Creation Matters

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Pioneer Naturalists

by Don B. DeYoung, Ph.D.

Introduction. This article continues our series on creationist personalities from the past. The term "creationist" is used here in its broadest sense in that the following naturalists represent a wide theological spectrum. The point is that they recognized their Creator and honored him through their work. These individuals were chosen because they have received little creationist publicity. Clearly, they demonstrate that a creation view of the world is not poor science, but instead leads to excellence. Thorough biographical studies of these naturalists would be rewarding projects.

Edgar Anderson (1897-1969) excelled in plant genetics. Two of his books were *Introgressive Hybridization* (1949) and *Plants, Man and Life* (1952), the latter book still popular. Living in Missouri, Anderson became a leading investigator of hybridization as a source of variation within plant species. He introduced many new and improved plants to the midwest states from the Balkan countries, after realizing the similarity of the geographic climates. Anderson displayed a lifelong Christian faith and a strong desire to serve humanity. In later life he became a member of the Quaker Church.

Saint Francis of Assisi (ca. 1181-1226) is known as the first ecologist. He spent many years in the Italian countryside studying the details of the Creation. Saint Francis wrote many poems and hymns of praise about the outdoors

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Opinion

The Intelligent Design Movement

by Helen (Penny) Fryman

The Intelligent Design (ID) movement is coming under criticism, if not actual attack, from two different sources: young earth creationists and evolutionists. Each side is accusing it of either aiding and abetting the other, or of actually being identified with the other. Neither criticism, however, is accurate.

Experience and logic

The concept of ID is actually a product of experience and logic. Every human being learns to recognize design from babyhood. Sounds are designed to convey meaning, and the baby learns language. Marks on a page are designed to convey meaning, and the young child learns to read. It is readily apparent to both the baby learning to speak and the child learning to read that some sounds and some marks are random

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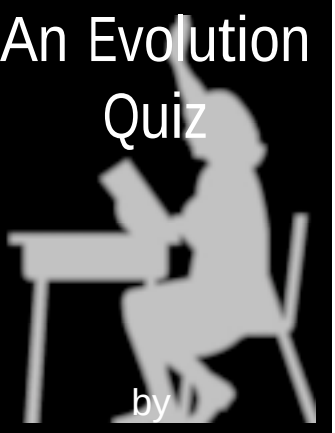
An Evolution Quiz



by David Sack, M.S.

Quite often when evolutionists and creationists talk there is a plasticity involved and *ad hoc* explanations abound. For example a young-universe creationist, when asked to explain distant starlight, might proffer as an explanation the "mature universe," the "decaying speed of light," or "Humphrey's relativity." When an evolutionist is asked to explain the stasis and abrupt change which govern the fossil record, he might suggest the "punctuated equilibrium," "saltationist," or "migrational" explanation.

Yet an honest creationist would certainly have to admit that if the furthest star were only a few thousand light years away, he would not argue with the data. And an evolutionist

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which are still instructive today, eight centuries later. The well-known hymn *All Creatures of Our God and King* contains the words and testimony of St. Francis. Verse five reads:

> Let all things their Creator bless,
> And worship Him in humbleness.
> Praise the Father, praise the Son,
> And praise the Spirit, three in one.

A theologian as well as a pioneer naturalist, St. Francis founded the Franciscan religious order in 1209 A.D.

Henry Baker (1698-1774) was a British naturalist with many scientific interests. His two books about microscope studies went through many editions. Baker did original investigations of microscopic crystal forms. He regarded scientific instruments as a means to a deeper appreciation of God's creation. Baker wrote, "Microscopes furnish us as it were with a new sense, unfold the amazing operations of Nature, [and give us a deeper sense of] the infinite Power, Wisdom, and Goodness of Nature's Almighty Parent." Microscopes and telescopes have indeed greatly expanded our view of the Creation.

John Hutton Balfour (1808-1884) was a British physician with an interest in botanical studies. He became director of the Royal Botanical Gardens in London and also was professor of botany at Glasgow University. Balfour was an outstanding teacher who authored several popular botany texts. A deeply religious Presbyterian, he saw in nature the confirmation of God's existence. Significant books he authored include *Plants of the Bible* (1857) and *Lessons From Bible Plants* (1870).

John Bartram (1699-1777) is known as the father of American botany. He was born in Pennsylvania and did early plant classification throughout the American colonies. A friend of Benjamin Franklin, Bartram was the first to hybridize or interbreed flowering plants. He explored the eastern American wilderness from Florida to Canada. His entire life was spent as a Quaker with a strong Christian faith in his Creator.

Stephen Hales (1677-1761) was both a botanist and an Anglican clergyman.

He became a leading English scientist of the mid-eighteenth century, and pioneered experiments in plant and animal physiology. As one example, Hales explored transpiration by carefully measuring the amount of water vapor given off by plant leaves. He firmly believed in God's control of nature's details, and this faith was the foundation for his scientific studies. Hales wrote, "The farther researches we make into this admirable scene of things, the more beauty and harmony we see in them . . . and the stronger and clearer convictions they give us, of the being, power and wisdom of the divine Architect." Throughout Hales' scientific career he preached the gospel weekly. In his own words, he believed that nature testified to the Creator "in framing for us so beautiful and well regulated a world."

