assertions based on evidence that planetary fly-bys have affected Earth's *status quo.*

(1) Velikovsky — **Worlds in Collision,** and
(2) Patten, Hatch and Steinhauer — **The Long Day of Joshua and Six Other Catastrophes.**

I am suspicious of the accuracy of all astronomical calculations before the Hellenistic period!

Furthermore, although Rohl argues for a significant shortening of the popular chronology, his shortening still does not fully satisfy the biblical constraints. His date arrived at for the reign of Thutmose III is 1 138-1085BC, which is before the reign of David, Saul and Samuel, yet the Scripture is silent concerning such a powerful Pharaoh at this time. The Amalekites appear to be the southern power and the case is strong that they were the current rulers of at least Lower Egypt.

Rohl's further chronological calculations now become dependent on his above assumptions and I believe will eventually be shown to have fallen short of the mark!

So dependent also will be his further discussion of the time of the Exodus, the details of Avaris, Joseph's palace, the times of the conquest, and the identification of Jericho's conquered city and the pharaoh of the famine.

Rohl appears not to have appreciated Donovan Courville's contribution to the period of Joseph and his strong identification of Sesostris I as the pharaoh of the famine (early 12th Dynasty) (Courville — **The Exodus Problem and Its Ramifications),** and I believe he has failed to separate the Hyksos Avaris from the details of Joseph.

In identifying MBIIA Jericho as the city of Joshua's conquest he has missed the significance of this fortress city as the city of Eglon of Moab (Judges 3) where he stationed 10,000 garrison troops, leaving Early Bronze III as the city of Joshua's day.

Nonetheless, although it is my belief that Rohl in his periods prior to the TIP has fallen short of the goal by a hundred years or more, his arguments are fascinating and very illuminating, and his grasp of the subject matter is strong. He is to be considered a major player in the revised chronology and his TIP revision will, I believe, stand the test of time. However, circumstantial weight is on Velikovsky's side in identifying Shishak with Thutmose III and the Hyksos with the Amalekites, as it is on Courville's 12th Dynasty discussion of the times of Joseph.

The Wandering and Conquest stand by themselves in the MBI/EBIV *milieu,* as I have argued previously in this Journal (Vol. 2, pp. 56-76), and apparently archaeologist Cohen has so identified.

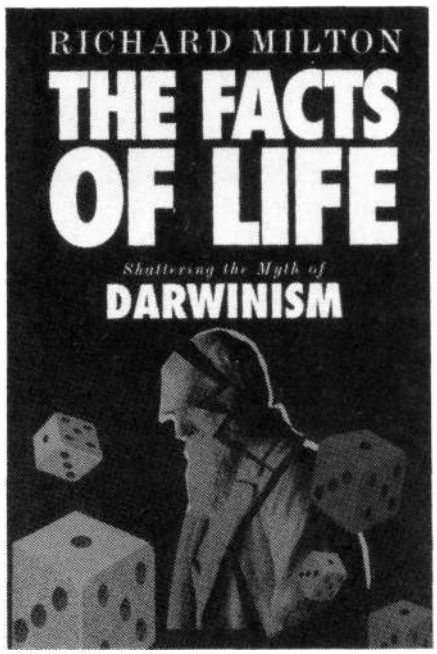
If time proves the above to be so, in no way does it reflect poorly on Rohl's contribution to the chronological revision, which is honest, forthright and settles him as an historian/archaeologist of strong integrity.

This book is certainly worth reading and reading again!

The Facts of Life: Shattering the Myths of Darwinism

by Richard Milton
Corgi Books, London

Reviewed by A. W. Mehlert



It is always a pleasure when one discovers a publication by an established science researcher who is not committed to a creationist or Christian viewpoint, but who nevertheless finds a great deal wrong with current evolutionary theory.

Such a work is **The Facts** of **Life** by Milton, a journalist who has spent more than 20 years commenting on science and technology. Much of his time was spent travelling widely in Europe and America, reporting on scientific developments, and his articles have appeared in scores of magazines and newspapers. Milton's motive for closely examining evolutionary theory was the fact that his daughter was about to undergo science education at school, and he wanted to be sure that her instruction would be accurate (page 15).

