sound Biblical reasoning, coupled with deductive logic, to come up with his suggested date of October 23 (not 26).\textsuperscript{8} The '9 a.m.' comes from Bishop Lightfoot, not Ussher, as this book claims.

There is even a little passing dig at Fred Hoyle's now passe theory about the Archaeopteryx fossils being clever fakes.

CONCLUSION

The authors make a compelling case, without emotive overkill, for their thesis that the dinosaur-extinction-by-impact hypothesis is wrong. And furthermore, that it is a classic case of what some philosophers have called 'pathologicalscience', not Unlike the cold fusion fiasco. Leaning on the philosopher Imre Lakatos, they refer to the Alvarez hypothesis as, among other things, a 'degenerating research program'. Such are characterised by an absence of stunning new discoveries on the basis of the theory, \textit{ad hoc} explanations in the face of criticism, and ignoring facts to fit with preconceptions. One wishes that these authors could see how closely evolution fits their Lakatian prescription.

REFERENCES

1. Thus, the absence of coelacanth fossils above a particular layer would not lead a creationist to declare that creature absolutely, definitely extinct. So there is no 'egg on face' when the same fish is later found alive and well in the present day.
2. The Biblical framework of history has no such difficulty. Dinosaur populations were severely reduced by the Flood. Since the Curse on creation, death and extinction are 'no big deal'. Creatures become extinct continually, especially through human activity, so dinosaur extinction is not only no big deal, but there is no compulsion to look for one, universal answer. One type of dinosaur may have died out from a completely different set of causes to another type.
3. The authors' calculations here are interesting, though of course skewed by long-age assumptions: The chance of a major strike by an object more than 2 km wide in the next hundred years is 1:10,000, but when you take into account that it is more probable than not that it will hit the sea, the chances of an asteroid wiping out a major city anywhere in the world, let alone the whole human population, shrinks extremely dramatically, in spite of the tsunami generated.
4. While reading about this, I wished I could put it under the noses of certain opponents who scoff at the idea that creationists, as pariahs to establishment science, have difficulty breaking down prejudice and entrenched opinion.
5. In addition, there are other elements present which make sense if all this was from a volcanic eruption. The impact theorists have an out here, in that these other items could have resulted if the impact was into oceanic crust. But then they are in a catch-22, since much of the alleged evidence for impact comes from shocked quartz, and quartz is not found in oceanic sediments.
7. Note that the US-Australian creationist school of thought in the Flood boundary controversy would have the Deccan traps largely erupting during the Flood, so avoiding the problems to the Flood survivors caused by volcanism on such an unimaginable scale. Especially within a short time-scale; evolutionists believe these traps represent some 400,000 years of eruption. See also: Holt, R. D., 1996. Evidence for a Late Cainozoic Flood/post-Flood boundary. \textit{CEN Tech. J.}, 10(1):128-167.

Shattering the Myths of Darwinism

\textit{by Richard Milton}

\textit{Park Street Press, Rochester, Vermont}

Reviewed by Carl Wieland

This is an upgrade of Milton's first foray into anti-evolutionism, originally called \textit{The Facts of Life}, with the current title as a sub-heading. Milton is an agnostic science writer who, like Denton and others, was not coming at this issue from the standpoint of belief in the Bible. Unlike the others, he was not afraid to be sceptical about issues such as the age of the Earth.

I recall being pleased that such a book was in existence. Coming from an agnostic, it would likely be more acceptable in non-creationist circles, and might even make secular newspaper reviews — which it did, here and there. Nevertheless, we chose at the time not to promote this book. Among the reasons was that it was recycling some creationist arguments that had been left behind a long time ago, and would not add anything new to what was in our existing range of 'ammunition' (unlike Denton and others).

This is in many ways a better book, though not sufficiently different to change my mind about being on the book tables at \textit{Answers in Genesis} seminars. I would be delighted of course if it sells well at other outlets. This time he seems to have been 'stung' by many of the criticisms, and protests strongly that he is not a closet creationist. He makes it clear that he does not 'think the earth is only a few thousand years old'. But he says there...
is no way of knowing how old it is, scientifically, which is only reasonable considering that he has undermined the credibility of the favourite dating methods of evolutionists. 

One is not told what his real position is on many things, and in fact he goes to great pains to state that this is not a weakness, that one needs to be able to critique without necessarily having an alternative. The problem is that there is very little logical room between believing in some form of Darwinism or intelligent creation. He does say that he thinks that there is good circumstantial evidence for some form of evolution, but does not go into the specifics of how much or how little. Some of the time, one gets the impression that he would accept the general historical scenario of standard evolution belief, but at a faster speed and by some quite different mechanism.

Another impression that comes through strongly is that Milton's real 'beef' is with authoritarianism of any kind, and that what really gets under his skin is the arrogant cultural imperialism of the Darwinists. (Having read another book of his on 'alternative science', it is clear that he is of a mindset which is attracted by anti-establishmentism, whatever its flavour. Almost anything which would irritate mainstream science gets some sort of hearing, even Uri Geller.)

It was certainly interesting to read of Milton's experiences at the hands of Professor Richard Dawkins, who apparently attacked him savagely as 'needing psychiatric help\ putting pressure on publishers and newspaper editors not to publicise the book. It is also clear that he has been substantially misrepresented by his critics, an experience with which many creationist authors could identify.