David Hartley (1705-1757), the son of a poor Anglican clergyman, adopted the faith of his father and also studied medicine. His book,*Observations on Man, His Frame, His Duty, and His Expectations* (1749), was the first published work in English to use the word "psychology" in its modern sense. He wrote that man could discover order in nature chiefly because the human mind reflected the wisdom of God. Hartley was a mentor and Christian example to the chemist Joseph Priestley (1733-1804). Priestley also was a strong creationist.

John Stevens Henslow (1796-1861) was professor of botany and mineralogy at the University of Cambridge in England. His enthusiasm for teaching botany made it one of the most popular subjects at Cambridge. Henslow was also a devout Christian and Anglican clergyman. One of Henslow's favorite students was Charles Darwin. Darwin learned much about nature from Henslow, but rejected Henslow's faith. When Darwin's *Origin of Species* was published in 1857, Henslow graciously expressed his opposition to the book: "Darwin attempts more than is granted to man, just as people used to account for the origin of evil — a question past finding out."

Antonie van Leeuwenhoek (1632-1723) was a Dutch scientist who spent years designing and building microscopes. With no formal training, he was able to magnify images as much as 500 times, an achievement unsurpassed until the 1800s. He wrote, "In the year 1675 I discovered living creatures in rainwater, which had stood a few days in a new earthen pot." Leeuwenhoek's discovery of bacteria and spermatozoa were described in a published letter which he titled "Observations... concerning Little Animals." He dedicated much of his life to proving that the spontaneous origin of life was impossible. Leeuwenhoek held a solid Dutch Reformed faith. His writings often refer to the wonder of God's design in creating creatures, both small and large. Leeuwenhoek's microscope has indeed shown us the beautiful, complex details of nature on the smallest scale.

Pierre Lyonnet (1706-1789) was born in the Netherlands. A pioneer entomologist, he wrote an entire book about caterpillars, with beautiful illustrations which are classics today. Believing strongly in creation, Lyonnet debated those who promoted a spontaneous generation of life. He saw the chief duty of scientists as decoders of the mysteries of nature. He believed that the more the natural world was explored, the greater should be our reverence for the Designer. In Lyonnet's view, scientific exploration was one of the most worthwhile tasks for mankind to undertake.

George Mivart (1827-1900) was an English biologist and also a devout Catholic. His comprehensive text on the anatomy of the cat, 557 pages long, guided generations of students. Mivart struggled to combine creation and evolution. He believed that God had infused a soul into ape-like creatures. Mivart's views were expressed in *On the Genesis of Species* (1871) and *Man and Apes* (1873). This position today is called theistic evolution. Although quite popular, theistic evolution is neither supported by scripture nor scientific data. Even with this limited acceptance of God's work in nature, Mivart was attacked by Charles Darwin for his "religious bigotry." As is often the case, compromise positions are not satisfactory to either side.

Jan Swammerdam (1637-1680) carried out lifelong studies of insects found in Europe. He believed that they were part of the original creation, no less perfect or complex than the "higher" animals. A book he wrote in 1675 about the mayfly includes an extended hymn of praise to the Creator. Swammerdam opposed the spontaneous generation ideas which already were popular in his day. He had seen firsthand the complexity of life, including insects. He was also the first scientist to study and describe red blood cells in his *Bible of Nature* in 1658. Some biographers call Swammerdam a religious mystic. However, he clearly saw the world and its life as established supernaturally by God.

Friedrich von Huene (1875-1969) was a German paleontologist who produced hundreds of publications. A century ago he did pioneer work on dinosaur fossils in Patagonia, Argentina. Huene was a major proponent of the division of the Dinosauria family into *Saurischia* and *Ornithischia*. These are, respectively, the "lizard-hipped" and "bird-hipped" varieties, the same classifications used today. The son of a Lutheran pastor, von Huene was a deeply religious man. He wrote that his research showed the intricacies of divine creation to those with eyes to see.

Johann Andreas Wagner (1797-1861), an early German paleontologist, published numerous works concerning the fossils of fish and reptiles found in Germany. Wagner was a profound believer in biblical creation. When the famous Archaeopteryx fossil was reported in 1861, the final year of his life, Wagner argued against its being a transition between lizards and birds. Instead, archaeopteryx looks very much like a modern bird. The debate over Archaeopteryx still continues, nearly 150 years later.

Izaak Walton (1593-1683) is a household name to those who are serious about fishing. Walton's book *The Compleat Angler* (1653) shows his competence as a zoologist. Both his Anglican faith and natural history are integrated in his book. Walton was a writer and apologist for the conservative Christian view held by the early Anglican Church.

Albert Julius Wilhelm Wigland (1821-1886) was a German professor, writer, and botanist. As a plant physiologist, he was a pioneer in microscopic staining techniques. Wigland actively opposed Charles Darwin's evolutionary ideas. He used scientific data from his microscope to promote biblical creation.

