

## Genesis questioned by billions of years beliefs

A review of:  
**The Genesis Question**  
By Hugh Ross  
Published by NavPress  
Colorado Springs, CO,  
1998.

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### Introduction

The astronomer Hugh N. Ross now seems to be the world's most prominent 'progressive creationist' (PC). While he is insistent about distinguishing himself from 'theistic evolutionists' (TEs), Ross adopts the same basic philosophical approach. That is, he makes uniformitarian (i.e. essentially materialistic, billions of years, etc.) 'science' his authority over Scripture.

This means that he must try to fit billions of years into Scripture, with corollaries of a local flood and pre-Adamite soulless man-like creatures, and death of *nephesh* animals before sin. The only real difference between the two positions is that PCs deny transformism, the changing of one kind into another. Amazingly, Ross claims that his approach is 'a literal reading of the Genesis creation chapters' (p. 86). This is surely a very non-literal usage of the word 'literal'!

Ross's popularity in evangelical Christendom is based on several factors:

- His books are published by the once-biblical NavPress, the publishing arm of the Navigators.
- Ross name-drops a number of Christian leaders who appear not

to realise that Ross's departure from Scripture involves far more than the age of the earth.

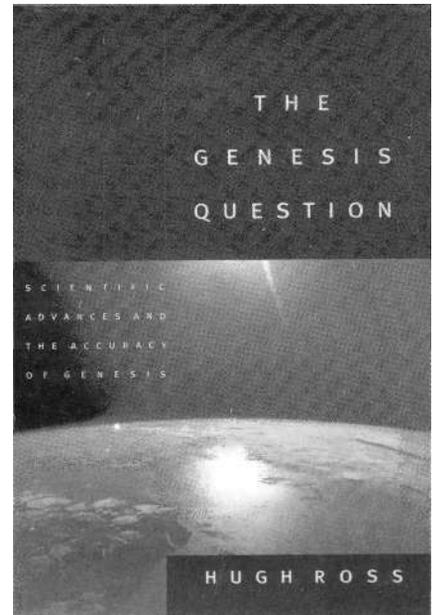
- Ross gives the impression that his books will help Christians defend their faith in a scientific age.

It's clear that for the last few years, NavPress has opposed straight-forward biblical creation. In this latest Ross book, NavPress appear to have even resorted to somewhat misleading marketing tactics, i.e., the dust-jacket has some 'praise' from allegedly prominent authors, one of whom is:

SAMUEL CONNER, PH.D.

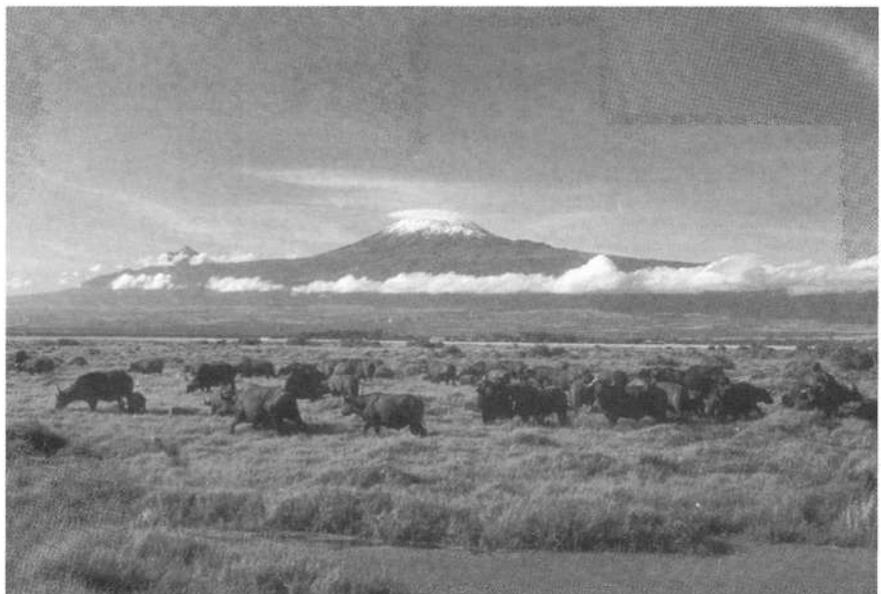
*candidate in physics at the Massachusetts Institute of Technology*

Formatted as above (starting a new line and changing the font style from small capitals to italics after 'Ph.D.'), this gives the first impression to a skimming reader that Conner has a Ph.D., because only after careful inspection is it clear that he is a Ph.D. *candidate*, i.e. not actually qualified.



### The canonisation of 'Nature'

The worst part of Ross's teaching is the gross liberties he takes with the scriptural text. He does this to fit the canonical 66 books into what he calls the '67<sup>th</sup> book', nature.<sup>1</sup> What he means by 'nature' is the *uniformitarian* interpretation of nature. However, the creation is cursed (Genesis 3:17-19, Romans 8:20-22) and man's heart is deceitful (Jeremiah 17:9) and the thinking of a godless man is 'futile' (Romans 1:21), while Scripture itself is 'God-breathed' (2



Ross considers 'Nature' to be the '67<sup>th</sup> book' of the Bible.

