

DECOY SPIDERS THE 'DARK SIDE' OF COSMOLOGY MUMMIFIED LION CUBS

# CREATION

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## WHAT DARWIN FEARED MOST

Fossil evidence that strongly contradicts gradual evolution.

## COLOUR MYSTERY

What's an 'animal-only' pigment doing in plants?

## RED LIGHT ON MITES

Galling find stops evolutionists in their tracks.



# CAPYBARA

THE 'RIDE-ON' RODENT

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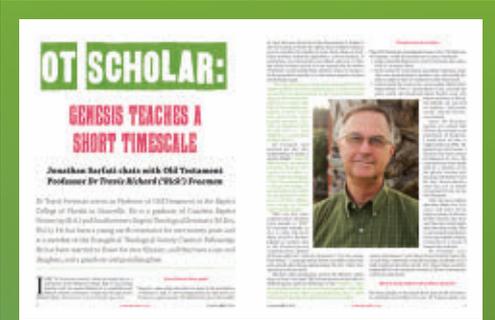
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**OT professor affirms Genesis as written**

Genesis 5 and 11 are accurate and gap-free timelines that teach a ~6,000-year-old earth.

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This friendly-looking fellow is one of South America's more intriguing creatures.

See pp. 28–31

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# FEEDBACK

Letters may be edited for clarity and brevity. If emailing letters (to: [Editors@creation.info](mailto:Editors@creation.info)) please include street address and phone number.

### An artist's perspective on Ark art

One of our readers, clearly knowledgeable about art, wrote to us about our 'cartoon Ark' article (38(4)). Concerning some of the early art reproductions used to accompany the article, he suggested we point out to readers that when it came to matters of scale, artists in the 15<sup>th</sup> century used 'hierarchical proportion' (where the importance of figures or objects in a picture is indicated by their sizes), and in that sense they were not being 'unbiblical' in their depictions of the Ark and its cargo. This would mean that those depictions were not really comparable to the other examples shown, since these were drawn in post-Renaissance times, characterized instead by a more realistic approach to proportions.

*Editorial response: Fair point, although children growing up in more 'realistic' times could still be misled by modern cartoon bathtub Arks as opposed to Renaissance artwork.*

### Veganism

As a young Christian who is also a vegan, I found your article about the cannibal deer (38(4):43) very interesting. Many people condemn veganism with evolution-based arguments that are refuted in the article. I believe the Bible shows that God created us to eat plants and it's good to know there is science to back this up. I would love to see more Christians embracing a plant-based lifestyle as God intended where the environment is protected and the suffering and cruelty caused by animal agriculture can be reduced.

**Georgia F., Australia**

*For readers' information, a vegan refrains from any animal product, while a*

*vegetarian avoids food that involves death of an animal. God's pre-Flood intention was probably vegetarian, avoiding the death of a living creature (Hebrew nephesh chayyah). But we must point out that after the Flood, God explicitly granted permission to eat meat to Noah and all his descendants (Genesis 9:3), and this permission has never been revoked. And Jesus Himself ate the Passover lamb, and ate fish after His resurrection (Luke 24:41-43)—and He was sinless. God commanded Peter in a vision to 'kill and eat' (Acts 10:13).*

*It is not compulsory to eat meat, so one can definitely be both Christian and vegetarian or vegan. We have the freedom in Christ to abstain or eat (Romans 14:1-4; Colossians 2:16), so abstinence from anything is not required (1 Timothy 4:1-5).*

### Chalk beds and fossils

Jonathan O'Brien's article, Geological Strata (Creation 38(4)) was very interesting. I looked up the videos referenced in the notes and found them fascinating. They answered the nagging doubts about old earth ideas through long term stratification. I also looked up creation sites regarding chalk deposits. The White Cliffs of Dover provide some difficulties without conventional thinking of millions of years deposition and I was greatly encouraged by the reasoning due to the great Flood.

**David B., Australia**

### Pre-Flood atmosphere

The Rainbow article (Creation 38(4)) emphasizes the unlikelihood of God changing the laws of physics after the Flood or "actively preventing dispersion" beforehand. These possibilities do seem unlikely. I was hoping to

see a technical assessment of what effects atmospheric differences between the pre and post-Flood atmosphere might have on rainbows as humanly observed. Differences are suggested in the Bible (floodgates of the heavens), and secular and Biblical experts generally believe that the ancient (pre-Flood) atmosphere had higher pressure and higher O<sub>2</sub> (and H<sub>2</sub>O?) content. Thoughts?

**Gary W., USA**

*Editorial response: Our new Genesis 1-11 commentary The Genesis Account (available from [creation.com/s/10-2-606](http://creation.com/s/10-2-606)) actually has such a discussion at the end of Ch. 15, in the section "Fallacious explanation [for long life spans]: pre-Flood paradise". It documents that the evidence for higher oxygen partial pressure is equivocal and largely based on false assumptions. E.g. they thought that insects could not breathe so relied on oxygen diffusion, so large dragonflies required more oxygen, but now we know that insects really do breathe (Creation 27(4):44-47, 2005). Also, more oxygen is not always good; this is why anti-oxidants are useful, and why there is such a thing as 'negative pressure'.*

### New young-at-heart reader

Greetings: I am an agile 91-year-old in an Aged Care Facility who attends church regularly. Recently, I found a copy of *Creation* magazine in our library. I was rapt in it. So many articles that answered questions I had had in my life about incidences in the Bible. I decided to subscribe straight away. God be with you and I am looking forward to my first issue.

**Ron B., Australia**

### Evolution blinkers



Thanks for helping Christians including myself get rid of the evolution blinkers. Attended your talk in Sydney in the early 1990s.

Albert S.L.L., Australia

### Creation ministries shores up faith

Many years ago I was on the verge of “letting go” of being a preacher and pastor, for the very reason that evolution theory had started to creep into my mind. I remember a day on the beach on Fraser Island Qld thinking “I am just species... — so what’s the point of it all?”

I thank God for creation ministries that helped me get a grip on the Bible and the facts contained in it. I am now a passionate defender of the Bible with good arguments, evidence and resources — much of which comes from Creation Ministries.

Joe Vermeulen, Pastor at Grace Christian Reformed Church, Joondalup, Perth.

### Feedback for 39(1) – The importance of the age of things

For theologians trying to accommodate any form of long age theory, they are basically trying to decide what God can and cannot do, which is foolishness. They are basically saying, “God couldn’t have done it in 6 days, I’ll give Him a few billion years to get it right”.

Ray N., Australia

Of course if God could create Adam as a fully mature human with all the characteristics of maturity, then He could also create mature trees, mature rocks and mature galaxies. He could create the galaxies “in place” so that billions of years would not be required to locate them there. He could create light waves “in transit” as well. The deeply flawed “narratives” promoting evolution are no more than an alternate explanation trying to deny the necessity of God. All they require in order to persuade those for whom God would be “bad news” is a measure of plausibility. The theory of evolution is everywhere taught as fact. It must

believe the scientifically unprovable assumption that the clock in the rock began at zero. There is no scientific way to prove that. It is a faith position. Yet they have bullied entire denominations with the threat that to disbelieve makes you an ignoramus.

Don C., United States

*Editorial response: God would certainly have created with functional maturity. However, if you take this too far into ‘apparent age’ (such as creating light in transit), it seems to make God into a deceiver. Please see [creation.com/apparent-age](http://creation.com/apparent-age) from The Genesis Account.*

### Feedback for 39(1) – How good is our neighbourhood

Isn’t it somewhat ironic how secular humanist evolutionary atheists pour accolades and special awards and titles on each other for proclaiming just how ordinary and unspectacular we all are? They should lose their Ph.D.s and funding because there’s really nothing special about them or what they have discovered.

Hummm, me thinks they do protest too much in desperately trying to find amazing and unbelievable explanations for our supposedly amazing ordinariness and uninteresting existence.

Instead we are clearly, fearfully and wonderfully made and our Creator Lord has indeed made a habitable home suitable for life that we might give Him all the accolades, praises and Glory for what He has done.

Mark E., Australia

*Editorial response: This is a correct allusion to a famous phrase. When Shakespeare had Queen Gertrude say about a queen character in a play, “The lady doth protest too much, methinks” in Hamlet 3(2), the word meant ‘affirm solemnly’, as in modern British usage ‘protests his innocence’. Gertrude thought the lady in question affirmed her love and loyalty so often that she sounded fake. Shakespeare didn’t mean ‘object’ or ‘deny’, as per the main meaning in English today, especially American English.*

Facebook Feedback

Creation Ministries Home

**Joni Ruokamo:** Mary Anning: Fossils, faith, and the folly of compromise  
[creation.com/mary-anning](http://creation.com/mary-anning)

Excellent piece Margaret! Thanks for the great read!

**Justin Dudley:** How do I do my assignment about evolution?  
[creation.com/assignment](http://creation.com/assignment)

Thank you for posting this. I’m about to go to college and this very question has been bothering me. It is an amazing feeling to know that when I do get in to college I’ll be ready to answer these kinds of questions and it’s because of people like you.

**Robert Gustafson:** Evolution’s Achilles’ Heels  
[creation.com/s/90-7-640](http://creation.com/s/90-7-640)

I highly recommend both the book and video. High quality work. Excellent computer generated animations, illustrations of the amazing complexities on a molecular and DNA level.

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Write something to Creation Ministries... at [www.facebook.com/creationministries](http://www.facebook.com/creationministries)

# CREATION IS JUST THE BEGINNING

**I**S THERE any evidence for creation? Yes! Design provides powerful evidence, and *Creation* magazine regularly features examples of amazing design. The astonishing behaviour of the decoy spider (pp. 12–14) is one such evidence, as is the existence of complex biochemical pathways like those in the bird-of-paradise flower (pp. 32–33). However, the idea that the natural world is designed raises many objections.

Astrophysicist Neil deGrasse Tyson is one who has challenged the idea of design. In a YouTube video entitled “Does the universe have a purpose?” he asks whether the purpose of the universe was to produce humans. If that was the purpose, Tyson says, then the cosmos has been embarrassingly inefficient because for 99.9999% of its history there have been no humans. His problem is that he is using evolution and its long-age system to try to understand creation. He needs to use the creation account as set out in the Bible.

According to the Bible, this universe was created for humans, as we showed last issue.<sup>1</sup> The first man and woman were present from the very beginning, from Day 6. We want children to understand this too (pp. 34–37).

One big issue for the creation account, as Tyson highlighted, is the age of things. *Creation* magazine regularly provides evidence supporting the biblical age, such as the article about ‘pristine’ Saturn (p. 56) and the interview with Old Testament scholar Dr Rick Freeman (pp. 24–26).

Related to the age of the earth is the issue of geology. How can we accept the biblical age when geological features are supposedly hundreds of millions of years old? Again, the problem is that we are trying to fit creation into the evolutionary story. The global watery catastrophe of Noah’s Flood explains geology within the biblical timeframe. That’s why we give you evidence for the reality of Noah’s Flood, such as the articles about natural bridges (pp. 42–45) and the fossil record (pp. 20–23).

Tyson raised another serious argument against design. If the universe was designed for humans, then why is there death, mayhem and destruction—things like volcanoes, tsunamis, storms, and killer asteroids? Once again, Tyson’s problem is that he is using the wrong history.

The Bible describes the original creation, rating it as “very good” (Genesis 1:31). It was the rebellion of the first

human couple that brought suffering, disease, and death. In fact, the world was placed under a curse at that time. So, death, mayhem, and destruction do not negate the original goodness of the creation. Rather they reveal our (and the creation’s) need for restoration.

While design provides powerful and compelling evidence for creation, we cannot make sense of the world by acknowledging design alone. We need a framework to investigate the different scientific disciplines: astronomy, geology, biology, archaeology, and so on. That is what the Bible provides. Its historical framework begins with creation, but subsequent events have impacted our world significantly: the Fall, the Flood, the Tower of Babel, and the coming of Christ.

Understanding the effects of these events gives powerful insights into our world. Six-day creation is vital, but it is just the beginning. When we see the world through the ‘lens’ of the Bible’s history, the pieces of the puzzle come together as never before. ■

### References and notes

1. Harwood, M., How good is our neighbourhood? *Creation* 39(1):24–26, 2017, [creation.com/neighbourhood](http://creation.com/neighbourhood).

### 'UNCONVENTIONAL' BODY PLAN OF *DREPANOSAURUS* PUZZLES EVOLUTIONISTS

Newly discovered fossils of the extinct reptile *Drepanosaurus* reveal it had most unusual forearms.

In four-legged creatures (tetrapods), the forelimbs almost always have the same consistent pattern, including two slender, elongate and parallel bones, known as the radius and the ulna (red, left side of diagram). But in *Drepanosaurus* that pattern is absent. In fact, the pattern of all the bones in the forearm is so radically different from the normal tetrapod plan that without the notion of 'common ancestry' superimposed upon the data, it is difficult to see the resemblance at all. The most massive bone in the whole forearm is a gigantic claw upon a huge finger, well suited to digging.

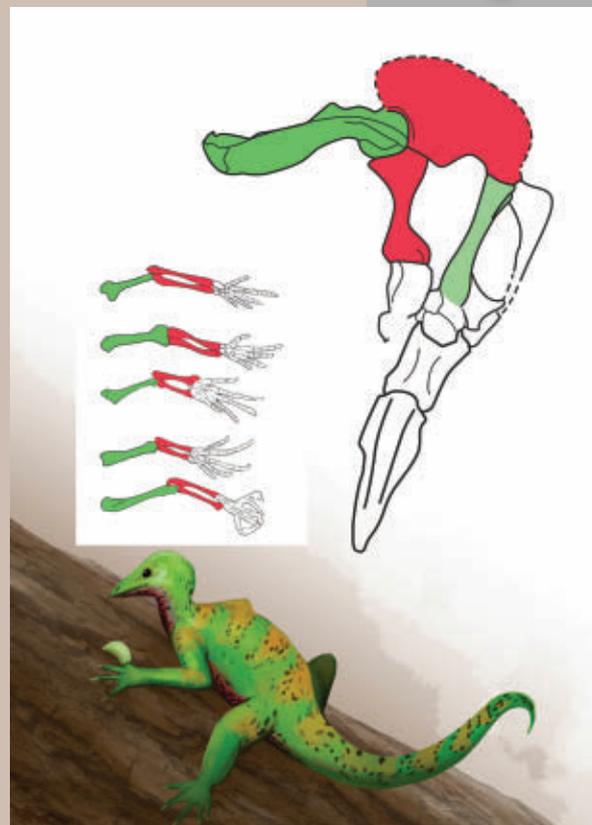
Lead researcher Dr Adam Pritchard of Yale University says of *Drepanosaurus*, with its "unconventional" body plan: "So all of these consistent patterns that we see across a huge range of tetrapods, regardless of their ecology, regardless of their ancestry, are violated by this animal." Other scientists are cited as saying it "defies the convention on how reptiles evolved".

Perhaps that is a prompt to consider that the body plan of *Drepanosaurus* was actually *planned*, by an Intelligent Designer—One who perhaps threw an 'unconventional' body plan into the mix to thwart naturalistic explanations of origins?

Putting a positive (evolutionary) spin on the finding, Dr Pritchard said it "extends the bounds" of what evolution was thought capable of doing in regard to the body plan of four-footed animals.

In other words, evidence challenging evolutionary notions can force a rewrite of evolutionary theory, but evolution itself is never questioned.

Strange reptile fossil puzzles scientists, [bbc.com](http://bbc.com), September 2016.  
Extreme modification of the tetrapod forelimb in a Triassic diapsid reptile, *Current Biology* 26:2779–2786, 2016.



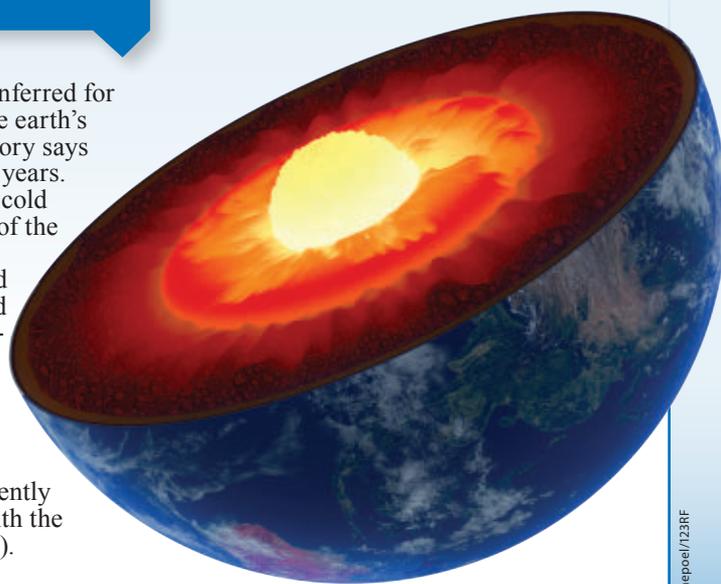
### COLD SLAB GRAVEYARD IN EARTH'S MANTLE POINTS TO NOAH'S FLOOD

Using earthquakes to image the inside of the earth, scientists have inferred for some time that there are large slabs of (relatively) cold rock from the earth's surface that have penetrated deep into the mantle. Conventional theory says that they were thrust down extremely slowly over many millions of years. Now researchers are slowly piecing together a better 'map' of these cold slabs, showing a veritable 'graveyard' of cold rock near the bottom of the mantle.

But how can slabs survive intact at the bottom of the mantle, and how could they have remained cold for millions of years there—and during their slow descent—when the temperature of their surroundings is as much as 3,000–4,000°C hotter? There are also numerous 'barriers' in the mantle that would be hard for sinking slabs to break through, suggesting a sizable force would be needed.

All this fits well with the idea that slabs of cold oceanic crust from the earth's surface sank through the mantle much faster than the slow movement of crustal plates seen today, and much more recently than long-age researchers imagine. This is powerfully consistent with the global tectonic catastrophe of Noah's Flood (see [creation.com/cab11](http://creation.com/cab11)).

Voosen, P., Graveyard of cold slabs mapped in Earth's mantle, *Science* 354(6315):954–955, November 2016 | doi: 10.1126/science.354.6315.954.



## OIL FROM SEWAGE COULD HELP FUEL FUTURE

An experimental process that turns human waste into biocrude oil in minutes may provide part of the answer to the world's need to fuel its millions of machines.

A US Department of Energy researcher said of the technique: “The technology, hydrothermal liquefaction, mimics the geological conditions the Earth uses to create crude oil ... using high pressure and temperature to achieve in minutes something that takes Mother Nature millions of years.”

The researchers forced sewage sludge through a tube at a pressure of 20.7 MPa (3,000 lb/in<sup>2</sup> or 204 atmospheres) and heated it to 349°C (660°F). This produced something very similar to fossil crude oil, which the laboratory said could be refined to make gasoline, diesel and jet fuels.

*Creation* magazine reported on a similar process in 1990 in which heated sewage sludge—to which alkali had been added—was converted into the long-chain hydrocarbons of crude oil.

Most scientists accept that crude oil is produced by long-term heating and maturing of organic matter subjected to enormous pressures, but the fact that it can be mimicked by a process that takes only minutes suggests that long ages aren't needed.

Conditions such as heat, pressure (and the absence of oxygen) would have been widely available for the vast quantity of organic material buried deeply in the sediments of the global Flood.

Szondy, D., Mimicking nature turns sewage into biocrude oil in minutes, [newatlas.com](http://newatlas.com), November 2016.

Mott, N., The government wants to turn human waste into biocrude oil, [inverse.com](http://inverse.com), November 2016.

Snelling, A., How fast can oil form? *Creation* 12(2):30–34, March 1990.



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## LONG AGES, DINOSAURS IMPACTED AUTHOR'S 'FAITH'

CMI has long pointed out that what people believe about the age of the earth and dinosaurs can readily impact how they respond to the Genesis account of our origins; and therefore, ultimately, to the divinity of Jesus Christ and His redemptive work on the Cross.