Francis Willughby (1635-1672) was a zoologist and a charter member of the Royal Society of London. He was greatly influenced by the creationist professor John Ray at Trinity College in Cambridge. Willughby cataloged many plant and animal specimens, but he thought that his writings were unworthy of publication. His friend John Ray counseled him that published natural history writings were needed as a means of glorifying God. Several books by Willughby followed, some of them after his death. His systematic studies of birds and fish paved the way for modern classification systems.

For references, contact the author by email at DBDeYoung@grace.edu, or write in care of the CRS.

Notices

Erratum

In the previous issue (Vol. 5, No. 1) author Gary Johnston was listed with a Ph.D. This was incorrect. Gary's degree should have been listed as M.Ed. We apologize for the error.

CRS Membership Renewals

With the mailing of the March issue of the *Creation Research Society Quarterly*, the 1999 / 2000 membership / subscription year has come to a close.

Renewal notices have been sent to all members in the United States whose memberships have expired. During May, notices will be sent to those with expired memberships in other countries.

Renewing promptly will save the CRS additional postage and personnel expenses, and will assure that you receive your next issue on time.

Life Member Special

From now until August 1, 2000, you can **become a card-carrying creationist at $50 off the regular rate**. You can become a life member of the Creation Research Society (and never have to worry about renewals again) for the low price of $300. You will receive a membership card.

Become a life member of the CRS, receive the *CRS Quarterly* and *Creation Matters* for the rest of your life ... this is surely the best value in all creation.

Intelligent Design

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and some have meaning. Later in life the sight of a car, a dress, or a building is at no time associated with randomness, but rather with design. The more complex the design (having more different parts with more interactions between them), the more intelligence is attributed to it.

The concept behind the ID movement, then, is to take our experience about ourselves and check it against the world and universe we live in. This takes place quite apart from any theological or philosophical viewpoint. The sticking point is that if ID can be seen in the natural world, a theological and philosophical conclusion cannot be avoided. Because the ID movement does not allow itself to be pushed to any conclusion, it comes under fire from the creation community as being compromising and untruthful — or at least not willing to stand by the truth. And because the ID concept does lead inexorably to the conclusion of an Intelligent Designer, the evolution community accuses the proponents of ID of being creationists. This last point was more than amply demonstrated last summer by the knee-jerk reaction of the evolution community to the decision by the Kansas Board of Education regarding testing standards.

When one looks at the variety of people involved in the ID movement, it is easy to see that the ID umbrella covers a wide variety of views and philosophies, Christian and non-Christian. Men like Phillip Johnson, Lee Spetner, Michael Behe, Michael Denton, William Dembski, Jonathan Wells, and Paul Nelson — some of the better-known proponents of ID — have come together with one main purpose: to demonstrate logically and scientifically that evolution, either in totality or in part, is an idea without a foundation in fact, and that the natural world does indeed proclaim itself to be intelligently designed. Thus, the ID group does not pretend to include a religious agenda, although there are some committed young-earth creationists involved.

The Wedge

Instead, the point of impact on the world of science and education as well as the world of public consciousness is intended to be made through the "Wedge." The purpose of the Wedge is to drive one through the evolutionary 'megaphilosophy' which today dominates education, science, and even entertainment. Appeal is made to experience, logic, and empirical data rather than to any preconception or belief system. The goal is to get people to think — to break away from automatically accepting a rotting paradigm, and to start noticing that what they see in their everyday lives is radically against what they have been taught to believe.

The goal is to get people to think — to break away from automatically accepting a rotting paradigm, and to start noticing that what they see in their everyday lives is radically against what they have been taught to believe.

As those Christians involved in the ID movement know, Christianity is a matter of the personal soul and Jesus. It is not a matter of joining or not joining a particular group. However, if people desire to know the truth, about ANYTHING, they are one step closer to wanting to know Jesus Christ.

Aiding the ID movement is a tremendous amount of science writing which uses the language of intelligent design. Richard Dawkins, in the opening chapter of *The Blind Watchmaker*, includes statements like "Complicated things, everywhere, deserve a very special kind of explanation"; "The difference is one of complexity of design"; and "Each one of us is a machine, like an airliner only much more complicated." (1)

To further illustrate this, in my January 13 issue of *Nature* I can find the following:

Biologists flock to 'evo-devo' in a quest to read the recipes of life — headline on p. 125. Notice the word 'recipes' — a recipe is something that is designed so that, when the directions are followed, a certain result is expected to happen.

Insects are the world's smallest and in many respects most perfect flying machines. Many can hover, fly slowly and maneuver with great precision... The insects show what can be achieved given a good power source, clever controls, superlative materials and 350 million years of research and development... (pp. 144-145)

Or consider the closing remarks made in an article on the brain on p.154: *As neuroscientists strive to understand the molecular and cellular events that occur in neurons, effective technologies and methodologies for experimentally investigating computational and cognitive principles of the brain are still in short supply.* In other words, a greater amount of intelligent design is needed to probe and attempt to understand the workings of a series of nerves which are declared, by evolution, to be not intelligently designed.

Thus does evolution imply intelligent design on the one hand, but then explicitly deny it on the other. And, when the ID group points this out, they make no friends among the evolutionists.

