

# Creation Matters

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## The Eocene Ice Age — Example of a Geological Challenge

by Michael J. Oard, M.S.

Creationists have come a long way in providing reasonable answers to the many challenges by evolutionary/uniformitarian scientists. It is easy to show that practically all areas of biology support creation and are against evolution, and that very reasonable answers exist for the remaining challenges (Werner, 2007).

However, when it comes to geology or the earth sciences, there are hundreds of challenges. These challenges can include geological events and processes assumed by uniformitarian scientists to be unexplainable within the short time-scale of the Flood model. But many of these challenges, like those in biology, also have reasonable answers (Oard and Reed, in press). The lack of explanations at the moment is mainly because no one has worked on those particular problems. The evolutionary/uniformitarian sci-



Figure 1.

*The Black Butte "tillite," showing many well-rounded boulders of mostly quartzite. Black Butte, in the background, is a volcanic neck about 1,000 feet (300 m) higher than the level of the "tillite."*

entists are usually ignorant of the progress that has been made by creation science.

I admit that reasonable solutions for some geological challenges are difficult to

develop. One reason is that it is often impossible to apply the experimental method. Furthermore, the data of geology are incomplete and can be *interpreted* in more than one way. When solving problems, it is necessary to not only read the literature, but also to spend time out in the field. The latter can be difficult and time consuming, so progress will be slow. Some problems require a sizable research effort, in terms of time and resources, in order to come up with a reasonable solution within the creationist paradigm.

### Ancient ice ages

There is much hope that practically every geological challenge will one day have a reasonable solution within the biblical paradigm. This optimism is based on progress made so far. An example of a challenge that now has a reasonable solution is the claim that the rock record shows evidence of ancient ice ages from over 200 locations across the earth. These ice ages are claimed to have lasted a few hundred million years, anywhere from 280 million years to 2.4 billion years ago.

Table 1 shows the four main ancient ice ages that uniformitarian scientists claim can be documented. These supposed ice ages are in rocks that many, if not most, creation geologists believe were laid down in the Flood. An ice age takes much time — much more than the one-year period of the Flood. In his anti-creationist book, geologist Arthur Strahler (1987, p. 263) challenged:

The Carboniferous tillites [Late Paleozoic consolidated till] cannot be accepted by creationists as being of glacial origin for the obvious reason

## The End of *Homo neanderthalensis*?

by Carl R. Froede, Jr., P.G.

*The following perspective is based on an article written by Cassandra Willyard (2008).*

Scientists interpret data through the filter of their worldview. The slippery slope to humanism was formally initiated in 1859, with the publication of Darwin's *Origin of the Species*. As a result, the scriptural worldview of all things was replaced with Naturalism. Mankind went from the pinnacle of creation to being one of its crudest and vilest animals. Since the time of Darwin's proposal, naturalistic scientists have filtered skeletal remains through their perspective of evolution.

### The first Neanderthal skeleton

The first Neanderthal skeleton was excavated in 1856, in the Neander Valley, near Düsseldorf, Germany. Scientists unfamiliar with the ideas of evolution recognized the skeleton as fully human — an individual who suffered from a bad case of rickets.

In 1863, Thomas Huxley (Darwin's biggest defender) declared the skeleton an ancient human and not a direct ancestor to modern humans. In 1864, Irish geologist, William King, declared Neanderthal a different species and named it *Homo*

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## The End ...

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*neanderthalensis*. This particular meeting of the British Association for the Advancement of Science created the field of paleoanthropology and initiated the debate regarding human origins that continues today.

In 1908, three Catholic priests excavated a nearly complete skeleton of a Neanderthal from a cave located near the French town of La Chapelle-aux-Saints. They turned the skeleton over to French anatomist Marcellin Boule at the Muséum d'Histoire Naturelle in Paris, where it was examined and declared to be the remains of a hairy, bestial creature with a large brain but little intellect. This interpretation was accepted by fellow scientists, media, and the public due to the evolutionary bias associated with earlier Neanderthal skeletons. Boule spent five years studying the Neanderthal skeleton, comparing it to human and ape skeletons. In the end, he declared *neanderthalensis* not directly related to humans and speculated that the creature was clumsy, bend postured, dimwitted, and a knuckle-dragging brute along the lines of the great apes rather than modern humans, **a perspective still held by many anthropologists today.**

### A reexamination

A reexamination of the skeleton in the 1950s, and later in 1985, revealed that Boule ignored evidence of arthritis and interpreted the skeletal deformation created by this disease to reinforce his own evolutionary

perspective regarding ancient humans. According to Willyard (2008, p. 64; see note):

Whatever the reason for Boule's misinterpretation, the image of Neanderthals as gorilla-like brutes has proven exceedingly difficult to dispel. So some scientists have mounted a public relations campaign. In 2004, researchers at Yale's Peabody Museum reconstructed the facial features of a Neanderthal, complete with skin. The result is a face that is unmistakably human.

The reason for Boule's serious misinterpretation is clear if naturalism is the worldview and evolution is the expectation. The first Neanderthal skeleton was reported to be human well before evolution became the only means of defining life on Earth. It was the evolutionists who rejected this perspective and manufactured an ancient history from these bones.

It is interesting that the German scientists who viewed the Neanderthal skeleton as fully human are vindicated almost 150 years later. Several excellent articles have been written on the subject of Neanderthals from the young-Earth Creation/Flood perspective in past issues of the *Creation Research Society Quarterly* and other creationist literature (e.g., Shaw, 1970; Armstrong, 1971; Clark, 1974; von Fange, 1974, 1981; Cuozzo, 1982, 1998a, 1998b, 2004; Doherty, 1983; García-Pozuelo-Ramos, 1997; Bergman, 2003).

So the next time you hear or read that a new human/hominid skeleton has been discovered — keep in mind the worldview

of the individual reporting the information.