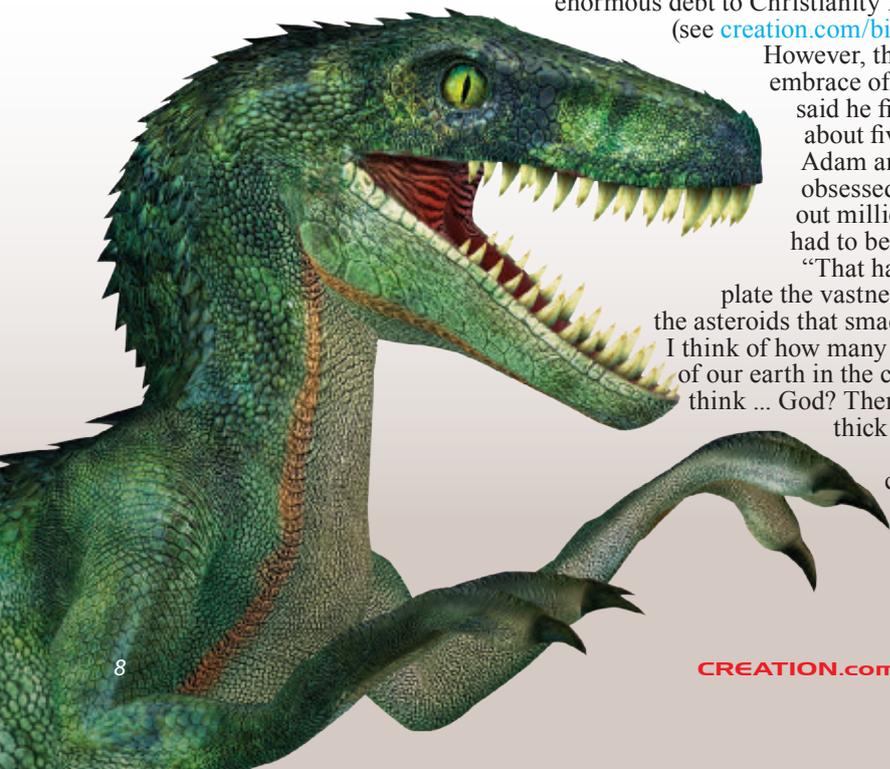
High-profile British historian and author Tom Holland provides another striking case in point. London-based Premier Christian Radio interviewed him about his change of mind regarding the *impact* of Christianity—he now believes we owe an enormous debt to Christianity for the ethics and values of our culture (see [creation.com/bible-bedrock](http://creation.com/bible-bedrock)).

However, this change of mind has not extended to an open embrace of the truth of Christianity. In his interview, Holland said he first began to doubt in Sunday school when—aged about five—he saw an illustrated Bible with a picture of Adam and Eve and a brachiosaur. As a preschooler, he was obsessed with dinosaurs and totally convinced they had died out millions of years ago. So the Bible, not his long-age ‘faith’, had to be wrong. He told the radio station:

“That has always been a problem for me ... when I contemplate the vastness and immensity of geological time; I think about the asteroids that smacked into planet Earth and incinerated the dinosaurs; I think of how many species have come and gone; I think of the tininess of our earth in the context of the vastness of the universe and then I’m to think ... God? There is a tension there ... that shadow of disbelief is still thick over me.”

Such an example underscores the importance of the creation message, including to young children, and the wisdom of providing some evidence to back it up.

Unbelievable? Why I changed my mind about Christian history, Tom Holland and Larry Hurtado [premierchristianradio.com](http://premierchristianradio.com), October 2016.



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## AWE-INSPIRING VIDEO FOSTERS 'DIVINE' VERSION OF EVOLUTION

Researchers looking at the effect of a nature video which produced a sense of awe in non-theist students discovered that it had a noticeable effect on their perception of how evolution supposedly works. After watching the video they were asked if they preferred an unpredictable, unstructured and random version of evolution or a structured and non-random version of evolution. Of course, orderliness contradicts evolution, with the study rightly acknowledging that, “Evolutionary theory emphasizes the importance of randomness in the process of natural selection, and as a result can be perceived as existentially threatening.”

As part of the study students were played two videos, one neutral, and one to elicit a sense of awe—a five-minute montage of nature clips from the BBC’s *Planet Earth*. They found that when the non-theist students were played the neutral video just over 10% answered that they preferred a structured and ordered version of evolution which was “not the result of randomness”. But when shown the BBC’s *Planet Earth* montage, that shot up to just under 40% of the non-theist students. They concluded that, “Awe increased preference for the orderly version of evolution for non-theists, but had no effect on theory preference for theists.”

Those who believe in the God of the Bible regularly point out His eternal power and divine nature (Romans 1:20) as observed in the creation. It is understandable that many, beholding the wonder of creation, would find it hard to accept that it all happened from the randomness and meaninglessness that evolutionary theory espouses. However, like many of the subjects of this experiment, their solution is rarely to question evolution itself, or to accept what the Creator has revealed about the true history of life and the universe. Rather, they try and fit some sort of divine meaning into evolution. This is often some new-agey, vague spiritual ‘force’, and can make it even harder for them to come to know the sin-judging, Saviour-God on His terms. Acquainting them with the evidence against evolution and for the truth of biblical creation is a much better way of dealing with the meaninglessness of evolutionary belief.

Valdesolo, P. *et al.*, Awe and scientific explanation, *Emotion* 16(7):937–940, October 2016.



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## EARTH-BOUND LOOK FOR ALIEN LIFE

As many evolutionists wax enthusiastic about the likelihood of life beyond Earth, an article by prominent evolutionist and biophysicist Paul Davies is sobering. He writes that in earlier decades, prominent evolutionists (e.g. Francis Crick, Jacques Monod) had faced up to the staggering odds against a random chemical origin for the first life. Earth’s life must therefore have been a one-off fluke, akin to “a miracle”. Even if Earth-like planets existed in truly vast numbers, that would still be insignificant next to the biochemical improbability of random chemical reactions generating life capable of reproduction (essential before natural selection can supposedly operate). So the scientific consensus was, we must be alone.

Yet today, belief in life ‘out there’ is rampant. “Many distinguished scientists proclaim that the universe is teeming with life, at least some of it intelligent” (one even calling it “a cosmic imperative”).

This is, says Davies, even though “we are almost as much in the dark today about the pathway from nonlife to life as Charles Darwin”; “the science has hardly changed.”

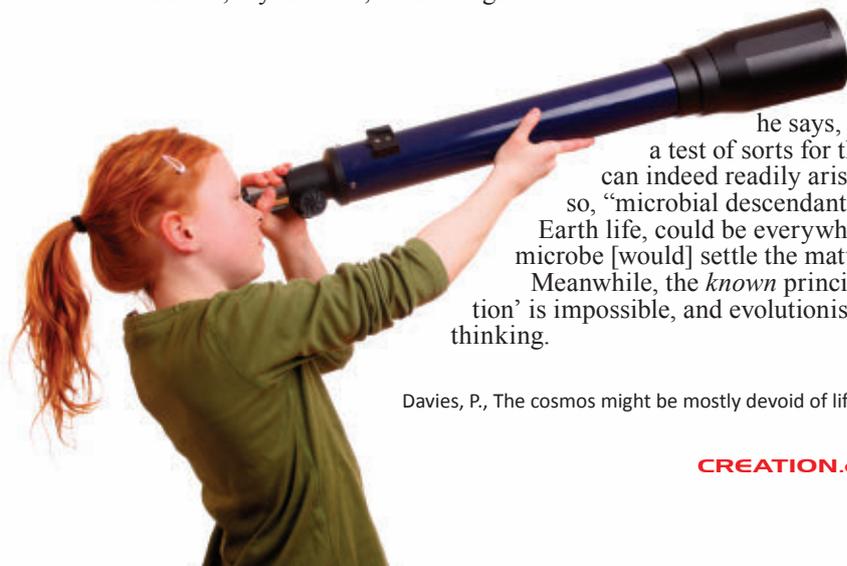
Davies says they tacitly assume that life did not come from raw chemistry; there must be some self-organizing life principle at work. The problem is,

he says, “we have found no evidence for it yet.” Davies proposes a test of sorts for this assumption, currently held on blind faith; if life can indeed readily arise, it should have done so more than once on Earth. If so, “microbial descendants of another genesis”, hence radically different to known Earth life, could be everywhere. He suggests that discovering “just a single ‘alien’ microbe [would] settle the matter.”

Meanwhile, the *known* principles of chemistry and biology show that ‘chemical evolution’ is impossible, and evolutionists’ belief in some self-organizing ‘life force’ is wishful thinking.

Davies, P., The cosmos might be mostly devoid of life, [scientificamerican.com](http://scientificamerican.com), September 2016.

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## BIBLE CONNECTION TO HAZOR STATUE FIND

A team from the Hebrew University of Jerusalem discovered part of a broken statue in an archaeological dig at Tel Hazor National Park, north of the Sea of Galilee in Israel.

Based on words in hieroglyphic script inscribed on the statue's base, archaeologists say it was most likely connected with the Egyptian god Ptah. They speculate that the statue was a gift to Hazor's king, who must therefore have commanded considerable respect at the time, about 13 centuries before Christ.

This is consistent with what the Bible tells us about Hazor; that it was a significant seat of power. Following God's command, Joshua destroyed the city and its people (Joshua 11:1–15). Thus, once again, an archaeological discovery supports the Bible's historical accuracy.

Historic find: A statue of an Egyptian official at Tel-Hazor in Israel, [sciencedaily.com](http://sciencedaily.com), July 2016.



## YET ANOTHER ORIGIN-OF-LIFE IDEA

In spite of the fatal inadequacies and serious flaws of the 'RNA world' idea for the origin of life (see [creation.com/rna](http://creation.com/rna)), it has remained popular for several decades, largely because 'What else did they have?' The idea entails RNA arising first, and later giving rise to proteins and DNA. This was supposedly made possible through the chance origin of the sole nucleotide that differs between RNA (containing uracil) and DNA (thymine). Then, DNA copies of RNA molecules supposedly formed to create the DNA sequences that code for the RNA that supposedly had proven functional.

However, a mix of RNA and DNA components without the cell milieu to protect them would result in hybrid RNA-DNA molecules. Now a study at the Scripps Institute has found that RNA-DNA hybrids are *more unstable* than RNA, and RNA is already unstable compared to DNA, so this would not be a viable path to a DNA world. The researchers proposed that RNA and DNA must have arisen separately and then come together, which then in some way overcame the difficulties that they demonstrated. Of course, this now makes the whole naturalistic scenario even more improbable.

At least, though, they are getting a little closer to the truth, because the simplest living things have both RNA and DNA. However, much, much more is needed to enable life, which involves reproduction. Not only are many more (and complex) chemicals required, but the vital requirement is *information*. This is carried as a coded message on DNA, independent of the properties of the chemical 'letters' in the same way that the information in this article is not a property of ink and paper.

All of this 'shouts' that life was created by an intelligence far superior to that of us humans; see our comprehensive explanation of what is needed for life: [creation.com/ool](http://creation.com/ool). It is also a major factor that caused the world's foremost atheist thinker to change his mind; see [creation.com/flew](http://creation.com/flew).

Gavette, J.V. *et al.*, RNA-DNA Chimeras in the context of an RNA World transition to an RNA/DNA World, *Angewandte Chemie Int. Edn* **55**(42):13204–13209, 10 October 2016 | doi:10.1002/anie.201607919.



## SOLID ROCK FROM GAS

Researchers concerned with carbon dioxide (CO<sub>2</sub>) emissions from a power station in Iceland injected 175 tons of the gas into cavities in basaltic rock deep underground, seeking to trap it there. The scientists later went back to check if there had been any leakage and were amazed when they discovered that nearly all the CO<sub>2</sub> gas had been converted into solid rock! "The results just blew us away."

The researchers found that, under the right conditions, the process occurs in just months. Their result "contrasts with the common view that the immobilization of CO<sub>2</sub> as carbonate minerals within geologic reservoirs takes several hundreds to thousands of years." They were forced to conclude that such mineralization can occur "far faster than previously postulated."

The biblical Flood occurred when the fountains of the great deep were released, which involved considerable volcanic activity. Massive quantities of naturally-occurring CO<sub>2</sub>, released from volcanoes, would have dissolved in groundwater and the floodwaters. Coupled with this recent discovery, this points to a way in which the bulk of the world's extensive carbonate rock deposits could have formed in months.

Turning CO<sub>2</sub> emissions into stone, [power-eng.com](http://power-eng.com), August 2016.

Matter, J.M. *et al.*, Rapid carbon mineralization for permanent disposal of anthropogenic carbon dioxide emissions, *Science* **352**(6291):aad8132, June 2016 | doi: 10.1126/science.aad8132.

## COOL FEATURES KEEP PENGUINS WARM

How penguins handle extremely low temperatures and stay ice-free has been revealed by researchers who built a replica of the Humboldt penguin's feathers.

They discovered that each feather is covered in nanoscale ridges and interlocking hooks which help repel ice. When the model was sprayed for hours with super-cooled water, no ice formed.

Now there's speculation that a material inspired by penguin feathers could help to prevent ice crystals from sticking to surfaces.

The penguin feather is another example of amazing design that showcases the Master Designer's ability to create an elegant solution to a variety of problems.

Wang, S., *et al.*, Icephobicity of penguins *Spheniscus humboldti* and an artificial replica of penguin feather with air-infused hierarchical rough structures, *J. Phys Chem.* **120**(29):15923–15929 | doi:10.1021/acs.jpcc.5b12298, February 2016.

Gray, R., So that's how penguins stay ice free, [dailyemail.co.uk](http://dailyemail.co.uk), February 2016.



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## OTHER-WORLDLY OPINIONS

The magazine *Scientific American* has published a list of answers from various scientists to what it has labelled “20 Big Questions about the Future of Humanity”. It is no surprise that only evolutionary options are offered and that the ‘hope’ for humanity is envisioned to be somewhere out in the galaxy.

British cosmologist and astrophysicist Martin Rees, in addressing a question about a hope for humanity beyond Earth, gave this frank assessment:

“I think it's a dangerous delusion to envisage mass emigration from Earth. There's nowhere else in the solar system that's as comfortable as even the top of Everest or the South Pole. We must address the world's problems here.”

Despite that, he did suggest that, in the future, privately funded adventurers could live on Mars and elsewhere, and that they would eventually become a new species.

On the question of colonizing outer space, NASA planetary protection officer Catharine Conley considered it was “very far in the future” because of the vast number of technical problems to solve.

Contrast those assessments with what Scripture tells us about our world and ourselves: Isaiah 45:18 says, “For this is what the Lord says—he who created the heavens, he is God; he who fashioned and made the earth, he founded it; he did not create it to be empty, but formed it to be inhabited . . .”

For more on how perfectly fitted for life Earth is, see [creation.com/earth-design](http://creation.com/earth-design).

20 big questions about the future of humanity, [scientificamerican.com](http://scientificamerican.com), September 2016.



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## WebWatch

Type the words in **bold** into the search box on:

**CREATION.com**

- ‘**Unfossilized**’ dinosaur bones?
- Celebrating **Christmas**?
- Murdering **Down Syndrome** babies
- **Dark** Matter wiped out **dinosaurs**?
- Evolutionists **less likely to believe** in God
- **Flight** times versus **flat earth**

## NOAH'S ARK COINS

The Central Bank of Armenia, borrowing from the biblical account of Noah's Flood, has issued coins depicting the Ark, a dove with an olive branch and the mountains of Ararat. (The Ararat region was once part of Armenia but now is within Turkey's borders.)

The Ark's shape is reasonably well represented, which is a departure from the cartoon-like images in various publications, unfortunately including many produced by Christians.

The Noah's Ark silver coins are produced by a private German mint and come in various values from 100 dram (about US20¢) to 20,000 dram (US\$40).

Coins struck for some Roman emperors commemorated Noah and the Ark and, in more recent times, postage stamps have featured similar imagery.



Noah's Ark, [geiger-edelmetalle.com](http://geiger-edelmetalle.com).

# SPIIDER

THESE SPIDERS AREN'T DUMMIES (OR ARE THEY?).

Calvin Smith

**C**AMOUFLAGE IS a design feature used by many creatures to protect themselves in this sin-cursed world. Typically, camouflage is used to imitate an environment in order to blend in and hide.

A related form of ‘deception for safety’ is called mimicry, in which a creature impersonates another species.

For instance, to lower its chance of being eaten, it might imitate (in appearance, behaviour or both) a very unpalatable or poisonous species that a predator knows to avoid. Some creatures even mimic specific predators that frighten other predators away.

Recently, two independent studies have revealed a creature that mimics

itself! And one could say it does so in a ‘big’ way.

In 2012 two US biologists independently discovered an amazing behaviour, each in a different species of spider of the *Cyclosa* genus.

The two spider species live 18,000 km (11,000 miles) apart—one in the Amazon basin in Peru, the other in the Philippines.

Unbeknown to each other at the time, both scientists discovered spiders using forest debris (bark, leaves, moss and even the corpses of insects) to create replicas of themselves in the middle of their webs. The copies are often incredibly detailed (see photo fig. 1, and caption), complete with eight legs and the general layout of a spider body. The only major difference in appearance—the dummies were about ten times larger than their creators! The result was a rather realistic image of a ‘giant spider’ that either (1) presented a menacing appearance to creatures that might have dared to pick on a smaller spider or (2) provided a false target for undeterred predators that mistook the decoy for the real owner of the web.

To add to the realism of the imitation spiders, it was found that the real spiders



**Fig. 1**

**Fake ‘spider’ made of debris by one of the two recently-discovered ‘decoy spider’ species within genus *Cyclosa*. This one has the full eight legs of the real spider, but quite a number have only four. In an email on 29 September 2016, wildlife photographer Jeff Cremer suggests that this “makes sense” since in many photos the real spider’s position is such that “only four legs are visible” (see pic. p. 13).**

also caused these realistic decoys to move when predators were near. By shaking their webs, their *doppelgänger*<sup>2</sup> creations appeared to come to life!

Not only is this behaviour fascinatingly complex, but it also seems unprecedented in the animal kingdom. No other creature is known to create a larger decoy of itself to escape predation.

### Evolution explains it?

An internet image search will display hundreds of pictures of the creatures and their zombie-like creations. Not surprisingly, a hand-waving mention of evolution is thrown in now and then trying to ‘explain’ how these incredibly sophisticated activities in such a ‘primitive’ creature arose naturalistically.

Evolutionist, biologist and educator Phil Torres wrote of the find that it “seems like a really well evolved and very specialized behavior” which seems to at least acknowledge its complexity. But then, as if to play it down, he goes on:

Considering that spiders can already make really impressive geometric designs with their webs, it’s no surprise that they can take that leap to make an impressive design with debris and other things ...<sup>3</sup>

But is it really that easy? Pointing out that spiders can make ‘impressive geometric designs’ without explaining *how* they can (but assuming ‘evolution did it’) and then saying it’s therefore not surprising they can do something even *more* complex is hardly a good explanation for the origin of the ability!

Admittedly, for invertebrates, spiders are a lot smarter than many think; they are able to solve complex mazes, and their brains, though minuscule, can be extensive for their body size.<sup>4</sup> The brains of some smaller spiders even extend into their legs. But of course, they have extremely limited behaviour compared to humans. No scientist, evolutionist or otherwise, would seriously suggest that this spider has the reasoning power to be able to think through the idea of creating an effigy of itself to help keep it alive.

Rather, all would agree that the construction of these spider decoys,

along with the ‘puppeteering’ of them, is programmed into the creatures genetically (i.e. they are following ‘blind instinct’). So could that arise by evolution?

