



Daylight

Origins Science for Catholics



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Beneath a grassy mountain valley in central Colorado, USA lies one of the richest and most diverse fossil deposits in the world. Up to 1700 different species of insects and plants reveal the story of a very different, prehistoric Colorado. Most of these fossils are fragile, detailed compression and impression fossils, but the largest are massive, petrified stumps of Sequoia (Redwood) trees, up to 14 feet wide. Such fossilised trees, found around the world and often standing vertically through various stratified deposits, provide strong evidence of a rapidly occurring global Flood.

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AIMS

To inform Catholics and others of the scientific evidence supporting Special Creation as opposed to Evolution, and to show that the true discoveries of Science are in conformity with Catholic doctrines on Origins.

HISTORY

Daylight was founded in 1977 as the newsletter of the *Counter Evolution Group* by John G. Campbell (d. 1983), with support from the current Editor. The venture was continued in 1987 as the Newsletter of CESHE:UK.

In 1991, *Daylight* was re-launched in the form of a magazine.

Daylight Origins Society is a non-profit educational organisation funded by subscriptions, donations and sales of publications.

ACTIVITIES

- ❖ Publishes the periodical *Daylight* for subscribers in 17 countries.
- ❖ Operates a website at www.daylightorigins.com
- ❖ Publishes and distributes pamphlets on Origins issues.
- ❖ Provides mail-order service for literature and audio-visual material.
- ❖ Promotes links with other Catholic Origins groups worldwide

Editor & Secretary: Anthony Nevard

CONTENTS

The Psychology of Science – <i>Martin Molloy</i>	3
Cardinal Manning on Darwinism, Science and the Faith	8
Did God leave on the immersion switch? <i>Gearoid Spainneach</i>	10
Jesus rocks - Dating method interpretation anomalies – <i>Dr John Donnelly</i>	14
The First Order of Mammalians: Man (Part 2) – <i>Baron Cuvier</i>	21
Antiquities of the Jews [extract] – <i>Flavius Josephus</i>	26
The Soliloquies of St Bonaventure (extracts)	30
Proofs Adduced in Favour of Evolution – Intermediary Forms <i>Cardinal Ernesto Ruffini</i>	33
Fossil Geology and the Age of the Earth – recommended DVDs	34
Index to Daylight 40 – 43	35
<i>Archeopteryx</i> – a classic fossil intermediate species?	back cover

EDITORIAL*Via Media*

Via Media is a phrase meaning ‘The Middle Road’ – not a literal direction from one’s ‘Sat Nav’ but a philosophical principle for living which advocates moderation in all thoughts and actions – a balance between extremes or alternatives. It was the dominant philosophical maxim in Roman society derived from ancient Greeks such as Aristotle (384-322 B.C.).

The same Latin tag was used by Bd. John Henry Newman as the title for a series of tracts (c. 1834) which led to the Oxford Movement. This direction for the Church of England was considered to be a desirable compromise between the Protestant reform and the Roman Catholic Church. However, as we know, many of its leaders later converted to Rome – including of course Newman, and also Manning. In late Victorian times, there was great social pressure to accept an ancient age for the Earth, and Darwinism as a valid scientific answer to origins. The writings of even some contemporary Catholic clerics have a whiff of compromise about them that we might now deplore. Yet we should accept that the views of Cardinal Manning, as quoted in this issue, nevertheless do not step beyond the limits of the Faith into the realms of heresy. Many

Catholics today are happy to adopt the *via media* of theistic evolution, and we should not be too surprised that they consider they are following the example of nearly all of the clergy and Hierarchy over the past 150 years. Even those well qualified in science and theology (e.g. Cardinal Ruffini, Mgr. O'Toole, Fr P. O'Connell) to master the arguments against Darwinism were not equipped with the evidence available today to support a 'Young Earth'. But when we read their works, we find that they logically destroyed the basic case for the Theory of Evolution, and this can be a great encouragement for us as we can continue to use many of their arguments validly to educate others today.