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- Willyard, C. 2008. August 3, 1908: Priests uncover the "Old man of La Chapelle-aux-Saints." *Geotimes* 53(8):64. [note: The reconstruction, starting from the skull and ending at a human face, can be viewed at: [www.peabody.yale.edu/exhibits/fossils/fossils/neanderthal.html](http://www.peabody.yale.edu/exhibits/fossils/fossils/neanderthal.html)]

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## ...without excuse!

by Timothy R. Stout

# The Testimony of the Seeing Watchmaker

As Christians, we serve a living God who created the heavens and the earth. He knows all things, is unlimited in His wisdom and power, and is holy, taking offense to sin. Because of His holiness, the natural man hates Him and wants to have nothing to do with Him. So, instead of worshipping the true God, he prefers to worship idols made of wood, stone, gold, and silver. Indeed, we read in Psalm 115:3–5,

<sup>3</sup>But our God is in heaven; He does whatever He pleases. <sup>4</sup>Their idols are silver and gold, the work of men's hands. <sup>5</sup>They have mouths, but they do not speak; eyes they have, but they do not see...

In earlier societies, the heart of the natural, unsaved man was drawn to idols. These idols could not see, hear, or talk. Yet, people would ascribe all of the attributes of deity to them and worship them. This was in an effort to avoid dealing with a holy Creator God who could do whatever He pleases and would also have the right to tell them what to do.

Superficially, it appears that a modern, scientifically-trained scientist would have nothing in common with a heathen idolater. Yet, the two actually have much more in common than one might at first suspect.

Richard Dawkins wrote a book, *The Blind Watchmaker*, in which he made the argument that processes intrinsic to nature itself are adequate to create life, that a living God who can think, plan, and exercise His will over matter is not needed. By contrast, in heaven, God is given glory as the Creator (Revelation 4:11). Dawkins would deny God this glory and the right to it, instead giving it to natural processes that do not see, think, or plan ahead. At heart, there is very little difference between Dawkins' glorifying nature as Creator and the heathen in glorifying dead idols as their masters.

Dawkins makes a feeble attempt to justify his position intellectually. Since the control of the internal processes of a living cell are due to enzyme activity, he wants to show that new, useful enzymes could originate exclusively as a result of natural processes. An enzyme is made from a string of about 100 to 1,000 amino acids. Twenty different kinds of amino acids are used, each



having unique characteristics. An enzyme's function is determined by its amino acid sequence.

### A flawed approach

Dawkins proposes a method called "cumulative selection" as the means for natural processes to produce a new, useful enzyme. Dawkins starts his selection process with a random amino acid sequence completely unrelated to the desired target. This sequence is used as a seed and copied for a second generation. Some of the copies are "mutated" and differ from the seed sequence by one amino acid. He then mimics natural selection by picking which of the sequences is closest to his desired target and uses it as a seed for the next generation. This is repeated until he ends up with the target sequence. Supposedly, it would not take many steps to do this (Dawkins, 1986, pp. 45–49).

This approach is inherently flawed for many reasons. Here is one. Enzymes are made up of substructures of sheets and coils. Unless an amino acid sequence is already close enough to the target sequence to generate the required sheets and coils, it does not matter how close it is — it will not function properly. There is no selection advantage for one sequence being slightly closer to a target sequence than a different one, if both of them fail. It is like a child arguing that he got a higher "F" on his report card than his friend. The fact is that both of them failed. In Dawkins' proposed scheme, natural selection *cannot* choose between the original and the mutant forms *because both will fail — neither produces*

*the needed behavior.* With this simple observation, Dawkins' entire scheme falls apart.

Actually, Dawkins knows and admits that his explanation is inadequate. After meticulously developing his presentation, he admits, "Actually, ...life isn't like that..." (Dawkins, 1986, p. 50). I was staggered when I discovered this. Evolutionists recommend his book as presenting one of the best arguments against the necessity of a Creator God. Yet, after everything is said and done, even Dawkins acknowledges that the process he developed in such detail does not actually apply to real life. I believe God hit the nail on the head when He said about those who reject Him, "Professing to be wise, they became fools" (Romans 1:22).

The reality is that every attempt to explain a natural origin of life apart from God will result in failure and contradictions. God designed it this way. Indeed, from His perspective, one who will not acknowledge Him as Creator is "without excuse" (Romans 1:20).

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## Slaughter of the Dissidents – The Shocking Truth about Killing the Careers of Darwin Doubters

by Jerry Bergman  
2008. Leafcutter Press,  
488 pages, \$24.00

Religious persecution has returned to the twenty-first century with a vengeance. The coliseums of the first century have been replaced by the ivory towers of academia; the lions by university administrators. Dr. Bergman interviewed thousands of scientists, teachers, and others who have been denied tenure, fired, or failed to be promoted, for doubting Darwin. The media wrongly consider any criticism of evolution as teaching Biblical Creation. They fail to report that thousands of scientists have rejected evolution for the lack of evidence or the lack of even a plausible theory for the origin of life.

The most egregious case was the failure to award a Nobel Prize to Raymond Damadian for his invention of magnetic resonance

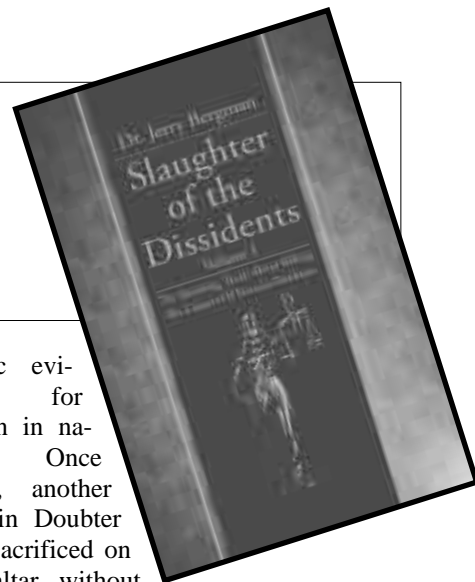
imaging. It was Damadian who thought of and built the first functional MRI machine. He holds sixty patents on the MRI, yet was denied the coveted Nobel Prize because he is a Christian and a Creationist.

Perhaps the best known of all those whose careers were ruined for seeing design in nature is that of accomplished astronomer Guillermo Gonzalez, who earned his doctorate in astronomy from the University of Washington, published numerous astronomy papers in leading journals, and discovered two new planets. He was well respected and had a promising career until he wrote *The Privileged Planet*, which was soon made into a movie by the same name. He did not mention Creation or Intelligent Design, but simply documented the conditions necessary to make life and astronomical exploration possible on earth. For this evolutionists were outraged. He was denied tenure and lost his research position at Iowa State University, merely for suggesting sci-

entific evidence for design in nature. Once again, another Darwin Doubter was sacrificed on the altar without mercy.