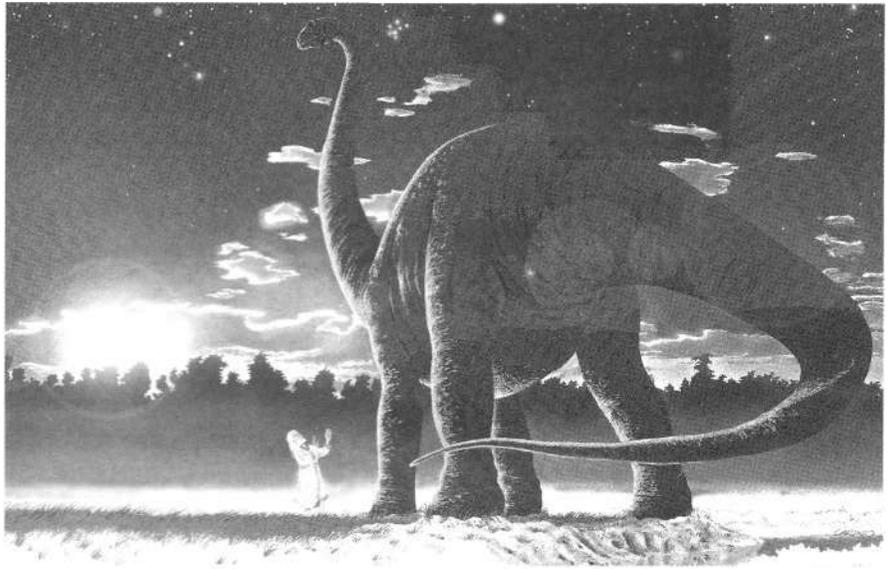
Timothy 3:15-17). So a biblical Christian should not re-interpret the perfect, unfallen Word of God according to fallible theories of sinful humans about a world we know to be cursed (Genesis 3:17-19, Romans 8:20-22).

Ross's heterodox canonisation of nature has been thoroughly rebutted by Van Bebber and Taylor.<sup>2</sup> This book is essential reading for defenders of the biblical world-view, as it answers point-by-point Ross's earlier theological and historical errors.<sup>1</sup> However, *The Genesis Question* repeats many of the same errors.

### Ignorance of Hebrew

Ross routinely gives audiences the impression of being very familiar with Hebrew. However, in a meeting with Dr Ross on 12 April 1999, Dr Russell Humphreys asked Ross in **Hebrew**: 'Do you speak Hebrew?' and Ross was clearly non-comprehending. Humphreys then said (in English): 'You must respond in Hebrew', to which Ross admitted his inability by responding (also in English) 'I can't.' Humphreys hastens to add that he himself is not expert in Hebrew, and nor am I, but we at least know enough to understand the question and to reply using the Hebrew word for 'no'.

Ross's ignorance of Hebrew shows when he tries to discredit the common creationist identification of *behemoth* in Job 40:15 ff. with a sauropod, because he believes the dinosaurs became extinct 65 million years ago. Ross writes (p. 48): 'The Hebrew word for "behemoth" appears in its plural form, behema, ...' However, even beginners in Hebrew know that -a is often a feminine singular and -oth is a feminine plural. So Ross got it back-to-front: *behema* is the singular form, while *behemoth* is grammatically plural. It is a figure of speech known as an *intensive plural* or *plural of majesty*, where 'the referent is a singular individual, which is, however, so thoroughly characterized by the qualities of the noun that a plural is used',<sup>3</sup> 'beast of beasts'. The context



*The concept that Behemoth was a dinosaur fits extremely well with the description given in Job.*

says that *behemoth* is the largest beast God made. And Job 40:17 says: 'His tail sways like a cedar' which certainly doesn't fit Ross's suggestion of a hippopotamus (unless it was a bonsai cedar, maybe).

### Fanciful eisegesis<sup>4</sup>

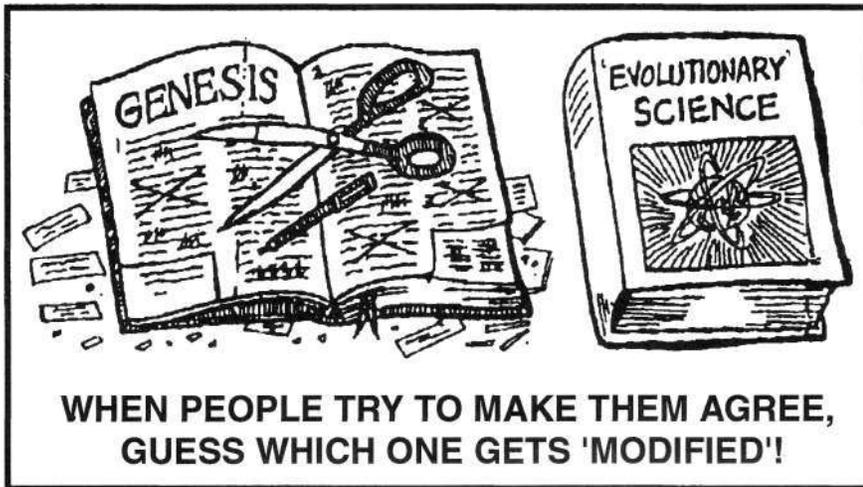
One of Ross's major aims is to show that Genesis can be fitted into uniformitarian astronomy and paleontology. To avoid the plain teaching of Genesis — that land dinosaurs were created with man and after whales, Ross also claims (pp. 52-53):