Milton writes very well, and is always interesting. However, there are a number of significant flaws in his reasoning, some incorrect claims, and some downright confusing positions taken. For instance, having mentioned the immense improbability of Darwinian claims about the first life appearing spontaneously, towards the end of the book he seems to give credence to the spurious claims of Wilhelm Reich to have observed single-celled organisms appearing spontaneously in modern times! But then, that was definitely an anti-establishment claim, so that may be why he cannot resist bringing it up here.

His statement that the Java Man remains are now thought to be simply those of an extinct, giant gibbon-like creature is simply false. He appears to have been misled by the myth (commenced by evolutionists, and perpetuated in both creationist and evolutionist works since) that Eugene Dubois, the discoverer of Java Man, recanted and called his discovery a 'giant gibbon' [Who was "Java man"]? Creation, 13(3):22-23, 1991]. Knowledgeable creationists do not make this sort of claim anymore. And even if Dubois had done this, it would not be true to suggest that this is the current view. Although there is nothing to suggest that the bones of the original Java Man necessarily belonged to the one individual, there is nothing to preclude a fully human identification for all of them. The femur, for instance, is fully the same as a modern femur. The skull cap seems to be identical to that of other specimens of Homo erectus (which even many evolutionists are now saying should be classified as Homo sapiens). Also, he twice claims, mistakenly, that the suffix '-pithecus' refers to 'ape-man', when it simply means 'ape'. ('Pithecanthropus' means 'ape-man'.)

Milton rightly attacks neo-Darwinists such as Dawkins for fudging over the improbability of their scenario by breaking down one large step of improbability into many smaller ones. However, I think he oversteps the mark. I agree with his point that one has to take into account the improbability (in a particular chain of events, for example, the hypothetical evolution of an eye) of the next step in the chain being the one required, when it is required. But to imply (as he seems to) that the cumulative improbability is the same as all of them happening together is just plain wrong. It fails to take into account the fact that each successive step involves a huge number of individuals in which that mutation could potentially occur — not just at any point in time, but over many successive generations.

The author's extensive approach to natural selection was also frequently irritating. Like many another anti-Darwinist, he hammers the issue of apparent circularity. All right, so natural selection is in one sense a tautology. (Who are the fittest? Those who survive/leave the most offspring? Who survive/leave the most offspring? The fittest.) But a lot of this is semantic word-play, and depends on how the matter is defined, and for what purpose the definition is raised. There are many areas of life in which circularity and truth go hand in hand¹ — it is only that circularity cannot be used as independent proof of something.

To harp on the issue of tautology can become misleading, if the impression is given (as it is in some anti-evolution works) that something tautological therefore doesn't happen. Of course the environment can 'select', just as human breeders select. Of course demonstrating this doesn't mean that fish could turn into philosophers by this means — the real issue is the nature of the variation, the information problem. Long diatribes about tautology, apart from turning off the informed reader, distract attention from the real weakness of neo-Darwinism — the source of the new information required. Given an appropriate source of variation (for example, an abundance of created genetic information with the capacity for Mendelian recombination), replicating populations of organisms would be expected to be capable of some adaptation to a given environment, and this has been demonstrated amply in practice.

Natural selection is also a useful explanatory tool in creationist modelling of post-Flood radiation with
speciation, for example, and even Milton says in his introduction that he accepts that natural selection happens, so there seems to have been a lot of wasted words.

Milton seems not to have been able to resist once more bringing in Rupert Sheldrake's rather way-out ideas of 'morphic resonance'; he also, incongruously, seems to support the idea (now that most evolutionists have abandoned it) that the 'Mars rock' contained fossil evidence of life, and that meteorites may have contained viruses.

In spite of all the above, there is much of great value in this book, and readers of whatever persuasion will find it hard to put down. He highlights some of the evidence for catastrophism in geology, though not openly supportive of a global Flood which would clearly require supernatural intervention and point to the Bible. While some of Milton's 'alternatives' to evolutionary views are distasteful, as indicated, such secular scepticism about not only evolutionary naturalism, but also uniformitarian geology and dating methods, is unusual, and encouraging. Hopefully, it will enlarge some of the ever-growing cracks in the foundations of 'fortress evolution'.

**FOOTNOTE**

1. For example:-
What is electric charge? That quality of matter on which an electric field acts.
What is an electric field? A region in space that exerts a force on electric charge.

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**QUOTABLE QUOTE:**

**Dinosaur Extinction**

'Among the even less likely causes suggested for the death of the dinosaurs are poison gases, volcanic dust, meteorites, comets, sunspots, God's will, mass suicide (like lemmings!) and wars. . . Utterly ridiculous is the idea that all the dinosaurs were killed off by cavemen . . . The last three causes that we shall mention are raids by little green hunters in flying saucers, lack of even standing room for the dinosaurs in Noah's Ark, and sheer boredom with the prehistoric world.'


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**QUOTABLE QUOTE:**

**Christianity and Evolution**

'Christianity has fought, still fights, and will fight science to the desperate end over evolution, because evolution destroys utterly and finally the very reason Jesus' earthly life was supposedly made necessary. Destroy Adam and Eve and the original sin, and in the rubble you will find the sorry remains of the Son of God. Take away the meaning of his death. If Jesus was not the redeemer that died for our sins, and this is what evolution means, then Christianity is nothing.'