One might have imagined that by now there would be consensus among evolutionists as to what is their major evidence for evolution. However, here are two modern but contrasting views about the importance of fossils:

The existence of fossils is fundamental to our understanding of nature and of our own place in it. Without fossils we would have no record of the history of life on earth, indeed we would be unaware that it had a history of more than a few thousand years. We would thus remain totally unaware that the earth has in the past played host to a staggering variety of now-extinct plants and animals. We would, even more importantly, have no clues as to our own origin and that of other living species, and the theory of evolution, had such an idea ever occurred to anybody, would have been no more than a piece of wild speculation.¹

... there is more than enough evidence for the fact of evolution in the comparative study of modern species [...] and their geographical distribution [...]. We don't *need* fossils – the case for evolution is watertight without them; so it is paradoxical to use *gaps* in the fossil record as though they were evidence against evolution. We are, as I say, lucky to have fossils at all.²

In this issue, I continue to attempt to tread the *via media* – both to provide a balance between articles on both the scientific and theological aspects of 'origins', and also to select the content so that it is neither too technical for the non-scientist to follow nor too simplistic for our post-graduate specialists. This is one reason why we also recommend other groups, literature, resources and websites that our readers can use to extend their areas of special interest.

With prayers and thanks for your continued support!

AN

¹ Eldredge, N. 1991, *Fossils – the Evolution and Extinction of Species*, Aurum Press, (dustjacket)

² Dawkins, R. 2009, *The Greatest Show on Earth – Evidence for Evolution*, Free Press, p. 146.

The Psychology of Science

Martin Molloy

Our knowledge and perception of science is chiefly given to us by scientists themselves. In this age of the omnipresent influence of the media, it is particularly the media-savvy scientists and scientific commentators that have commanded our view of science and scientists. “The psychology of scientists” would have been a more accurate name for this article, but owing to the fact that in the public mind they are inextricably linked, I kept the above title.

When I use the term scientist, I am using the word in the modern sense, i.e. in the sense as a pursuer of natural laws and truths. The narrative that is proposed to us today is that during the “Dark Ages” (a term that could easily be contested as not being peculiar to the Middle Ages) we were so concerned with the supernatural that the natural sciences were overlooked.

Nothing could be further from the truth. In a lot of pagan societies, science had little chance to develop because all natural phenomena were simply viewed as the handiwork of nymphs, fairies or some local deity. This meant that proper investigation was prevented by the fear of annoying this local god. Of course, if he was annoyed, he could be appeased by sacrificing reason and some innocent’s blood at his altar. No doubt some societies did allow reason to flourish in the midst of their prevailing superstition. Thus grew the great civilisations of Egypt, Greece and China among others. Islamic society during its golden age rejected the silliness of polytheism but attributed to their god the pedantry of those pagan deities. They wouldn’t study pigs because they believed that their god had made swine unclean of itself. Of course, God made everything good, but told the Jews that swine was unclean *for them*. They forbade the study of anatomy because bodies had to be buried before sunset. That was why during this time those who made great advances in science as well as in other disciplines (with the exception of calligraphy, to be fair) were overwhelmingly non-Muslim, or regarded as heretics by the religious establishment.

In Catholic Europe, it was the Popes and other ecclesiastics who strived to promote learning. They founded universities and hospitals across Europe. If we take the science of anatomy alone, we find it was in the Papal States that many discoveries were made. This was because the Popes allowed their scientists to dissect cadavers in order to improve their knowledge of anatomy. They judged wisely that, as long the bodies were treated with respect, it was for the common good that they be dissected. In fact, even Michelangelo benefited from this licence so that he could understand the muscular system for his sculptures and paintings. They fought to preserve the balance between Faith and reason and understood that God's law is not about catching out people on technicalities; rather, He proposes laws for the common good. God's law is immutable but must be understood in the way the Legislator intended.



Teatro Anatomico of the University of Bologna, where dissections were carried out

Although not the main purpose of this article, I feel it is necessary to mention the often misunderstood question of Galileo. To illustrate my previous point, the Copernican system was taught in the Jesuit universities long before Galileo's case arose, and was taught during his case and afterwards as well. What got him into trouble (other than his arrogance) was that he denied the inerrancy of Scripture particularly with regard to Joshua Chapter 10. Galileo failed to keep the balance between Faith and reason but as a loyal subject of the Church he submitted. It should be understood that he actually received much more ridicule from his fellow scientists than from the Church. His system was still more complicated than the Ptolemaic system. In fact the Gregorian reform of the Julian calendar was based on the old system: this is the calendar that we still use today because of its greater accuracy.