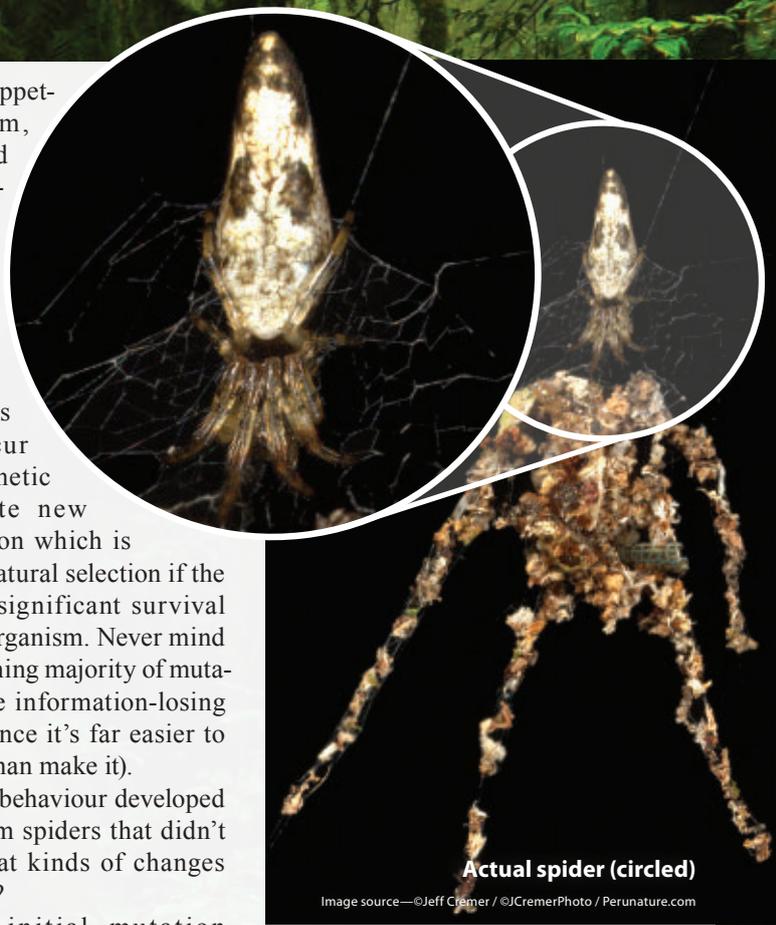
Evolution is supposed to occur as mutations (genetic accidents) create new genetic information which is then ‘chosen’ by natural selection if the accident gives a significant survival advantage to the organism. Never mind that the overwhelming majority of mutations observed are information-losing (not surprising, since it’s far easier to break something than make it).

Assuming this behaviour developed incrementally from spiders that didn’t build decoys, what kinds of changes would this require?

Perhaps an initial mutation affecting behaviour caused the spiders to randomly gather and arrange a simple clump of debris in their web. An evolutionist might argue that this somehow gave them a slight selective advantage (although clumps of debris fall into spider webs all the time, with seemingly no advantage to spiders of any sort). Perhaps this was by frightening away some predators a little more than a web without a clump. Then allegedly a similar accident caused the behaviour to be such that the arrangement was ever so slightly more spiderlike (e.g. head/thorax).

This then means that predators are even more likely to avoid it, which then gives a further slight selective advantage—and so on step by step, through fortuitous mutations that cause the spiders to instinctively arrange debris like legs. Each slight incremental advantage is then supposed to head it ever closer to the full-blown ‘spider’ appearance.

Because of the difficulty people would have believing this sort of tale if it happened in big, lucky jumps, evolutionists like Richard Dawkins



Actual spider (circled)

Image source—©Jeff Cremer / ©JCremerPhoto / Perunature.com

routinely argue that such advantages only have to be very slight to keep evolving towards seeming wonders of design, like the eye. When challenged as to what use half an eye would be to selection, the classic argument he uses in rebuttal is that blurred vision is obviously better than none, less blurred vision better still, and so on. But the Achilles’ heel of all such selectionist arguments is the evidence from population genetics that tiny advantages cannot be selected for. A figure of 10% fitness advantage—i.e. a substantial advantage—has been cited as the *minimum* that selection can ‘see’.<sup>5</sup>

Creationists are aware of natural selection and have highlighted its important role in adaptation after creation—even to the extent of speciation (e.g. the dog kind on the Ark giving rise to dingoes, coyotes, wolves etc.). But this requires significant built-in programming to begin with, and can only account for fairly minor ‘fine tuning’ post-creation.<sup>6</sup>

The degree of complexity involved in the decoy spider’s repertoire strongly suggests, rather, that the information was present in the genome of the



**Fig. 2:**  
***Cyclosa conica* hiding within the debris of its stabilimentum (see main text).**

The genus *Cyclosa* is within the family Araneidae, the members of which are also known as ‘orb weavers’ for their characteristic circular webs. The group’s many detailed similarities strongly suggest membership of the same created kind (baramin).<sup>1</sup> The baramin may in fact be at the level of the family, Araneidae; perhaps even the superfamily (Araneoidea) which includes two families whose members were previously all regarded as in the family—the Tetragnathidae (Long-Jawed Orb Weavers), and the Nephilidae (Golden Orb Weavers). It seems likely, though, that the Hackled Orb Weavers or Uloboridae belong to a separate baramin (kind), as their sticky web silk is of a quite different makeup. The striking similarities of their web construction to other orb weavers would reflect commonality of design, something which evolutionists often ‘explain away’ using the handy phrase ‘convergent evolution’ (evolution hitting upon the same solution in different groups coincidentally).

original spider kind. Interestingly, other *Cyclosa* spiders that are almost certainly descended from the same Genesis kind exhibit different, *simpler* types of web-sculpting behaviour—see the box concerning *Cyclosa conica*. This spider builds a simpler web structure from debris, called a *stabilimentum* (fig. 2), and even rattles it to scare away predators.

This may be a part-degenerated remnant of the more complex ‘decoy’ behaviour that others have retained. But that does not necessarily mean that all spiders in that kind were rattling decoys immediately after creation. In a three-part series in *Journal of Creation*, molecular biologist Peer Terborg defended the idea that the genomes of the kinds were ‘front-loaded’ at creation to allow rapid adaptation/speciation.<sup>7</sup> The decoy spider’s repertoire, though programmed at creation, may not have been expressed in all or any of the original population. In fact, it may only have been activated after the Fall.<sup>8</sup>

Our earlier ‘step by step’ scenario was an example of a typical evolutionary story to explain why we observe creatures like decoy spiders in the

present, but is also a fine illustration of how the creation/evolution debate is in the realm of historical, not operational, science. No one ever observed the types of changes described, and this is really just an example of storytelling. If you believe it happened like that, you believe it ultimately by (blind) faith, not by observation. As famous evolutionist Ernst Mayr once said;

Evolutionary biology, in contrast with physics and chemistry, is a historical science—the evolutionist attempts to explain events and processes that have already taken place. Laws and experiments are

inappropriate techniques for the explication of such events and processes. Instead one constructs a historical narrative, consisting of a tentative reconstruction of the particular scenario that led to the events one is trying to explain.<sup>3</sup>

Even if we ignore the complex biochemistry and anatomy of the organs required to produce the silk, web building is itself a highly complex

behaviour, difficult enough to explain in evolutionary terms. However, constructing a highly detailed replica of yourself, hiding beside it and manipulating it so it looks as if it is alive when danger is near, is significantly more sophisticated. To believe that kind of programmed instinct could come about by the selection of random mutations takes great faith. Reason indicates instead that the decoy spider’s programmed behaviour reflects the intelligent programming of the omniscient, all-powerful Creator God. ■

### References and notes

1. The only (scant) hybridization data seemingly available involves a different group, the funnel web weavers.
2. Lookalike or body double (loanword from German, literally ‘double walker/goer’).
3. Drake, N., Spider that builds its own spider decoys discovered, [wired.com/2012/12/spider-building-spider/](http://wired.com/2012/12/spider-building-spider/), 18 December 2012.
4. Gourdarzi, S., The amazing spider brain: a great mystery in a tiny head, [braindecoder.com](http://braindecoder.com), accessed 28 August 2016.
5. This is highlighted by prominent geneticist Dr John Sanford in his classic work *Genetic Entropy*, available at [creation.com/s/10-3-513](http://creation.com/s/10-3-513).
6. See Grigg, R., The love trap, *Creation* 24(3):26–27, 2002; [creation.com/orchid](http://creation.com/orchid).
7. The articles start at [creation.com/genetic-redundancy](http://creation.com/genetic-redundancy).
8. See [creation.com/bad-things-in-creation](http://creation.com/bad-things-in-creation).

### CALVIN SMITH

*Calvin was self-employed and worked in youth ministry prior to working with Creation Ministries International. Calvin has spoken on creation topics at youth groups, Christian schools, churches, small groups and on Canadian Television. He works full-time speaking and overseeing ministry co-ordination for Creation Ministries in Canada. For more: [creation.com/csmith](http://creation.com/csmith).*



**Fig. 3:**  
**In the orb weaver family Araneidae are the *Argiope* sp., North America’s yellow and banded garden spiders, whose stabilimenta have a characteristic criss-cross pattern. Many functions were proposed before research suggested that it made it harder for insects to avoid the web.**

# Catfish

big and small

AP via AAP/Suthep Kritsanavarin



Record-holder grizzly bear-size catfish caught in Thailand—293 kilograms (646 lb).



Matthew Jones/123RF

The home aquarium catfish, *Corydoras* spp. (Cory catfish)

## David Catchpoole

**T**HIS IMPRESSIVELY large specimen of the Mekong Giant Catfish (*Pangasianodon gigas*) was netted by a team of fishermen in 2005. It took them more than an hour to haul it in, on the Thai side of the Mekong River, across the water from Laos. Nearly 2.7 m (9 ft) long, it weighed 293 kg (646 lb).<sup>1</sup>

World Wildlife Fund conservation science fellow Zeb Hogan said, “It’s amazing to think that giants like this still swim in some of the world’s rivers. We believe this catfish is the current record-holder—an astonishing find. I have heard of three-metre-plus [ten-foot] catfish in Bulgaria ... but up until now we have not been able to confirm these reports.”

One wonders what *else* might be hiding large-as-life in the rivers, swamps and jungles of the area—perhaps even dinosaurs, given the reports of such creatures in similar parts of the world. The greater Mekong region is renowned for biological surprises. Many new species, including large mammals previously unknown to science, have been discovered there

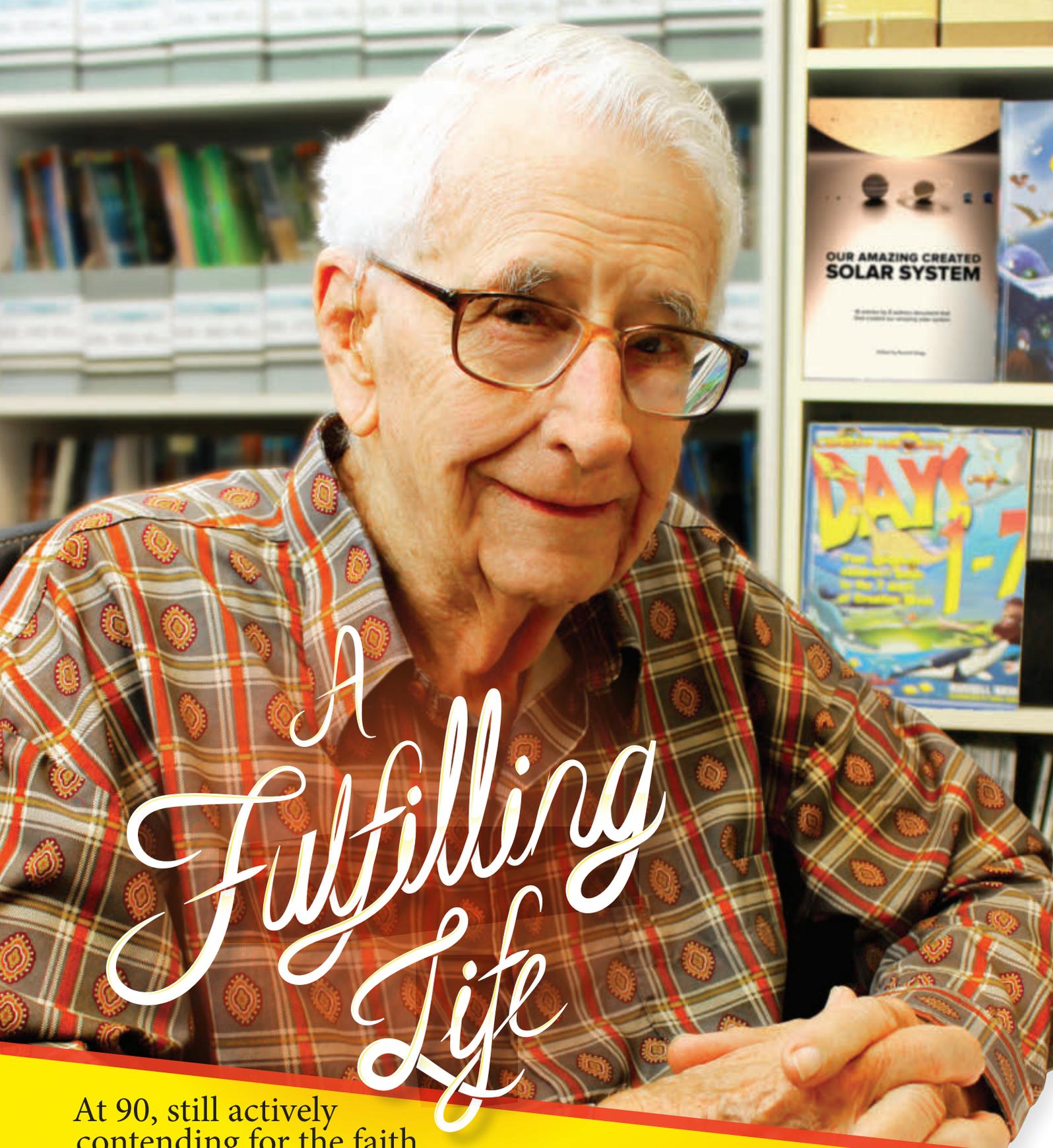
in recent decades. And some creatures which, like dinosaurs, were thought to be extinct for millions of supposed evolutionary years, have turned up alive, including on local menus.<sup>2</sup>

But back to catfish: The variation in size among these is extraordinary—one of the greatest ranges within a single order of bony fish (order Siluriformes). The Mekong Giant dwarfs the diminutive cory catfish (*Corydoras* spp.) at only 8 cm (3 in) or so—ideal for the home aquarium (inset). Some catfish species reach sexual maturity at just 1 cm (0.4 in).

This variety has nothing to do with evolution. Rather, it reflects the variability built into the original created catfish kind (Genesis 1:21). ‘Species’, a modern construct, does not equate to the biblical ‘kind’; in many cases, the ‘kind’ corresponds to the man-made category of ‘family’, but in catfish it is probably the whole ‘order’. Catfish can become different species of catfish, but never another kind of creature. Observed variation in living things is always within limits, as can be seen in all the various other kinds of creatures similarly created to reproduce “after their kind”.<sup>3</sup>

## References and notes

1. Owen, J., Grizzly bear-size catfish caught in Thailand, [news.nationalgeographic.com](http://news.nationalgeographic.com), 29 June 2005.
2. Catchpoole, D., More Mekong ‘hidden animals’ found, *Creation* 32(4):38–39, 2010, [creation.com/mekong-hidden-animals](http://creation.com/mekong-hidden-animals).
3. Common examples are horses and people; see [creation.com/horse-variation](http://creation.com/horse-variation) and [creation.com/tallest-man](http://creation.com/tallest-man).



# A Fulfilling Life

At 90, still actively contending for the faith.

**T**HOSE PASSING by the glass-panelled office of Russell Grigg, in the Brisbane HQ of *Creation Ministries International* (Australia), will most frequently observe him busily engrossed at his computer. His

capability and enthusiasm in the job are such that most are astonished to learn that he has been doing this for the past 27 years. When he was born (in 1927, in Auckland, New Zealand), it was just nine years before that the First World War had finished.

Creation magazine talks to industrial chemist, former missionary, and now staff writer and editor for CMI, Russell Grigg, who turned 90 in February this year.

### FASCINATING HERITAGE

Russell's great-great-grandfather on his mother's side was Charles Baker, who sailed from England to New Zealand in 1828 to be a missionary to the Maori people. On Christmas Day 1835, Charles Darwin and Captain FitzRoy (of *HMS Beagle*) attended a church service at Paihia in New Zealand's far-north Bay of Islands, at which Rev. Charles Baker preached.

Russell's paternal grandfather, John Grigg, arrived in Auckland by sailing ship in 1863. An amateur astronomer, he built a revolving observatory on his house roof. The *Journal of the British Astronomical Association*<sup>1</sup> describes John Grigg as "New Zealand's leading amateur astronomer during the first decade of the twentieth century [who] independently discovered four comets, three of which now bear his name."<sup>2</sup>

### EARLY CHURCH MEMORIES

Russell told us he could never remember a time when he did not attend church; from an early age his parents took him along. He said, "This was before the days of 'Kids Church', so I used to sit in the gallery and regularly heard the Gospel preached."

One day Russell, then nine, responded to an appeal by the minister, who afterwards unwittingly 'bypassed' him. "He had not seen me stand, so no one counselled me that day," said Russell. "Nevertheless, that was when I first made a response to the Gospel."

In the years following, he said, one Bible verse in particular stuck in his mind—Ezekiel 33:8. "If I say to the wicked, O wicked one, you shall surely die, and you do not speak to warn the wicked to turn from his way, that wicked person shall die in his iniquity, but his blood I will require at your hand."

### THE ROAD TO MISSIONS

Baptized at the age of 13, Russell said: "The church we attended had a vigorous Christian Endeavour Society. When at 17 it was my turn to speak on a text, I used Ezekiel 33:8. This reinforced its message to me, about my responsibility to warn others of the consequences of rejecting the Gospel."

At high school, Russell remembers a fellow student "who was a communist and used to bring his communist newspaper into class and try to sell it to fellow students, teachers, or whoever. This made me think, 'Does my Christianity mean as much to me as his communism means to him? Am I Christian?' Well, I believed Jesus had died on the cross for my sins, and had risen again, and I had asked Jesus to forgive me. So yes, I was a Christian. But I think I can relate to both those Christians who can point to a day when they responded to the Gospel, and also to those

who gradually came to the point where they understood the Gospel and appropriated it for themselves."

### PRACTICAL CAREER ADVICE

Russell, ever practical, said he chose to study chemistry at university "simply because that was the subject I got the highest mark for in the entrance exam." He graduated with a Master of Science with Honours.<sup>3</sup>

For six years he worked for a firm making big-brand enamel and lacquer paints. Not especially fulfilled, he read a book titled *How to Get and Hold the Job You Want*. "The concept was: decide what you want to be doing five years from now, work out what you need to do to get there, begin, and keep going until you arrive. I decided I wanted to be the general manager of a N.Z. manufacturing plant." So he studied things like accountancy, management, etc. in evening classes, passed, and soon thereafter reached his goal at another small paint manufacturing firm.

### BECOMING A MISSIONARY

Although he could never get away from the implications of Ezekiel 33:8, Russell said: "I was reluctant to become a missionary myself—until at 29, I finally said 'Yes' to the Lord on this. So then I thought, 'How does one become a missionary?' The answer seemed to be the same as for the other positions I had held—I needed to study for it." So he resigned to do a two-year live-in course at the N.Z. Bible Training Institute in Auckland.

As his course neared completion, he pondered the next step. Of the many talks by visiting missionaries, the speaker from the China Inland Mission seemed particularly inspiring. By then its work had expanded to several other Asian countries, so it was also called Overseas Missionary Fellowship. "The most compelling of the missionary material I read was that by CIM/OMF's founder, Hudson Taylor." One day he realized he did not need to wait for 'more guidance'. He applied to OMF and was accepted, arriving in 1959 in Singapore, where the mission was headquartered, to await designation of his role.



Russell at BPK, the Indonesian Christian Publishers who sponsored his 11-year ministry in Indonesia.

“It so happened”, said Russell, “That literature for all nine countries where OMF worked was produced in Hong Kong. Fearing communist influence, Indonesia had just passed a law forbidding the importation of any literature from China—but this meant Christian books printed in Hong Kong were blocked, too.” OMF thus needed someone with business experience to manage the publication of Indonesian literature within Indonesia. So they sent him to their publication office in Hong Kong to learn about publishing while waiting for his Indonesian visa, which took six months. In mid-1960, he arrived in Indonesia’s capital Djakarta, sponsored by the Indonesian Christian Publishing House (Badan Penerbit



Russell with his Djakarta transport

Kristen or BPK). BPK published books for students in Indonesian theological colleges. OMF wanted to supplement their booklist by producing titles for lay Christians that included books on prayer, Bible reading, Christian living, biographies, Gospel tracts, and Bible portions in comic-book form.

## MARRIAGE & MEMORY LOSS

In Djakarta, Russell met his Australian wife-to-be, Merle Cornelius, already with OMF and teaching English at the Christian University (Universitas Kristen Indonesia) there. They married in 1961. “Two weeks after our honeymoon, Merle was hospitalized with comatose hepatitis and encephalitis, which brought her to the brink of death. With many praying for her, she regained consciousness, albeit with complete loss of memory for the past two years, including our wedding and who I was.”