*'The list [of creatures created on Day 6] does not purport to include all the land mammals God made. ... Though remes refers occasionally in Hebrew literature to reptiles, the opening phrase of Genesis 1:25 makes it clear that these are mammals. ... Both behema and chayyah refer to long-legged land quadrupeds. The former group encompasses those that easily can be tamed or domesticated for agricultural purposes, and the latter, those that are difficult to tame but have the potential to become excellent pets. Remes refers to short-legged land mammals, such as rodents, hares, and armadillos.'*

However, this is typical of Ross's imaginative eisegesis. Genesis 1:25 teaches nothing so restrictive. And his analysis of Hebrew terms has no basis — **Ross's own source**, the *Theological Wordbook of the Old Testament* (TWOT),<sup>5</sup> **doesn't support him**. *Chayyah* is simply a generic word for a living creature although it can often refer to wild animals (TWOT 1:281) — the phrase *nephesh chayyah* is used of sea creatures in Genesis 1:20, and of man in Genesis 2:7. *Behema* refers to both wild beast and domesticated animal (TWOT 1:92). *Remes* describes small creeping animals 'especially reptiles' (TWOT 2:850). The TWOT shows that Ross is 'over-defining' these terms.

Van Bebber and Taylor<sup>6</sup> pointed out the same errors in Ross's earlier book,<sup>1</sup> and it's tiresome to see Ross repeating discredited nonsensical arguments time after time.

Note that even if we grant Ross's contention that *remes* means 'short-legged land mammals', it *still* doesn't match the uniformitarian order in the fossil record. Such creatures are alleged to have appeared millions of years before whales, which Ross identifies as created on the millions-of-years-long 'Day 5'. And mesonychids, the alleged predecessors of whales, were certainly 'long-legged mammalian quadrupeds', so would fit



even Ross's descriptions of 6<sup>th</sup>-day creatures.

Those who promote Ross's material as sound science should thus think again. It is doubtful that secular people will be impressed by Ross's claim that the order of Genesis matches 'science'. When they point out exceptions, Ross redefines terms so that Genesis 6 doesn't really refer to any creature that appeared before whales. And when all else fails, he claims that the 'days' overlapped.<sup>7</sup>

### Insightful exegesis or delusions of grandeur?

One key point about Ross's 'harmony' of Genesis with billions of years is to claim that Genesis 1:2 ff. is written from the viewpoint of an observer at the earth's surface. He claims (p. 21):

*The frame of reference, or point of view, for the creation account suddenly shifts in Genesis 1:2, from the heavenlies that make up the entire physical universe to the surface of planet Earth. For whatever reason, perhaps because it comes so abruptly, most readers — even scholarly commentators — miss the shift. I am convinced that my absorption in science prepared me to see it.'*

So Ross, despite a demonstrable ignorance of even the most basic Hebrew and an inability to use Hebrew lexicons correctly, discovers

amazing insights, thanks to 'science'. This claim by Ross, like so many others, is a denial of the perspicuity of Scripture. I.e., God's people were left entirely in the dark about Genesis until modern uniformitarian theories were invented — mainly by biosceptics.

More likely, this alleged frame shift has been missed because it is not in the text! The real frame-shift to the Earth is very clear in the Hebrew, and occurs in Genesis 2:4, not Genesis 1:2. Genesis 1:1-2:3 is a summarised account of the whole creation, while Genesis 2:4 ff. focuses on the creation of mankind (in chapters 7 and 10, Ross rightly rejects higher critical theories that claim that Genesis 1 and 2 are contradictory creation accounts). This shift is clear from the boundary marking phrase 'These are the generations (toledoth) of the heavens and of the earth', or better, 'This is the account...'.<sup>8</sup> Also, in Genesis 2:4, the order 'heaven and earth' changes to 'earth and heaven', alerting the reader to focus on the earth.<sup>9</sup>

Ross applies this alleged Genesis 1:2 frame shift to assert that what really happened on the fourth 'day' was that the sun and other heavenly bodies 'appeared' when a dense cloud layer dissipated after millions of years.

Disks around stars, by an amazing leap in logic, supposedly show that all planets, including the Earth, started with opaque atmospheres of hydrogen, helium, methane and ammonia (p. 26). But it would not take a very soph-

isticated knowledge of science to know that hydrogen couldn't be held by earth's gravity, and methane and ammonia would be photolysed quickly. These gases are transparent, incidentally.

Ross's ideas are not only fanciful science, but bad exegesis of Hebrew. The Hebrew word *'asah* means 'make' throughout Genesis 1, and may be used interchangeably with 'create' (*bara'*), e.g. in Genesis 1:26-27. It is pure desperation to apply a different meaning to the same word in the same grammatical construction in the same passage, just to fit in with atheistic evolutionary ideas. If *God had meant* 'appeared', then He would have used the Hebrew word for appear (*ra'ah*), as when the dry land 'appeared' as the waters gathered in one place on Day 3 (Genesis 1:9). This is supported by Hebrew scholars who have translated the Bible into English. Over 20 major translations were checked, and all clearly teach that the sun, moon and stars were *made* on the fourth day.

