

THE REVOLUTION OF EVOLUTION



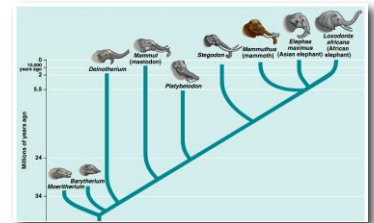
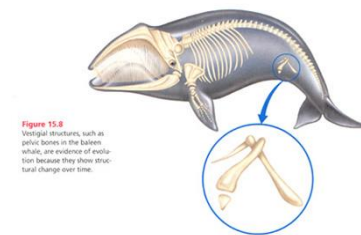
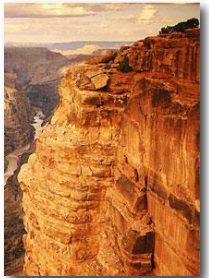
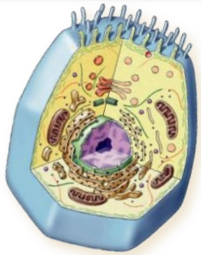
Rabbi Ya'akov Trump



WHAT IS THE THEORY OF EVOLUTION?

Observations

- Many different species alive today
- All life shares common characteristics
- The Earth is very old
- Life is very old
- Fossil Record
 - Vestigial Organs



Conclusion: Evolution

Common Ancestry

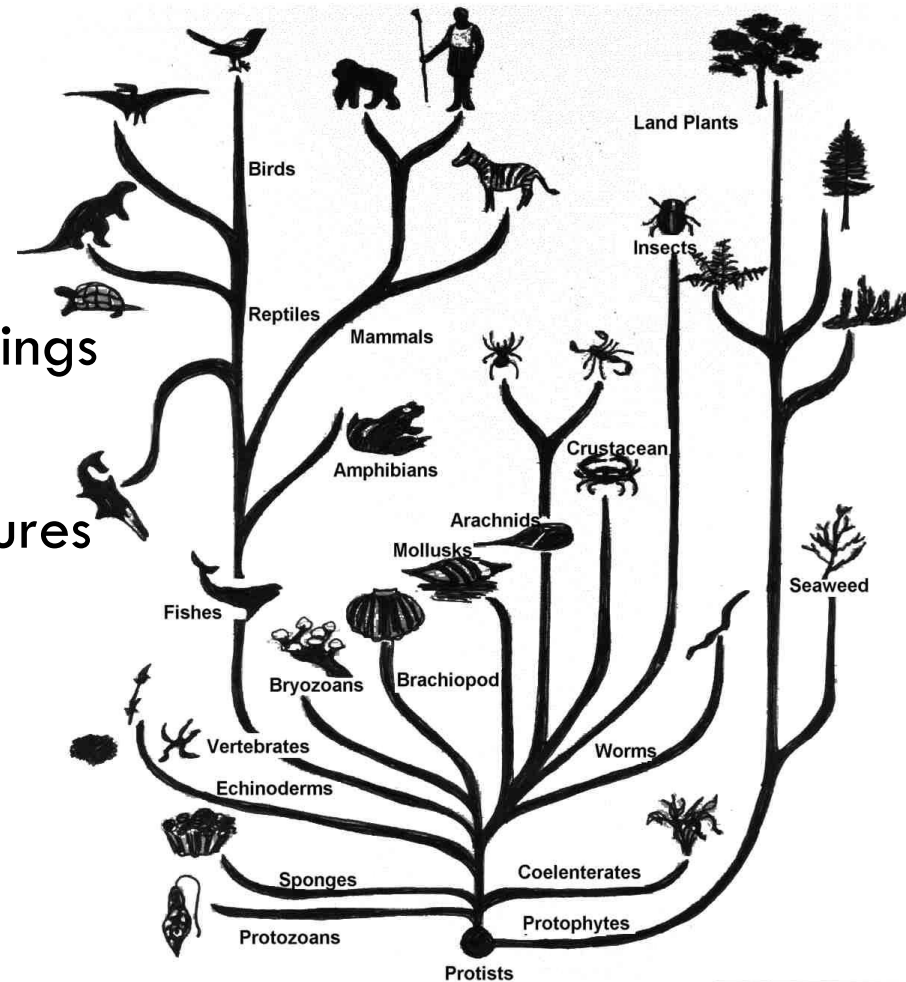
Evolution explains both:

