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"In the beginning God created the heaven and the earth" (Genesis 1:1).

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How Old Is Life?

by John D. Morris*

According to evolution, life has been on Earth for billions of years. It is common to claim that life originated some three to four billion years ago. Even though spontaneous generation of life has been soundly disproved in every experiment, evolutionists think at least once that non-living chemicals came together on their own, without the aid of any non-natural agency, and formed a living cell, complete with its own genetic code. Under the guidance of these genetic instructions, the cell was capable of life's functions, and reproducing other similar cells with their own similar genetic codes. In this process of code reproduction, mutations may alter the coded content somewhat, so that the detailed instructions vary a little, leading to evolutionary change.

Efforts are underway to push life's origin back into the universe's more distant past, even suggesting that life came to Earth on a meteorite (or spaceship). Speculations of life's "naturalistic" origin long ago and far away seem fueled by man's aversion to being accountable to a "supernatural" Being.

A naturalistic origin of life is evolution's biggest hurdle. Obtaining useful variations of the genetic code seems easy compared to spontaneously obtaining the first genetic code. Even natural selection cannot act on the chemical precursors of life, for it can only choose between living variants as to survivability.

Mutations in existing codes, while they do not speak to the *origin* of the code, can tell us something about how old life can be. Most mutations are only slightly harmful, but others are acutely harmful. Most of these harmful mutations, whether mild or acute, pass on to the next generation, thus each succeeding generation is more "mutant." Today, the codes mutate at rates much higher than evolution would predict. Evolutionists have long known that if the mutation rate were as high as one per generation in the reproductive line, genetic deterioration would be a certainty. But the measured rate is between 100 to 300 harmful mutations per person that are fixed within the population! (I recommend Dr. John Sanford's new book *Genetic Entropy and the Mystery of the Genome*.) Mutations are leading, not to evolutionary advancement, but to extinction!

One obvious conclusion we can reach from the observed rate of deterioration is that mankind (or any species on Earth) cannot have been here for millions of years—or it would have already gone extinct. Instead, life appears to have been recently created and cannot last for millions of years into the future.

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Blue-t-ful Beetles, Birds, 'n Butterflies

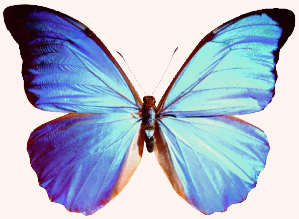
by Frank Sherwin, M.A.*

The strikingly iridescent blue seen in some butterfly, beetle, and bird feathers is well-known and enjoyed by scientists and laymen alike. This is due to creatures (and some plants) reflecting or absorbing certain frequencies of light due to the external chemical composition of their body. In past decades, it has been realized that although the color of these structures are clearly and unusually blue—no blue pigment can be found!

The South American butterfly, *Morpho rhetenor*, has wings composed of extremely tiny scales like all members of the Lepidoptera. Biologists magnified scales of the upper wing surface 20,000 times and saw "a regular grid of precisely constructed wedge-shaped ridges spaced at intervals of about 0.00022 mm. This pattern is repeated so accurately that the maximum deviation is only 0.00002 mm. No earthly workshop specializing in miniaturization [nanotechnology], would be able to make one single wing scale with this required precision."[1] Detailed investigation of other butterflies reveals iridescence due to "nanoscale structures that produce ultra-high reflectivity and narrow-band spectral purity."[2]

The beautiful colors of male peacock plumes are due to variations in the photonic lattices. These are found at the nanoscale level in the tiny barbules of the magnificent feathers.

Beetles of the genus *Hoplia* found in France have chitin sheets (a stiff polysaccharide) in the scales of its exocuticle.[3] The light is reflected due to a sophisticated network of airspace and rods of chitin. The title of this particular article says it all, "Blue beetle has natural nanophotonic design." Creation scientists heartily agree



and would add that the design they speak of means a Designer.

Sadly, we find once again that scientists ignore the clear case for creation and simply say that millions of years ago, "biological systems were using nanometer-scale architectures to produce striking optical effects."[4] The two authors use the word "remarkable" several times to describe various photonic structures, but at the end of the article state that they have assembled themselves. This is hardly a scientific explanation, of course.

At the end of one article, the author says ". . . Nature may be able to teach scientists a new approach to the fabrication of technologically useful photonic structures."[5] The creation scientist gives glory not to "Nature," but to the One true Creator. We can indeed learn from Him as we investigate His living creation.

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2. Vukusic, P., et al. March 1, 2001. Now you see it—now you don't. *Nature*, v. 410, p. 36.
3. Harper, R. February 2006. Blue beetle has natural nanophotonic design. *Biophotonics,* v. 13, p. 22.
4. Vukusic P. and J. Roy Sambles. August 14, 2003. Photonic structures in biology. *Nature*, v. 424, p. 852.
5. Blau, S. January 2004. Light as a Feather. *Physics Today Online*, www.physicstoday.org.

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How Coherent Is the Human Evolution Story?

by William A. Hoesch, M.S.*

"Australopithocines evolved into *Homo erectus* around 1.5 million years ago and *Homo erectus*, in turn, evolved into *Homo sapiens* around 400,000 years ago." This is presented to school children as no less certain than Washington's crossing of the Delaware. The statement makes dual claims: (1) there are fundamental anatomical differences between these three categories, and (2) each occurs in the right time frame. Let us examine these claims.