Dr. Bergman concludes this outstanding book with suggestions for what can be done about this rampant injustice. Our religious freedom is under attack, but there is more. The future of science as we know it is at risk. Scientists MUST be given the freedom to follow the evidence no matter where it leads. Four more volumes on this important topic have been written and will be available soon. Look for them.

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## Speaking of Science

Commentaries on recent news from science

*Editor's note: Unless otherwise noted, S.O.S. (Speaking of Science) items in this issue are kindly provided by David Coppedge. Opinions expressed herein are his own. Additional commentaries and reviews of news items by David, complete with hyperlinks to cited references, can be seen at: [www.creationsafaris.com/crevnews.htm](http://www.creationsafaris.com/crevnews.htm). Unless otherwise noted, emphasis is added in all quotes.*

### Proteins Can Tie Knots

Your job today is to invent a chain that can tie itself into a knot. The chain can contain little magnets and electrical parts, but when you let go of the ends, a knot will spontaneously form. This means that one end must form a loop and the other end must thread the loop. Give up? Maybe you should learn how cells do it.



There are certain chains of amino acids coming out of the ribosome translation machine that will tie a perfect trefoil knot (see image<sup>1</sup>) every time. This knot becomes embedded deep within the overall structure of the protein. A trio of women scientists at the University of Pennsylvania School of Medicine tried to figure this out. Writing in *PNAS*,<sup>2</sup> they only made small progress. All they could say was that the knot tying seems to occur early on, when the chain is loose. The tightening of the knot and the rest of the

folding occurs slowly thereafter. They mutated certain amino acids to watch what happened but that's about all they could figure out at this point.

The protein which they studied, YibK, is one of the simplest knot-tying proteins. They mentioned others with even bigger tricks:

The alpha/beta-knot methyltransferases (MTases) are a family of homodimeric proteins that exhibit an **unusual trefoil knot deep within** in their native structure. **Such knots are particularly impressive** because they are **defined by the path of the polypeptide backbone alone** and therefore require that a considerable segment of protein chain (**at least 40 residues**) **has threaded through a loop**. The question of **how such complex topologies arise** during protein folding is an **intriguing** one, and is of growing importance with the **increasing number and complexity of knotted structures observed**. In addition to trefoil knots, a **highly intricate figure-of-eight knot** and a knotted structure with **5 projected crossings** have been observed. Consequently, when **contemplating how** a given polypeptide chain might fold, the **possibility that it might knot must also be considered**; if a global solution to the protein-folding problem is to be found, the **puzzle of how such knotted structures form** must be **solved**.

## A Solar Powered Animal?

An SOS contribution by Tom Hennigan

Imagine an oceanic animal that looks like a flexible green leaf swimming in the waters off the Atlantic seaboard. Now, try to conceive of its first two weeks of life as it spends time subsisting solely on green algae. What if, after those first 14 days, this amazing animal didn't have to eat again and instead was energized by the sun for the rest of its year-long life? Imagine no more. The green sea slug *Elysia chlorotica* is such a critter and it has been dubbed a plant/animal hybrid.

Recent research<sup>1,2</sup> has shown that this fascinating creature will feed on the green algae *Vaucheria litorea*, storing the algae's photosynthetic chloroplasts in its gut. It is then able to live using the energy from the photosynthetic genes taken from the algae. This seems impossible because chloroplasts only contain 10% of the DNA required for functional photosynthesis. The rest of the genes that are needed come from the algae's nuclear DNA. Deepening the mystery, researchers have discovered that the important algal genes were incorporated not only into the slug's genome, but also were found to be integrated into the slug's sex cells. The latter finding suggests that "the ability to maintain functional chloroplasts could be passed to the next generation."

Where would the slug get the other genes and how is it able to integrate the genetic systems so that it could survive on solar power alone? One postulate put forth by the researchers is that

the algae in the slug's gut are processed in a manner which allows the genes to be taken into its cells along with the chloroplasts. The genes then become a part of the slug's own DNA, permitting the biosynthesis of proteins required for the stolen chloroplasts to function.

Ecology is the science dealing with the relationships of organisms with each other and the environment. Ecology and environmental stewardship have not historically been an emphasis in creation research and Christianity. But a creation model of ecology, with an understanding of the complicated relationships within ecosystems, is worth building. The sea slug/algae interrelationships are just one example. Trying to understand this relationship within a creation-ecology paradigm has promise in potentially elucidating issues such as alternative power generation, intrabaraminic diversification, integration of designed genetic systems, and the role of microorganisms in bridging the gap between the environment and the created kinds. Truly, "the earth is the LORD's, and everything in it, the world, and all who live in it" (Psalm 24:1).

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2. Rumphoa, M.E., J.M. Worful, J. Lee, et. al. 2008. Horizontal gene transfer of the algal nuclear gene *psbO* to the photosynthetic sea slug *Elysia chlorotica*. *PNAS* 105(46):17867–17871 (doi: 10.1073/pnas.0804968105)

Evolutionary theory played no role in their investigation. A protein that can tie a figure-of-eight knot blindfolded with no hands: amazing.

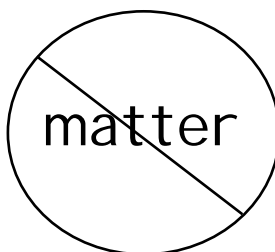
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## Antimatter or Anti-Consensus?

Where's the antimatter? If the universe began in a big bang, there should be equal amounts of matter and antimatter. Instead, there is only regular matter as far as our telescopes can see. (If antimatter were present, the annihilation of antimatter and matter would give a characteristic gamma-ray signature.) This is a big matter; the missing antimatter has been a conundrum for decades. Now, a new study using the Spitzer Space Telescope, reported on *ScienceDaily*, confirms that far, far too little is present.<sup>1</sup>

Observations of the Bullet Cluster "rule out any significant amounts of antimatter over scales of about 65 million light years, an estimate of the original separation of the two colliding clusters," the article said of the largest-scale study ever done in an environment that is an "excellent test site" for the search. All they saw was only three parts per million.