– unity of life

- similarities between all living things

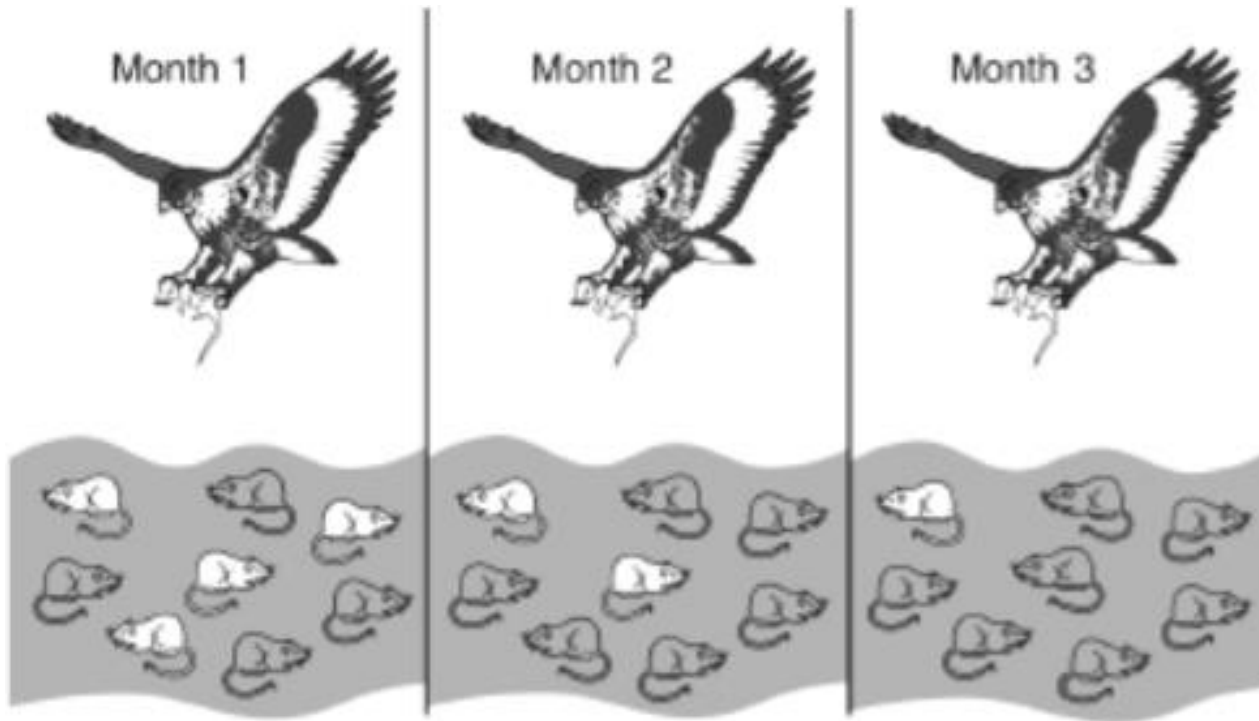
– diversity of life

- wide variety of different creatures on Earth



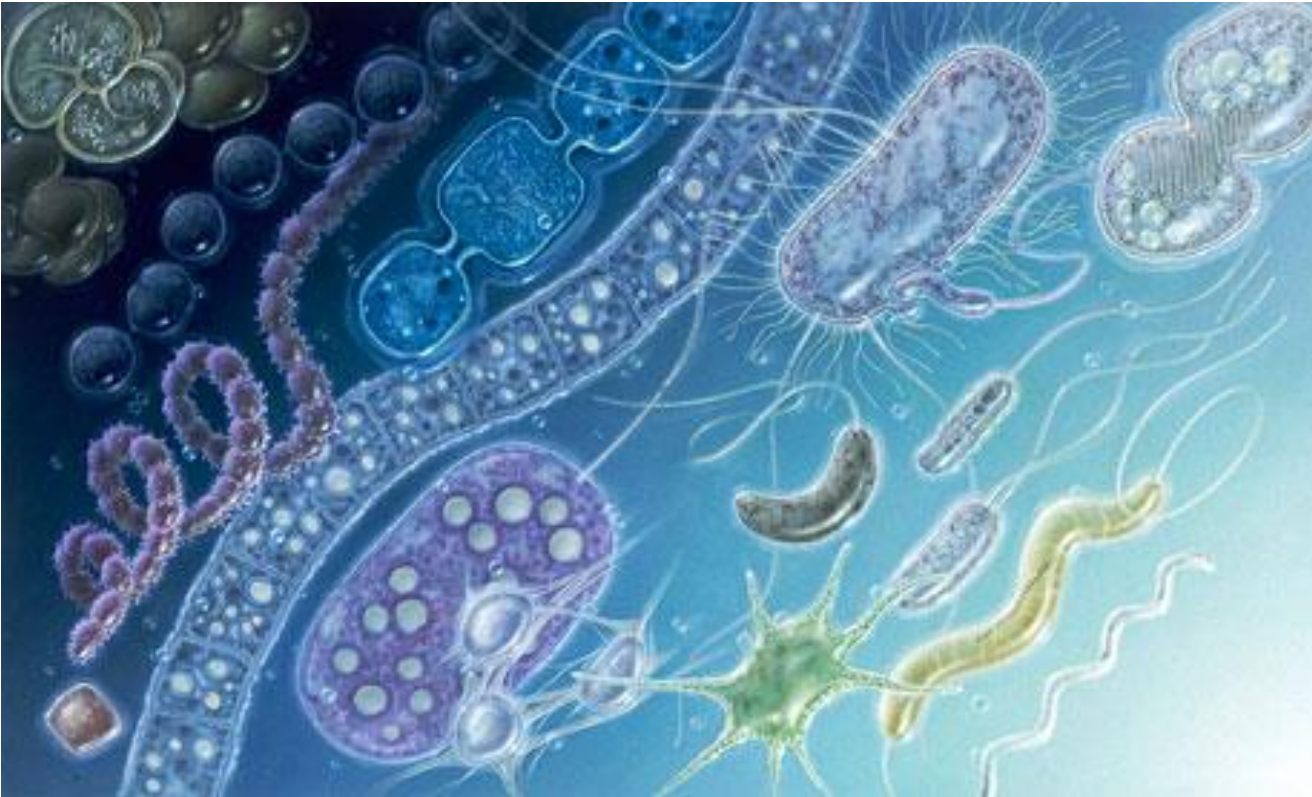
Conclusion: Evolution

Mechanism: Survival of the Fittest



Conclusion: Evolution

Proof: Evolution in the Laboratory



Contradictions

Textual

Bereishis 1:24-26

כד וַיֹּאמֶר אֱלֹקִים, תּוֹצֵא הָאָרֶץ נֶפֶשׁ חַיָּה
לְמִינָהּ, בַּהֵמָה וְרֶמֶשׂ וְחַיֵּת-אָרֶץ, לְמִינָהּ; וַיְהִי-
כֵן.

24 And God said: 'Let the earth bring forth the living creature after its kind, cattle, and creeping thing, and beast of the earth after its kind.' And it was so.

כה וַיַּעַשׂ אֱלֹקִים אֶת-חַיַּת הָאָרֶץ לְמִינָהּ, וְאֶת-