## A FEAST OF ARTICLES

In addition to editing and proofreading, Russell has been a prolific writer of original articles. Though Russell stopped counting long ago, a partial listing at [creation.com/russell-grigg](http://creation.com/russell-grigg) reveals well over 100. Many of these have become oft-cited classics of creation literature. The most striking aspect of the very worthwhile process of working through this list is the huge range of topics. To name just a few:

- Dawkins’ dilemma: how God forgives sin
- Ernst Haeckel: evangelist of evolution and apostle of deceit
- Naming the animals: all in a day’s work for Adam
- The Gospel in time and space
- Should Genesis be taken literally?
- Is Jesus Christ the Creator God?

Repatriated to Australia, Merle’s health gradually improved, as did her memory—aided by repeated viewings of many photographs. Eventually, she was well enough to go back to Indonesia, where Russell resumed the task of publishing. The first of their three children was born in New Zealand, in 1963; the others in Indonesia, two and four years later.



Russell, Merle, and children Julia, Rosie, and James

## LEAVING INDONESIA

In 1971, Merle had developed epilepsy and the mission doctor prescribed permanent repatriation. So they settled in Merle’s home city of Adelaide, South Australia’s capital. Needing a job, Russell applied for the position of Manager of Children’s Books at the well-known Rigby publishing firm. In his application, he described his publishing experience in Indonesia which included ‘listening patiently to the many and varied excuses from printers as to why our books had not been printed’. Russell said, “I later heard that their CEO was impressed, saying, ‘He seems to know something of the problems of publishing.’” Accepted, he worked there for ten years before rejoining OMF as their Adelaide Representative, later State Director—eight years in all.

## WORKING FOR CMI

“In 1978, Dr Carl Wieland, in Adelaide, had started up what is now *Creation* magazine, later the official organ of what is now *Creation Ministries International* (CMI)”, said Russell. “He and Peter Sparrow [well known for his later ministry with CMI’s *Creation Bus*] were holding regular creation meetings, and I started going along to help out. I had always held to the truth of the whole Bible, including Genesis, but had become increasingly aware of how crucial this issue was for others in regard to the authority of the Bible. If we couldn’t trust the history in Genesis, of how a once-perfect world became corrupted by the entry of sin and death, it seemed that the whole reason for the Cross was gone. Both Carl and Peter had once been atheists because of their belief in evolution.

## ATHLETICS—AND CANCER

During WW2, then in his early teens, Russell showed a penchant for athletics, rugby, and boxing, eventually winning some minor awards.

“At the age of 48,” said Russell, “I was diagnosed with cancer of the colon, which involved surgical removal of part of it, and my becoming a permanent colostomate.” But he is keen to tell anyone who might be facing the same situation that it has never hindered his activities—including athletics.

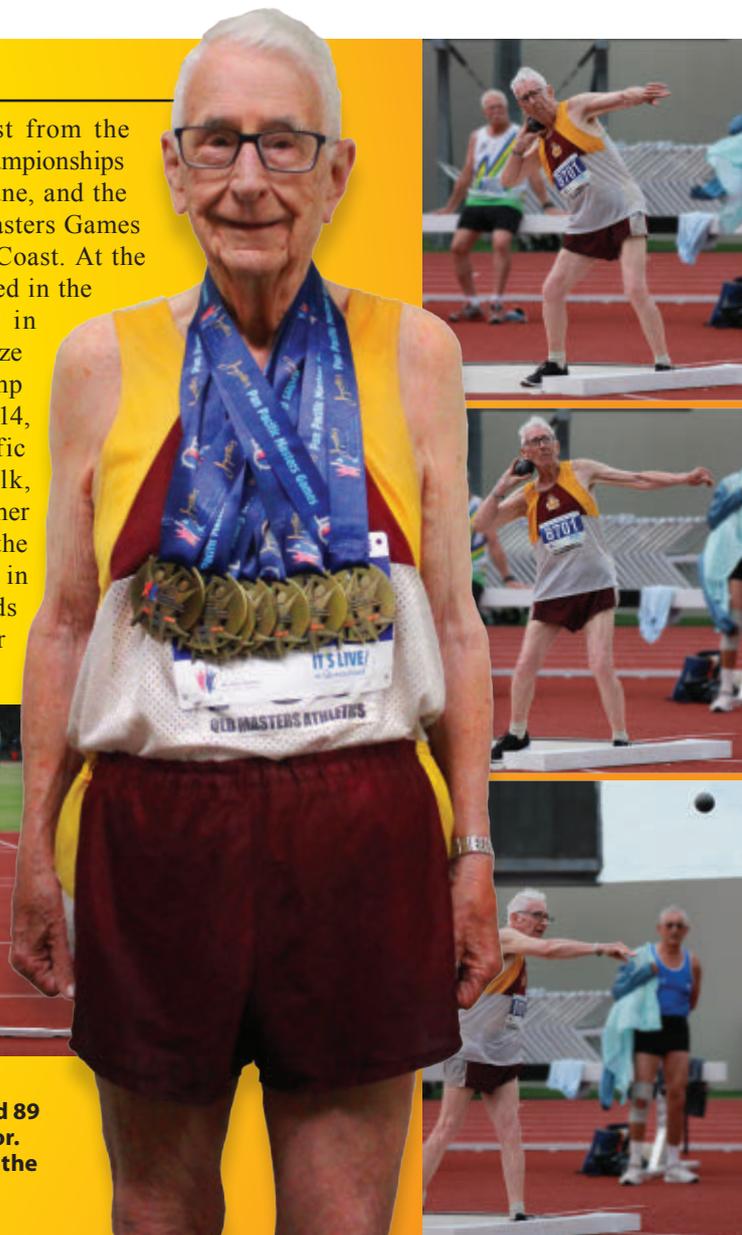
With a characteristic twinkle in his eye, he told us why, approaching his 70<sup>th</sup> birthday, he joined a local gym: “They phoned me with a discount offer that was just too tempting.” He went on: “After a couple of years there pushing the weights, it occurred to me to start throwing them.” So he joined the local Brisbane Masters Athletics club, and eventually took part in the five throwing events: hammer, shot put, discus, javelin, and weight throw. He also took up race walking and running, and for a while held the Australian record as a participant in the 4 x 100 m relay in the Men’s 80–84 age group.

Russell says, “As my age bracket increases, it looks like I have to do less and less to win—maybe just turn up and finish the course alive.” In reality, many of his younger colleagues have wished they had a fraction of his drive and stamina. His total medal count is

a staggering 146, most from the Queensland Masters Championships held annually in Brisbane, and the biennial Pan Pacific Masters Games on Queensland’s Gold Coast. At the age of 75, he participated in the World Masters Games in Melbourne, earning bronze medals in the high jump and 10 km walk. In 2014, he set a new Pan Pacific record in the 5 km walk, and another in the hammer throw in 2016, both in the Men’s 85–89 age group, in which he currently holds the Australian record for the 2 km walk.



**At the 2016 Pan Pacific Games, Russell then aged 89 was the oldest competitor. He won seven medals; in the throwing events and the 3,000 m walk.**



So this was a cause worth being involved in! Dr Wieland later transferred to Brisbane as head of CMI. Approaching retirement, I wrote to him and asked if he could use somebody with a science degree and experience in publishing, deputation, and bookselling.”

Carl accepted, and in late 1989, the Griggs moved to Brisbane, where for some 27 years Russell has been a staff writer and editor at CMI. In that time, Merle’s health deteriorated, and, said Russell, “The Lord called her home to Glory in early 2009.”

### AN AMAZING COLLEAGUE

The staff in the Brisbane office of CMI have long regarded Russell with deep affection and respect, increasing as the years have passed. He says that his work “gives me a reason to get out of bed—the best possible one, being useful to the work of God’s Kingdom.” CMI has benefited immensely from his talents, which, from the beginning of his time here, were provided on a largely voluntary basis.

Just a few months short of his 90<sup>th</sup> birthday, Russell wrote that though he was now slowing down, he was “still writing, and looking forward to one day making the most marvellous journey it is possible for any human to take—the one Merle took to be with her Lord in Glory, some seven years ago.” (Compare Philippians 1:21–23).

We’re so glad that God has to this date chosen to delay Russell’s home call, for some quarter of a century past normal retirement age. And we’re grateful for the privilege of having had him for so long as a valued and dedicated colleague—and a brother in Christ. ■

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3. From Victoria University College, Wellington, N.Z., in 1948.

# THE CAMBRIAN EXPLOSION

THE FOSSILS POINT TO CREATION,  
NOT EVOLUTION

**Dominic Statham**

**M**ANY HAVE been told that the fossil record provided Darwin with overwhelming evidence for his theory of evolution. Nothing could be further from the truth! In his book, *On the Origin of Species*, he admitted that the absence of fossil transitional forms was a major problem, and one that was “undoubtedly of the gravest nature”.<sup>1</sup> (See box 2, p. 22.)

Such was the overwhelming and conspicuous absence of transitional fossils, many leading 19<sup>th</sup> century naturalists had concluded that species were fixed in their form and couldn't change. Darwin himself wrote that “all the most eminent palaeontologists [people who study fossils], namely Cuvier, Owen, Agassiz, Barrande, Falconer, E. Forbes, &c. ... have unanimously, often vehemently, maintained the immutability [i.e. unchangeable nature or ‘fixity’] of species.”<sup>1</sup>

## **Fixity of species or fixity of kinds?**

Biblical creationists do not hold to the view that God created the species just as we see them today (the so-called ‘fixity of species’), and this was also true of pre-Darwinian biblical creationists such as Carolus Linnaeus and Athanasius Kircher. Rather, God created different *kinds* of plants and animals (Genesis 1:11–12, 1:21 and 1:24–25) and designed these with the capacity to change and adapt to different environments—sometimes even resulting in different species (speciation). The extent of this change, however, is understood to be limited: daffodils may turn into other species of daffodil, or horses into other species of horse; but daffodils will never turn into apple trees (a different kind of plant) or horses into giraffes (a different kind of animal).

Since Darwin wrote *On the Origin of Species*, some fossils have been found which are consistent with the view that species have changed in the past (see box 1 p. 21).

## **Fossils and change**

But fossils suggesting changes in species are actually quite rare, which is not what we would expect if the rocks had been laid down over many millions of years. Professor David Kitts commented,

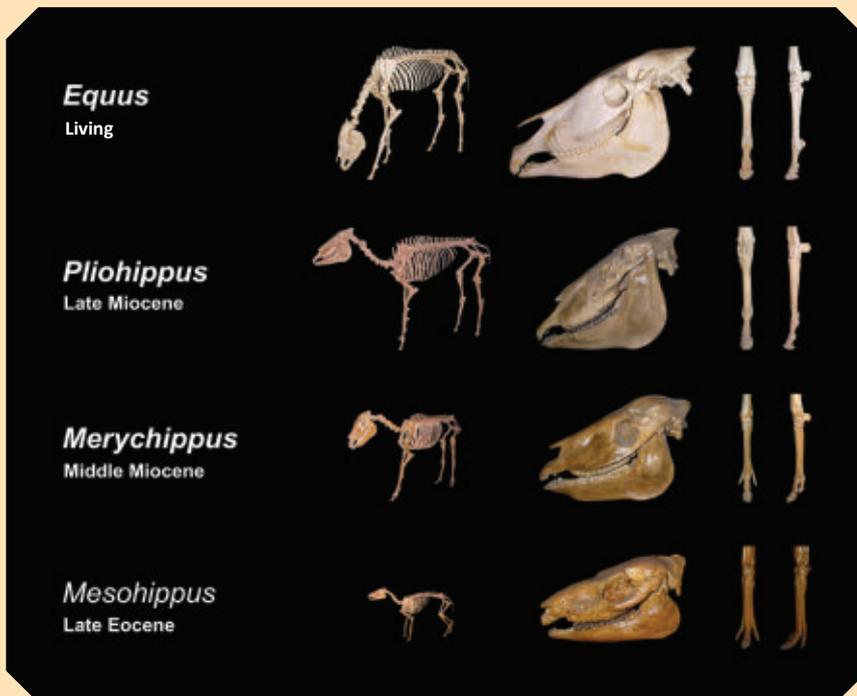
Despite the bright promise that paleontology [the study of fossils] provides a means of ‘seeing’ evolution, it has presented some nasty difficulties for evolutionists, the most notorious of which is the presence of ‘gaps’ in the fossil record. Evolution requires intermediate forms between the species and paleontology does not provide them.<sup>2</sup>

However, we would expect a general absence of transitional forms between species if the biblical account of Earth history were true. This is because, in general, a global Flood would have produced fossils representing a *snapshot*

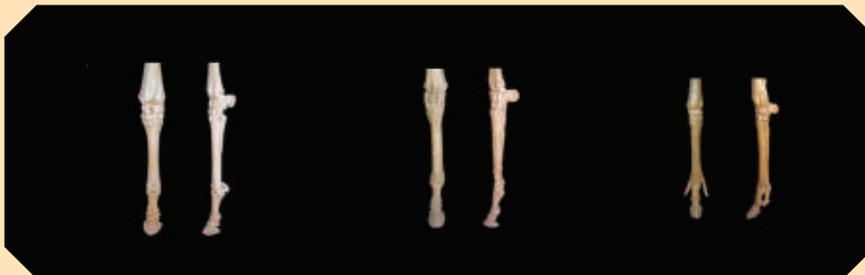
### BOX 1: Fossils showing species have changed

One example of fossils consistent with considerable variation within a kind, even to the extent of new species, concerns the horse fossils shown here in figs. 1 and 2. The extinct creatures *Merychippus* and *Pliohippus* share many similarities with living horses (*Equus*) and are understood to be members of the same family. They were clearly horses, though significantly smaller than most horses today, and had differences in their legs and feet.<sup>1</sup> *Merychippus*, for example, had three toes and was thus better adapted to wet, marshy ground, whereas a single hoof is better on firmer ground. Like the finches Darwin observed on the Galápagos islands,<sup>2</sup> horses probably changed over the last few thousand years, and horses known today may well share a common ancestor with *Merychippus* and *Pliohippus* (i.e. one created kind has given rise to several species, but all still the same kind).

- **Fig. 1.** Variation within the horse family. *Mesohippus*, *Merychippus* and *Pliohippus* are known only from fossils. Late Miocene, Middle Miocene and Late Eocene refer to the rock layers in which the fossils are found.



- **Fig. 2.** Variation in horse legs.



Evolutionists say that such speciation is driven by random genetic mutations (accidental changes to DNA) which cause variation upon which natural selection acts—and that this has generated all of life's array. Biblical creationists believe that variation within each kind is primarily due to its inbuilt (created) capacity to change. They believe that the variety upon which natural selection can act was already present in the genetic information in the original kind (i.e. the building instructions in their DNA).<sup>3</sup> Consequently, the extent of change is limited.

1. Sarfati, J., The non-evolution of the horse, *Creation* 21(3):28–31, 1999; [creation.com/horse](http://creation.com/horse).
2. Wieland, C., Darwin's finches: Evidence supporting rapid post-Flood adaptation, *Creation* 14(3):22–23, June 1992; [creation.com/darwins-finches](http://creation.com/darwins-finches); see also [creation.com/galapagos-birds](http://creation.com/galapagos-birds).
3. Statham, D.R., Only the Bible explains the diversity of life, *Creation* 37(1):40–43, 2015; [creation.com/diversity-life](http://creation.com/diversity-life).

in time, rather than a record of *change* over time.

But even the few fossils found from which speciation can be reasonably deduced have not provided evidence that one *kind* of creature gradually turned into another. Professor Stephen J. Gould commented,

The absence of fossil evidence for intermediary stages between major transitions in organic design ... has been a persistent and nagging problem for gradualistic accounts of evolution.<sup>3</sup>

More recently, referring to the rich fossil record in rocks designated as 'Cambrian', Professor Euan Clarkson admitted,

... transitional or linking forms are absent. The geological record gives no indication of such relationships ... . But what the fossil record does give is many examples of the 'instantaneous' origin of new structural plans.<sup>4</sup>

### The Cambrian Explosion

The Cambrian rocks provide some of the most devastating fossil evidence against Darwin's theory. Evolutionists believe these to be 541–485 million years old; in their thinking, they contain the remains of some of the earlier life forms that existed on Earth. Very significantly, a huge variety of animals appear suddenly, 'out of the blue'. This 'Cambrian explosion' is often referred to as the 'big bang' of evolution, because dozens of widely different organisms are said to have arisen over a very short period of time. The differences are so great that they are often referred to as having fundamentally different 'body plans'. This is why they are classed as different phyla (plural of phylum), as explained below.

Some of these creatures were truly exotic, such as *Opabinia* (fig. 3), *Marella* (fig. 4), and *Anomalocaris* (fig. 5). Others would seem more familiar to us, such as shellfish (fig. 6), jellyfish, starfish, finned fish (fig. 7) and worms (fig. 8). There is no evidence that these are somehow less sophisticated than

their representatives alive today, so it is very difficult for evolutionists to argue that Cambrian creatures represent ‘primitive’ and ‘less evolved’ forms of life. The extinct trilobites (fig. 9) had compound eyes that are among the most sophisticated and complex vision systems of any creature that has ever lived!<sup>5</sup> *Anomalocaris* (fig. 5) also had sophisticated compound eyes, which have left evolutionists puzzled as to how they could have evolved so quickly.<sup>6</sup>

### BOX 2: Darwin on the fossil record

In chapter 9 of his *Origin of Species*, Darwin identified three geological observations which, in respect of his theory, and in his own words, were “undoubtedly of the gravest nature”:

- “our not finding in the successive formations infinitely numerous transitional links between the many species which now exist or have existed”
- “the sudden manner in which whole groups of species appear in our European formations”
- “the almost entire absence, as at present known, of fossiliferous formations beneath the Silurian strata.” (Note that in Darwin’s time, there was overlap between what was called ‘Silurian’ and ‘Cambrian’)

He freely admitted, “... the number of intermediate varieties, which have formerly existed on the earth, [must] be truly enormous. Why then is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely graduated organic chain; and this, perhaps, is the most obvious and gravest objection which can be urged against my theory.”

Darwin, C.R., *On the Origin of Species*, John Murray, London, pp. 310 and 280, 1859, (1<sup>st</sup> edition).

### Figs 3–9 Examples of creatures found as fossils in Cambrian rocks.



Fig. 3. *Opabinia*



Fig. 5. *Anomalocaris*



Fig. 8. A living sipunculid worm like those found in Cambrian rocks

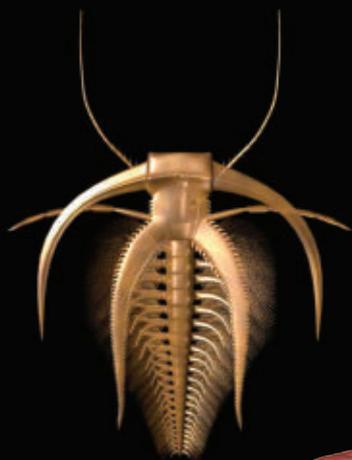


Fig. 4. *Marella*



Fig. 6. A living brachiopod similar to those found in Cambrian rocks



Fig. 9. Trilobite, *Triarthrus eatoni*

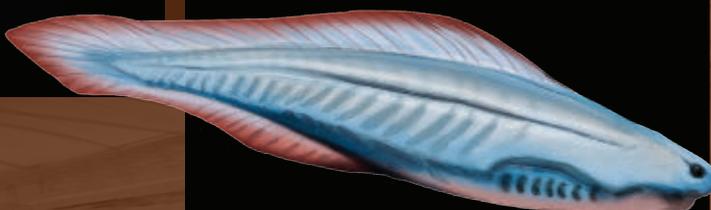


Fig. 7. *Haikouichthys*, a type of fish found in Cambrian rocks

## Darwin's tree of life

According to evolutionists, ordinary chemicals somehow came together to form a single-celled, self-reproducing organism—a microbe that could make copies of itself. Then, over hundreds of millions of years, we're told, evolution caused this to become more complex and to diversify into different species—see fig. 10.