### Days of Creation

To justify his interpretation of the six creation days of Genesis 1 as millions of years long, Ross writes (p. 65):

*'In English, the word day enjoys flexible usage. We refer to the day of the dinosaurs and the day of the Romans, and no-one misunderstands our meaning. But we recognize this usage as figurative, acknowledging just two literal definitions: a twenty-four hour period, from midnight to midnight, and the daylight hours (roughly twelve, but varying from one latitude and season to another).'*

Because 'day' (Hebrew *yôm*) in some contexts can have a non-literal meaning, Ross feels justified in assuming that a non-literal meaning is acceptable in the particular context of Genesis 1. But such an interpretation shows that he could benefit from elementary training in exegesis, e.g. the book *Exegetical Fallacies*<sup>10</sup> by the evangelical New Testament scholar Dr

Don Carson. Ross commits a classic case of a fallacy that Carson called:

*Unwarranted expansion of an expanded semantic field. The fallacy in this instance lies in the supposition that the meaning of the word in a specific context is much broader than the context itself allows and may bring with it the word's entire semantic range'.*

Ross's fallacy can be illustrated by the following sentence that has several uses of the word 'day'.

*'In my father's day, he would go to bed early Sunday evening and rise early in the morning of the following day, and spend the next six days travelling, during the day, to cross the whole country.'*

Of course 'my father's day' is an indefinite period of time. But this doesn't mean that it's legitimate to interpret the 'six days travelling' as anything but ordinary days. And the combination of evening and the next morning are another way of showing that his bedtime was contained in one ordinary day, not an indefinite time period.

Genesis 1 modifies the creation days with both 'evening and morning' and a number, almost as if God was trying to make it as obvious as possible that they were ordinary days. Exodus 20:8-11 reinforces the point that the six days of creation followed by a day of 'rest' were the basis for the Israelites' six-day week and seventh day Sabbath. The phrase 'during the day' is also obviously the daylight hours, as per Genesis 1:5.

Ross also claims (p.65): *In biblical Hebrew, no other word besides yôm carries the meaning of a long period of time'* and cites his own book<sup>1</sup> and TWOT.<sup>5</sup> Again, Van Bebber and Taylor pointed out<sup>11</sup> that *Ross's own source contradicts him*, stating that the Hebrew *olam* and its Greek equivalent *aion* (from which we derive the word 'eon') *often* means 'long age'.<sup>12</sup> There were plenty of other words that God could have used if He had wanted to teach long periods of time.<sup>13,14</sup> God could also have used phrases like 'x myriad myriad years ago' to teach ages

of hundreds of millions of years. For a less precise indication of vast ages, God could have compared the years to the number of sand grains or stars. Yet God did not use any of these — rather, He emphasized literal days.

### Does the seventh day continue?

Ross claims on p. 64:

*'Each of the six creation days closes with the refrain: "There was evening, and there was morning, " then the day's number. The statement suggests that each day had a start time ... and an end time. However, the refrain is not attached to the seventh day. Its closure is missing.*

*... its absence from the account of the seventh day can be taken as a meaningful hint: the day has not ended.'*

From this, Ross has concluded that the other creation days could be long ages. However, the systematic theologian, Dr Douglas Kelly, responded to the same argument from Ross<sup>1</sup> as follows:

*To say the least, this places a great deal of theological weight on a very narrow and thin exegetical bridge! Is it not more concordant with the patent sense of the context of Genesis 2 (and Exodus 20) to infer that because the Sabbath differed in quality (though not —from anything we can learn out of the text itself— in quantity), a slightly different concluding formula was appended to indicate a qualitative*

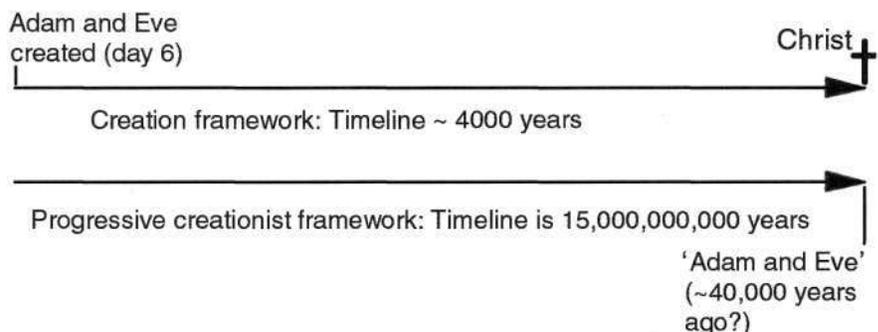
*difference (six days involved work; one day involved rest)? The formula employed to show the termination of that first sabbath: "And on the seventh day God ended His work which He had made; and He rested on the seventh day from all His work which He had made" (Genesis 2:2) seems just as definite as that of "and the evening and the morning were the first day".'<sup>75</sup>*

Ross also argues that Hebrews 4:1-11 teaches *'that the seventh creation day began after the creation of Adam and Eve, continues through the present, and extends into the future.'* However, again Ross repeats an argument rebutted by Van Bebber and Taylor.<sup>16</sup> Hebrews never says that the *seventh day of creation* is continuing to the present; it merely says that God's *rest* is continuing. If someone says on Monday that he rested on Saturday and is still resting, it in no way implies that Saturday lasted until Monday.<sup>17</sup> Kulikovsky carefully analyses the grammar of Hebrews 4 and concludes:

*'The "rest" of Hebrews 4 clearly refers to the Kingdom of God ... Nowhere in the text is it equated with the seventh day of creation, nor is there any grammatical or contextual data suggesting any such equation.'<sup>18</sup>*

### The history of mankind

A straightforward reading of the biblical genealogies according to the



*The date of man's creation shown roughly to scale on the biblical timeline versus the progressive creationist timeline. The progressive creationist timeframe for creation is totally inconsistent with Jesus' statement 'But from the beginning of the creation God made them male and female.' Mark 10:6.*

reliable Masoretic text<sup>19</sup> shows that Adam was created about 4000 BC, and this was on the 6<sup>th</sup> day of creation.<sup>20</sup> **And** Jesus said: *But from the beginning of the creation God made them male and female*' (Mark 10:6), not billions of years later. But Ross dates Adam at about 35,000-47,000 BC, based on secular chromosome research (p. 111) ie. almost at the end of billions-of-years old creation.