הַבְּהֵמָה לְמִינָהּ, וְאֶת כָּל-רֶמֶשׂ הָאֲדָמָה, לְמִינָהּ;
וַיֵּרָא אֱלֹקִים, כִּי-טוֹב.

25 And God made the beast of the earth after its kind, and the cattle after their kind, and every thing that creepeth upon the ground after its kind; and God saw that it was good.

כו וַיֹּאמֶר אֱלֹקִים, נַעֲשֶׂה אָדָם בְּצַלְמֵנוּ כְּדִמוֹתֵנוּ;
וַיֵּרְדּוּ בִדְגַת הַיָּם וּבְעוֹף הַשָּׁמַיִם, וּבַבְּהֵמָה וּבְכָל-
הָאָרֶץ, וּבְכָל-הָרֶמֶשׂ, הָרֹמֵשׁ עַל-הָאָרֶץ.

26 And God said: 'Let us make man in our image, after our likeness; and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth.'

Bereishis 2:7

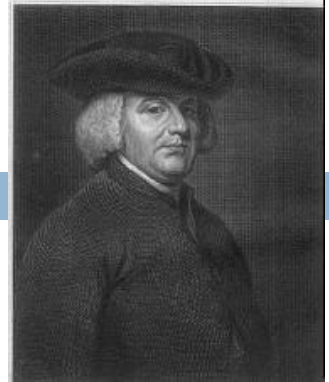
ז וַיִּצֹר ה' אֱלֹקִים אֶת-הָאָדָם, עֹפֶר מִן-הָאֲדָמָה,
וַיִּפֹּחַ בְּאַפּוֹ, נִשְׁמַת חַיִּים; וַיְהִי הָאָדָם, לְנֶפֶשׁ
חַיָּה.