Intelligent design criteria

While one of the goals of the ID movement is to point out the implications of intelligent design which we see everywhere, another goal is to erect a scientific framework within which ID can be concluded. There is, of course, an intuitive way to determine intelligent design, and that is by seeing pattern, plan, and purpose working together. Experience tells us that this indicates something is de-

signed. But, because experience alone cannot be used scientifically, there are two other criteria for determining intelligent design.

1. *Specified complexity*. Mathematically, "complexity" can be determined by the degree of improbability involved in getting a certain result by chance. Physically, complexity can be determined by the number of different parts involved and the number of interrelationships among these parts. So both mathematically and physically we can quantitate complexity. "Specified" refers to a purpose for that complexity — i.e., the complexity exists in order to perform a specific function. Behe dealt with this concept extensively in his book Darwin's Black Box when he introduced the concept of irreducible complexity to molecular biology. "Specified complexity," then, can be tested objectively and can thus be a good indicator of intelligent design.

2. *Dembski's filter*. In Dembski's own words, "roughly speaking the filter asks three questions and in the following order:

1) Does a law explain it?
2) Does chance explain it?
3) Does design explain it?" (2)

In other words, if a known law explains the object of study, then although the law itself may be argued to be the result of intelligent design, the object itself cannot be presumed to be. If a known law does not explain what is being studied, then chance must be considered. Chance is another word for probability, and this is mathematically discernible. If the object or phenomenon being considered does not appear to be the product of a known law, and probability precludes its happening by chance, then one can seriously consider ID as the remaining option.

Building the road

It can be seen, then, that the ID movement is devoid of theological presuppositions. This is important for both creationists and evolutionists to understand. ID is concerned with showing that evolution (mutations and natural selection acting over time and aided by chance) is scientifically and mathematically impossible. In that sense, ID proponents are blasting away at the mountain, but they will not build the road. It is up to Biblical creationists to build where the mountain has been cleared, before someone else builds there. ID offers creationists a cleared path and a general, but inescapable, implied conclusion — an Intelligent Designer. Creationists need to direct the path to the foot of the cross, and pave it carefully, weeding out all questionable "evidences" which can give the evolutionists such wonderful ammunition. The path must be paved with the sort of evidence that shows anyone walking on it that the God of the Bible can be trusted implicitly to not only tell the truth to us, but to communicate it clearly and precisely in the Bible, from beginning to end, including Genesis.

References

1. Richard Dawkins, *The Blind Watchmaker* (W.W. Norton & Company, New York, 1996) pp 1-3.
2. William Dembski, "Redesigning Science" as presented at the 1996 Mere Creation conference.

Helen Fryman is a retired teacher, mother of six, and grandmother of three who has been active in creation science on the Internet and in writing and editing for several years.

Quiz

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would have to admit that if the fossil record were gradualistic and was replete with a multitude of transitions, he would not argue with the data. When historical data are to be interpreted, each side will give an explanation which fits its philosophical/religious commitment: Creationists are committed to the Creator in Genesis 1, and evolutionists are committed to explaining all science using only materialist causes.

So the discussion can be very frustrating — like trying to catch a greased pig. It is because of this frustration that I have developed a list of "quiz" questions whose answers do not depend on an historical interpretation of data, but rather on known and documented facts. I tried to pick current issues (no mention of Piltdown Man or faked embryological drawings), as well as examples that evolutionists hold up as their "crown jewels" (no straw men). I challenge any evolutionist who reads this to set me straight on any of these answers — or better yet, to come up with his 10 best "replacement facts" for the ones that are criticized here.

1. True or False: The 13 species of "Darwin's finches" are the result of a speciation event of about 1 million years ago when a foundling stock of South American finches adapted by evolutionary processes to the different environments on the different Galapagos islands.

False. We know that at least some of the finches interbreed, and perhaps all of them. This is documented extensively in the books by Peter and Rosemary Grant (*Ecology and Evolution of Darwin's Finches*, 1986, Princeton University Press) and Jonathan Weiner (*Beak of the Finch*, 1994, Vintage Press), and in many scientific journals. While studying 6 of the 13 finch varieties, the Grants noticed that all six were involved in some interbreeding. However they still refer to them as different species, as do almost all evolutionists.

No new genetic information has been introduced into Darwin's finches over time through mutations. This is confirmed both in Weiner's book and in an article by Jan Klein ("Phylogeny of Darwin's finches as revealed by mtDNA sequences," in the April 1999 issue of the *Proc. National Acad. of Sciences*), as well by clarification through personal correspondence with Jan Klein. In each of these cases it is made clear that the genetic differences are isolated nucleotides; in some cases 1 out of every 100 for a particular gene was different. In these cases the functionality of the gene did not change. No new genetic information was introduced. Yet in Weiner's book, p. 134, we read:

> "Darwin's finches are a classic model of speciation: again they figure in virtually all of the textbooks, very often as the central illustration. That is why these birds have become such a universal symbol of Darwin's process, so that their beaks now represent evolution the way Newton's apple represents gravity."