A number of species forming a genus

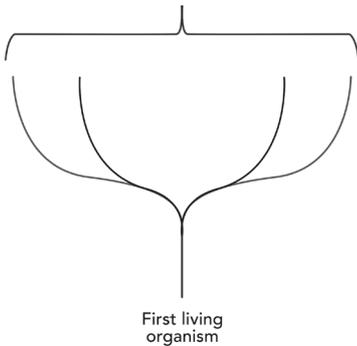


Fig. 10. First steps in evolution, leading to different species within the same genus

A number of genera forming a family

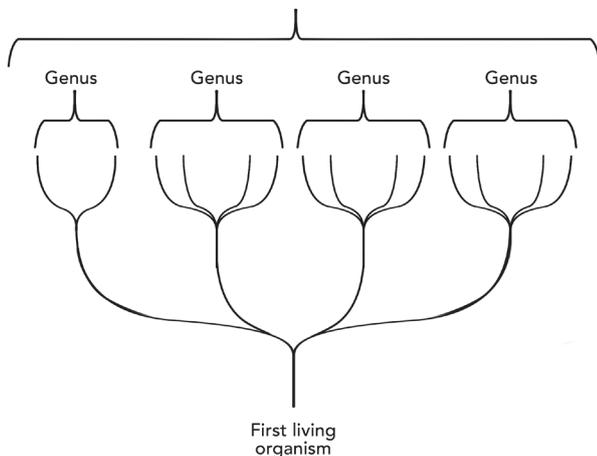


Fig. 11. Further steps in evolution, leading to different genera (plural of 'genus') within the same family

Allegedly, these new species then continued to diversify to the point that they could be placed into different genera (i.e. different groups of species—fig. 11). However, despite their differences, they would still be understood to be members of the same family. Then, as evolution continued, these became more and more diverse until they could be classified as different families (i.e. different groups of genera), then different orders (i.e. different groups of families), and then different classes (i.e. different groups of orders). Eventually evolution would have given rise to such fundamentally different body plans that these creatures could be placed into different phyla (i.e. different groups of classes).

Animals with fundamentally different body plans are said to be 'disparate' rather than just 'diverse'. For example, while different members of the cat family (e.g., lions, tigers, leopards, domestic cats) are said to show diversity, different phyla (e.g. chordates, arthropods) are said to show disparity. Cats are all chordates, having a backbone and an internal skeleton. The differences between their anatomies are relatively

minor. Arthropods (e.g. lobsters, crabs, insects) have no backbone and have an external skeleton. Their anatomies are fundamentally different to those of chordates.

Approximately 36 phyla have been identified in living and extinct animals, and their widely differing body plans indicate the extent of the disparity found throughout the natural world. For

example, brachiopods (lamp shells) are marine creatures with shells on their upper and lower surfaces; cnidarians are soft-bodied animals with tentacles armed with stinging cells, such as jellyfish and corals; molluscs are another group of soft-bodied animals and include squid, octopuses, and snails;

and echinoderms have five-fold radial symmetry of their body parts, e.g. starfish and sea urchins.

It is highly significant that almost every single animal phylum is represented in the Cambrian rocks—including the one of which humans are a member, the chordates.<sup>7</sup> As shown, Darwinian theory would predict that, as we move up the geological column and hence forward in alleged evolutionary time, disparity should emerge gradually in the fossil record. In other words, diversity should precede disparity. In fact, we see the very opposite: disparity preceding diversity. Some would regard this as virtually a formal disproof of Darwinism.<sup>8</sup>

All this, of course, presents no difficulties for biblical creationists. The Cambrian rocks simply reflect the great variety of organisms that God created to live on or close to the sea floor, and were among the first to be buried by sediments deposited by the Genesis Flood. ■

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8. Meyer, S.C., *Darwin's Doubt: The explosive origin of animal life and the case for intelligent design*, HarperCollins, New York, 2013.

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# OT SCHOLAR:

## GENESIS TEACHES A SHORT TIMESCALE

### **Jonathan Sarfati chats with Old Testament Professor Dr Travis Richard ('Rick') Freeman**

Dr Travis Freeman serves as Professor of Old Testament at the Baptist College of Florida in Graceville. He is a graduate of Ouachita Baptist University (B.A.) and Southwestern Baptist Theological Seminary (M.Div., Ph.D.). He has been a young-earth creationist for over twenty years and is a member of the Evangelical Theological Society Creation Fellowship. He has been married to Dawn for over 50 years, and they have a son and daughter, and a grandson and granddaughter.

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**I**MET Dr Freeman recently when he hosted me at a conference at his Baptist College. But I was already familiar with his cogent defence of a straightforward biblical timeline in Genesis,<sup>1</sup> which was the topic of his doctoral thesis, *The Genesis 5 and 11 fluidity question*.

#### ***Does Genesis have gaps?***

Some claim that there are gaps in the genealogies of Genesis 5 and 11. Dr Freeman points out that there can be no *time* gaps, because: The biblical text gives the number of years

between the births of the descendants of Adam in the line leading to Noah. By adding these numbers together, we can calculate the number of years from Adam to Noah. These numbers would be superfluous, even misleading, if generations are missing between fathers and sons. In fact, one strains without success to even imagine why the author of Genesis would include these numbers unless he meant to tie the generations together in a continuous sequence without chronological gaps.

“This type of genealogy seems to be designed for chronological purposes and never contains gaps, at least none that anyone has ever demonstrated. In fact, every biblical genealogy of this sort has been shown to be without gaps. Thus we can calculate that Genesis 5 and 11 record that about 2008 years passed between creation and Abraham’s birth around 1996 BC, thus rendering a creation date of about 4004 BC.”

Dr Freeman also pointed out that this understanding is hardly a novelty. Rather, “nearly all Bible scholars, Jewish and Christian, from the first century BC to about AD 1800, understood Genesis 5 and 11 as setting forth a no-gap chronology of ancient history. So, unless we are prepared to show how all of these scholars were wrong, we should reject the idea of gaps.”

Why was this clear understanding doubted from around AD 1800? Dr Freeman reminds us this is when old-earth ideas started to become popular in ‘science’, due to the Flood-rejecting uniformitarian dogma of Hutton and Lyell, explicitly designed to “free the science from Moses.”<sup>2</sup> Long-age beliefs almost invariably come from such outside ideas being imposed upon the text, rather than anything in the text itself.

But don’t other genealogies, such as the Matthew 1 genealogy of Jesus, have gaps? Dr Freeman points out that this is a different genre, and a key difference is that “Matthew 1 does not record the number of years between generations. This type of genealogy often contains generational gaps, that is, some names are omitted for the sake of brevity or symmetry.”

## The doctrine of creation

One of Dr Freeman’s most popular classes is his ‘The Doctrine of Creation’, which he summarizes in three statements:

1. God created all things in six twenty-four-hour days about 4004 BC in mature form.
2. God created all living things according to distinct kinds that were programmed to produce only their kinds but able to adapt to their environment within their kinds.
3. God ravaged the earth with a catastrophic flood which began about 2348 BC, lasted about a year, covered the entire world, destroyed and rebuilt Earth’s crust, left behind millions of fossils, left behind vast coal and oil deposits, and permanently altered Earth’s environment.

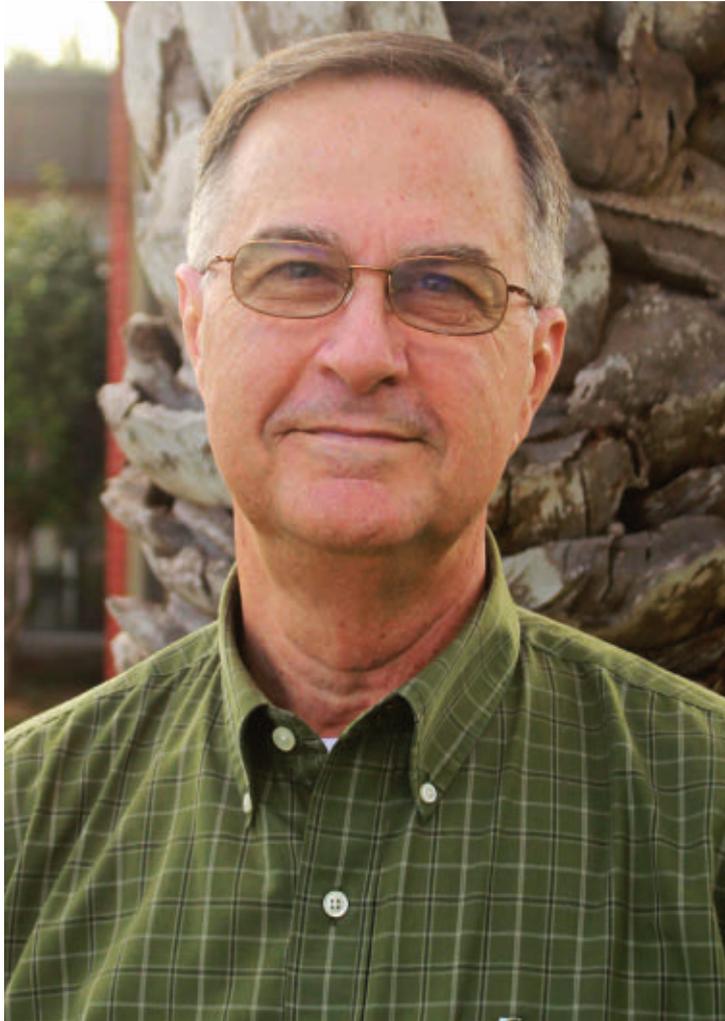
Since Dr Freeman teaches at a school that affirms the inerrancy and sufficiency of Scripture, I asked how all that is supported by the Bible. He pointed out that Genesis 1 declares that God created all things in six *days*. He explained that when modified by a number or by the phrase ‘evening and morning’, the Hebrew word for ‘day’ always means a solar day, not an indefinite period of time, in the Old Testament.

Also, the same chapter describes Adam, Eve, fruit trees, and other living things as mature at the time of their creation, and it says that they would reproduce after their kinds. That is, one created kind did not evolve into another, leading eventually to a group of human-like creatures.

Dr Freeman also stresses that Genesis 7 and 8 describe the Flood of Noah’s day as year-long, worldwide, earth-devastating, and deadly to all land vertebrates but those on the Ark. These things would be responsible for the formation of most of Earth’s sedimentary rock layers and fossils.

## What is the problem with millions of years?

But many people in the church think that it’s OK to believe in evolution over millions of years. Dr Freeman points out



severe problems. One of the most important for Christians is surely that “Jesus contradicted evolution and millions of years when he said that God created Adam and Eve at the beginning of creation (Mark 10:5–9), not billions of years after a big bang.”

He further points out that a straightforward understanding of Genesis indicates that God created humans, animals, trees, and so on in mature form, and only a few thousand years ago. Dr Freeman explains that real archaeology opposes long-age dogma, revealing no civilizations or historical documents older than a few thousand years. Geology also opposes this dogma, because creatures must have been buried quickly to form fossils, so the layers must have been deposited catastrophically. Also, there must be little time between the layers, because the contact lines are flat and largely erosion-free, and they have other features such as footprints that must have been preserved quickly.

### **How does creation matter to Christians?**

Many in the church think of creation as a side issue. Naturally, Dr Freeman disagrees, and explains why it is actually foundational:

“God has placed in every person the desire to know the answer to some basic questions about life, such as who am I, where did I come from, why am I here, where am I going, and how should I then live? The biblical doctrine of creation answers those questions and thus helps us understand the need for obedience to our Creator, including belief in the Gospel. The doctrine of creation also helps us believe in the accuracy of the Bible, because we see that its opening chapters are compatible with history and science.”

Indeed, it was very important to Travis personally. First, as a young man, he was an agnostic: “I did not know the answer to those questions, especially, how I should live. I was confused about the meaning of life, or if there even was a meaning. The confusion showed in my behaviour.” However, when he was 32, a pastor shared the Gospel with him. Like many people, Travis “objected that the Bible and its Gospel could not be true because we humans came into being through billions of years of blind evolutionary processes.” Many would-be evangelists would try to change the topic. Fortunately, not this pastor, who was well informed:

“In God’s providence, the pastor was also a biology teacher at a nearby university. He informed me that evolution was not even a good theory, and certainly had not been proven. His comments spurred me on a journey to find out the truth for myself. I soon came across several books, including *The Genesis Flood* by John Whitcomb and Henry Morris, which exposed the flaws in evolution and showed how the Bible and empirical science actually agree. Once I saw the accuracy of the Genesis account of creation, I knew instinctively that the rest of the Bible must be true. So, I repented of my sins and believed the Gospel of Jesus Christ. Now my life has meaning and direction—and may I add, great joy!”



Dr Freeman has documented that Genesis 1–11 bears the marks of genuine and accurate history for a number of reasons, including:

1. Genesis 1 uses the word ‘and’ (Hebrew = *vav* or *waw*) repeatedly to tie together its sentences. Such usage is characteristic of ancient Near Eastern historical literature.
2. Genesis 7–8 records no less than 12 chronological references concerning events that occurred during the flood of Noah’s day. Historians generally view the presence of such references as evidence of real history, as opposed to myth or legend.
3. The authors of the rest of the Bible refer to the events of Genesis 1–11 as factual history. Luke even reports that the patriarchs from Adam to Abraham were Jesus’ real-life ancestors just like David and Solomon, drawing from Genesis 5 and 11.
4. The first 11 chapters of Genesis employ the same style of writing as the other parts of the Old Testament commonly accepted as real history, including Genesis 12–50.

We know of literally hundreds of people whose faith was ‘shipwrecked’ on the jagged reef of biblical compromise, but who, like Dr Freeman, were restored thanks to consistent biblical creation teaching. We trust that his encouraging testimony will help many more. ■

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# MIGHTY MITES

## STIFLE EVOLUTIONISTS

Shane Cessna

**A**MBER (FOSSILIZED tree resin)<sup>1</sup> has been known to entomb many things, including ants,<sup>2</sup> ‘gladiator’ insects,<sup>1</sup> crustaceans, water beetles, barnacles, oysters, clams and water striders.<sup>3</sup> Evolutionists have a hard time explaining how large amber deposits formed, but a recent find is even more problematic for evolution and its long ages.

Amber droplets excavated from outcrops high in the Alps of north-eastern Italy rocked evolutionary scientists because of what they contained. They revealed a pair of gall mites supposedly 230 million years old—100 million years ‘older’ than the next-oldest arthropod encased in amber.<sup>4</sup> Mites are a type of arthropod, a group that includes insects and crustaceans.

So, what was so shocking about this particular discovery? If these tiny creatures evolved from some common arthropod ancestor, then the fossil record should show a variety of transitional forms from that arthropod ancestor to today’s gall mites. However, evolutionary scientists were astounded to find that these ancient gall mites look just like modern ones. Study lead author David Grimaldi said, “They’re dead ringers for (modern) gall mites.”<sup>5</sup> The conclusion is indisputable since, as

Grimaldi said of amber, “it preserves specimens with microscopic fidelity.”<sup>6</sup>

Thus, in the alleged 230 million years, there have been no evolutionary changes in these organisms. In fact, this sort of ‘stasis’ (looking much the same as modern-day representatives) is actually the rule, not the exception, for fossils in general.<sup>7</sup> But for evolutionists, as one report on the discovery put it, “that’s surprising because the world has changed a lot from when these bugs were alive.”<sup>8</sup> E.g. mites today live on flowering plants, but evolutionists believe that flowering plants had not yet evolved when those mites were entombed.

However, this is just what we would expect from the true history revealed in Scripture: mites produce only mites, and the long time periods are illusory. When we see any sort of beautifully preserved fossils, they are either very different from what is around today (because their kind went extinct) or, if obviously related to present-day creatures, they are virtually the same as these.

Scripture tells us that God created everything in six ordinary days, roughly 6,000 years ago. God told the creatures to reproduce ‘after their kind’ (10 times in Genesis 1). However, sin entered the world through Adam’s actions, and as a result the whole of creation was cursed (Romans 8:19–23). Eventually, God judged mankind’s sin and destroyed the earth with a global flood. The formation

of amber, and all its many ‘non-evolved’ fossils, makes much more sense as a result of this Genesis Flood, around 4,500 years ago. ■

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# CAPY

Warren Nunn

**I**T'S AN animal to which many other creatures (and not just its predators) are attracted. Whether it's in the water, or out of it eating grass—or even just lazing around—they want to be on its back, at its side, or close by it.

What is it? It's the world's biggest rodent, the capybara, which can weigh up to 66 kg (145 pounds).<sup>1</sup>

Europeans first described it as a water hog—because it swam and looked like a pig—hence the scientific name *Hydrochoerus hydrochaeris*. The common name capybara derives from *ka'apiûara* ('grass eater') in the once widely spoken South American Tupi language.<sup>2</sup>

Along with cavies (domesticated varieties of which are more commonly known as guinea pigs), capybaras are classified within the Caviomorpha. This is one of the two subdivisions of the rodent infraorder Hystricognathi, a group with distinctive skull features and which includes porcupines. All caviomorphs live in the New World, the majority in South America.<sup>3</sup> Capybaras have large heads, heavy muzzles, short legs, and coarse hair that can be reddish, yellowish or dark brown.<sup>1</sup>

Capybaras are social animals that control parasites by mutual grooming. They live in groups of a dozen or more, mostly females and young, led by a dominant male<sup>3</sup> and like to laze near water in the morning, rest during the hottest part of the day, and graze late in the afternoon and evening.<sup>4</sup>



# BARA

## THE RODENT OTHER CREATURES USE AS A CHAIR



### *Digestive strategy*

Like their fellow rodents rabbits and hares, capybaras deliberately eat special fecal pellets, a process called *refection*, their way of ‘chewing the cud’ to help them digest plant matter.<sup>5,6</sup> The contents of these pellets come from their cecum, which in mammals is a pouch-like structure where the small intestine ends and the large one begins. In the capybara, it functions as a large fermentation chamber, which stores and churns the fibrous materials while mixing in bacteria, enzymes, and gases to aid digestion.

But rabbits do not regurgitate and re-chew food as do the ruminants (e.g. cows), whereas capybaras, even though lacking the stomach chamber known as the rumen, sometimes do. Each day, a capybara eats about 3 kg (6.5 pounds) of fresh forage; mainly grasses as well as reeds and water hyacinths, depending on the season. Capybaras also eat various cultivated crops and they particularly like rice and sugar cane.<sup>7</sup>

### *Life at the water’s edge*

Capybaras are strong swimmers, aided by their partly webbed feet, which are also useful on swampy ground. They live close to water and can stay submerged for up to five minutes.<sup>1</sup> When alerted to danger by special alarm barks from other capybaras, they can hastily retreat to the water, exposing just their nostrils and eyes. They also communicate through a variety of other sounds, including growls, whinnies, and whistles.

### *Reproduction*

Capybaras mate in water and usually have a litter of four to five pups annually, each weighing about 1.5 kg (3.3 pounds). These suckle for about 16 weeks and, born with teeth, can eat grass from just a few days old. They normally live for seven to 10 years, though up to 15 in captivity.<sup>4</sup>

gettyimages/supernilegus

# FIVE FAST FACTS ABOUT CAPYBARAS

1. Dominant males have a large scent gland on top of the snout (known as a morillo) from which they can secrete fluid to mark their territory and signal dominance.
2. Juveniles are easy prey for anacondas, caimans and jaguars.
3. They can grow up to 120 cm (4 ft) long and measure about 60 cm (2 ft) at the shoulder.
4. They are farmed commercially for their meat, and also their skin which makes excellent leather.
5. Their teeth continue to grow and change shape as they age (see box 'Capybara evolution?').



## Flying passengers

Several species of birds literally flock to their sides ... and backs, as do various other creatures. Capybaras have been referred to as 'nature's chair' or a 'head-rest for the rest of nature'.<sup>8</sup>

When they forage, various birds use them as a perch, walking near their heads to catch prey they disturb (such as insects) and also feeding on the rodent's ectoparasites such as fleas and lice. Capybaras will even lie down and expose their flanks and underside for birds to 'clean'. One was seen 'presenting' its nostril to a bird so it could remove a tick.<sup>9</sup>

## Why the attraction?

It is not unusual to see feeding associations such as this, which favour both creatures, between birds and mammals.<sup>10</sup> But less clear is why so many other creatures are also seen so close to capybaras, both in the wild and in captivity. For example, in shared zoo enclosures, spider monkeys will ride on the back of the rodent, and groom it. These are normally forest-dwellers that don't live in the same natural habitat as capybaras.<sup>11</sup> An internet search will also reveal images of other creatures, such as a cat, a monkey, or a duck similarly riding on a capybara's back.