7 Then the LORD God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul.

Contradictions

Philosophical

William Paley, 1743 – 1805



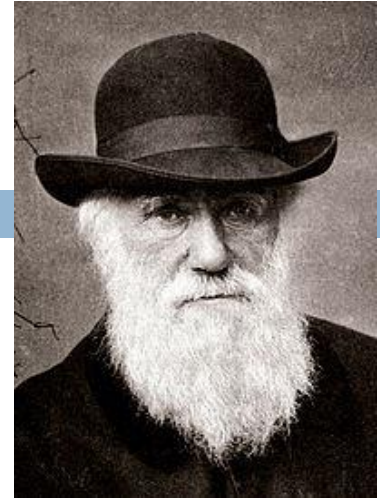
In crossing a heath, suppose I pitched my foot against a stone, and were asked how the stone came to be there; I might possibly answer, that, for anything I knew to the contrary, it had lain there forever: nor would it perhaps be very easy to show the absurdity of this answer. But suppose I had found a watch upon the ground, and it should be inquired how the watch happened to be in that place; I should hardly think of the answer I had before given, that for anything I knew, the watch might have always been there. ... There must have existed, at some time, and at some place or other, an artificer or artificers, who formed [the watch] for the purpose which we find it actually to answer; who comprehended its construction, and designed its use. ... Every indication of contrivance, every manifestation of design, which existed in the watch, exists in the works of nature; with the difference, on the side of nature, of being greater or more, and that in a degree which exceeds all computation.

— William Paley, *Natural Theology* (1802)

Contradictions

Philosophical

Charles Darwin, 1809 -1882



Although I did not think much about the existence of a personal God until a considerably later period of my life, I will here give the vague conclusions to which I have been driven. The old argument of design in nature, as given by Paley, which formerly seemed to me so conclusive, fails, now that the law of natural selection has been discovered. We can no longer argue that, for instance, the beautiful hinge of a bivalve shell must have been made by an intelligent being, like the hinge of a door by man. There seems to be no more design in the variability of organic beings and in the action of natural selection, than in the course which the wind blows. Everything in nature is the result of fixed laws.

— Charles Darwin, *The Autobiography of Charles Darwin 1809–1882*.

Religious Angst

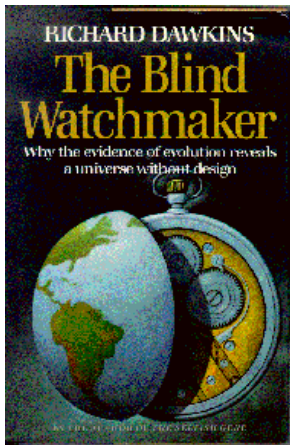
Baron Alfred Tennyson, 1809 -1892



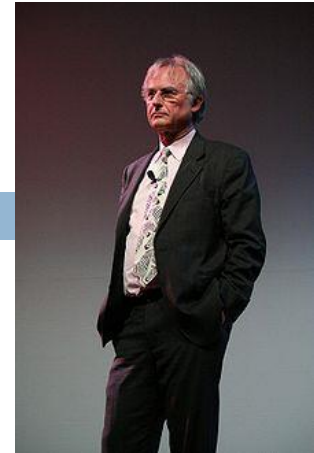
- "So careful of the type?" but no.
From scarped cliff and quarried stone
She cries, "A thousand types are gone:
I care for nothing, all shall go.
- "Thou makest thine appeal to me:
I bring to life, I bring to death:
The spirit does but mean the breath:
I know no more." And he, shall he,
- Man, her last work, who seem'd so fair,
Such splendid purpose in his eyes,
Who roll'd the psalm to wintry skies,
Who built him fanes of fruitless prayer,
- Who trusted God was love indeed
And love Creation's final law —
Tho' Nature, red in tooth and claw
With ravine, shriek'd against his creed —

Who loved, who suffer'd countless ills,
Who battled for the True, the Just,
Be blown about the desert dust,
Or seal'd within the iron hills?
No more? A monster then, a dream,
A discord. Dragons of the prime,
That tare each other in their slime,
Were mellow music match'd with him.
O life as futile, then, as frail!
O for thy voice to soothe and bless!
What hope of answer, or redress?
Behind the veil, behind the veil.

Contradictions



Richard Dawkins, 1941 -



Paley's argument is made with passionate sincerity and is informed by the best biological scholarship of his day, but it is wrong, gloriously and utterly wrong. The analogy between telescope and eye, between watch and living organism, is false. All appearances to the contrary, the only watchmaker in nature is the blind forces of physics, albeit deployed in a very special way. A true watchmaker has foresight: he designs his cogs and springs, and plans their interconnections, with a future purpose in his mind's eye. Natural selection, the blind, unconscious, automatic process which Darwin discovered, and which we now know is the explanation for the existence and apparently purposeful form of all life, has no purpose in mind. It has no mind and no mind's eye. It does not plan for the future. It has no vision, no foresight, no sight at all. If it can be said to play the role of watchmaker in nature, it is the *blind* watchmaker.