The article ends by claiming that if antimatter is discovered, it might tell scientists something about inflation and how long it lasted. This new study, however, places tighter constraints on the possibility of such a discovery.



Even if they did find antimatter, it would not tell them anything about inflation. Remember the skeleton that Sean Carroll let out of the inflationary closet? He said that inflation does *not* get rid of the fine-tuning problems it was invented to solve: "It would seem that the conditions required to start inflation are less natural than those of the conventional Big Bang."<sup>2</sup>

It's time for cosmologists to call off the search for missing dark matter, missing dark energy and missing antimatter, and to start searching for antimaterial explanations for the fine-tuned cosmos we have found.

1. Chandra X-ray Center. 2008. Searching for primordial antimatter. *ScienceDaily* (30 October). [www.sciencedaily.com/releases/2008/10/081030102608.htm](http://www.sciencedaily.com/releases/2008/10/081030102608.htm)
2. Carroll, S.M. 2006. Is our universe natural? *Nature* 440:1132–1136 doi:10.1038/nature04804.

## Body's Junk Is Useful Stuff

What's the difference between junk and stuff? The joker replies that junk is the stuff you throw away, and stuff is the junk you keep. When it comes to stuff in your body that scientists have called junk, you had better keep all of it, because your life may depend on it.

**Junk DNA:** The term "junk DNA" sounds so last-millennium these days. An article on *PhysOrg* is one among many that have claimed "'Junk' DNA proves functional."<sup>1</sup> Repetitive strands, seemingly lacking in information, have been shown to be crucial either in regulating genes or providing binding sites for RNA transcription machines.

**Junk Brain Cells:** Glia cells outnumber the more fashionable ... continued on p. 9



## Geological Challenge

...continued from page 1

that the tillite formations are both overlain and underlain by fossiliferous strata, which are deposits of the Flood. During that great inundation, which lasted the better part of one year, there could have been no land ice formed by accumulation of snow.

Strahler is correct, there can be no ice ages during the Flood.

Uniformitarian scientists have not invented ancient ice ages out of thin air. They really do have evidence. The deposits in question are like glacial *till* from the post-Flood Ice Age (Oard, 1979; 1990; 2004). Till consists of rocks of various sizes within a finer-grained matrix. When consolidated, it is called *tillite*. Since mass flow deposits can duplicate the texture of glacial tills, uniformitarian scientists also point out three main diagnostic evidences for glaciation: 1) striated and/or faceted rocks, 2) striated rock surfaces, and 3) dropstones in varvites.

Mass flow is a general term for the downslope transport of sediment, rock, or both. The third feature consists of rocks with a diameter larger than those in the sedimentary layers that are assumed to have been dropped from icebergs calved into a lake or into the ocean. Varvites are supposed to be consolidated varves, a rhythmic sedimentation sequence deposited in a body of water in one year. There are sometimes thousands and even millions of these claimed varvites in the rock record, which is of course used to challenge the short scriptural time-scale. This is yet another challenge that also has a reasonable answer within Flood geology, but that is another paper.

Creationists have risen to this particular challenge and provided evidence that mass flow can not only duplicate the till-like structure of the rock, but also can mimic supposed diagnostic criteria for an ancient ice age (Molén, 1990; Austin and Wise, 1994; Oard, 1994, 1997; Sigler and Wingerden, 1998; Wingerden, 2003). I have written a comprehensive monograph on the main “ice age” deposits, the problem with the claim that the main diagnostic features are really diagnostic, and how these deposits fit with the Flood model (Oard, 1997).

Kevin Henke (1999) wrote an

*Table 1. The four main “ancient ice ages” within the uniformitarian paradigm and their inferred age ranges in millions of years before the present. The age ranges for the Precambrian “ice ages” are admittedly rough estimates (from Crowell, 1999, p. 3).*

Geological Period	Secular Approximate Age Range (m.y. ago)
Late Paleozoic	256–338
Late Ordovician	429–445
Late Proterozoic	520–950
Early Proterozoic	2200–2400

89-page diatribe against my monograph for the web site “No Answers in Genesis.” Typical of such “rebuttals” by Henke and so many others, his attempt falls short and at the same time reveals weaknesses in his uniformitarian position (Oard, in press). In addition to insufficient arguments, his simplistic attacks on the Flood, his naturalistic bias, his ad hominem style, and his frequent accusations of ‘quoting out of context’ while he does precisely that, diminish the credibility of his case. Finally, his discomfort with uniformitarianism, combined with his unusual definition of “actualism,” reveals serious weaknesses in his paradigm.

## The claimed Eocene Ice Age

The fact that mass flow can duplicate the features claimed for ancient ice ages is shown by the once-claimed Eocene ice age. This ice age started with what was considered an Eocene tillite in Colorado called the Ridgeway tillite (Atwood, 1915). H. W. Scott (1938) discovered gravels at 3,000 m altitude on top of the Gravelly Range, south-

west Montana, and named them the Black Butte tillite, since the deposit was west of Black Butte, a volcanic neck (Figure 1). He correlated the Black Butte “tillite” with the Ridgeway “tillite” in Colorado and another presumed glacial deposit in British Columbia. Thus, the Eocene glaciation in the western United States was born (Oard, 1997, p. 16).

However, Van Houten (1957, p. 387) questioned the Eocene glaciation in Colorado, and Mann, who wrote his PhD thesis on the geology of the Gravelly Range, rejected the Black Butte “tillite” as a true glacial deposit (Mann, 1954, p. 37):

It is the writer’s opinion that this deposit is probably not a true till. The preponderance of evidence ...points to an origin other than glacial. It is interpreted as a mudflow deposit.

Although the Black Butte “tillite” has two out of three main glacial diagnostic features (Oard, 1997), as we will see below, I believe the glacial origin was rejected mainly because the Eocene is supposed to be a period of considerable warmth — much warmer than today. Mann (1954, p. 41) admitted:

One of the primary difficulties in ascribing the gravel to a glacial origin lies in establishing the presence of sufficient relief or a cold enough climate to allow the formation of glaciers. In both cases, the facts refute a glacial origin.

Mann did point out one anomalous feature in the glacial interpretation, and that is the presence of well-rounded quartzite boulders that closely resemble other quartzite boulders that are widespread in southwest Montana. Mann considered this to be a mudflow deposit, but, more strictly according to the classification of mass flows, it should be considered a debris flow, since the rocks in the deposit are almost a meter long.