Why is this example still so highly revered when it is clear that no speciation, and thus no evolution, has occurred? This becomes more of a sociological riddle than a scientific one when such a position (holding Darwin's finches up as an exam-

ple of evolution) is taken by those who know that these finches actually interbreed.

2. True or False: Bacteria become resistant to antibiotics primarily because of their ability to mutate so quickly and derive new genetic information which helps the bacteria to fend off the antibiotics.

False. In the case of bacteria the resistance is gained in one of four ways:

1. Inheritance from parent
2. Plasmid transfer during reproduction
3. Genetic injection from other bacteria
4. Mutation which alters the DNA

The way that is least likely to be helpful is mutation. Mutations usually harm the organism, and ones that do provide for resistance are called "evolutionary cripples" by Novick ("Plasmids," *Scientific American*, December 1980). He states on p. 110 that "under natural conditions [the resistant mutants] rapidly die out." Yet evolutionists always list "mutations" first when describing the reasons for bacteria's antibiotic resistance.

Discouraged by this seeming dissonance, I scoured the literature seeking an expert. I asked Stuart B. Levy, faculty member at Tufts University School of Medicine in Boston, Massachusetts, how bacteria gained antibiotic resistance. His answer:

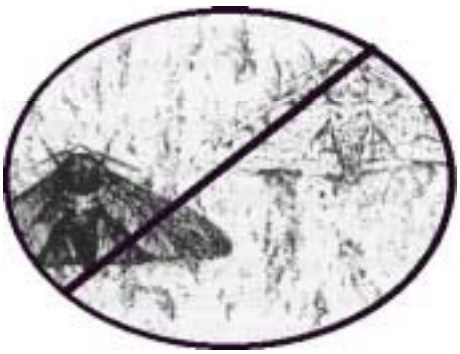
> "... if I looked over the cadre of antibiotic resistances as a group, I would say that the majority are acquired (plasmid or transposon mediated), and the minority would be chromosomal mutations."

In some instances mutations can assist bacteria in resisting antibiotics. However, such examples involve a loss of genetic information (Carl Wieland, "Superbugs — not super after all!," *Creation Ex Nihilo*, Dec-Feb 1997/1998). In fact, Lee Spetner shows in his book *Not By Chance* (1997, Judaica Press) that, both theoretically and experimentally, new genetic information is not produced by random mutations.

Additionally, bacteria frozen before the discovery of the medical use of antibiotics have been found to be resistant to these antibiotics. In fact Novick, an evolutionist, remarks in his *Scientific American* article cited above: "[Plasmids'] existence must predate the clinical applications of antibiotics by millions of years." This reinforces the concept that, regardless of whether one is an evolutionist or a creationist, the information to resist preceded the need to resist.

There is no observed evolution here, no observed increase in genetic information. Yet this example, perhaps more than any other, is cited as one of the best examples of evolution in action!

3. True or False: There is ample experimental evidence that the peppered moths of England are a classic example of natural selection in action (i.e, the light



colored moth on a polluted tree trunk was more easily visible to its predator and thus the darker colored moth was naturally selected).

The answer is false for a whole variety of reasons, all elucidated by Jonathan Wells in his article "Second Thoughts on Peppered Moths," (*The Scientist*, May 1999). Wells points out that in experiments over the years, these moths have been

1. pinned to tree trunks
2. glued to tree trunks
3. placed on tree trunks
4. released during the day near tree trunks on which they subsequently landed.

However, it is known that these moths almost never land on tree trunks during the day! In 25 years of research with peppered moths one scientist had seen moths land on tree trunks only twice. The moths usually alight in the higher branches of a tree, or at junctions of major branches, but not on the tree trunk itself (where lichens grow, providing the supposed camouflage). Whatever causes the change in ratio of light to dark peppered moths over time, it cannot be predation by birds seeking out the less camouflaged moths on tree trunks.

Yet the story remains a centerpiece in evolutionary lore. H.B. Kettlewell, who performed most of the classic experiments, claimed that if Darwin had seen this, he would have observed the culmination of his life's work. It is now clear that, although Kettlewell was a good scientist, others have since shown that his conclusions were flawed. As Wells noted in his article, this story should no longer be presented as a textbook example of evolution in action.

4. Which of the following is closest to the truth? The Kansas Board of Education adopted a policy which (A) prohibits the teaching of macro-evolutionary topics such as the Big Bang and the spontaneous origin of life; (B) requires students to learn about micro-evolutionary topics such as antibiotic and insecticide resistance, and other examples of natural selection; or (C) neither prohibits nor requires the teaching of evolutionary topics.

The answer is B. However, this is completely ignored in virtually every article condemning the Board's decision. (See http://www.ksbe.state.ks.us/outcomes/science_12799.html) This document specifically states that students will be required to learn biological evolution and natural selection.

5. True or False: There is undisputed fossil evidence of life formerly existing on Mars. (This lends credence to the theory of evolution since it suggests that the conditions necessary for life to come into existence are present on Mars and probably elsewhere in the universe.)

False. Here is a brief history of the Mars meteorite identified as ALH84001, which was found in Antarctica.

August 7, 1996*:* A NASA research team at the Johnson Space Center and at Stanford University reports that they have found evidence strongly suggesting that primitive life may have existed on Mars more than 3.6 billion years ago.