The Blind Watchmaker, page 5

“Evolution has no long-term goal. There is no long-distance target, no final perfection to serve as a criterion for selection, although human vanity cherishes the absurd notion that our species is the final goal of evolution.”

APPROACHES TO EVOLUTION

1. Question Science
2. Synthesize

Priorities

R. Menachem Mendel Schneersohn, 1902-1994



By the Grace of G-d
18th of Teveth, 5722 [December 25, 1961]
Brooklyn, NY

Greeting and Blessing:

After not having heard from you for a long time, I was pleased to receive regards from you through the young men of Chabad who visited your community recently in connection with the public lecture. I was gratified to hear that you participated in the discussion, but it was quite a surprise to me to learn that you are still troubled by the problem of the age of the world as suggested by various scientific theories which cannot be reconciled with the Torah view that the world is 5722 years old. I underlined the word theories, for it is necessary to bear in mind, first of all, that science formulates and deals with theories and hypotheses while the Torah deals with absolute truths. These are two different disciplines, where reconciliation is entirely out of place.

It was especially surprising to me that, according to the report, the said problem is bothering you to the extent that it has trespassed upon your daily life as a Jew, interfering with the actual fulfillment of the daily Mitzvot. I sincerely hope that the impression conveyed to me is an erroneous one. For, as you know, the basic Jewish principle of na'aseh (first and v'nishma (afterwards) makes it mandatory upon the Jew to fulfill G-d's commandments regardless of the degree of understanding, and obedience to the Divine Law can never be conditioned upon human approval. In other words, lack of understanding, and even the existence of legitimate" doubts, can never justify disobedience to the Divine Commandments; how much less, when the doubts are illegitimate, in the sense that they have no real or logical basis, such as the problem in question.

Attitude toward Science

R. Moshe Meiselman



The issue is not a new one. It was first discussed in our sources in medieval times. Ever since Aristotle science had claimed that the world had no beginning. His attitude was that the world has always existed just as we see it today. In more recent times Newton's laws together with Laplace's work seemed to have proven this conclusively. Neither the philosophic/scientific proofs of Aristotle, however, nor the scientific proofs of Newton and Laplace moved our *Mesorah*. None of the *chachmei haMesorah* who confronted the issue ever suggested that the received position be reevaluated. Creation *ex nihilo* has always remained a fundamental belief. The scientific approach has always been simply rejected, even in the face of so called proofs.

Antecedents and Consequents

$$4 / 2 = 2$$

Antecedent

Consequent

Other Antecedents – Planted Evidence



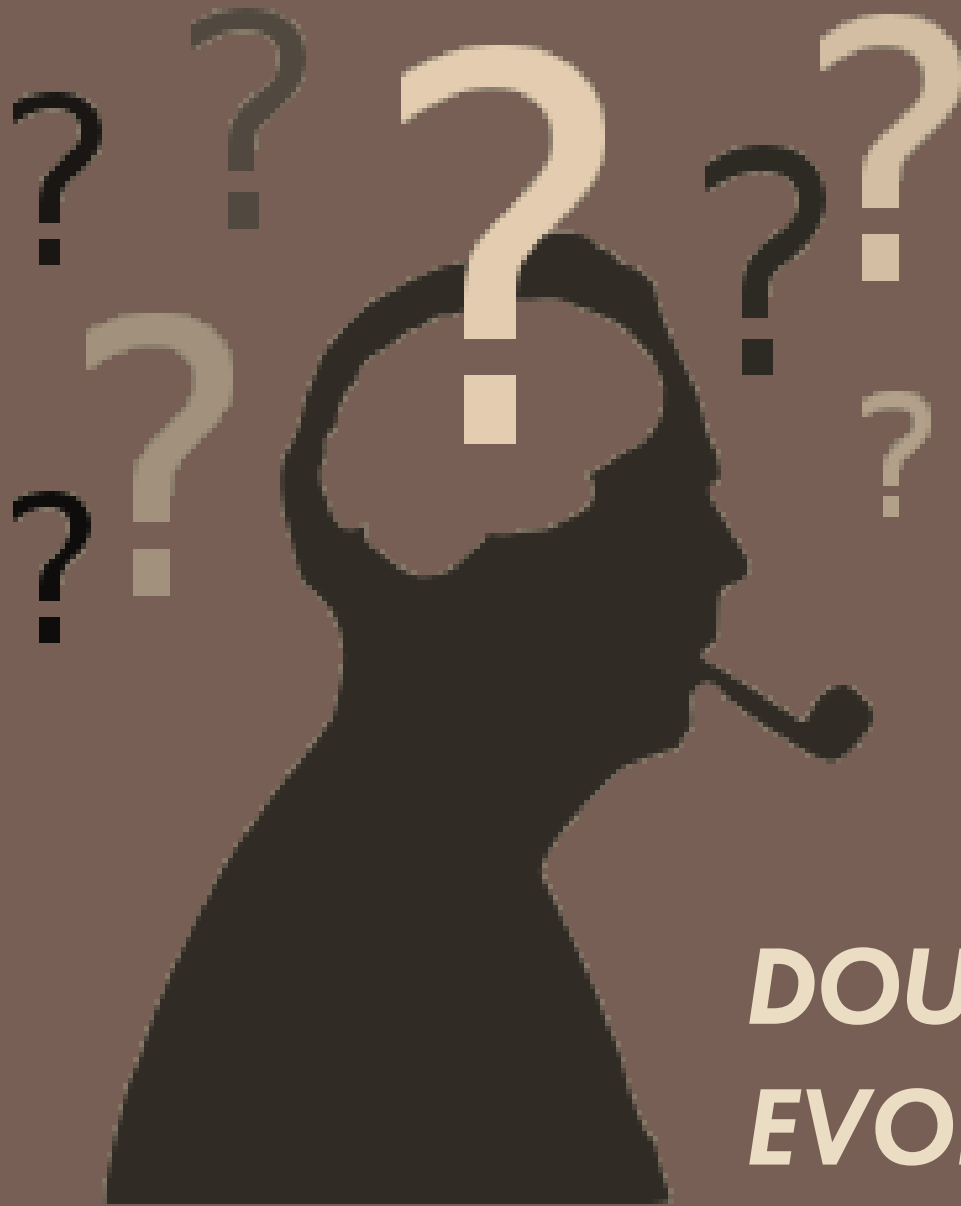
R. Menachem Mendel Schneerson, 1902-1994