## Glacial diagnostic features

Although the Black Butte “tillite” is now considered to be a product of mass flow, it still has two out of three major diagnostic features for an ancient glaciation. Most geologists have considered these diagnostic features as “proof” of an ancient ice age. It is these diagnostic features that have resulted in the



Figure 2.

*Striated pavement caused by a debris flow, found on top of the Gravelly Mountains, southwest Montana. The pavement was broken up and tilted by faulting, and in places the pavement shows chattermarks and more than one direction of striae. The age is “Eocene” and was once assumed to be from an ancient ice age.*

claimed four main ice ages of geological history (not counting the Pleistocene Ice Age — a real ice age).

One of these diagnostic features is striated and faceted rocks in which the rock has scratches across its surface or has been ground down to a flat face with residual scratches. Based especially on this feature, geologists have considered the erosional remnants of another debris flow east of Glacier and Waterton National Parks as a late Pliocene multiple ice age deposit (Klevberg and Oard, 2005). I found that the striated and faceted rocks in the Black Butte “tillite” are rare. Schermerhorn is one geologist critical of most ancient ice ages. He warned against the automatic use of striated and faceted rocks as diagnostic of glaciation (Schermerhorn, 1974, pp 681–682):

To repeat the most important point, great caution is urged in the use of striated stones as glacial pointers. It is a point that has been stressed time and again by many stratigraphers, without apparently leaving much impression.



*Figure 3.*  
*Large well-rounded quartzite boulder from the Black Butte “tillite.” Notice the glassy quartzite texture in the lower left. Numerous surficial percussion marks on this hard rock attest to transport in high-velocity turbulent flow. The closest source for bedded quartzites is in central Idaho.*

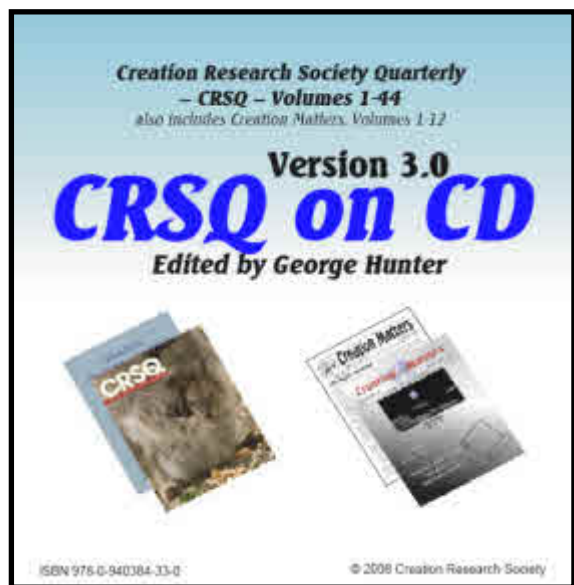
The second diagnostic feature is much more significant, and most geologists would almost automatically consider it proof of an ancient ice age. This is a striated rock surface below the “tillite,” also called a striated pavement. The one below the Black Butte “tillite” was broken up when the whole area slid, but the surface is very distinctive (Figure 2). Two sets of striations in slightly different directions are found on the pavement, as well as chattermarks, both

of which supposedly should reinforce the evidence for glaciation. I believe Mann is correct that the Black Butte “tillite” is really a debris flow, which means that debris flows can duplicate striated pavements (Oard, 1997, pp. 49–56).

Since mass flow can duplicate the above diagnostic features, as well as the third diagnostic feature and minor diagnostic features, it is evident that mass flow can duplicate all ancient glacial diagnostic features (Oard, 1997). Some of these supposed ice-age deposits cover large areas, but landsliding during the Flood can account for

the size of the deposit, as well as the supposed diagnostic features. Landsliding should be relatively common during the Flood, due to rapid sedimentation, massive tectonics, massive earthquake shaking, etc. (Oard, 1997, pp. 101–108).

The particular deposit on top of the Gravelly Mountains contains a large proportion of well-rounded quartzite cobbles and boulders (Figure 3), as well as rounded boulders of other lithologies. Some of these



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hard quartzite boulders are pockmarked with percussion marks (Figure 3) — a sign of very high-speed turbulence. So, this deposit on top of the Gravelly Mountains is just one of many such deposits spread long distances from their source, located in the northwestern Rocky Mountains (Oard, Hergenrather, and Klevberg, 2005; 2006a; 2006b; 2007).

These quartzites have been spread over 600 to 800 miles (960 to 1,300 km) east into central Saskatchewan and southwest Manitoba, and about 400 miles (650 km) west of their source, to the Pacific Ocean. The quartzite cobbles and boulders represent powerful evidence for the runoff of the floodwater from the rising landscape of the western United States during the Retreating Stage of the Flood (Walker, 1994; Oard, 2008). The long-distance spread of the quartzites during erosion of the Rocky Mountains is dated by uniformitarian geologists to have occurred during the mid- and late-Cenozoic and even the early Pleistocene, strongly suggesting that the Flood/post-Flood boundary is in the very late Cenozoic.

## Lesson learned

The challenge of ancient ice ages, as exemplified by the defunct Eocene “ice age” in the western United States, evaporates on further analysis. The uniformitarian paradigm itself has many problems explaining these rocks and their unique features, which more easily fit into the events of the Genesis Flood. This is an example of creation research in geology that, with patience, shows us how we can approach other challenges in geology.

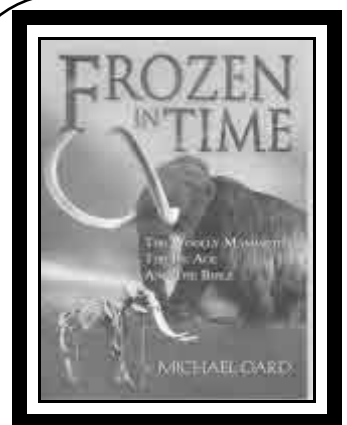
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Michael Oard earned his M.S. degree in Atmospheric Science from the University of Washington. He retired after 30 years as a professional meteorologist with the National Weather Service. He has published numerous articles in creationist periodicals and has authored or co-authored several creationist books.



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# Math Matters

by  
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## Can animals count?