Since he also accepts the 'earlier' evolutionary 'dates' for other hominids, Ross concludes that they have no relationship to man, although they buried their dead, made tools and musical instruments, painted pictures, etc.

### Biblical genealogies

Ross (pp. 108-110) points to some biblical genealogies that have gaps to claim that the Genesis 5 and 11 genealogies are largely incomplete. He also claims (p. 109):

*The words translated in to English say this: "When X had lived Y years, he became the father of Z." Someone reading the same passage in Hebrew would see a second possibility: "When X had lived Y years, he became the father of a family line that included or culminated in Z."*

However, none of Ross's examples of gaps in genealogies (Matthew 1:8-9 vs 1 Chronicles 3:10-12) mention the age of the father at the birth of the next name in the line, so are irrelevant.

Ross also points out that father can mean grandfather or ancestor, while son can mean grandson or descendant. But Ross again errs by *unwarranted expansion of an expanded semantic field*.<sup>10</sup> The Genesis 5 and 11 genealogies say that X 'begat sons and daughters' implying that Z is likewise a son of X *in this specific context*.

And even if we grant that Z is a descendant of X, Z is always preceded by the accusative particle וְ (et), which is not translated but marks Z as the direct object of the verb 'begat' (וַיֵּלֶד wayyoled). This means that the

begetting of Z by X still occurred when X was Y years old, *regardless* of whether Z was a son or a more distant descendant. The Hebrew grammar provides further support — wayyoled is the *hiphil* waw-consecutive imperfect form of the Hebrew verb *yalad*—the *hiphil* stem communicates the *subject participating in action that causes an event* e.g. Seth as the begetter of Enosh. No wonder the Jewish historian Flavius Josephus (AD 37/38-c. 100) saw no gaps in the genealogy.<sup>21,22</sup>

James Barr, then Regius Professor of Hebrew at Oxford University, wrote in 1984:

*'... probably, so far as I know, there is no professor of Hebrew or Old Testament at any world-class university who does not believe that the writer(s) of Genesis 1-11 intended to convey to their readers the ideas that: ...the figures contained in the Genesis genealogies provided by simple addition a chronology from the beginning of the world up to later stages in the biblical story.'*<sup>23</sup>

Barr, consistent with his neo-orthodox views, does not **believe** Genesis, but he understood what the Hebrew so clearly **taught**. It was only the perceived need to harmonise with the alleged age of the earth which led people to think anything different — it was nothing to do with the text itself.

Ross also points out that Luke 3:36 has the extra name Cainan. But this is spurious, because this name was probably not in the original autograph, but inserted later,<sup>24</sup> certainly after the time of Josephus.<sup>25,26</sup>

### Secular history

Ross also uncritically claims that missionaries teaching a literal Genesis were discredited by:

*'Chinese historical accounts placing Chinese national origins earlier than 4004 BC. ... The same reaction comes today from ... Australian Aborigines, who date back to 25,000 BC .... All are firmly established dates.'* (p. 108).

However, the *Encyclopedia Britannica* says on China: *'The first dynasty for which there is definite historical material is the Shang, or Yin (18<sup>th</sup>-12<sup>th</sup> BC).'*<sup>27</sup> The Australian Aborigines were an oral culture, without writing, so their 'dates' are not based on historical records but on 'dating methods'. However, some of these claim that Aborigines existed before even Ross's 'date' for Adam — what will happen to his apologetics if such dates become widely accepted?

### Floundering on the Flood

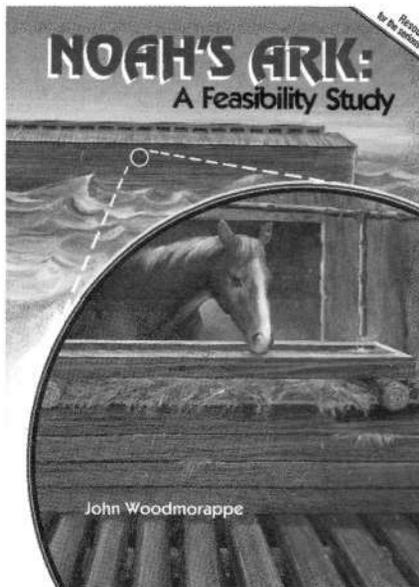
Some Ross supporters like Dr James Dobson, of *Focus on the Family*, evidently believe the overwhelming biblical evidence for a global Flood, but fail to see the inconsistency of this position with billions of years. A global Flood would have laid down a vast thickness of fossil-bearing sedimentary rock in a year, which would nullify much geological 'evidence' for billions of years. Conversely, accepting that the fossil record was formed over billions of years eliminates any evidence for the Flood. Ross is more consistent, and believes the Flood was restricted to Mesopotamia.