Now if we compare the educated man of today to the one of yesterday we will find that our modern man seems inadequate. For this is the age of specialisation as opposed to education. No man was regarded as educated if he had not studied philosophy and had a working knowledge of Latin and Greek as well as mathematics and the sciences. In general the man of today is an expert on architecture but knows nothing of philosophy (i.e. how to think); he can program computers but knows no poetry; he's a genetic engineer but has never studied ethics. An educated person is seen as erudite if, besides having a degree, they play some sport or are in a rock band. Take Dante whose *La Divina Comedia* is regarded as the basis for modern standard Italian. We can see that he had an in-depth knowledge of science. He makes detailed references in this theological poem to apiculture, the laws of optics, mathematics as well as philosophy and classical literature that clearly shows he's an educated man. You may argue that we have advanced in knowledge so much it would be impossible to be so widely read. I would reply that the issue is more to do with our view of education. Education is seen as important only in so far as it is useful and not from the point of view of developing the whole person.

There is no doubt that conflicts over scientific theories have raised passions, particularly if the theory calls into question religious truths. However, in the vast majority of cases where there has been strife it has been between scientists themselves. I could remark how Aristotle used the esteem with which he was held to dismiss a theory of Atoms that Democritus had proposed years earlier. This theory remained hidden until it was re-presented by the English chemist John Dalton c.1800. I could also refer how a student of Pythagoras was killed for saying that the square root of 2 was an irrational number. However, more recent examples will serve my purpose more readily by appealing to our sense of modern civility.

Galileo described in a letter to Kepler how his new invention of the telescope was badly received by the scientific community. The professor of the University of Padua refused to look into the telescope and used logical argument to "tear away the new planets from Heaven". Prof.

Huxley, in writing a letter to Prof. St. George Mivart, referred to the fact that Galileo got less grief from the Church than from his fellow scientists.³ William Harvey, the great English physician, kept his discovery of the human circulatory secret for at least 15 years. He feared his discovery would meet with opposition. When he did reveal it, he lost a lot of friends and was ridiculed severely by colleagues. Many physicians thought that someone who believed in the continuous flow of the blood was not worthy of consultations, and as a result he lost more than half his practice.

The Danish scientist Nicholas Steno was treated in a similar fashion to Harvey. Half a century before Harvey, at the tender age of 25, Steno declared the heart is a muscular pump. The old guard railed against this preposterous idea. The heart was, of course, the secretor of emotions. He escaped to the Papal States so that he could study in peace. He received such a welcome that his Protestant prejudice faded away. He converted to the Catholic Faith, became a priest, and returned to Northern Europe as a bishop to rescue his fellow Teutons from ignorance.



Bishop Steno 1638-1686

Edward Jenner, before he was given any accolades, had to endure a torrent of abuse from opponents as well as a series of trials defending the ethics of vaccinations. Auenbrugger in Vienna discovered the method of using percussion of the chest to diagnose chest diseases. He said, "I realise, however, that envy and blame and even hatred and calumny have never failed to come to men who have illuminated art and science by their discoveries or have added to their perfection. I expect to have to submit to this danger myself."

Dr Thomas Young, who experimentally proved the wave nature of light, was bullied by the great Isaac Newton because it undermined his

³ Letter November 12th 1885

corpuscular theory. Dr Oliver Wendell Holmes, an American, was denounced for declaring that Physicians themselves could carry infections from one patient to another. The physicist Georg Ohm had his ground breaking work debunked by the University of Berlin. He was thought too young to discover anything! It took six years before he was vindicated.

Einstein became a household name after publishing four papers in 1905. He absolutely refused to endorse Wolfgang Pauli's new ideas and as a result he spent his last years trying to prove them wrong. He published many papers later that contained silly mistakes in his endeavour to find a different solution than Pauli.

Make no mistake, this jealousy and arrogance continues to our own day. Obviously, I cannot name names, but there is no doubt that some of the best science being done today is not making it onto satellite TV or onto the front page of a popular science magazine. When Fred Hoyle ridiculed Mgr. Lemaître for bring God into science, he called his theory the "Big Bang" theory. Any notion of creation could not be accepted as true. But Hoyle had to eat his words when the Hubble telescope showed that everything is moving apart. The atheists had no choice but to try (clearly unsuccessfully) to commandeer the idea as a proof of their own.



Mgr. Lemaître
1894-1966

Despite this unsavoury aspect of scientists, the truth will make it through. The more we discover, the more we will realise how inadequate (and in some obvious cases how wrong) current theories are. The Catholic is not afraid of knowledge and discovery, but every generation of scientists fear that their life's work is nothing. For we know as the Psalmist says, "The heavens show forth the glory of God, and the firmament declareth the work of His hands".