October 1996: *Scientific American* reports, in its article "Bugs in the Data" by

Gibbs and Powell: "So it is with understandable skepticism that scientists are greeting the bold assertions, made by David S. McKay of the National Aeronautics and Space Administration Johnson Space Center and eight colleagues, that the peculiar features they found in meteorite ALH84001 are best explained by the existence of primitive life on early Mars. Despite public enthusiasm about the conclusions, published in *Science*, many leading researchers who study meteorites and ancient life have weighed the evidence and found it unconvincing. 'There are nonbiological interpretations of McKay's data that are much more likely,' concludes Derek Sears, editor of the journal *Meteoritics and Planetary Science*."

August 4, 1998: ABC News reports: "Hundreds of scientists have poked, probed, crushed, dissolved and broken parts of the Mars rock known as Allen Hills 84001. So far, no one has found absolute, incontrovertible evidence that the potato-sized chunk ever contained life... John Bradley, a professor at Georgia Institute of Technology, [states]: "Early skepticism has evolved into international consensus that this rock does not contain Martian fossils. I do not know of a single other individual who believes it at this point."

November 20, 1998: Richard Kerr pens a *Science* magazine article on the subject. The title says it all: "Requiem for life on Mars? Support for Microbes Fades."

This brief history illustrates that today the NASA claims are almost universally rejected.

6. True or False: There is little, if any, dispute amongst evolutionary experts that Archaeopteryx is a reptile-bird transitional form.

False. There is great dissent in the scientific community about the status of *Archaeopteryx*. Many experts point to characteristics indicating that *Archaeopteryx* is not a missing link — but is simply a bird. Consider the following. In the article "Counting the Fingers of Birds and Dinosaurs", in *Science*, April 17, 1998, Ann Burke and Alan Feduccia pointed out that birds today develop digits II-III-IV on their wings, whereas fossil evidence strongly suggests that thereopod dinosaurs developed digits I-II-III on their feet. The best guess for the digits on *Archaeopteryx's* wing is II-III-IV. Almost certainly from this evidence, *Archaeopteryx* is a bird and could not have evolved from dinosaurs. In fact, Feduccia has bluntly stated that:

> "Paleontologists have tried to turn Archaeopteryx into an earth-bound, feathered dinosaur. But it's not. It is a bird, a perching bird. And no amount of 'paleobabble' is going to change that," (Alan Feduccia, "Early bird catches a can of worms," *Science*, February 5, 1993)

Other scientists have pointed to the avian features of the skull of *Archaeopteryx* as evidence that it was a bird. Regarding possible reptilian scales on *Archaeopteryx*, feather expert Alan Brush stated:

> "Paradoxically there is no fossil evidence for either scales or a horny bill in *Archaeopteryx*." (A.H. Brush, 1996. "On the origin of feathers, *Journal of Evolutionary Biology*, 9: 131-142)

Yet with all of this evidence pointing towards *Archaeopteryx* as a bird, it is shocking that textbooks and popular authors still portray it as a transitional form with incorrect drawings illustrating a head with scales and quotes like this one:

> "So there is much we do not know about *Archaeopteryx*, but there is also much we do know, and not to perceive its transitional nature is to be willfully blind to the obvious." (T. Berra, 1991. *The Myth of Creationism*, Stanford University Press)

7. True or False: The appendix is a vestigial organ which is evidence for evolution.

False. In the 1970's medical textbooks were beginning to suggest an imunological function for the appendix. Since it is disproportionately large during embryological development doctors have theorized that it is especially helpful at fighting infection in young children. By 1990, doctors were even more certain of its function.

> "The appendix lymphatic tissue is similar to that in the tonsils. Situated near the junction of the small intestine and the colon, the appendix appears to protect the intestines from infection in the cecum region where the colon begins." (J. Bergman and G. Howe, 1990. *"Vestigial Organs" are Fully Functional*, Creation Research Society, p. 44)

A recent medical book is much more emphatic about the function of the appendix.

> "Other bodily organs and tissues — the thymus, liver, spleen, appendix, bone marrow, and small collections of lymphatic tissue such as the tonsils in the throat and Peyer's patch in the small intestine — are also part of the lymphatic system. They too help the body fight infection." (1997. Section 16, Chapter 167, *The Merck Manual of Medical Information, Home Edition*, The Merck Publishing Group, Rahway, NJ)

Even with all of this evidence for a functional appendix, a recent encyclopedia article states:

> "The most familiar rudimentary organ in humans is the vermiform appendix. This wormlike structure attaches to a short section of intestine called the cecum, which is located at the point where the large and small intestines join. The human vermiform appendix is a functionless vestige of a fully developed organ present in other mammals." ("Evolution," *Encyclopaedia Britannica Online*, http://search.eb.com/bol/topic?eu=108619&sctn=11)

8. Feathers and scales are made from the same protein, and develop in very similar ways. (This statement, while not proof, at least purports to lend some credibility to the alleged evolution of birds from dinosaurs.)