### Local Flood arguments

Ross points out that there are passages where 'all the earth' and 'whole world' are used in a non-global way. Again, Ross is guilty of unwarranted expansion of an expanded semantic field.<sup>10</sup> In the Flood account, the frequency of the word כֹּל (*kol* = all, every) indicates that God is going out of his way to emphasize the universality of the Flood.<sup>28</sup> Genesis 7, NIV reads:

<sup>19</sup> *'They rose greatly on the earth, and all the high mountains under the entire heavens were covered.*

<sup>21</sup> *Every living thing that moved on the earth perished — birds, livestock, wild animals, all the creatures that swarm over the earth, and all mankind.*



<sup>22</sup> *Everything on dry land that had the breath of life in its nostrils died.*

<sup>23</sup> *Every living thing on the face of the earth was wiped out; men and animals and the creatures that move along the ground and the birds of the air were wiped from the earth. Only Noah was left, and those with him in the ark.'*

A question could be asked of Ross: 'Just suppose, for the sake of the argument, that God had wanted to teach a global Flood — how could He have said it more clearly than in Genesis 7?'

*Too little room for the animals?*

Ross caricatures belief in a global Flood, parroting discredited sceptical/atheistic arguments against the Ark. Ross ignores key books like Woodmorappe's *Noah's Ark: A Feasibility Study*,<sup>29</sup> which answers nearly all his objections.

*Kinds and species*

Creationists, arguing from the text of Genesis, believe that Noah took two of every kind of land vertebrate animal. Ross distorts this into a claim that creationists believe two of every single species had to go on board. He also claims that the fossil record documents that 'half a billion to a billion new species of life arose

between the Cambrian explosion ... and the arrival of human beings' (p. 150). But the number of *actually catalogued* fossil species is only about 200,000, ~95 % of which were marine invertebrates which Noah was not required to take on board anyway. The 'billion' is probably estimated from the transitional forms needed if neo-Darwinism were true, and even then is a huge exaggeration. And it's likely that many so-called fossil species and even genera within a family were merely varieties of a single polytypic 'biological species'. This is true today, as shown by many cases of hybridization between members of different 'genera'.<sup>30</sup>

Ross regurgitates the sceptical nonsense that it was impossible to derive all current species from the relatively few kinds on board the Ark, unless super-rapid evolution occurred. Ross effectively believes in fixity of species, in ignorance of proven speciation within a kind.<sup>31</sup> Sceptics would thus find him an easy target.

However, not all change is evolution, in the sense of molecules-to-man, which requires an increase of genetic information, just as not all monetary transactions are automatically profitable ones. Many varieties can arise rapidly from an initial population with large genetic variety. If this population splits into isolated small populations, each subgroup may carry a fraction of the total genetic information. Later information-losing mutations, e.g. in proteins recognizing 'imprinting' marks,<sup>32,33</sup> can result in reproductive isolation, thus a separate 'biological species'.

Rapid production of 'varieties' can be shown in humans: it is well known that a marriage between two mulattos (people with one black and one white

parent each) can produce children with a large variety of skin colors. Of course it couldn't happen quickly by *evolutionary* means, because they must rely on random mutations to generate *new genes*, and slow substitution over many generations to establish them in the population.<sup>34</sup>

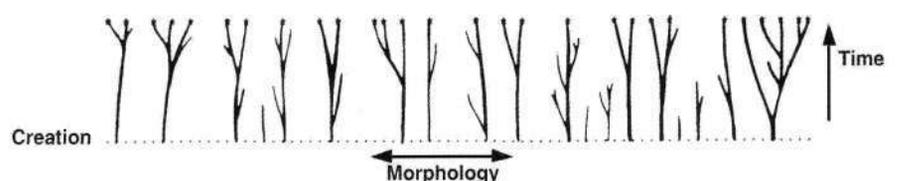
This is why both Eskimos and native equatorial south Americans have mid-brown skins and haven't evolved very white or very dark skins — the relevant information is simply not present. Such 'people groups' today are highly specialised, with less genetic variation than mulattos (and Adam and Eve), which is why they produce offspring of limited variety.

Because of Ross's lack of knowledge of genetics, he postulates direct divine intervention at Babel to introduce 'racial' traits into separate populations (pp. 177-178). The Bible doesn't even hint at this. Ross admits that it's a 'God of the gaps' explanation, which would be unnecessary if he had read any of our books. Ross says that the different 'racial' characteristics were designed to aid man's dispersal. This is disturbing — although Ross does repudiate racism and sees nothing wrong in 'inter-racial' marriages, this theory almost implies that God designed racial prejudice.

If Ross had read basic creationist books, e.g. *Stones and Bones*, *The Answers Book* or *What is Creation Science?* he wouldn't need to resort to such daft explanations, which hardly give the would-be Christian apologist relying on his books any credibility.