**M**uch research has attempted to show inherited similarities between animals and people. Investigations include animal language, communication, identification of symbols, use of tools, and counting. The findings show very limited animal ability in each area. It is clear that humanity is on a distinctly higher level than that of animals. We are created in God's image, and are in fact responsible to manage and care for the animal world (Gen. 1:28). The following research examples show interesting, elementary capabilities of animals to recognize numbers.

If a nest contains four eggs, then one may safely be taken away. But if two eggs are removed, the parent bird generally deserts the nest. The parent apparently can distinguish between two and four (Conant, 1956). A similar counting of eggs has been noticed in the wild for the American coot, an aquatic bird (Lyon, 2003).

A certain crow would not approach a feeder if it knew an unseen person stood under a nearby shelter. To test the logic

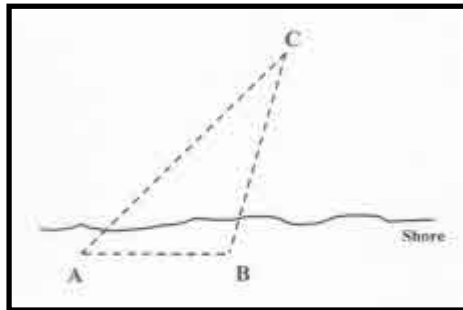


Figure 1. A ball is tossed into the water along the path A-C. The dog retrieves the ball by following the path A-B-C. The dog runs from A to B, then swims from B to C, minimizing the total retrieval time.

ability of the crow, three people entered the shelter and two then left. The crow still would not approach. Only when five people entered and three or four left was the crow then confused. It apparently could not count beyond three or four (Conant, 1956).

A captive female mink was observed feeding her litter of five babies. Each day a scoop of ground meat was laid out by the zookeeper. The mother mink would fashion five small meat patties for her offspring. She never made four or six patties, but

always five, apparently knowing the number of her offspring (Eves, 1988).

Interesting behavior was noticed for a dog which retrieved a ball tossed into a lake (Pennings, 2003). The dog's route to the floating ball combined a run along the beach and then a diagonal swim into the water to fetch the ball. The swimming portion of the travel was considerably slower than the running portion. Repetition of the exercise showed that the dog chose the route which brought it to the ball in the shortest possible time (Figure 5). The exact calculation of this optimum time is a minimization problem involving calculus. The dog's instinct apparently guided its choice of combined running and swimming routes to retrieve the ball in the least time.

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## Speaking of Science ...continued from page 5

neurons in the brain. They have been relegated to junky roles like scaffolding. Not any more: *ScienceDaily* reported that "Without glial cells, animals lose their senses." It appears that glial cells pull the strings behind the scenes like a skilled marionette artist. This effect is even seen in little bitty roundworms. Subjects without glia lost the ability to maintain their shape, respond to odors and absorb certain dyes. "The results were striking," when glial cells were removed from a worm's amphid, a sensory organ containing glia and neurons. "The absence of glia affected at least one of these three properties in each of the neurons, suggesting that glia not only regulate all of these properties but that they specifically regulate them in different neurons."

Not all body parts are essential for survival. Humans could probably get by without fingernails or color vision. It was once popular to list all the apparently nonfunctional structures in the human body as useless leftovers of our evolutionary past. The list has dropped to near zero today, though some evolutionists continue the tradition. But if a structure proves to have a purpose, even a small one, at any stage in life, the reason for calling it "junk" evaporates. [We probably all have some junk we can safely dispose of, though: excess body fat.]

Hang on to your stuff they're calling junk – some day they may change their minds and call it good stuff. The default position in biology should be that if it's there, it's needed. That position fits perfectly well with intelligent design. Considering that evolutionists once thought your pituitary gland, coccyx and tonsils were vestigial organs, their position can be considered dangerous. Their latest entries in the evolutionary junk bin, glia and non-coding DNA, have now been relabeled as functional. ID has had a steady winning streak in this game. Wiggle your ears if you agree.

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2. Rockefeller University. 2008. Without glial cells, animals lose their senses. *ScienceDaily* (7 November). [www.sciencedaily.com/releases/2008/10/081030144624.htm](http://www.sciencedaily.com/releases/2008/10/081030144624.htm)

## Fly Swiftly

**T**he common swift is being eyed by aircraft engineers who want to go fast, high, and green. *ScienceDaily* says these engineers are "inspired by nature."<sup>1</sup>

Calling *Apus apus* a common "swift" is like calling an orange an orange. They are swift! These incredible birds dart about effortlessly and spend their lives almost always on the wing. They eat, sleep, and even mate in the air, the females only clinging to their cliff-side nests to lay and nurture their eggs.



Shaker Meguid (U of Toronto) is particularly impressed by the rapid wing-morphing ability of the swift, which allows it to adapt the wing shape for the need of the moment: soaring, turning, diving, or hovering. Could airplane wings do this? Currently, aircraft are limited to clumsy ailerons and flaps. Meguid's team is using shape-memory materials with actuators on a tetrahedral-truss plan with spherical freely-rotating joints.

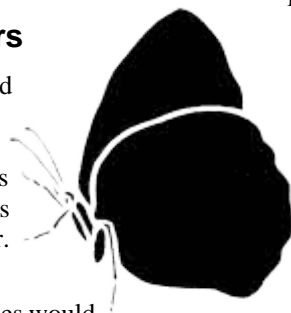
If the morphing wings work, they could provide seamless wing shape modification in flight. Benefits include better performance, maneuverability, lower cost, reduced pollution, and quieter take-offs.

"Design and build" is the motto of this engineering team. This story has intelligent design written all over it. The word *evolution* played no part in the research — unless, of course, you add the letters "Design R-" in front of it.

1. University of Toronto. 2008. Bio-inspired wing design to revolutionize aircraft flight. *ScienceDaily* (3 December). [www.sciencedaily.com/releases/2008/11/081130210531.htm](http://www.sciencedaily.com/releases/2008/11/081130210531.htm)

## Evolutionary Mutualism Flutters

A story on *ScienceDaily* is decorated with a butterfly collection.<sup>1</sup> Amazonian butterflies studied by an international team were chosen to test Darwin's theory of mutualism — a kind of symbiosis in which two species benefit one another. The test yielded a surprise.