False. Feather proteins and scale proteins are biochemically different, being, respectively, phi-keratins and alpha-keratins. Further, the DNA that codes for the formation of each is very different. According to A.H. Brush:

> "At the morphological level feathers are traditionally considered homologous with reptilian scales. However, in development, morphogenesis, gene structure, protein shape and sequence, and filament formation and structure, feathers are different." ("On the origin of feathers," Journal of Evolutionary Biology, 9: 131-142, 1996)

How different, you might ask? In the same article Brush stated: "Reptilian scales and feathers are related only by the fact that their origin is in epidermal tissue."

Nonetheless, many evolutionists claim a different story which can be found in older textbooks, namely, that scales and feathers are similar if not identical in protein structure and development.

9. True or False: As far as we can determine, giraffes have long necks because, during times of scarce vegetation, nature selected those giraffes with genes for longer necks (i.e., only those with the longest necks were able to reach the highest leaves and therefore had the best chance of surviving).

False. Two articles provide documentation: (1) Stephen Jay Gould, "The tallest tale," *Natural History*, May 1996, pp. 18-27; and (2) Simmons and Scheepers, "Winning by a neck: sexual selection in the evolution of giraffe," *The American Naturalist*, November 1996, pp. 771-786.

Gould's article illustrates that Darwin actually had very Lamarckian ideas about the neck of the giraffe, despite the textbook credo that Darwin overturned Lamarckian ideas. The second article shows that even the traditional neo-Darwinian story, as outlined in our quiz question, is absolutely false. The newly proposed answer is that the genes for longer necks are perpetuated in males because they have a greater chance of becoming dominant over other males, thus gaining access to females. The only problem with this new theory is... how did the female giraffes get long necks?

10. True or False: Given long periods of time, unexpected events can and probably will happen.

For example, it may seem highly unexpected for a perfect bridge hand to be dealt (each of 4 persons receives a complete suit of cards from a deck of 52), but it's only because we live such short lifetimes. In fact, if we could live billions of years, perfect bridge hands would be expected to occur from time to time.

False. By the way this is claimed to be true by Richard Dawkins in his book *The Blind Watchmaker* (1986, Norton and Company). But the odds against a perfect bridge hand are $2x10^{27}$ to 1 (I am using Dawkin's calculation here) while the number of seconds in 4.6 billion years is about $1x10^{17}$. Therefore, if a group of people played one bridge hand each second since the beginning of time (4.6 billion years ago), the odds would still be about 10 billion to 1 against a perfect bridge hand happening some time in their "lifetime."

Unlikely things do not necessarily happen even if given a long time. In a very similar way, one can show that the origin of the first living cell is a most unlikely event, and that even 4.6 billion years won't significantly increase the likelihood of its occurring.

David Sack, who has a Master's degree in mathematics / computer science, teaches mathematics at a community college.

Speaking of Science

Harmonious Hybrids?

Evolutionary researchers, continuing to seek explanations for phylogenetic fossil gaps, have found yet another apologetic. It seems that very big phenotypic changes are possible with very slight genetic changes. Different varieties and hybrids of Monkeyflower were bred and tested in the field. Pollinator reaction and bloom features were correlated. The most striking observation was the wide variety that could be seen within just two generations of the flowers. (See *Science News*, 16 October 1999, p. 244)

What the researchers didn't seem to realize was that, in an effort to track supposedly evolutionary processes, they were really tracking changes that clearly had nothing to do with the creation of new genes or new information. This was only a re-shuffling of the gene pool deck among the members of this population.

What a surprise to evolutionists, that such big changes could occur without true evolution. What a surprise to creationists, that such big changes could occur without adding new information. Perhaps these flower blooms, in light of the creationist Baramin theory and the evolutionist "gene doubling" theory, will provide an olive branch of common ground between phylogeneticists on both sides of our debate. Well, one can always hope.

— Sam Fox

Search for Aliens — A Failure

A new book entitled *Rare Earth* (Springer-Verlag, 2000) suggests that efforts designed to find evidence of alien civilizations are likely to fail. Authors Peter Ward (paleontologist, Univ. of Washington) and Donald Brownlee (astronomer, Univ. of Washington) make a case that conventional wisdom is wrong — the Universe is probably **not** teeming with intelligent life.

According to a review that appeared in *The New York Times* science section (8 Feb 2000), among the reasons for the authors' pessimism are these:

- The composition and stability of the Earth are extremely rare.
- The Earth's orbit around its star is at the correct distance to make sure that water remains liquid.
- The Earth's moon orbits at exactly the right distance, minimizing changes in the planet's tilt, and ensuring a stable climate.
- The Earth's atmosphere contains enough carbon to support life, but not so much that greenhouse conditions would become rampant.

The Times noted that the authors actually encourage the search for alien life as a means to test their hypothesis. Some critics, however, fear the book could negatively impact the funding of such efforts.

— GWW

Evolution Is True, Faith Is a Crutch — Gould

Shades of Jesse Ventura. In an editorial (1999. "Darwin's More Stately Mansion," *Science* 284:2087), Stephen Jay Gould takes yet another potshot at those who believe in God. He calls evolution "one of the firmest facts ever validated by science." Then he quotes from Psalm 8 ("Thou hast made him a little lower than the angels..."), saying that even though "Darwin removed this keystone of false comfort ... many people still believe they cannot ... [live] without such a crutch." Much of the remainder of the editorial is no less than a religious tract for evolution.