(b) Even assuming that the period of time which the Torah allows for the age of the world is definitely too short for fossilization (although I do not see how one can be so categorical), we can still readily accept the possibility that G-d created ready fossils, bones or skeletons (for reasons best known to him), just as he could create ready living organisms, a complete man, and such ready products as oil, coal or diamonds, without any evolutionary process.

As for the question, if it be true as above (b), why did G-d have to create fossils in the first place? The answer is simple: We cannot know the reason why G-d chose this manner of creation in preference to another, and whatever theory of creation is accepted, the question will remain unanswered. The question, Why create a fossil? is no more valid than the question, Why create an atom? Certainly, such a question cannot serve as a sound argument, much less as a logical basis, for the evolutionary theory.

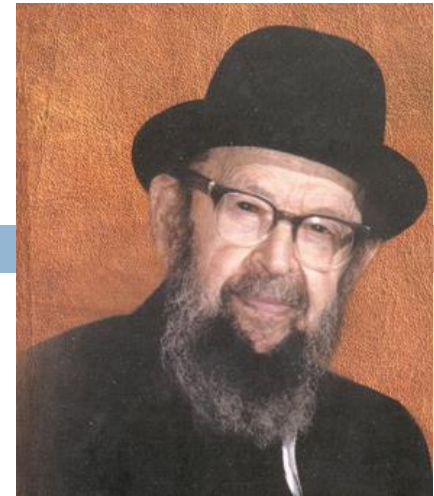
What scientific basis is there for limiting the creative process to an evolutionary process only, starting with atomic and subatomic particles - a theory full of unexplained gaps and complications, while excluding the possibility of creation as given by the Biblical account? For, if the latter possibility be admitted, everything falls neatly into pattern, and all speculation regarding the origin and age of the world becomes unnecessary and irrelevant.

It is surely no argument to question this possibility by saying, Why should the Creator create a finished universe, when it would have been sufficient for Him to create an adequate number of atoms or subatomic particles with the power of colligation and evolution to develop into the present cosmic order? The absurdity of this argument becomes even more obvious when it is made the basis of a flimsy theory, as if it were based on solid and irrefutable arguments overriding all other possibilities.



***DOUBTS ABOUT
EVOLUTION***

Honesty of the Scientific Process

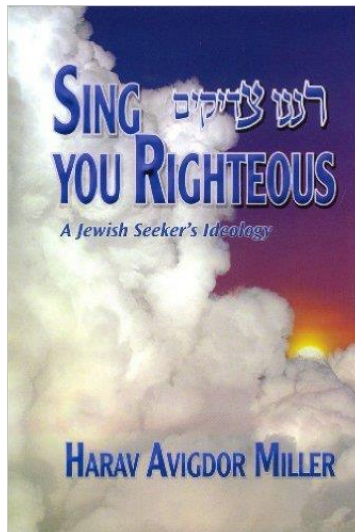


R. Avigdor Miller, 1908-2001

177. But that skull was not found in one piece. It consisted of 400 fragments; but these fragments were not in one place, but were chosen from tons of debris, and were *put together at the discretion of the persons who stand to gain the most* by such a “discovery.”