The idea going in was that sister species would evolve apart so as to minimize competition for scarce resources. The work showed a surprise, however: "The work shows that some species of butterfly that live alongside one another have evolved in ways that, surprisingly, benefit both species." One would think they would separate or else compete.

However, this is not always the case. The researchers show that butterfly **species that have evolved similar wing patterns** — which act as a warning to predators that they are poisonous — are often **not evolutionarily close** to each other. Thus the similarity is **not due to shared ancestry but is an evolutionary adaptation**. The similar pattern **benefits both species**, as predators will only need to learn once to avoid the signal — 'learn,' in this context, being a euphemism for eating a poisonous butterfly.

Some of the unrelated species share the same habitat and fly at the same height, for example. Instead of competing, they share the benefits of similar looks, the article said. "The new paper shows that **issues other than pure competition**, such as protection from predators, **can play an important role in evolution**." The scientists expected that the mimicry would pay benefits to the tasty species, but did not expect that both species would live alongside each other.

One can look at this story as a success for Darwin or a defeat for Darwin. It provided an evolutionary explanation for an observation, but then again, it surprised the scientists. That is why Darwin's theory is so successful. His idea allows for any data, even data opposite what was expected, to score points for the theory.

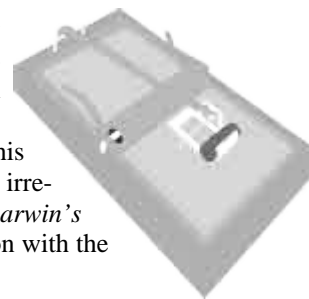
The finding seems very un-Darwinian. What happened to survival of the fittest? Are they saying that two unrelated species

in the same niche are equally fit? What would Malthus think? The scientists also failed to explain exactly how two unrelated species converged on the same patterns and behaviors. Given such a bad track record, we won't assume they know what relatedness means.

1. Public Library of Science. 2008. Mutualism by natural selection: Imitation is not just flattery for Amazon butterfly species. *ScienceDaily* (8 December) 2008. [www.sciencedaily.com/releases/2008/12/081201233452.htm](http://www.sciencedaily.com/releases/2008/12/081201233452.htm)

## Nature Plagiarizes Behe's Mousetrap

The prevention of genomic instability — and cancer — can be attributed to a "complex mousetrap" mechanism, said Robert M. Brosh, Jr. (Laboratory of Molecular Gerontology, NIH) in *Nature*.<sup>1</sup> This not-so-subtle reference to Michael Behe's irreducibly complex system described in *Darwin's Black Box* even has a mousetrap illustration with the following caption:



The BLM protein complex consists of **several components, much like a mousetrap**. With **all the parts properly assembled**, the mousetrap will **operate efficiently** and **catch the mouse**. In this case, a DNA structure called a double Holliday junction is caught in the BLM complex. Xu *et al.* and Singh *et al.* report the discovery of a component of this complex, RMI2, which **stabilizes and orchestrates the action** of the BLM complex, **ensuring resolution** of the double Holliday junction, and so promoting chromosomal stability.

Later in the text, he continues the analogy:

As for the **significance** of RMI2 to the **BLM complex**, for **analogy** let's imagine a mousetrap. It contains **several components, including a spring, a platform, a hammer, a hold-down bar and a catch**. **Omit certain components of the trap, and the device may still operate, albeit less efficiently**. With all of the components in place — including those with primarily structural roles such as the hold-down bar and the platform — the trap is **most likely to catch the mouse**. Returning to the BLM complex: through its interaction with RMI1, RMI2 allows the 'BLM-Topo-3alpha device' to assume optimal stability and configuration so that it can efficiently catalyse the splitting of the double Holliday junction, and so prevent the escape of deleterious DNA structures that would lead to crossovers .... RMI2 therefore seems to have **an integral structural role** in the BLM-Topo-3alpha device by orchestrating its action.

An easily missed reference after the phrase "and a catch" leads to a website that appears to refute Behe's concept of irreducible complexity, showing that a "reducibly complex" mousetrap can still function.<sup>2</sup> No mention was made of Behe's counter-refutation,<sup>3</sup> which graciously ends:

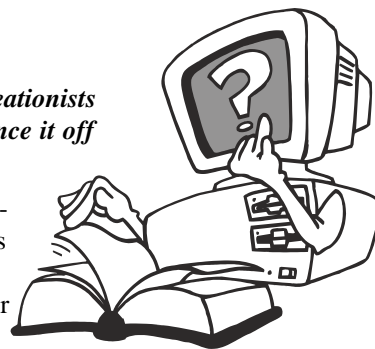
**Darwinian scenarios**, either for building mousetraps or biochemical systems, are **very easy to believe if we aren't willing or able to scrutinize the smallest details**, or to **ask for experimental evidence**. They invite us to admire the intelligence of natural selection. But **the intelligence we are admiring is our own**."

For Brosh to employ this well-known analogy for his own purposes, without giving credit to Behe, and then to slap Behe's face with a link to a flawed refutation of Behe's concept without

# What Are Creationists Thinking about ...?

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giving him a chance to respond, is disgustingly irresponsible. You would think the world's leading science journal would demand proper citation. What happened to academic ethics?

Mousetraps are common, but Behe's use of a mousetrap as a symbol of an irreducibly complex system in the cell is so well-known throughout the biological community, Brosh cannot argue that each writer has equal access to the common household item for illustrative purposes. It's interesting that his link to the attempted refutation paper is a non-descriptive URL to the site, with no indication it leads to a refutation of Behe. Twinge of conscience, perhaps? The Behe article shows that Behe has the last laugh. So should you, noting that Brosh did not even attempt to explain how the BLM complex arose by an evolutionary process.