Some interesting letters in response to Gould's editorial were published in a subsequent issue (1999. "Science and Truth," *Science* 285:663). Physicist K.J. Touryan said that Gould is free to believe that he is " 'a little higher than the apes...' " if he so chooses, but that many of Touryan's colleagues "see design everywhere ... and [are] compelled by the weight of such evidence" to choose to believe Psalm 8. Touryan call Gould's article a sermon and infers that Gould is guilty of scientism.

Evolutionist D.W. Hogg wrote that evolution "is, at best, a barely testable hypothesis," disagreeing with Gould's conclusion that evolution has been "validated by science." Hogg stated that his belief in evolution would be stronger if "Gould or others made a verifiable, falsifiable prediction about some as-yet-unobserved aspect of the natural world."

Puzzled by Gould's appropriation of religious terms and images, chemist J.F. Wójcik questioned whether Gould's editorial was "a prelude to creating an evolutionary religious faith." If the "truth" of evolution implies that man is not created in God's image, then, Wójcik suggested that Gould should just say so. Otherwise, he may be criticized for attempting to remove one "crutch," only to replace it with another.

— GWW

Getting it Right — Not Quite

Many sources have erred when describing the impact of last year's decision by the Kansas State Board of Education (KSBE). Even the prestigious journal *Science* was guilty. An editorial in the September 17 issue stated that Kansas decided to stop teaching evolution (R.B. Hanson and F.E. Bloom, 1999. "Fending off furtive strategies." *Science* 285:1847). Then, in an October 22 news story entitled "Scientists strike back against creationism" (B. Wuethrich, 1999. *Science* 286:659), it was reported that the new Kansas education standards "eliminate the teaching of evolution..."

A correction to the October story was published a couple of months later (why did it take so long for a weekly journal?), saying that the new standards "remove key aspects of evolutionary theory from curriculum requirements." Curiously, the very same issue publishing the correction **actually repeated the error**, reporting that the KSBE "voted to drop evolution from statewide science teaching standards" (C. Holden, 1999. "Breakdown of the year: creationists win in Kansas." *Science* 286:2242). Well, we can always hope.

— GWW

Creation Calendar

Note: Items in "Creation Calendar" are for information only; the listing of an event does not necessarily imply endorsement by the Creation Research Society.

May 19-20
Creation Research Society Annual Board Meeting
Atlanta, Georgia

May 20
Field trip and presentation
Azusa Pacific Electron Microscopy Facility
Bible Science Assoc'n, San Fernando Valley Chapter
1:00 pm, APU Graduate Campus, Mary Hill Center, Azusa, CA
Contact: Mark Armitage (626)815-6000 x5519, marmitage @apunet.apu.edu

May 27-29
Kansas Chalk Monuments, Museums, and Fossil Beds
CSA for Mid-America (Kansas City area)
Contact: Tom Willis (816)618-3610; csahq@juno.com

June 20
Evidence for a Young Earth by Jeff Lawther
Creation Science Fellowship, Pittsburgh, PA
7:30 pm, Mars CM&A Church, Mars, PA
Contact: (412)341-4908; csf@trfn.clpgh.org

June 22-24
Design and Its Critics — speakers include:
Drs. Michael Behe, William Dembski, Paul Nelson, et al.
Concordia Univ. Of Wisconsin, Mequon, WI
Contact: Dr. Angus Menuge (262)243-4249; Angus.Menuge@cuw.edu

July 2-7
Twin Peaks Family Science Adventure
Fun-filled, informative family vacation
Alpha Omega Institute, Grand Junction, CO
(970)523-9943, www.DiscoverCreation.org

July 18
Anthropological Evidence for Creation & the Flood by Reid Moon
Creation Science Fellowship, Pittsburgh, PA
7:30 pm, Mars CM&A Church, Mars, PA
Contact: (412)341-4908; csf@trfn.clpgh.org

July 20
Report on the RATE (Radioisotopes and the Age of the Earth) group
by Dr. Gene Chaffin
Creation Study Group, Greenville, SC
7:30 pm Second Presbyterian Church, Greenville, SC
Contact: Dr. Albert Anderson (864)244-9020

July 22
Tour of KU Natural History Museum
CSA for Mid-America (Kansas City area)
Contact: Tom Willis (816)618-3610; csahq@juno.com

August 13-18 or 20-25
Redcloud Family Mountain Adventure
Fun-filled, informative family vacation
Alpha Omega Institute, Grand Junction, CO
(970)523-9943, www.DiscoverCreation.org

August 15
Fossil Evidence for the Flood by Robert Ivey
Creation Science Fellowship, Pittsburgh, PA
7:30 pm, Mars CM&A Church, Mars, PA
Contact: (412)341-4908; csf@trfn.clpgh.org

August 19
Greater Kansas City Geology and Fossil Outing
CSA for Mid-America (Kansas City area)
Contact: Tom Willis (816)618-3610; csahq@juno.com

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