolution has not occurred, the method has no validity whatsoever, and the ordering of rock strata in this way is similarly spurious. The ideal way of ordering rock strata is by dating samples of rock to give definitive ages to sequential layers of rock. There are, of course, numerous methods which have been used for dating both rocks and the fossils they contain; ages of great antiquity are generally quoted to accompany ‘important’ fossil finds.

Most dating methods are based on the uranium 238:lead method, in which the ratio of uranium content to lead content (the uranium decay product) is calculated. This is the method from which the supposed age of the earth, 4.5 billion years, is derived. However, the uranium:lead method is fatally flawed. The most significant weaknesses in the method are:

1. Uranium leaching (uranium salts are soluble and will be eluted from a rock by rainwater in preference to lead salts), which leads to artificially high dates;
2. An alternative decay pathway described relatively recently and known as ‘neutron capture’, in which uranium 238 ‘short circuits’ to lead, thus forming lead much more rapidly than by classical decay reactions; this again skews results towards high date values.

There is no reliable method by which rocks and the fossils they contain can be dated. Dates placed alongside the geological column in popular texts are therefore no more than guesswork. There are reasons for thinking that, rather than having taken millions of years to form, the rock formations we can observe today were formed relatively quickly, not by gentle sedimentation, but by periods of cataclysmic geological upheaval in the earth’s history. Rapid burial is the only

way in which life forms could have been preserved as fossils. Living things normally decay to nothing over a period of months, and would not be preserved by slow sedimentary processes. Vast eras of geological time are not necessary to the production of fossil-containing strata.

Another reason for believing that the geological column is not a 'time axis' of the development of different life forms is the existence of 'misplaced' fossils, where a fossil is found in a much older layer than, evolutionarily speaking, it should be. A famous example of this is the Castenedolo human remains, which were found in Pliocene rocks. Finds of this nature indicated the possibility that 'older' rocks were in reality laid down at the same time as 'younger' rocks.

If the fossil-containing rocks we see in the earth's crust were formed rapidly, and not as a result of long periods of deposition of sediment, we have to find some explanation as to why there is a gradation of life-forms from 'simple' to 'complex' across deeper to shallower rocks. One possibility is that, in a geologically unstable earth, creatures which had greater mobility and intelligence had a greater capacity to escape from natural disaster. In the event of a major disruption to the earth's crust, such animals would, out of a sense of survival, run and escape from danger and would be buried later than 'simpler' sedentary creatures who would be engulfed with no opportunity to escape.* That seems a fairly obvious explanation, and one which eliminates any requirement of the fossil record to be sequence history.

For the reasons I have given, I see no need for us to give credence to the popular view of the earth's geological history. I do not see the fossil record as being "a record of creation in the rocks", as Brother Fowler suggests, but rather a record of the *extinction* of species. A creation once replete with species became poorer in diversity as God poured judgement on His degenerate creation. When fossils were formed we do not know. The description of the earth as "without form, and void" (Gen. 1:2) suggests to me that there were no fossils before God's six days of Creation began. The period of the Flood remains the most likely time of fossil formation, since we are told that "all the fountains of the great deep [were] broken up" (7:11), indicating seismic activity at that time.

In view of the lack of evidence supporting the conventional time scale of geology and evolution, I believe there is no reason why we should

think of the Genesis record of Creation as having been anything other than a literal week of days.

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I have just received my copy of your Special Issue "Science and the Bible", and first impressions are that it is an excellent compilation of interesting articles well presented. I specially want to compliment you on publishing Brother Alan Fowler's article, "Interpreting the fossil record", which is excellent—a most scholarly and informative offering, honestly tackling the subject. Would that some of your other writers could be equally positive!

A case in point is Brother John Nicholl's article, "What happened to the dinosaurs?". The first three-quarters is excellent and factual, citing the abundant geological and fossil evidence for the generally accepted conclusion—that dinosaurs were the dominant species on earth for about 100 million years during the Jurassic and Cretaceous periods, and became extinct approximately 65 million years ago. Then he spoils it all by saying that, because he personally believes in a Creation in six twenty-four-hour days 6,000 years ago, he thinks that dinosaurs must be quite recent, possibly being in Noah's Ark and still around at the time of Job. I presume the writer sincerely believes that, but how can he? How can anyone these days?

The evidence for the great antiquity of planet earth, the solar system and the rest of the universe is overwhelming. The Hubble telescope has confirmed the incredible size of the universe and consequently its age. If, as we are told, the light from the farthest reaches of the universe has taken ten billion years to reach us (we are looking back in time) then the universe must be twelve or more billion years old.

It is fairly easy to calculate the age of the star which is our sun by measuring the amount of hydrogen (fuel) which has been used up (converted into helium) to produce light and heat. This process has been going on for about 5,000 million years, and the sun is good for another

* This argument clearly cannot apply to plants. Brother Skinner has suggested in a further communication that the fossil sequence of plants in the rock strata can be explained by such factors as the greater buoyancy of large trees, the greater populations of rapidly growing 'simpler' trees such as conifers early in the earth's history, and the ecological and habitat variations of species before the Flood.—D.J.B.