## A reminder of Eden

These associations seem to run counter to the survival-of-the-fittest paradigm that Charles Darwin first proposed and his modern-day devotees mostly champion. By contrast, the Bible speaks of a once-perfect creation spoilt by sin, in which *all* creatures once naturally

co-existed peacefully. Seeing many different types of animals cuddling up to the gentle capybara reminds us that only after sin entered through Adam and Eve has death intruded and predation become prevalent. It brings to mind the picture in Isaiah 11:6–9 of humans and animals once again living in a future harmony:

"The wolf shall dwell with the lamb, and the leopard shall lie down with the young goat, and the calf and the lion and the fattened calf together; and a little child shall lead them. They shall not hurt or destroy in all my holy mountain." ■

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Jörg Sabel/23RF

## CAPYBARA EVOLUTION?

Beliefs about capybara evolution are generally in line with what could be deduced from the groupings in which they are classified. But little is provided in the way of evidence to support the belief that they descended from quite different types of creature. In line with the general nature of the fossil record, there is no evidence of the major transitions in body form which need to have happened if all creatures share the same common ancestor.

Evolutionists regard capybaras as related to guinea pigs, rock cavies, agoutis, and chinchillas. The idea that these once shared a common ancestor is not unreasonable, and these are all likely to represent the same created kind. After the Flood, the mountainous region where the Ark landed would have provided the geographical isolation for rapid allopatric speciation. That is, most kinds would have rapidly adapted to changing and different environments, from natural selection acting on mostly the genetic variation built in at creation, culling that which was unsuitable for the environment. The isolation would mean that these varieties would not breed with the others, so the distinct varieties and even species would arise. E.g. an information-losing mutation that partly disabled the gene for separating the digits in the feet would result in webbing, and this would be a selective advantage for frequent swimmers.

Fossils show several (and also very large) extinct types of capybara. These may well have also been the same baramin (kind), and so it is not surprising that the number of different ‘labels’ for these has been shrinking as more is known. In one instance, capybara fossils once regarded as seven extinct species within four genera (on the basis of tooth differences, which is the way most mammal ‘evolution’ is supposedly ‘documented’) are now thought to simply be individuals of differing ages within a single fossil species.<sup>1</sup>

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# BIRD-OF-PARADISE

## PIGMENT SURPRISE

The 'animal-only' pigment **bilirubin** is discovered in plants

David Catchpoole

**A**SIDE FROM the widely recognized shape of their flowers, which resemble the head of a tropical bird, bird-of-paradise plants (*Strelitzia* spp.) are admired for their vibrant floral coloration. The brilliant orange is even more intense on the furry outside of their seeds, and is able to persist for *decades*,<sup>1</sup> unlike most plant pigments, which degrade rapidly after cell death.

Researchers, eager to investigate the source of such long-lasting and intense colour, set about to try to identify the pigment. They used two powerful state-of-the-art laboratory techniques (high-performance liquid chromatography, and nuclear magnetic resonance) to analyze the chemical structure of the colouring agent in the bird-of-paradise plants. But the chemistry of the orange pigment didn't match the chemical properties of any known plant pigment.

With rising excitement, the researchers realized this vivid orange was something never before identified in the plant realm. Finally, after a year of comprehensive testing, the researchers identified the orange agent as the 'animal-only'<sup>2</sup> pigment *bilirubin*.<sup>3-6</sup> In mammals, bilirubin is a breakdown

product of hemoglobin (the red pigment in blood), and is what gives the yellowish tinge to the skin of patients with jaundice or bruising. Bilirubin seems to have a useful antioxidant role.<sup>7</sup>

The finding has astonished the scientific community. What's an 'animal-only' pigment doing in plants? The researchers have subsequently identified it in other flowering plants, too, showing bilirubin is not limited to the bird-of-paradise plant species.<sup>8</sup> As yet, *how* plants produce bilirubin, which in animals is a product of the breakdown of blood, "is still a mystery".<sup>4</sup> Despite the re-think in the evolutionary storyline that this discovery necessitates, homage is paid to the evolution narrative, apparently sacrosanct *whatever* evidence is turned up:

"The fact that bilirubin exists in both plants and animals may demonstrate the depth of evolution. If bilirubin is synthesized via the same biochemical pathway which is responsible for producing bilirubin in animals, this would indicate that the pathway was likely conserved throughout evolutionary history in both the plant and animal kingdom."<sup>4</sup>

# PARADISE FLOWER

‘Conserved throughout evolutionary history’? Only what *already exists* can be conserved. These knowledgeable-sounding words about “the depth of evolution” skip over the key issue—how could such complex programmed mechanisms and biochemical pathways have arisen *at all* during ‘evolutionary history’? The idea seems to require an imagination more vivid than the pigment.

Here’s the crux of the matter: history is *recorded*, not imagined,<sup>9</sup> and the most important figure in history is on record as saying of wild flowers, His own handiwork, that “even Solomon in all his glory was not arrayed like one of these” (Luke 12:27). Of course, His message goes much deeper than that,

and is open to anyone willing to escape the irrational extolling of a Creator-free existence. Surely a clear choice: the vacuous “depth of evolution” versus “the depth of the riches of wisdom and knowledge of God” (Romans 11:33). ■

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# Marriage



by Erin Hughes and Lita Cosner

It had taken weeks of planning, but they were finally ready for the big surprise party for Grandma and Pop’s 50<sup>th</sup> wedding anniversary. The James family and lots of their friends were hiding, waiting for them to come in. Simon decided this was a good time for a ‘family lesson’.

“Hey Dad, Grandma and Pop have been married a really long time, right?”

“Yes, they have.”

“Where did marriage come from, anyway?”

“From the Bible, but let’s talk about it later, I see them pulling up to the house now!”

## Marriage—from where?

God gave marriage as a gift to the first man and woman he created, Adam and Eve, and to

their descendants—all of us! God teaches us about marriage in the Bible, but God’s teaching about marriage is also ‘written’ on our consciences, so even cultures that didn’t have the Bible had marriage.

*Dig deeper: Genesis 1:27, Romans 2:14–16*

## Were Adam and Eve really married since no one else was there?

Adam and Eve were the first people, so there were no *human* guests at their wedding. But God Himself married them. Even today, when people are married Jesus says it is God who joins them together. Adam and Eve’s marriage is the model for every marriage after theirs!

*Dig a bit deeper: Matthew 19:6, Genesis 2:21–24*



### What does the Bible say about marriage?

God created Eve so Adam wouldn't be alone, and so he would have a helper. Marriage is a great blessing to both the husband and the wife. Jesus, referring to the marriage of Adam and Eve, said: "What therefore God has joined together, let not man separate." This shows that marriage is meant to last for as long as both people are still alive. In the New Testament, God also tells us that people who believe in Jesus should only marry other believers.

*Dig deeper: Genesis 2:18, 2 Corinthians 6:14, Matthew 19:1-8*

### In the Bible, why did some people have more than one wife?

After Adam sinned, human relationships were affected. Sin caused people to view marriage differently. It causes us to want things we shouldn't have. The first man who had more than one wife, Lamech, was a violent, godless man, and families with more than one wife had problems. God allowed this for a while because of sin, but He calls believers now back to the original 'very good' design for marriage—one and one woman.

*Dig deeper: Genesis 4:19*

### How is Christian marriage different from that of non-believers?

Marriage is a gift to all people, not just people who believe in Jesus. But marriage is even more of



a blessing when we recognize and honour God's design for it. God calls Christians to be careful to choose a spouse who loves God so the husband and wife can help each other grow in faith. God calls men to love their wives as Christ loved the church—that means to love her enough to die for her! And God calls wives to honour their husbands like the church is supposed to honour Christ. That means that the husband and wife get to be a picture of Christ and His church.

*Dig deeper: Ephesians 5:28, John 15:13*

### Is it okay to not marry?

Even though marriage is a great gift, some people are given the gift of not marrying. The

apostle Paul was one man like this, and he wished more people were as blessed as he was! Sometimes people who want to focus on serving God choose not to marry so they can focus on Him above all things, and Paul says that could be even better than marriage for some people.

*Dig deeper: 1 Corinthians 7: 32–35, 1 Timothy 3:2, 12*

### Was Jesus married?

The Bible clearly indicates that Jesus didn't have a wife; He was single. But Scripture says His Bride is the church. The book of Revelation tells us there will be a huge wedding supper of the Lamb when Jesus returns—a big celebration for all believers!

*Dig a bit deeper: Revelation 19:9, 21:9, Ephesians 5:23*



### Why is marriage important?

One reason is that marriage teaches us about Jesus' relationship with the church. Another is it is part of how God created people to have families that will produce godly children generation after generation. God tells us that children are a huge blessing to their parents and to the church. God's design is always best!

**Dig a bit deeper:** Malachi 2:15, Psalm 127:3–5

### Will people be married once we get to heaven?

Jesus taught that after believers are resurrected from death, people—like the angels in heaven—will not be married nor given in marriage. When

we are with Him forever on the perfect, restored earth, things will be different in a very good way!

**Dig a bit deeper:** Matthew 22:30, Romans 6:5

"Thanks Dad, you've really helped me understand how important marriage is to God. But there is still one thing I can't understand."

"What's that, son?"

"How come Mom won't let me have another piece of cake?"

"Simon, you've already had three!"

"I'm just *really* helping everyone celebrate how great Grandma and Pop's marriage is!"

"Nice try!"

### Activity

Make a family tree! Draw or use family pictures to make your family tree. How much of your family can you trace?

# The Goodness of God

*"O, taste and see  
that the Lord is good!"  
(Psalm 34:8)*

**Lita Cosner**

**W**HEN WE begin to comprehend what God's goodness means and how it applies to His relationship with us, it revolutionizes not only the way we think about God, but also how we pray to and worship Him. At the same time, God's goodness is so self-evident to the Christian that many of us have not really spent time thinking about it. It's like considering the blueness of the sky or the wetness of water. Yet the implications of God's goodness are vast, so it is worth the effort.

### **The triune goodness of God**

Scripture presents the goodness of God as a *trinitarian* doctrine—i.e. the Father, Son, and Spirit are each specifically said to be good in an unqualified sense (Matthew 7:11; John 10:11; Nehemiah 9:20). Jesus tells us that none are good except God (Matthew 19:17), so if the Father, Son, and Spirit all share the same unqualified goodness, all must be equally God.

Perhaps a definitional display of God's goodness is when Moses asks to see God's glory. God tells Moses, "I will make all my goodness pass before you and I will proclaim before you my name,

"The LORD" (Exodus 33:19). However, the account does not tell us what Moses *saw*, but what God *spoke* to him: "The LORD, the LORD, a God merciful and gracious, slow to anger, and abounding in steadfast love and faithfulness, keeping steadfast love for thousands, forgiving iniquity and transgression and sin, but who will by no means clear the guilty, visiting the iniquity of the fathers on the children and the children's children, to the third and the fourth generation" (Exodus 34:6–7).

This shows us that God's goodness is revealed to us through His *Word*, and also through His revealed attributes. God's mercy, forbearance, steadfast love, faithfulness, forgiveness, and judgment are *good* attributes.

### **God's good creation**

Because God is good, His original creation reflected that goodness. Six times throughout Creation Week, God evaluated what He had created as good (Genesis 1:4, 10, 12, 18, 21, 25), and it culminated in the finished creation being declared 'very good' (1:31). Now, the goodness of God's creation was *derivative*, meaning that its goodness came from and depended on God's goodness. Without God's goodness, nothing else can be good.

Unfortunately, the original goodness of the creation was corrupted by sin. Today, we see carnivory, thorns, disease, and death in creation, not because it was God's original intention for His creation, but because Adam disobeyed God and sin brought into the creation things that do *not* align with God's goodness.

### **God's good providence**

Even though creation is fallen, God has not abandoned it. His continuing care and provision for His creation, called providence, is one of the primary ways He displays His goodness to what He has made. When Paul wanted to highlight to the Lystrans and Athenians who God was, he told them they already had God's witness of Himself in His provision of rain and seasons and harvest (Acts 14:17; 17:24–25). God is the One who upholds creation and who provides every good thing to His creatures.

This is the case for all of creation, but especially to His own people. Scripture is filled with instances of God providing for the needs of His people, and His people are consistently called to praise Him for His provision. The Psalms exhort us to "Praise the LORD, for the LORD is good; sing to his name, for it is pleasant!" (Psalm 135:3).

### God's good salvation

When Adam and Eve sinned, God would have been perfectly just if they had been immediately judged and killed. But that would have ended human history after only days. Instead, God chose to unfold a plan of salvation that would show the whole scope of His love and mercy, while still satisfying the demands of His justice and righteousness. This plan of salvation culminated in the coming of Jesus Christ, God the Son in human flesh. And as God Incarnate, Jesus is God's goodness on full display. Paul speaks about the incarnation of Christ as "When the goodness and loving kindness of God our Saviour appeared" (Titus 3:4), and the author of Hebrews calls Christ "a high priest of the good things that have come" (Hebrews 9:11).

Jesus declares His own goodness: "I am the good shepherd" (John 10:11, 14). He states that the works He did during His ministry are good (John 10:32), and the apostles affirmed that Jesus did good works, "for God was with him" (Acts 10:38).

When evil people are confronted with the goodness of God, they lash out against Him. And that is what happened when the leaders of the Jews of that day conspired and handed Jesus over to the Romans to be crucified. As Christ hung on the Cross dying a death that was reserved for the most despised and accursed people, it seemed like the

goodness of God might have suffered a crushing defeat.

However, nothing could have been further from the truth. On the Cross, it was God's good Son who crushed death, so that He could offer salvation to sinful people. And on the third day, Jesus' victory over death was manifested in the Resurrection.

### God's good plan for His people

Now when we believe in Christ, God does not leave us in our sinful state, but He begins to re-make us in His image in a process called sanctification. One consequence of this is that we become capable of good works. Even in the Old Testament, believers are exhorted to, "Trust in the LORD, and do good" (Psalm 37:3). And the New Testament consistently calls Christians to these good works, not to save us, but to demonstrate our thankfulness to God for what He has done for us. Paul says, "For we are his workmanship, created in Christ Jesus for good works, which God prepared beforehand, that we should walk in them" (Ephesians 2:10). An elder is to be "a lover of good" (Titus 1:8) and older women "are to teach what is good" to younger women (2:3).

The Person in the Godhead who mediates this work in the life of the Christian is the Holy Spirit, who is also called good. David asks, "Teach me to do your will, for you are my God! Let your good Spirit lead me on level

ground!" (Psalm 143:10). And goodness is a fruit of the Spirit that is an evidence of God's work in the believer's life (Galatians 5:22).

### The restored creation: God's goodness for all eternity

Scripture speaks about how "we ourselves, who have the firstfruits of the Spirit, groan inwardly as we wait eagerly for adoption as sons, the redemption of our bodies" (Romans 8:23). All believers look forward to living with Christ in resurrection bodies on the restored earth. In some ways it will be a return to the "very good" state which He first created, but in other ways it will be even better because it will never be subject to sin and death.

Not only will creation be restored, but *we* will be, too. We will no longer struggle against the sin nature that has plagued us since the Fall of Adam. We will no longer be subject to aging, sorrow, pain, or death. Sin will be gone forever; so will the *consequences* of sin.

### Nothing makes sense except in the light of God's goodness

Today, many atheists argue that various sorts of evil are proof against God, or at least His goodness. However, Scripture is clear that 1) the evil now in God's creation is ultimately the result of *human* evil, not a lack in God's goodness and 2) God will not allow the evil in creation to persist forever. These scriptural

truths refute atheists who point to the evil in creation as an argument against God's goodness.

Ironically, the atheist's own sense of good and evil is proof of a good God who made the atheist (and every other person) in His image (James 3:9). From where does the atheist get his sense of good and evil? How, in his materialistic belief system, can he justify the idea that 10,000 people dying in an earthquake is any more evil than someone stepping

on an anthill? Why is he able to assign worth and judge things to be good or bad? Only because he has an innate sense of the goodness of God, and appeals to those values because he is created in God's image!

### The goodness of our God

The goodness of God is such a vast truth that we can only hope to scratch the surface of what Scripture reveals about this aspect of His nature. To the extent

that we apprehend it, God's goodness will transform our worship and our walk in Christ, and it helps us as we share the Gospel of the good God who calls us to follow Him. ■

#### LITA COSNER

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# HERE'S GOOD NEWS FOR THE WORLD



*Creation Ministries International seeks to give glory and honour to the triune God of the Bible as Creator, and to affirm the truth of the biblical record of the real origin and history of the world and mankind.*

Part of this real history is the bad news that the rebellion of the first man, Adam, against God's command, brought death, suffering, and separation from God into this world. We see the results all around us. All of Adam's descendants are sinful from conception (Psalm 51:5) and have themselves entered into this rebellion (sin). They therefore cannot live with a holy God, but are condemned to separation from God. The Bible says that "all have sinned, and come short of the glory of God" (Romans 3:23) and that all are therefore subject to "everlasting destruction from the presence of the Lord and from the glory of His power" (2 Thessalonians 1:9).

But the good news is that God has done something about it. "For God so loved the world, that He gave His only begotten Son, that whoever believes in Him should not perish, but have everlasting life" (John 3:16).

Jesus Christ the Creator, God the Son, though totally sinless, took on human nature, so He could become our Redeemer. Then He suffered, on behalf of mankind, the penalty of mankind's sin, which is death and separation from God. He did this to satisfy the righteous demands of the holiness and justice of God, His Father. Jesus was the perfect sacrifice; He died on a cross, but on the third day, He rose again, conquering death, so that all who truly believe in Him, repent (repentance = a change of mind) of their sin and trust in Him (rather than their own merit), are able to come back to God and live for eternity with their Creator.

Therefore: "He who believes on Him is not condemned, but he who does not believe is condemned already, because he has not believed in the name of the only-begotten Son of God" (John 3:18).

What a wonderful Saviour—and what a wonderful salvation in Christ our Creator!

If you want to know more of what the Bible says about how you can receive eternal life, please email, write or call the office near you ... see p. 2.

# THE PUZZLE OF LARGE NATURAL BRIDGES AND FREESTANDING ARCHES

Michael Oard

**L**ARGE NATURAL bridges and freestanding rock arches are structures left behind after erosive action, features called erosional remnants. Along with several other types of landforms examined in this magazine in recent years, they provide further evidence for rapid erosion in the late stages of Noah's Flood.<sup>1</sup>

## Natural bridges

A natural bridge is an arch-like rock formation caused by erosion from running water, and typically spans a watercourse, which may now be dry. Three of the largest and most impressive natural bridges in the world are found in Natural Bridges National Monument, southeastern Utah, USA.<sup>2</sup> Of these, the two associated with White and Armstrong Canyons were clearly eroded by water channeling down those canyons. Sipapu Natural Bridge, the largest of the three, is 67 m (220 ft) high and 82 m (270 ft) wide (fig. 1). Another impressive natural bridge in the southwest United States is Rainbow Bridge, near Lake Powell in northern Arizona.<sup>3</sup>

## Freestanding rock arches

Although an arch looks similar to a natural bridge, it differs in that there is no obvious water course associated with it. Freestanding rock arches can be found *on ridges or the sides of a ridge or mountain*. The largest are high enough to contain the dome of the Capitol building in Washington D.C. Landscape Arch in Arches National Park, Utah, USA (fig. 2), is the second longest in the world, with a span of 88 m (290 ft). At the other end of the size scale, some arch configurations are little more than small holes in rock; in Bryce Canyon National Park these are called 'windows'. Arches National Park, southeast Utah, has the greatest density of arches in the world—more than 2,000 of them, all different.<sup>4,5</sup>

Long-age geologists speculate that rock arches form slowly over long periods of time by: (1) uplift that causes



Figure 1. Sipapu Natural Bridge from the trail down to the bridge in Natural Bridge National Monument, Utah, USA.