1. Brosh, Jr., R.M. 2008. Molecular biology: The Bloom's complex mousetrap. *Nature* 456:453–454 (doi:10.1038/456453a; Published online 26 November).
2. McDonald, J.H. 2002. *A Reducibly Complex Mousetrap*. <http://udel.edu/~mcdonald/mousetrap.html> (accessed 20 Dec 2008)
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## Another Attempt to Explain Life's Handedness

Life uses only single-handed (homochiral) molecules for proteins and DNA. How that came about when mixtures of life's building blocks contain equal amounts of both hands is a puzzle that confounds origin-of-life research. *ScienceDaily* reported on new studies at the Argonne National Laboratory that show that molecules in space on a magnetic substrate exposed to X-rays can lead to an excess of one hand over the other.<sup>1</sup>

The article did not say how large the excess is, or whether it persists as the molecules land on earth. It did state several times that this has been a big puzzle:

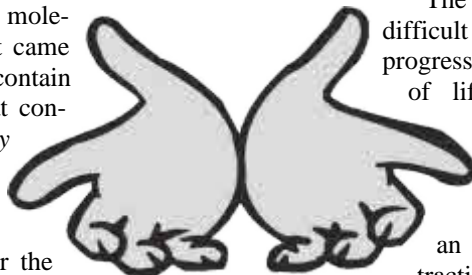
“Understanding how the molecules necessary for life originated is one of the most basic scientific questions in biochemistry,” Argonne chemist Richard Rosenberg said. “**Chirality plays a fundamental role in biological processes** and researchers have been **trying to discover the mechanisms that led to this property for years.**”

If “pre-biological molecules” on an iron meteorite were subjected to X-radiation, the spin polarization of secondary electrons on the substrate, interacting with molecules like amino acids adsorbed onto the substrate, might lead to an excess of one hand over the

other, he explained.

Still, *ScienceDaily* admitted that “The inception of chirality from the elementary building blocks of matter is **one of the great mysteries of the origin of life.**” The best that origin-of-life researchers have been able to come up with is a slight excess of one hand over the other.

Biology uses 100% pure one-handed building blocks: right-handed sugars in DNA and RNA, and left-handed amino acids in proteins. (The “hand” convention is purely a human rule about 3-D orientation of side groups on these molecules in geometric space.) The two hands have equal probability of formation. That is why natural mixtures contain equal amounts of each hand, and why biology stands out as the amazing exception. There is no known natural mechanism to isolate one hand from the other without intelligent design. A slight excess, usually a few percent, is not going to help, because one wrong-handed molecule on a chain ruins the chain. In addition, there is no guarantee that the slight excess, if any, achieved under special conditions in space, will be preserved and concentrated if the molecules survive entry through earth's atmosphere. More likely, they will racemize (i.e., randomize again into a 50-50 mixture).



The article should be more honest about how difficult this problem is and not make it seem like progress has been made at understanding the origin of life. “Possible mechanism for creating ‘handedness’ in biological molecules” is the misleading title. Are they kidding? This is not even close enough to win at horse-shoes. Showing a picture of a man operating an X-ray photoelectron spectrometer is a distraction. He's got all one-handed molecules inside him. The machine doesn't. He may be touching it, but there's a huge gap between his hand and the machine, except that both show evidence of intelligent design.

The handedness of biological molecules is only a mystery for those who make it so by insisting on an arbitrary rule that excludes intelligent causes. Arbitrary rules are made by fallible humans. You'll notice that the man is operating the machine, and not vice versa. And which object is asking the questions?

1. DOE/Argonne National Laboratory. 2008. Possible mechanism for creating “handedness” in biological molecules. *ScienceDaily* (2 December). [www.sciencedaily.com/releases/2008/12/081201144735.htm](http://www.sciencedaily.com/releases/2008/12/081201144735.htm)



November / December 2008  
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## All by Design

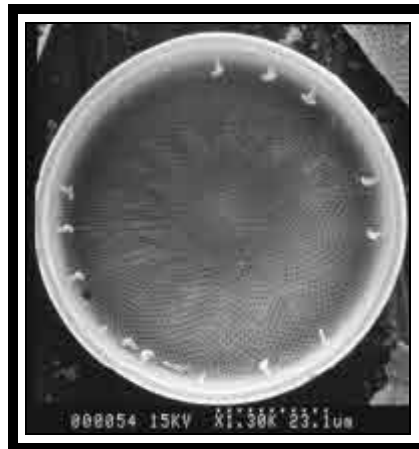
by Jonathan C. O'Quinn, D.P.M., M.S.

## Not So Simple, Is It?

**E**volutionary thinking tends to regard one-celled organisms as primitive when compared with multi-cellular organisms. However, there is a wisdom present even in the simplest-appearing life forms that suggests a purposeful design.

Scanning electron microscopic (SEM) and optical studies on the one-celled marine diatom, *Coscinodiscus walesii*, demonstrate an amazing function of the cell wall of these “primitive” algae.<sup>1,2</sup> The cell wall of this diatom is studded with multiple, circular, silica-based valves known as areolae. The valves are themselves perforated by hundreds of much smaller holes, perfectly arranged in a repeating hexagonal pattern, similar to the chambers within a honeycomb. Lying just beneath this layer of areolae is a silica-based plate made up of a fine lattice of even smaller holes.

The interesting thing about these complex structures is that they spread, or diffract, light very strongly. You may ask, “Well, so what?” Consider the fact that diatoms are photosynthetic organisms, and you will see the beauty of this complex biological system.



*Fossil centric diatom from the Lompoc, CA deposits. SEM image taken by Mark Armitage at the CRS VACRC.*

Diatoms convert light energy into energy needed for survival and reproduction. The protoplasm of these algae contains chloroplasts, which process light energy from the sun. Depending upon the spatial orientation of diatoms in water, some chloroplasts may be disadvantaged relative to others and, there-

fore, less effective at harnessing energy from sunlight. However, the unique structure and exact arrangement of the valves in the cell wall allow for a much more even spread of light through the diatom cell, regardless of the diatom's position, allowing these amazing organisms to efficiently process energy from the sun.

The reader is referred to a recent *CRSQ* article for more SEM images of diatoms and a discussion of their exquisite detail.<sup>3</sup>

### References:

1. De Stefano, L., I. Rea, I. Rendina, et al. 2007. Lensless light focusing with the centric marine diatom *Coscinodiscus walesii*. *Optics Express* 15:18082; DOI:10.1364/OE.15.018082
2. De Stefano, L., I. Rea, M. Stefano, et al. 2005. Marine diatoms as optical chemical sensors. *Appl. Phys. Lett.* 87:233902; DOI:10.1063/1.2140087
3. Armitage, M. 2007. The pillars of evolution are crushed by microscopic things. *Creation Research Society Quarterly* 43(4):252.