*Tear of the millions'*

Ross claims that a main motivation of those opposing billions of years is



*The true creationist 'orchard' — diversity has occurred with time within the original Genesis 'kinds' (creationists often call them baramin, from Hebrew bara = create and min = kind).*

fear that it would make evolution possible, hence the above subheading on p. 92. As usual, Ross's claim betrays a willing ignorance of creationist literature as well as ignorance of evolution/variation as shown above. Many years before Ross wrote any of his books, leading creationists like Dr Duane Gish made it very clear that they believed the earth was only thousands of years old, on both biblical and scientific grounds. But Gish also strongly pointed out that evolution would be impossible even if billions of years were granted, e.g.:

*'Therefore, whether the earth is ten thousand, ten million, or ten billion years old, the fossil record does not support the general theory of evolution.'*<sup>35</sup>

*'Considering an enzyme, then, of 100 amino acids, there would be no possibility whatever that a single molecule could have arisen by pure chance on earth in five billion years.'*<sup>36</sup>

### **The need for the Ark**

Why would God have told Noah to build an ocean-liner-sized Ark just to escape a local Flood? Noah could easily have migrated. Why bother to take birds, when many can fly hundreds of miles in a day? Ross 'explains' (p. 160):

*'First, when God pours out judgment, He gives ample warning ahead of time. He sends a spokesperson, a prophet, and gives that prophet a kind of platform from which to be heard. For the antediluvians, Noah was that prophet and the scaffolding around the Ark was his platform.'*

Another Ross flight of fancy — what other prophet needed a 'platform', let alone one requiring such a huge expenditure of labour?

### **'Straw man' and 'guilt by association' arguments**

Ross often misrepresents what creationists believe and have clearly stated. For example (p. 148):

*'Some global flood proponents who acknowledge the problem of a grossly inadequate water supply propose that Earth's surface was "smoothed," or flattened, by the Flood, thus reducing the water requirement. More specifically, they claim that during the forty days and nights when the floodwaters rose, Earth's mountains radically eroded from their lofty heights of ten fifteen and even twenty thousand feet to just one or two thousand feet, perhaps less.'*

This is totally inexcusable, because Ken Ham had responded to a similar Ross misrepresentation (which was even then inexcusable) well before *The Genesis Question* was published:

*'In my 20 years of involvement in creation ministry, I have never known of any material from any Biblical creationists indicating that God "eroded the mountains from a height of 30,000 feet down to sea level during the forty days"! ... Biblical creationists believe that most mountains today did not exist before the Flood, but were raised up (and ocean basins sank) towards the end of the Flood, thus causing the water to run off to where it is today.'*<sup>37</sup>

Akin to straw man arguments is guilt by association — Ross complains that a TV documentary about the alleged discovery of the 'Ark' gave the sceptics an easy target (pp. 165—167). The obvious implication is that it's all the fault of global Flood proponents, although the major global Flood organisations have repudiated such claimed discoveries.<sup>38</sup> Many creationists even agree with Ross that the Ark is unlikely to be found because its timber would probably have been used for construction, so that is hardly a unique local-floodist insight.

Ross also copies the ploy of the apostate Ron Numbers,<sup>39</sup> attributing biblical creationism and flood geology to 'the visions of an Adventist prophetess [Ellen White]' via George McCready Price. A number of papers by Dr Terry Mortenson in *CEN Tech.*

*J.* show that the early 19<sup>th</sup> century Scriptural Geologists presented such ideas well before Price. Ken Ham pointed out that he had never even heard of Price at the time he founded CSF/AiG, and that he adopted creationism because of the biblical teaching.<sup>37</sup> Even if Ross were right about Price, he is wrong to think that discrediting Price is enough to refute creationism — this is a classic case of the genetic fallacy.

With such serious logical fallacies in Ross's book, it is astonishing that it was endorsed by Christian philosopher J.P. Moreland, who is usually very astute at spotting such fallacies. (Did he actually read it?).

### **Pitching the Ark?**

Ross parrots another discredited argument from atheistic sceptics: that it would be impossible to 'pitch' the Ark without millions of years for petroleum products to accumulate (pp. 153-154). This shows that Ross is unwilling to admit to his readers that biblical creationists have already addressed most of his arguments long ago. Dr Tas Walker pointed out 15 years ago that pitch need not be made from petroleum at all — the pitch-making industries in Europe made pitch from pine resin for centuries.<sup>40</sup> The *Encyclopaedia Britannica* says about naval pitch: '*Oleoresin, also called gum or pitch ... is extracted from the pine ...*'<sup>41</sup>

### **Too much coal?**

Like biosceptics, Ross claims that there is too much coal in the earth's crust to have been formed in the Flood (pp. 151-154). Even worse, as 'evidence' he cites some calculations from a *CEN Tech. J.* paper, 'Too much coal for a young earth?'<sup>42</sup> However, the whole point of this paper was to **solve** that problem, by showing evidence that much coal had formed from large floating ecosystems comprising arboreal lycopods, which had been catastrophically buried by water. Ross also **omitted the**

**question mark** when citing the title, thus further conveying to his readers the **diametrically opposite meaning** to the paper's intention. Also, John Woodmorappe had shown long ago that vegetation living at the start of the Flood was not the only possible source of carbonaceous material which had eventually transformed into coal. There were ~1656 years between the Creation and Flood, enabling much peat to form, which could have been buried by the Flood and easily transformed into coal since.<sup>43</sup>

### Death and the Fall

Since Ross accepts the billions of years, for consistency he must believe that the death, suffering and disease shown by the fossil record occurred well before Adam sinned. Thus Ross denies the biblical teaching that death could not have been part of God's 'very good' creation (Genesis 1:31) because death is 'the last enemy' (1 Corinthians 15:26).