One of the things I like most about this work is the strict honesty and integrity displayed by the author in relation to his private views on evolution and geology. Both in his preface (page 11) and in the postscript (pages 294-299), Milton makes it quite clear that he is not a creationist and that he holds no religious convictions. Milton believes there is persuasive

circumstantial evidence for evolution, but at the same time he does not accept that there is *'**any** significant evidence'* in favour of chance mutations coupled with natural selection as being the mechanism of evolution (page 11, his emphasis).

Having established Milton's personal beliefs, we briefly turn to the scientific reaction to the first edition of his book, published in 1992. In his preface (pages 9-11), the author reports his shock at the nature of the establishment attack on his motives. For instance, Richard Dawkins of Oxford devoted two-thirds of his review of **The Facts of Life,** not to refuting Milton's scientific arguments, but to attacking his publishers for their '*. . . irresponsibility in daring to accept a book criticizing Darwinism*', and the remaining one-third to assassinating Milton's character!

To those familiar with the extremely intolerant position which Dawkins holds, this is not surprising, and on page 10 Milton describes Dawkins' response as -

> '*. . . not being the language of a responsible scientist and teacher. It is the language of a religious fundamentalist whose faith has been profaned*'

Perhaps Dawkins' outrage was prompted by Milton's statement (pages 184-185) that the professor's computer experiments **(The Blind Watchmaker)** had no relation at all with the real biological world. If so, Dawkins should have defended his computer model instead of indulging in a slanging match with Milton.

Other critics joined in the frenzy of attacks on the author, and some, including John Maddox (then editor of **Nature),** even attributed false beliefs to Milton. This reaction has caused Milton to be depressed about a country which prides itself in its tolerance, and yet which makes it impossible to voice genuine scientific dissent without attracting fanatical non-scientific attack.

Well, what has Milton done to cause this massive uproar? It is not so much the actual **scientific** argument he presents, but that he has dared to find fault with, and criticise, a theory which has become absolute dogma; a dogma based more on faith than on fact. In short, evolution has become 'holy writ' to its devotees.

Milton's main criticism of evolutionary theory is that it is based on a lack of sound scientific evidence. It is easy to see why his detractors did not concentrate on the actual evidence presented by Milton, because he has literally torn out the basis for evolutionary thinking. While it is quite acceptable to claim there is circumstantial evidence which can be **interpreted** as being favourable to evolution, that is as far as the inference can be taken. The circumstantial evidence is that various different life-forms are fossilised in a type of sequence from top to bottom of the stratigraphic column. For instance, mammalian forms are not found in lower strata, and many of the forms in the lower strata are no longer alive today.

Milton's qualifications are impeccable — he demonstrates repeatedly his full and detailed knowledge of biology, genetics, geology, palaeontology, and the fossil record. On page 28 he points out that-

> '*. . .far from being the province of cranks, it is the **(non-evolutionary)** view that is supported by modern findings.*' (Emphasis mine.)

The author strikes hard at one of the basic evolutionary assumptions — that life has somehow arisen from non-living chemicals — pointing out that a mechanism for complex living molecules to have originated from inert compounds in some imaginary prehistoric soup is not known and has never been demonstrated in the laboratory. The supposed naturalistic origin of life is a pure assumption and is therefore non-scientific (pages 30-31).

On the subject of mutations being the mechanism on which natural selection works to produce new life-forms, Milton is equally dismissive (pages 174-236). The author says (page 187), that of all the difficulties facing current evolutionary theory, the most serious is the inability of chance mutations to provide the material for achieving novelties above the species level.

Milton repeatedly refers to the lack of stratigraphic sequences which should show the progression from one type to another. He writes (page 122):

> *'The living world consists mostly of gaps* [which remain] *unbridgeable even in imagination. The fossil record indicates clearly that the living world also consisted of gaps in **every past age,** from the most recent to the most remote. Yet Darwinians believe that while the present consists of gaps, the past was a perfect continuity of evolving species — even though this continuity **is not recorded** in the rocks . . .'.* (Emphasis mine.)

Milton has devoted an entire chapter (chapter 10) to pointing out how weak is the evolutionist argument for the handful of alleged transitional forms such as *Archaeopteryx* and the horse group.

On page 133 Milton makes the following devastating comment on the fossil record:

> *'The case for Darwinism would be* [convincing] *if someone were to produce a sequence of fossils from a sequence of adjacent strata, . . . showing indisputable signs of progressive change in the same basic stock, but **above** the species level* [as opposed to sub-specific variation] *. . . a short sequence would be enough. But this simple relationship is **not** what is shown in the sequence of the rocks. **Nowhere in the world** has anyone met this simple evidential criterion . . . the **failure** to meet this modest demand is inexplicable if evolution has taken place . . .'.* (Emphasis mine.)