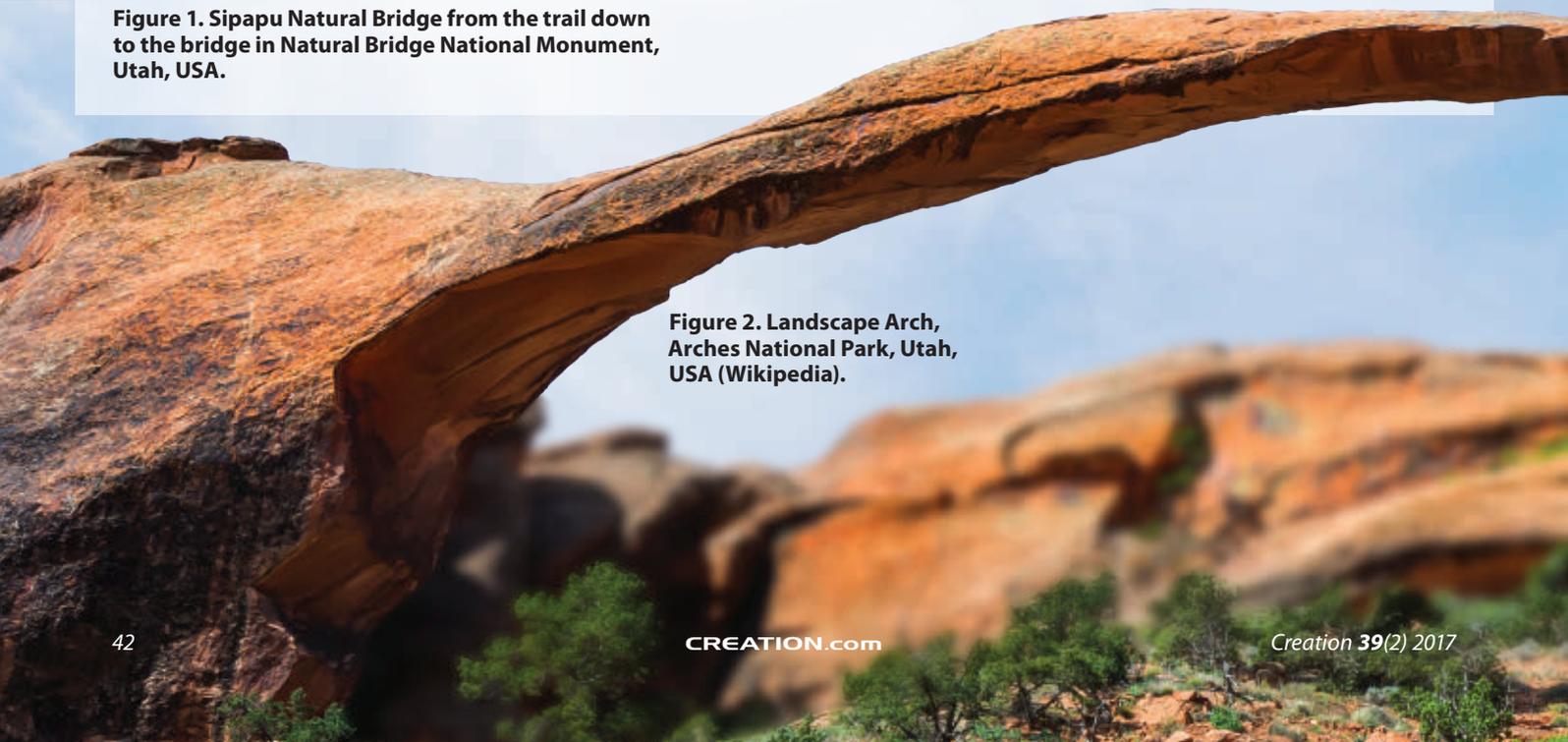


Figure 2. Landscape Arch, Arches National Park, Utah, USA (Wikipedia).

deep vertical, parallel fractures to form; (2) weathering and erosion that enlarge fractures resulting in narrow vertical walls called ‘fins’; (3) continuing erosion with some fins breached from below; and (4) continued weathering that enlarges the holes, eventually causing the arch to collapse.<sup>6</sup> They estimate that it would have taken 70,000 years for water, frost, and wind action operating in a dry climate to form the isolated Delicate Arch in Arches National Park (fig. 3).<sup>6</sup>

### Small natural bridges and arches can form after the Flood

It is likely that most *small* natural bridges and arches formed in today’s climate *after* the Flood through erosion, especially since some of them are found in glaciated areas.<sup>7,8</sup> Since they would be unlikely to survive glaciation, they must have formed after the post-Flood Ice Age. The windows in Bryce Canyon National Park are obviously a result of uneven weathering and erosion of the mostly soft rock. The mechanisms generally suggested for the formation of small natural bridges and arches are reasonable ones in a post-Flood erosion scenario.

Kolob Arch in northwest Zion National Park, Utah, USA, is typical of a large rock arch that likely formed after the Flood, probably from erosion at the base of a cliff, forming a depression, which was eroded further and separated

itself from the cliff face.<sup>9,10</sup> It is the third largest arch in the world, spanning 87 m (287 ft). This arch is now separated from the cliff by only 13 m (44 ft). It is *not* freestanding like Landscape or Delicate Arches, both of which are in Arches National Park.

### Assumed uniformitarian origin not observed

The origin of arches and large natural bridges is problematic for uniformitarian<sup>11</sup> science. Many hypotheses have been suggested,<sup>12</sup> but all depend upon slow processes of erosion over tens of thousands of years. The problem with this much time is that the large natural bridges and arches would have *weathered and collapsed* long before the material around them eroded. Geomorphologist C.H. Crickmay noted that for large natural bridges to form, its erosion rate compared to the stream channel has to be almost non-existent, which makes no sense when considering that a natural bridge in its beginning stage will erode fast by rock fall.

“What is remarkable about its [natural bridge] history is that, in all the time required for the stream currents to corrode downward

and laterally through a vertical depth of from 10 to 12 or 60 m [33 to 40 or 200 ft] in resistant rock, the progress made by ‘denudation’ [total erosion] toward



Figure 3. Delicate Arch, Arches National Park, southeast Utah, USA, at sunset (Wikipedia).

destroying the fragile-looking bridge appears to have been *virtually nil*—a discrepancy in rates of action that may exceed 100,000 to 1 (emphasis mine).<sup>13</sup>

Such a discrepancy in erosion implies large natural bridges were not formed slowly over a long time, but rapidly not that long ago.



**Figure 4. Wall Arch,  
Arches National  
Park, Utah,  
before it  
collapsed  
(National Park  
Service photo).**



Cruikshank and Aydin hypothesized that the majority of arches are caused by *local enhancement of erosion by fracture concentration*.<sup>5</sup> Such an ‘obvious mechanism’ was supposedly missed by previous investigators. Unfortunately, no one has *seen* a large freestanding arch form by this mechanism. Arches are simply *assumed* to form by more rapid weathering at the base of a vertical slab of sandstone,<sup>14</sup> but such differential erosion and arch formation is pure speculation:

Arch formation cannot be due solely to weathering and erosion, however, because these processes are not restricted to the sites of arches in rock fins. There must be some factor that locally enhances the effects of erosion within a rather small part of a rock fin to produce an arch. How erosion is localized within a rock fin to form an arch is enigmatic.<sup>15</sup>

Moreover, arches are rather rare, and if any of the uniformitarian mechanisms applied, there should be many more of them. Cruikshank and Aydin summarized:

There is no need to invoke reasons such as weak cement, unloading, or exfoliation to explain the presence of arches, especially when these processes act on similar rocks in nearby regions without producing the same abundance of arches.<sup>16</sup>

A new hypothesis suggests that erosion near the base of a fin starts because of water trapped above an impervious

barrier. This causes stress changes above, which creates a more stable, tough structure that resists weathering.<sup>12,17</sup> Eventually, the erosion at the base works its way through to form an arch. Although this mechanism seems plausible, it requires *angular* sand grains to lock together for greater strength. Practically all the arches in Arches National Park are made of homogenous sandstone in which the sand grains are *rounded*, with no lower impervious layer.

Despite all the hypotheses, an important point has been neglected. Science depends upon observation, and we observe the destruction of large freestanding arches and natural bridges, but *never* their formation. For instance, portions of Landscape Arch in Arches National Park have collapsed since the 1940s. One of the most photographed freestanding arches in Arches National Park was Wall Arch (fig. 4). However, it collapsed during the night of 4–5 August 2008 (fig. 5).

#### A possible late Flood mechanism

Large freestanding arches and natural bridges on the continents are delicate features that seem impossible to form in the present climate, considering only 4,500 years have passed since the Flood. The best explanation is they were formed by quick erosion, possibly late in the run-off phase of the Flood. Large natural bridges imply rapid erosion. They could have been formed during the Channelized Flow Phase of the Flood when the canyon was cut. The last vestiges of Flood erosion would have created the conditions where the formation of those magnificent (and otherwise so enigmatic) structures, freestanding arches, became possible due to differential erosion in that particular location. ■



Figure 5. Wall Arch after it collapsed (National Park Service photo).

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# MUMMIFIED -LION CUBS- in Siberian DEEP FREEZE

Philip Robinson

**T**WO EXTINCT Eurasian cave lion cubs have been recovered from permafrost on the bank of the Uyandina River, Siberia. Flooding and landslides along the river's banks in the summer of 2015 revealed an ice lens in which the cubs' remains were spotted. They are thought to have been only a week or two old at death, as their baby teeth had not yet erupted. But they were the size of full-grown domestic cats.

## Amazing preservation

“This find, beyond any doubt, is sensational,” said Dr Albert Protopopov, head of the mammoth fauna studies department of the Yakutian Academy of Sciences. The cubs are “complete with all their body parts: fur, ears, soft tissue and even whiskers.” They are, he claimed, unique in the world, the most

complete remains of cave lions ever found. “Possibly, the cubs died in a hole, in a landslide, and afterwards this site was never affected by weather,” said the academic. “This is how we explain such unique preservation of the animals.”<sup>1</sup> A South Korean research team have taken samples from one of the exquisitely preserved cubs in the hope of cloning the animal.<sup>2</sup>

## No additional felines needed on the Ark

The Eurasian cave lion, *Panthera spelaea*, about the size of a modern-day Siberian tiger, once roamed everywhere from the British Isles to the Yukon in Canada. Until now, what was known about cave lions came from cave art, such as their images which adorn the Chauvet Cave in France, from detailed carvings, and from their bones. These were mostly located in caves, hence their name.

Previous studies have shown that the modern lion, the extinct American lion and the Eurasian Cave lion, though distinct population groups, were all genetically similar.<sup>3</sup> Lions can readily breed with other large cats such as tigers, leopards and jaguars, producing a range of hybrids.<sup>4</sup> These include the offspring



Two extinct cave lions dug from the bank of the Uyandina River, Siberia



### Only a week or two old at death and the size of full-grown domestic cats

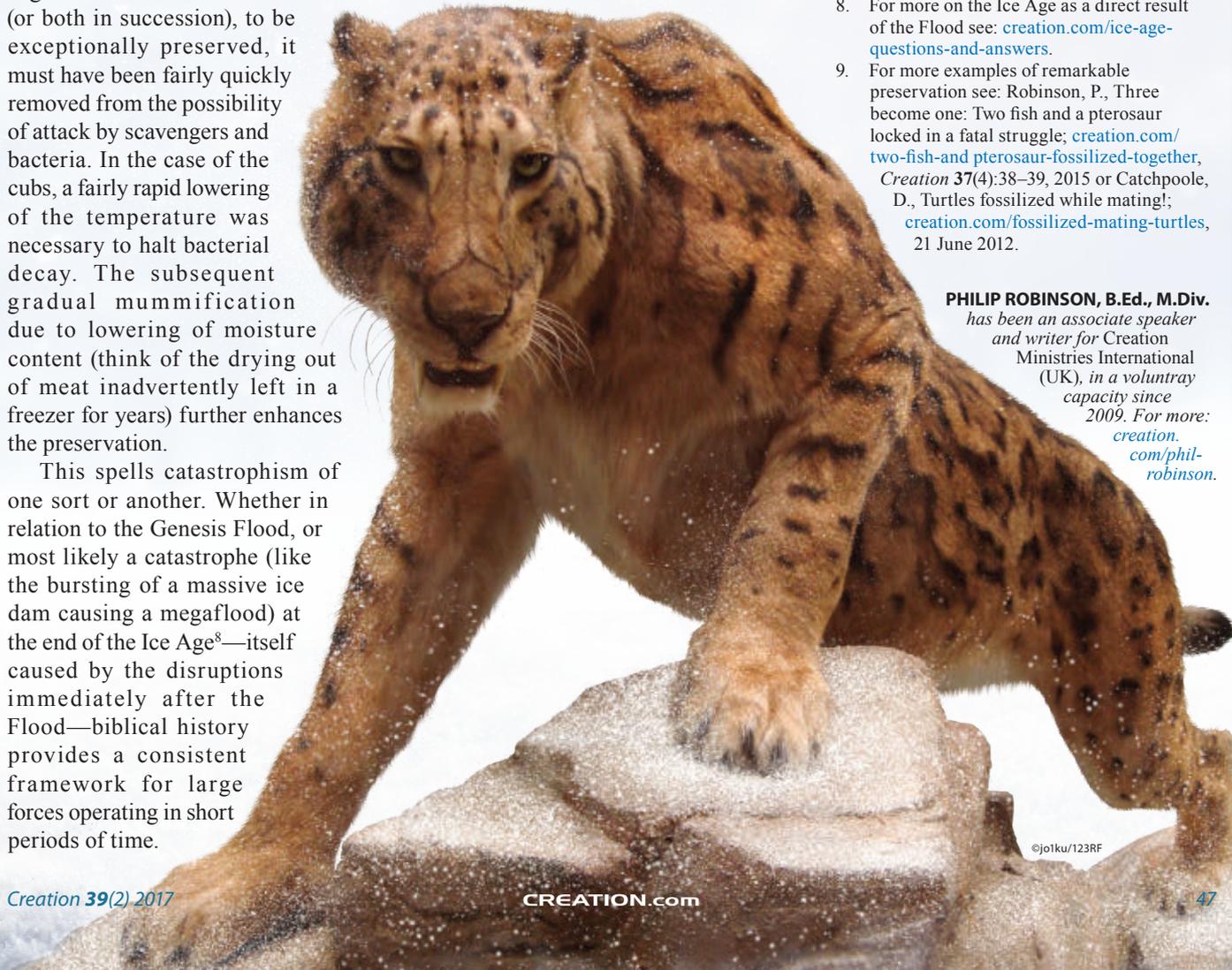
of a male lion and a tigress, called a liger.<sup>5</sup> Weighing in excess of 400 kg (900 lb) and up to 3.6 m (12 ft) long (including the tail), it is the largest cat in the world. This hybridization between the large cats suggests that they are all descended from the original created cat kind,<sup>6</sup> a pair of which would have been aboard Noah's Ark.<sup>7</sup>

### One more example

In relation to these magnificently preserved cubs, it's the same old story: remarkable preservation = rapid processes. Whether a dead organism is buried or frozen (or both in succession), to be exceptionally preserved, it must have been fairly quickly removed from the possibility of attack by scavengers and bacteria. In the case of the cubs, a fairly rapid lowering of the temperature was necessary to halt bacterial decay. The subsequent gradual mummification due to lowering of moisture content (think of the drying out of meat inadvertently left in a freezer for years) further enhances the preservation.

This spells catastrophism of one sort or another. Whether in relation to the Genesis Flood, or most likely a catastrophe (like the bursting of a massive ice dam causing a megaflood) at the end of the Ice Age<sup>8</sup>—itself caused by the disruptions immediately after the Flood—biblical history provides a consistent framework for large forces operating in short periods of time.

Lesser catastrophes do take place, obviously, including within the above two periods. A landslide might well have been involved with the cubs, as speculated. But there is a take-home point in this, as in every case of superb preservation (many examples of which are available on [creation.com](http://creation.com)).<sup>9</sup> Namely, that the processes responsible for halting the normally speedy processes of decay must in each instance have involved only very short timescales, best described as *sudden*. That bears remembering while we are repeatedly bombarded with assumptions involving long ages and slow-and-gradual processes. ■



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# Cosmic Storytelling

John Hartnett

**T**HE BIG bang is indeed a good story ... as far as storytelling goes. As one business website affirms,

Storytelling has been the single most powerful communication tool for thousands of years and we are just starting to understand how relevant and significant it is today.<sup>1</sup>

It also illustrates what Mark Twain is reputed to have said:

Never let the truth get in the way of a good story.

And what Hitler's propagandist Joseph Goebbels supposedly claimed, that "if you tell a lie big enough and keep repeating it, people will eventually come to believe it."

### ***The story matters more than the science***

As a physics professor working in a secular university in Australia, publishing in scientific journals and knowing the importance of communicating one's science to the wider community, I have had many opportunities to see how the system works. Outside of the experts in your

field *the details do not matter, but a good story does.*

For example, in early 2013 I published a cosmology paper in a specialist journal,<sup>2</sup> where I found that using a finite bounded expanding universe, *with a unique centre and an edge*, one could describe the observed large-scale structure of the universe very well.

And one could do so without including 'dark energy' or 'dark matter,' the fudge factors assumed in the standard big bang model.

Soon I received a call from someone from my university's publicity department who wanted to write a press release on it. She asked me what I felt was important about the paper. I told her that the paper was consistent with the notion that our galaxy could be *located in a privileged location* in the universe.

This was contrary to the oft quoted *cosmological principle* which states that there are no privileged locations—that our location is purely random and the universe has no centre or edge. My paper suggested that that is not necessarily so.

Once she understood what I was saying, her facial expression told me

everything. She said: "I don't think we can do anything with this." I never heard from her again.

I had published the science, passing secular peer-review, *but the real story could not be told because it was contrary to the one the establishment promoted.*

### ***Cosmology needs a good story***

**"NEVER LET THE TRUTH GET IN THE WAY OF A GOOD STORY."**

Modern-day cosmology has developed a good 'story'. The general public know it very well. But they have absolutely no knowledge of the

details, nor if they were presented to them could very many of them even comprehend them.

The system adheres to the usual script. If you don't depart from that you can get out your message. But if you suggest something different—for example, that our galaxy is in a special location in the universe—the response is deafening silence. You, the author, will be ignored. But those who accept the standard paradigm—the big bang story—won't have any problem getting their message out.



That story, told over and over again, is full of made-up stuff: dark matter, dark energy, dark radiation, dark flow, dark fluid, dark photons,<sup>3</sup> cosmic inflation, expanding space, big bang singularity, quantum fluctuations of a false metastable vacuum,<sup>4</sup> colliding hyper-dimensional branes, and still more.

Who understands what these things are? The general public certainly doesn't. The experts can't, really, because none of these have ever been discovered or demonstrated in a lab experiment. But they are all needed in the modern big bang story, and *it is a really big story*. If you are going to tell a lie, tell a big one.

The big bang story has become the most popular account of both the structure and the origin of the universe. This cosmic evolution story is a complete epic, which starts with just hydrogen gas and after 13.7 billion years ends up with people (Fig. 1) and all sorts of living creatures on a beautiful blue fertile planet at 'just the right distance' from the sun that 'only looks like' it was designed for life. The story is still being



Figure 1

**No matter what is observed in the cosmos the new results are always fitted into the story. The story is pliable. This is good storytelling. Nothing can disprove the story, because anything you find can be made to fit into it.**

written, as the big bang description keeps changing and evolving.