### Vegetarian diets

Ross agrees that Genesis 1:29 teaches that humans originally had a vegetarian diet, not 'merely an indication that all food resources derive from plants' (p.71). But he 'explains':

*'Vegetarianism perfectly suits the potential longevity of the first humans. Animal tissue contains between ten and ten thousand times the concentration of heavy elements that plant material contains. This difference sounds drastic, but it poses an insignificant health risk for people living only 120 years (the limit God imposed at the time of the Flood). However, the difference is by no means trivial for people living nearly a thousand years.'*

Ross provides no documentation. How could he know what dangers would face long-living people without any to test? This statement is falsified by the lifespans greatly exceeding 120 years long after people were permitted to eat meat. And his

statement is hopelessly imprecise: *which* plants and animals? Some plants take up heavy elements so readily that they are used to clean up waterways. Soy and tea plants are known to take up aluminium readily. Conversely, many animals can excrete such elements. And accumulation is more of a problem in animals higher in the food chain, e.g. sharks with mercury, as well as filter-feeders. This might be a reason for the Mosaic laws against eating carnivores and shellfish.

Also, Ross undercuts one of his own claims. Ross agrees that Genesis 1:29 teaches original vegetarianism for humans, but then surely *by his own reasoning*, the next verse must teach original vegetarianism in land animals and birds. But Ross denies this without realising the contradiction, because he believes that carnivore fossils pre-date Adam.

### Plant Death

Ross points out that plants must have died before the Fall. Again, he persistently misrepresents what creationists *actually teach?*<sup>1</sup> We have *never* taught that *plants* or *individual cells* didn't die before the Fall, but only *nephesh* (soul) creatures. It should be obvious from Genesis 1:29-30 that the Bible is clear that plants do **not** have life in the sense of *nephesh*, while animals do.

### Biological incompetence

It's perhaps understandable that Ross, whose major qualifications are in astronomy, would not be an expert on biology. But it's astounding that a man who specializes in supposedly scientific apologetics, makes fundamental errors with even high-school level genetics. His apparent ignorance of speciation is covered above, but there are other areas where he does not understand basic genetics.

### Human longevity

Ross does accept the biblical long life spans, and rejects any redefinition

of the word 'year' (a pity he isn't so careful with the word 'day'). But in ch. 15, Ross interprets the 120 years of Genesis 6:3 as shortening of human life-spans. This is clearly fallacious because it contradicts other Scriptures showing that people lived for hundreds of years well after the Flood. The best understanding is that the 120 years was the time left for mankind before the Flood would destroy it, with only a remnant surviving on the Ark.

Ross's explanation for shortening human life spans is: God supernaturally increased the rate of apoptosis (programmed cell death) to 'protect' us from an increasing-with-age risk of cancer in the aftermath of a radiation burst from the Vela supernova. But it's bizarre to talk about 'protecting' people from cancer should they reach 500, 600, even 900, by making sure they become decrepit and die before 120! What next, 'protecting' people from Alzheimer's disease at 80 by causing fatal heart attacks by 60?

A sensible physical explanation for the drop in longevity is loss of 'longevity genes' by genetic drift because of the population bottleneck at the Flood, and maybe other post-Babel bottlenecks as well, but Ross's book ignores creationist literature and evidence from gene studies.<sup>44</sup>

### Cain's wife

Ross correctly believes that Adam's sons and daughters must have intermarried, that such close intermarriage happened in Abraham's time, and that God did not forbid this until Leviticus 18:6-18. But his explanation is garbled (p. 105):

*'Genetic defects as a result of intrafamily marriage develop slowly. They would present no risk until after the first several dozen generations.'*

Aside from the inconsistency with his deviant view of *hundreds* of generations between Adam and Abraham, this misunderstands the problem of close intermarriage. It's not the intermarriages *per se* that cause

defects. Rather, there is a greater likelihood of inheriting two recessive defective mutant genes in the same locus, which would thus be expressed. Whereas if the parents were more distantly related, the offspring would likely inherit defects in *different* loci, each paired by a normal allele that would mask the defect. But since Adam and Eve were created with no defective genes, recessive mutations would take many more than 'several dozen generations' to accumulate to levels where close intermarriage would be dangerous for the offspring.

**Other scientific fallacies**

Some of Ross's arguments are blatantly circular, in effect: 'Isn't it amazing how modern uniformitarian science backs up what Genesis says?' Hardly surprising, because Ross has re-interpreted Genesis to fit in with uniformitarian science!

Ross strongly overstates the case for fine-tuning of the earth and universe. He claims (p. 32) that Earth's gravity is strong enough to hold lots of water vapour (relative molecular mass (M<sub>r</sub>) = 18), 'but not so high as to keep life threatening quantities of ammonia [M<sub>r</sub> = 17] and methane [M<sub>r</sub> = 16].' Not true — earth's gravity even holds helium (A<sub>r</sub> = 4) strongly (incidentally, more helium from α-decay is released into the atmosphere than escapes into space, and the total amount in the atmosphere is evidence that it is less than two million years old<sup>45</sup>). We are protected from methane and ammonia because they are rapidly destroyed by UV light.

There are many other errors, even in Ross's own field of astronomy, documented by the astronomy professor Danny Faulkner.<sup>46</sup>

**Conclusion**

I haven't covered all of Ross's errors in this review. This would require a whole book, which is planned within a year. But there is enough documentation here of his biblical and

scientific errors to show that Christians should not promote his books.

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