There is also much interesting material relating to radiometric dating methods, about which Milton is not fully convinced. He retains a degree of scepticism, but is not a young-earth advocate.

In conclusion, Milton believes that

evolution is a philosophy rather than a science, and should be taught as such in higher education (page 296). On the same page he says we must *'come clean'* about alleged human evolution, and

> *'stop filling the classroom with over-imaginative "restorations" ad "reconstructions" of ancestors that look part-ape and part-human* ***in defiance*** *of the actual evidence!* (Emphasis mine.)

Reviewer John Mitchell makes a pertinent comment on the flyleaf:-

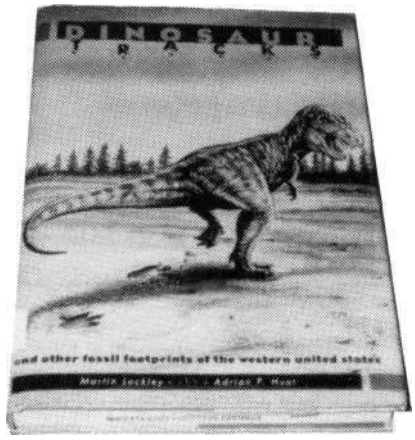
> *'If a religious creationist had written it, no-one would have paid attention, but Milton is a professional science writer and well informed on what is going on in the departments of geology and old bones!*

[1] Although Milton is neither a Christian nor a creationist, he has dealt with both sides fairly. I highly recommend this work to all who are interested in the subject of origins. The Christian who wishes to have a store of non-creationist material with which to query evolution will find plenty of ammunition in this work.

Dinosaur Tracks and Other Fossil Footprints of the Western United States

by Martin Lockley and Adrian P. Hunt
Cambridge University Press, New York

Reviewed by Michael J. Oard



This is another book written by mainstream geologists that is valuable to creationists who are trying to understand the details of the Flood. As the title suggests, the book examines dinosaur tracks that, except for a few locations, were unknown about a decade ago. Due to the vast difference between the diluvial and uniformitarian paradigms for the explanation of the rocks, tracks are one of the few palaeoenvironmental indicators that can be relied upon. There is now a super-abundance of tracks, especially in the western United States, where an average of one track-site per week is being discovered. That is why a third book, so soon after two previous books,[1,2] has been published on the subject.

The importance to the creationist of all the new information on dinosaur tracks is that:

(1) tracks indicate a live animal, which in the Flood should have expired within 150 days of the Flood;[3,4]
(2) tracks can provide a creationist relative chronology for the Flood;
(3) tracks provide evidence for behaviour, which can give us clues to unique features during the Flood; and
(4) tracks provide information on the track-bearing strata during the Flood in relation to sea level, relief, etc.

The emphasis of the book is on Mesozoic tracks, practically all from dinosaurs, with brief chapters on Palaeozoic and Cainozoic tracks. The world track record begins in the Devonian, but tracks do not become relatively abundant until the Carboniferous. Although both amphibians and reptiles supposedly had evolved by the Carboniferous, the authors admit that it is often difficult to distinguish their tracks from each other (page 33). Sometimes the 'age' of the strata is taken into account when identifying the type of vertebrate that formed a particular track (page 286).

The first sign that all is not well with the uniformitarian interpretation of tracks is shown by the tracks in the Permian, especially the abundant vertebrate tracks in the Coconino, De Chelly, and Lyons sandstones of the Colorado Plateau of the south-west United States. These tracks are claimed to have been made in a desert environment of shifting sand, as observed today in the Sahara Desert. The authors state the problem quite well:-

> *'Perhaps even more puzzling than the abundance of tracks in desert settings is how they were preserved in what appears to have been an environment of dry, shifting sands . . . The notion of an arid desert crawling with amphibians is contradictory, to say the least. . .'* (page 40).

Of course, they provide explanations for such enigmas.

The work of creationists Leonard Brand and Thu Tang[5] comes under criticism (pp. 40-44). One curious aspect of tracks in the Coconino Sandstone is that some of them shift sideways while traversing up cross-bedded sand. Brand and Tang demonstrated with an ingenious experiment using salamanders in a sedimentation tank with flowing water