### **Galaxies and stars: facts vs story**

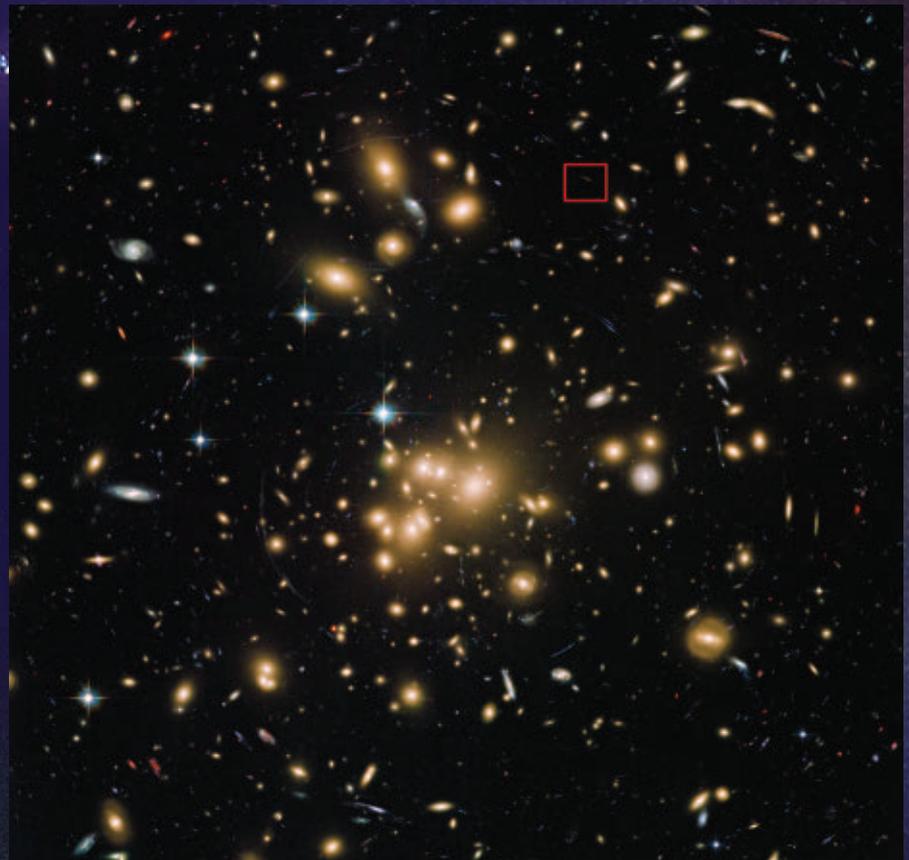
For example, a newly discovered galaxy (see Fig. 2) far, far away was not as large in size as expected.<sup>5</sup> Many other galaxies found at this stage of their story were much more massive, but the high dust content of this new galaxy meant that somehow it must have evolved from the primordial gas much earlier than expected. It should have been an 'infant' galaxy due to its size but was found to be a 'mature' galaxy due to its dust content even though it is small in size.

This new one is now simply re-badged as being 'typical'. In short, it doesn't matter what is discovered, now or into the future. The story will always be re-written or amended or embellished. In cosmology this is what is called 'science'. As indicated, I call it *good storytelling*.

But actually there are no known processes that allow the stars to form by themselves in the first place. Evolutionists believe that the first stars formed when a huge cloud of mostly hydrogen and some helium contracted under its own gravity. Eventually, it heated up so much that thermonuclear fusion began in its core.

However, real science tells us that a contracting gas cloud heats up, and the resulting increased gas pressure prevents any further collapse of the cloud. Some have proposed ingenious methods of cooling, by infrared radiation from molecular hydrogen clouds, but these cooling mechanisms are impractical.<sup>6</sup> Also, rotation, turbulence, and magnetic fields will further resist collapse.<sup>6</sup>

*But the story must continue.* So the answer is obvious, they say. It is the mysterious, invisible, never-observed dark matter that provides the solution.<sup>7</sup> In order for the clouds of gas that formed into the first stars to begin collapsing there needed to be



**Figure 2**

**NASA/ESA Hubble Space Telescope image shows the galaxy cluster Abell 1689 with the newly discovered galaxy A1689-zD1 located in the box indicated, although it is so faint that it is barely seen in this picture.**

a lot of dark matter around to make the cloud collapse under gravity. Thus a far stronger gravitational force can be achieved, especially if you start your story with as much as 90% or more dark matter in the universe. That must be the correct story, because it did happen, we are told, and we know this because we are here to talk about it.

So dark matter is invoked at the critical moment in the formation of the first stars. In the story, the stars also form into galaxies. More dark matter is needed for that to happen, because again without this hypothetical, unobserved stuff, no galaxy formation can occur naturalistically.

It is an irony that professional astrophysicists can propose all sorts of

hypothetical unknown stuff, but they cannot accept creative action by the Creator. One exception seems to be that theistic evolutionists at least permit God to have started off the universe in the big bang.

Now according to the story, the first galaxies were small and hence 'young'. Only by accumulating more mass by merging with other galaxies could they 'grow up' and become more 'mature'. In the era alleged for the galaxy in Fig. 2, only small 'young' galaxies were expected. But a high percentage of those observed are more massive than expected. But no need to worry, that also will be worked into the story. After all *it's a never ending story*.

## Conclusion

What have we learned from this? Mostly, that cosmology is not science. It is a philosophy, a belief system—a story—into which all the evidence, the observations are placed. It is already believed; the general plot is apparently known, and no matter how crazy the story gets with unknowns and fudge factors, that is OK, so long as the main storyline is preserved.

Where did the story come from? Not from God. It has no resemblance to His story,<sup>8</sup> the true history outlined in the Genesis account in the Bible. This story is used to deceive the world into thinking that there is no Creator and hence no God—the universe, and everything in it, just made itself. But I don't believe it—and neither should you. ■

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# OUR AMAZING CREATED SOLAR SYSTEM

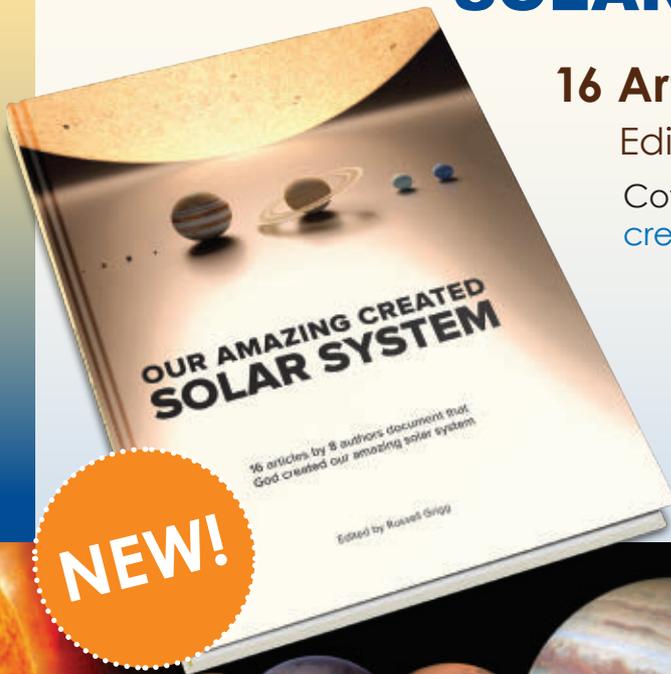
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# WILLIAM OF OCKHAM

'THE FIRST PROTESTANT'

Russell Grigg

**W**ILLIAM OF Ockham (c. 1287–1347), a.k.a. simply Ockham (sometimes spelled 'Occam'), was a Bible-believing 14<sup>th</sup>-century English philosopher. He opposed the church leadership of his day because they had abandoned clear Bible teaching and instead sought power, influence, and wealth. However, he is better known today for the problem-solving logical principle known as 'Ockham's razor'. Even though he did not invent this idea, he used it so effectively that it came to bear his name.

### Ockham's razor

Ockham's razor is a phrase that in Latin is usually rendered *Entia non sunt multiplicanda sine necessitate*, which translates as: 'Entities [of explanation] should not be multiplied beyond necessity'. This concept has been inappropriately restated as 'All things being equal, the simplest explanation tends to be the right one.'<sup>1</sup> However, Ockham was not claiming that nature always follows the simplest course, nor that a simple explanation trumps a better, more complex one; nor yet that simplicity should overrule the need to explain *all* the data. Rather, he was advocating that one should not propose any more causes *than are necessary* to account for any phenomenon.

He wrote (translated): "Nothing ought to be posited without a reason

given, unless it is self-evident or known by experience or proved by the authority of Sacred Scripture."<sup>2</sup> Skeptics and atheists using Ockham's razor today inevitably leave out the last bit, and in doing so they misuse the concept. For example, atheists like to claim their disbelief in God is superior to theism because it involves one less entity and so is simpler. But Ockham was not giving the world a 14<sup>th</sup>-century equivalent of 'Keep it simple, stupid'. Rather, he was stating his belief in the overriding authority of the Word of God, while advocating the use of reason and perception in evaluating the cause of anything.

### Ockham's education

It is believed that Ockham was born in the English village of Ockham in Surrey, and that as a youngster he entered and received his early

schooling at the Order of St Francis in London (the Franciscans), followed by theological studies at the University of Oxford. His education included the study of logic, which he regarded as indispensable for evaluating all assertions. Indeed, in all the disputes he came to be involved in, "logic was destined to serve as his chief weapon against adversaries."<sup>3</sup>

### Ockham on trial

At Oxford, students were required to write a commentary on the official textbook of theology, the *Sentences* of Peter Lombard. Ockham's opinions on this subject (known as the *Ordinatio*) were deemed to be insufficiently orthodox by the university theological faculty, so that he left the university without obtaining his master's degree in theology. Church authorities also disapproved of his views, and in 1324

Pope John XXII summonsed Ockham to the papal court at Avignon in France to appear before a commission of six theologians there. However, his *Ordinatio* was never officially declared to be heretical.<sup>3</sup>

### Ockham vs Pope John XXII

While in Avignon, Ockham resided at the local Franciscan priory. Here, in 1327, he met the chief administrative officer of the Franciscans, Michael of Cesena, who was in dispute with Pope John over the issue of property. Believing that they were following the example of Christ and the Apostles, the Franciscans lived in absolute poverty, which was the antithesis of the opulence of the papal palace at Avignon. Pope John sought great wealth for the Church, and the lifestyle of the Franciscans was an implicit rebuke rather than a help in achieving this.

Michael asked Ockham to study three papal bulls<sup>4</sup> showing what Pope John XXII had previously written on the use of property. From

these, Ockham concluded that Pope John was not just mistakenly wrong, but was stubbornly and heretically wrong, and so had forfeited his mandate. In short, Ockham protested that John was a pseudo-pope. Indeed, Ockham has the distinction of being designated ‘the first Protestant’—by no less an authority on this subject than the *Catholic Encyclopedia*.<sup>5</sup>

Ockham, a Bible-believing Christian, asserted that God was the one and only first cause and authority—facts which God had revealed to mankind in His Word, the Bible. This appeal to Scripture as authority was taken up and

restated by Martin Luther in the Protestant Reformation a little less than two centuries later as the doctrine of *Sola Scriptura* (Scripture alone). That is to say, the Bible is the *supreme* authority in all it teaches. All else, and particularly human



### WHY ‘RAZOR’?

The term ‘Ockham’s razor’ first occurred long after Ockham’s time, in 1852 in the work of British mathematician William Hamilton.<sup>1</sup> Some claim that it is called a ‘razor’ because it refers to the ‘shaving away’ of unnecessary explanations. But that may be a modern-day explanation after the fact. Others point out that before erasers were in use, writing was corrected by scraping ink away with a razor. It could thus well be that this principle became associated with ‘razor’ not because of its subject matter but because it was a corrective to thought—‘Ockham’s eraser’ as it were.

1. *Internet Encyclopedia of Philosophy*; [ep.utm.edu/ockham](http://ep.utm.edu/ockham).

conjecture, is subordinate to and corrected by the written Word of God.

Relationships between the parties deteriorated and in May 1328 Michael, Ockham, and some Franciscan sympathizers fled Avignon to the protection of the Holy Roman Emperor, Louis IV (Ludwig) of Bavaria, who became Ockham's patron. Pope John promptly excommunicated Ockham and his companions, not for heresy but for defiance of his authority (i.e. leaving Avignon without his permission). He had previously excommunicated Louis in 1324 and denied him all rights of Empire, so Louis welcomed the moral and literary support of Ockham. Ockham spent the rest of his life in Munich writing on various issues, one of which was that the papacy did not have right of control over imperial authorities. Ockham was thus an early advocate of the separation of church and state.

### Applying Ockham's razor to creation/evolution

Today, the preeminent version of the 'big bang' hypothesis for the origin of the universe is that the singularity which allegedly then 'banged' came into existence from nothing<sup>6</sup> by means of a 'quantum fluctuation'. This then supposedly expanded rapidly, and ultimately produced everything that exists. But this theory must presuppose

that there is *something* to fluctuate.<sup>7</sup> Where and when could any such alleged quantum fluctuation occur before there was any space or time for it to take place in?

Applying Ockham's assessment to the 'big bang' scenario, we see that multiple causes are proposed (e.g. quantum fluctuation from nothing, sudden expansion, reduction of the expansion, most of the universe made up of 'dark' matter and 'dark' energy that cannot be detected, etc.). None of these are self-evident, known by experience, or proven by the authority of Sacred Scripture. Recall that self-evidence was an essential part of Ockham's logical evaluation of all assertions. The 'big bang' fails Ockham's razor *totally*.

Furthermore, the universe exhibits intelligent design, especially in the biological world but it is also true among the heavenly bodies.<sup>8</sup> Big-bang proponents deny this, thereby avoiding the need to explain it. However, an explanation for *all* the data, including the design and intelligence clearly seen in the universe, is that the universe was created by an intelligent Designer who had the power, the ability, and the penchant to do so.

Opponents of this 'creation' concept claim that invoking 'God' was merely primitive man's attempt to explain things before science. However, a corollary to the idea of an intelligent Designer is that such a Being should also have the necessary intelligence to be able to communicate to us what He has done. And this is in fact what we find in the Bible, in the account of origins in Genesis, which Ockham believed.

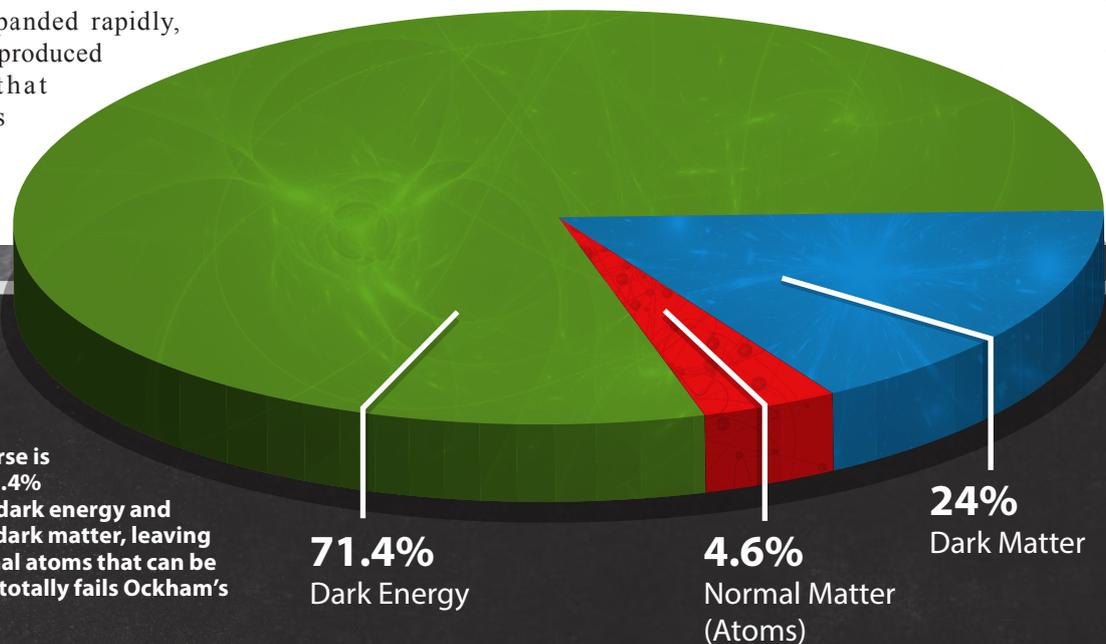
### Conclusion

Although he was certainly not the first person persecuted for biblically orthodox beliefs, Ockham thoroughly deserves his accolade as 'the first Protestant'. What he wrote in the 14<sup>th</sup> century not only rebuked the religious corruption of his day, but his philosophical razor can be used today as a condemnation of the atheists' refusal to acknowledge God in every aspect of life. For God is not only our Creator, He is also our Lawgiver, our Judge, and for those who wish to be forgiven of their sins, our Saviour. ■

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To make the big bang model 'work', evolutionists claim the universe is composed of 71.4% (undetectable) dark energy and 24% (invisible) dark matter, leaving only 4.6% normal atoms that can be discerned. This totally fails Ockham's razor.



## FURTHER INFLUENCE ON THOUGHT

Ockham helped develop important logical laws that, centuries later, would be incorporated into those named after Augustus De Morgan (1806–1871). ‘De Morgan’s laws’ come in two forms:

**Not (A or B)  $\equiv$  (Not A) and (Not B)**

Following the above law, an equivalent of “It’s false that either Punctuated Equilibrium or Darwinian Gradualism is true” would be “Punctuated Equilibrium is false *and* Darwinian Gradualism is false”;

**Not (A and B)  $\equiv$  (Not A) or (Not B)**

Following this law, an equivalent of “Creation and evolution can’t both be true” would be “either creation is false or evolution is false”

### References and notes

1. E.g. by Carl Sagan’s fictitious SETI scientist Ellie Arroway in his sci-fi film *Contact*.
2. William of Ockham, *Stanford Encyclopedia of Philosophy*; see [plato.stanford.edu/entries/ockham](http://plato.stanford.edu/entries/ockham), p. 9. The reference given therein is “*Sent.* I, dist. 30, q.1.”
3. William of Ockham, *Encyclopaedia Britannica*; [britannica.com/biography/William-of-Ockham](http://britannica.com/biography/William-of-Ockham).
4. A papal bull is a legal publication issued by a pope of the Catholic Church. It is named after the lead seal (*bull*) that was appended to the end in order to authenticate it.
5. *Catholic Encyclopedia*: William of Ockham.
6. E.g. as claimed by Krauss, L.M. in *A Universe from Nothing: Why There Is Something Rather than Nothing*, Free Press 2012. See review: Reynolds, D.W. Godless universe untenable, *J. Creation* 27(1):30–35; [creation.com/krauss-review](http://creation.com/krauss-review).
7. Sometimes said to be a quantum vacuum, which is equally not ‘nothing’; see Sarfati, J., In the beginning God created—or was it a quantum fluctuation?; [creation.com/krauss](http://creation.com/krauss).
8. Sarfati, J., *By Design*, Creation Book Publishers, Georgia, USA, 2008; [creation.com/s/10-2-524](http://creation.com/s/10-2-524).

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# pristine

## saturn problem

David Catchpoole

**W**HAT ARE Saturn's spectacular rings composed of? This was a great mystery to scientists ever since Christian Huygens first suggested in 1655 that Saturn had rings. It was solved by the great creationist physicist James Clerk Maxwell<sup>1</sup> in 1859: they could not be solid, because they would be unstable; so instead, they comprised independently orbiting particles.

But there are still huge unsolved problems for evolutionists. Why do Saturn's rings consist mostly of water ice, whereas the less massive rings of Neptune and Uranus have more rock in them? Current evolutionary theories of ring formation, which mostly presume passing objects were captured and pulverized by large planets' gravitational forces, struggle to provide satisfactory explanations.<sup>2,3</sup>

So it's not surprising that Kobe University's Ryuki Hyodo has said, "The origin of Saturn's rings remains elusive."<sup>2</sup>

Aside from the difficulty of explaining how the icy rings formed, one of the problems is the "question of timing,"<sup>2</sup> i.e. according to the evolutionary timeline. That's because the water ice of Saturn's rings is too *clean* to be the claimed billions of years in age—interplanetary dust ought to have polluted it, if it really were that old.

As Matthew Tiscareno of the SETI Institute in Mountain View, California, observed regarding Saturn's ring ice, "Even if you can get it in the first place, how does it survive for four billion years and still look pristine?"<sup>2</sup>

Actually, one might say that the One whose handiwork adorns the skies did so in such a way as to thwart naturalistic attempts to explain our solar system and the universe beyond. The evidence

from NASA probes and other studies of Saturn and its rings and moons now overwhelmingly points to a 'Young Saturn'.<sup>4</sup> This is right in line with the Bible's account of our universe having been created only thousands of years ago, not billions. The Psalmist indeed said it well: "The heavens declare the glory of God, and the sky above proclaims his handiwork." (Psalm 19:1) ■

### References and notes

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2. Benson, E., Saturn's rings may be from the whirl of a passing icy rock, [news scientist.com](http://news scientist.com), 16 September 2016.
3. Hyodo, R. and 3 others, Ring formation around giant planets by tidal disruption of a single passing large Kuiper Belt object, *Icarus*, online 29 September 2016 | doi:10.1016/j.icarus.2016.09.012.
4. Coppedge, D., Young Saturn, *Creation* 33(3):44–46, 2011; [creation.com/young-saturn](http://creation.com/young-saturn).