The anatomical differences between these three groups must be very substantial for the statement to have any meaning. Any anthropologist should be able to spot a *Homo erectus* on a crowded subway train, even clean-shaven and in a business suit, as different from modern humans. Not so. In fact, leading anthropologists Milford H. Wolpoff (University of Michigan), William S. Laughlin (U. of Connecticut), Gabriel Ward Lasker (Wayne State U.), Kenneth A. R. Kennedy (Cornell), Jerome Cybulski (National Museum of Man, Ottawa), and Donald Johanson (Institute of Human Origins) find the differences between these fossil categories to be so small that they have wondered in print if *H. sapiens* and *H. erectus* are one and the same. Fossils classified as *H. erectus* all share a set of "primitive" traits including a sloping forehead and large brow ridges, yet these all fall comfortably within the range of what are called normal humans today. For example, the very same traits are found in some modern people groups, including Eskimos! Eskimos might not like being referred to as "primitive" humans, yet evolutionists must do so if they are to be consistent. There are a lot of problems with the continued use of this taxon, yet it is essential to the evolution story.

The second truth claim embedded within the statement given to school kids has to do with these fossils occurring in the right time frame. For example, fossils with a *H. erectus* anatomy should be found exclusively in rocks that are older than those with its youthful descendents, "anatomically-modern" humans. This is decidedly not the case. Putting aside the validity of age-dates for a moment, the range for *H. erectus* is usually given at between about 1.5 million years and 400,000 years. Studiously avoided in most museum depictions is the fact that fossils with a *H. erectus* anatomy that are younger than 400,000 years number well over 100, including some as young as 6000 years. Even more amazing is this: fossil humans that are easily interpreted as "anatomically modern" (i.e., non-*H. erectus*) have been found in rocks that are much *older* than 1.5 million years. From a dozen different sites have come cranial fragments, including one good skull, teeth, several arm and leg bones, a fossil trackway, and stone structure that each screams out "modern human." The trackways at Laetoli, Tanzania, dated at 3.6 million years, and tibia (leg bone) and humerus (arm bone) from Kanapoi, Kenya, dated at 3.5 million, are especially significant for these pre-date even "Lucy," the celebrated upright-walking ape. These embarrassments have been revised, reinterpreted, and re-dated, but will not go away.

Keep these things in mind the next time you hear of a "missing link" being reported, for example, between *H. erectus* and modern man (as has been in the recent *popular* press). God made His creatures to reproduce "after their own kind," and it appears from the fossils that they have done just that.

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How Big Is God?

by David F. Coppedge*

Most people know the universe is "vast," but until we visualize it, we shortchange ourselves of some healthy awe. The heavens glorify God, but should also humble us—as should become apparent in the following mental journey.

Recently, the New Horizons spacecraft blasted off on a ten-year express flight to Pluto. (A manned flight to Pluto, at the maximum speed of the Apollo astronauts, would take about 17 years.) Since Mars (1/26 the distance to Pluto) seems at the limit of our reach, human travel to the stars beyond must remain a dream for now. But Pluto is very near compared to the stars; if the Sun-Pluto distance were represented by a one-foot ruler, the nearest star would be over a mile away.

Movies mislead us with their talk of warp speeds; real interstellar travel is limited by the speed of light—186,282 miles *per second*. In our imagination (and ignoring relativistic effects) let's aim for the nearest star at light speed. First, we would be disappointed at how slowly the scenery changes. Only after 4.3 years would Alpha Centauri appear larger than a pinpoint of light. Star-hopping within our galaxy, we would be amazed at how much is empty space.

Turning up out of the plane of the Milky Way, it would take 100,000 years for the full spiral of our galaxy to become visible. Though stars at our sun's radius orbit the center at nearly 500,000 mph, the galaxy would appear motionless. A whole human lifetime would pass with no apparent change except for the rare supernova. As for the earth—if the galaxy were represented as the size of North America, our entire solar system would fit in a coffee cup somewhere in Idaho.

Astronomers estimate that there are as many galaxies outside the Milky Way as there are stars in it. The Hubble Ultra Deep Field, taken in 2004, imaged 10,000 galaxies in a cone of space so slim you could cover it with a grain of sand held at arm's length. Integrated over the entire sky, that would mean there are more than 100 billion galaxies in the visible universe, many with more than 100 billion stars each. According to Psalm 147:4, God calls them all by name.

Contemplating such things is humbling, but also raises questions. Can a God of such a vast domain really care about us? It's important to understand the Biblical doctrine of omnipresence in answering this question. Learning that God is everywhere does not mean that part of Him is here, part there, and part in a distant galaxy, as if His love were spread thinly across all of space. No; omnipresence means that *all of God* is present at every place, at the same time.

This means that no matter how large the universe, and how many beings reside within His kingdom, each of us can have His full and undivided attention in our own hearts. Let us pray with the spirit and with the understanding also (I Corinthians 14:15). As the country song insightfully claims, "How big is God? He's big enough to rule His mighty universe, yet small enough to live within my heart."

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