RECONSTRUCTION MADE TO ORDER

These persons who had invested “hope and hardship and sacrifice” in the “search for the world's earliest man” were the sole judges of which of the minute fragments to accept or reject, and where to fit them in. The entire episode was as biased as could possibly be; and the report was crowned by a portrait of an imaginary man who was made to appear as ape-like as possible. But this man, even as his creators admit, *was a maker of implements* which show “a remarkable consistency of design” (National Geographic, September '60, p. 433), which means that he was a true human of the same kind as all other men. This myth is supported by nothing but the desire that it be.



178. And after all is said, what evidence do the creators of this mythical man produce as proof of his *great age*? To them, this poses no problem: “There is no riddle to the dating of the new discovery.” *The skull is dated by the bones of fossil animals in the same locale.* Who has the fossil animals? The sponsors of Zinjanthropus are fairly certain of the age of the animals. How are they certain? Because these animals lived in the Lower Pleistocene period. Thus the proof of antiquity (“600,000 years”) is based on the fossils, whose age is based on the geologic layers, *whose age is based on the fossils.* Without a shred of evidence that this imaginary man is older than any other race of men, one fabrication is built upon another. This exemplifies the cobweb structure of wishful assumptions, of which the Theory is composed; and the entire imaginary edifice collapses under the slightest scrutiny.

Gaps in the Fossil Record

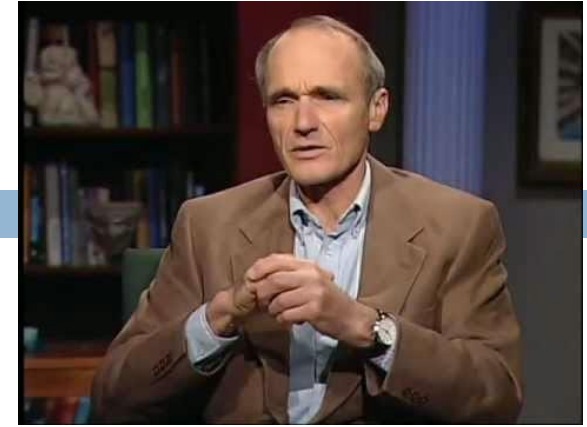
R. Avigdor Miller, 1908-2001



173. *"The most definite information concerning the history (evolution) of plants and animals has been gained from examination of the fossils found in rocks."* This is the unanimous opinion of the evolutionists. *The best proof is the fossils. But the fossils themselves are the clearest evidence against evolution.* The plain truth is that *there is not even a set of fossils to support even one of the supposed evolutionary lines.* Darwin was mystified "why we do not find (in the fossil record) graduated varieties between the allied species," and he sought to explain this away by the "incompleteness of the fossil evidence"; he prophesied that these troublesome gaps would surely be filled after further research. But 115 years have passed since this prophecy, and during this time a great search for fossils has been carried on all over the globe, and countless fossils have been unearthed. Yet the "transitional forms are still missing." An honest writer was forced to admit: the naked truth is simply that there is no reliable evidence concerning the evolutionary sequence of invertebrate phyla (*American Scientist*, June '61, p. 240). *There are no fossils to bridge the phyla, for the simple reason that they were never bridged.* The same is true of the vertebrates. The entire theory of evolution is built on evidence from the fossil record, and on nothing else; but after over a century of ceaseless and widespread digging, the evidence has "not yet" been found. It will never be found, for such "transitional forms" never existed.

No Recorded Mutation from Species to Species

Dr. Gerald Schroeder



The British Natural History Museum in London had an entire wing devoted to the evolution of species. And what evolution do they demonstrate? Pink daisies evolving into blue daisies; small dogs evolving into big dogs; a few species of cichlid fish evolving in a mere few thousand years into a dozen species of cichlid fish. Very impressive. Until you realize that the daisies remained daisies, the dogs remained dogs and the cichlid fish remained cichlid. It is called micro-evolution. This magnificent museum, with all its resources, could not produce a single example of one phylum evolving into another. It is the mechanisms of macro-evolution, the change of one phylum or class of animal into another that has been called into question by these data.



Degree of Improbability about the Rise of Life

Bill Bryson



A Short History of Nearly Everything, page 289

really the problem...
Proteins are what you get when you string amino acids together, and we need a lot of them. No one really knows, but there may be as many as a million types of protein in the human body, and each one is a little miracle. By all the laws of probability proteins shouldn't exist. To make a protein you need to assemble amino acids (which I am obliged by long tradition to refer to here as "the building blocks of life") in a particular order, in much the same way that you assemble letters in a particular order to spell a word. The problem is that words in the amino acid alphabet are often exceedingly long. To spell *collagen*, the name of a common type of protein, you need to arrange eight letters in the right order. But to make *collagen*, you need to arrange 1,055 amino acids in precisely the right sequence. But—and here's an obvious but crucial point—you don't make it. It makes itself, spontaneously, without direction, and this is where the unlikelyhoods come in.

The chances of a 1,055-sequence molecule like collagen spontaneously self-assembling are, frankly, nil. It just isn't going to happen. To grasp what a long shot its existence is, visualize a standard Las Vegas slot machine but broadened greatly—to about ninety feet, to be precise—to accommodate 1,055 spinning wheels instead of the usual three or four, and with twenty symbols on each wheel (one for each common amino acid).^{*} How long would you have to pull the handle before all 1,055 symbols came up in the right order? Effectively forever. Even if you reduced the number of spinning wheels to two hundred, which is actually a more typical number of amino acids for a protein, the odds against all two hundred coming up in a prescribed sequence are 1 in 10^{260} (that is a 1 followed by 260 zeroes). That in itself is a larger number than all the atoms in the universe.

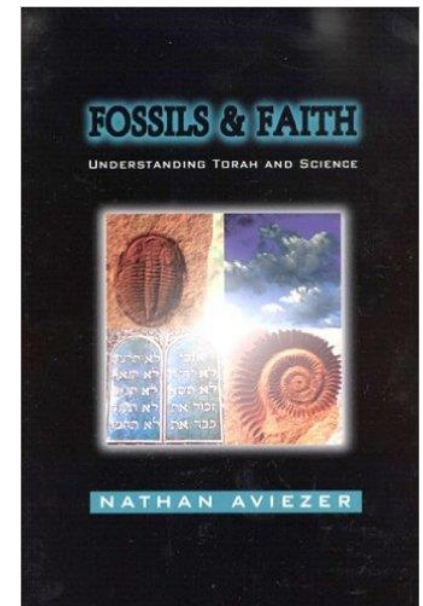
Alternative Scientific Suggestions to Gradualism

Dr. Nathan Aviezer



I wish to emphasize that no one is attacking Charles Darwin. In 1859, Darwin formulated one of the most important theories ever proposed in biology, accounting admirably, in the best scientific tradition, for all the evidence known *at that time*. But 150 years have passed, the store of knowledge has vastly

increased, and new, non-Darwinian ideas have taken their place upon the scientific stage. Men like Kimura, Alvarez, Raup, Anderson, Kadanoff, Kauffman, Gould, Stanley, and Bak are serious scientists of the first rank. When they tell us that Darwin's theory is insufficient to explain important aspects of the evolution of the animal kingdom, we would do well to lay aside our biases and listen. It is time to move forward.



Alternative Scientific Suggestions to Gradualism

R. Avigdor Miller, 1908-2001



143. The so-called scientific society is a body of men who follow a religion of their own with their own traditions. Anyone who ventures to question their generally accepted theories is subject to scorn and persecution. When a scientific writer of

PERSECUTION OF NON-BELIEVERS

considerable ability appeared with new ideas (some of which were subsequently substantiated), the college scientists threatened a boycott of all the publisher's textbooks; and the writer had no choice but to seek a publisher who was not in the textbook business and could not be coerced by the academicians. Men who sympathized with his ideas were deprived of their jobs, and other persecutions were visited upon them. A flood of frenzied invective was poured upon the writer (*Harper's*, Aug. '63, pp. 48-55). The vaunted "objectivity" of the savants is reserved for those who subscribe to their own religion.

Conclusion (Part 1)

R. Menachem Mendel Schneerson, 1902-1994



Needless to say, it is not my intent to cast aspersions on science or to discredit the scientific method. Science cannot operate except by accepting certain working theories or hypotheses, even if they cannot be verified, though some theories die hard even when they are scientifically refuted or discredited (the evolutionary theory is a case in point). No technical progress would be possible unless certain physical laws are accepted, even though there is no guaranty that the law will repeat itself. However, I do wish to emphasize, as already mentioned, that science has to do only with theories but no with certainties. All scientific conclusions, or generalizations, can only be probable in a greater or lesser degree according to the precautions taken in the use of the available evidence, and the degree of probability necessarily decreases with the distance from the empirical facts, or with the increase of the unknown variables, etc., as already indicated. If you will bear this in mind, you will readily realize that there can be no real conflict between any scientific theory and the Torah.