Cardinal Manning on Darwinism, Science and the Faith



Extracts from: *Henry Edward Manning – His Life and Labours*, Burns Oates & Washbourne Ltd (1921)

“Are not incomprehensible truths the subject of the reason and comprehensible of the understanding?

Are not most controversies an attempt to bring under the understanding the subjects of the reason?”

Mannings Notebook, 1831.

THE Catholic Movement in England presented some of the old rivalry between Roman and German influences. To a certain extent men chose between Rome and Rationalism, between a revival of Catholicism and a result of Lutheranism. Archdeacon Manning had tried to take the scientific movement under his wing when he proclaimed that, “...as there is a science of revelation, so there is a creed of Nature.” Darwin's *Origin of Species* gave the school of Nature a Bible, out of which Huxley and others extracted the doctrines of Darwinism – what Manning grimly called “a theology *de Deo non existente*.” [p.316]

The fight against scepticism brought Manning and Gladstone more or less together. The latter had written: “I cheerfully submit myself to be probed by you on all questions of Rationalism and the like in my own words and acts, and for this purpose only I even submit myself to your episcopal authority.” When Gladstone clashed with Huxley on *The Dawn of Creation*, Manning wrote:

“Fifty-five years are a long reach of life in which to remember each other. We have twice been parted, but as the path declines, as you say, it narrows, and I am glad that we are again nearing each other as we near our end. If we cannot unite in the realm where ‘the morning stars sang together’ we should be indeed afar off.”

January 6, 1886: “In the meanwhile, are not these propositions sound? Holy Scripture is not a book of science (see the ‘evening and the morning’ before the creation of the sun and moon, and the standing still of the sun, in the Book of Josue). It is throughout written in the language of sense, which we use to this day, not of science. Science is of the natural order, revelation of the supernatural. Holy Scripture treats natural truth by sense, not by science. How can they clash? They are on different planes. The sun ‘rises and sets’ to this

day, in spite of sciences. The truth of Holy Scripture is not touched by science, because in the natural order Scripture is not scientific, and in the supernatural order science knows nothing. It is then answered, As soon as we prove anything by science you give it up. I answer no. I never affirmed it as a scientific truth. But I deny that science can touch no supernatural truth – e.g., the Incarnation. The language of sense was the only language men knew. If Josue had said that the earth stood still, they would have said, It never moves. I am slow to invoke science to confirm the Mosaic cosmogony. It is enough for me to say they are on different planes. And I am very sceptical of the alleged demonstrations of science. Huxley showed me a shell with three layers of incrustations. He said that it was a proof of numberless thousands of years. I said that we had changed places, that his faith rebuked my unbelief.”

January 7, 1886: “Huxley's pterodactyls have no weight against your main position, first on my contention of the different planes, and next because of the vast uncertainty of the theories built on the finding of scorpions and reptiles. To my mind they can only reach presumptions and probability. The Theism of the Old Testament compared with the Theism of the Greek and Roman worlds differs, not in degree, but in kind. The Book of Psalms exhibits a relation between God and man not to be found in any other tradition of the world. The cosmogony of Genesis, in like manner, has many parodies but no parallel. There is internal evidence confirming the external tradition that it is what it was believed to be – a Divine record in the language of man – that is, of sense, not of science. You are aware that St. Augustine and St. Thomas Aquinas treat the days as periods. And, as you say, the origin, not the whole history, of each successive creation is recorded. There is room enough in such chronology for any number of creatures that are now extinct. All who believe in God will think that your argument is unmoved. All who either do not believe or are agnostic will think that Huxley has slain us all. I cannot treat Darwinism with as much courtesy as you do.” [pp 324-325]

oooOooo

Cardinal Manning was born in 1808 at Totteridge, Hertfordshire, and studied at Oxford, later being elected Fellow of Merton College. He was an Anglican curate, who married in 1833, but his wife died in 1837. He converted in 1851 and was soon ordained, rising to succeed Cardinal Wiseman as Archbishop of Westminster in 1865; he received the Cardinal's hat in 1875 and died in 1892. He is most renowned for his work for Catholic education, for social justice for the working classes, and as champion of papal infallibility at the First Vatican Council. As a contemporary of Darwin, he was on friendly terms with Gladstone, Wilberforce, Tennyson, Ruskin, and Florence Nightingale: perhaps more cordial than his dealings with (to be Bd.) Cardinal J.H. Newman.

Did God leave on the immersion switch?

Gearoid Spainneach - Pontifical Diploma in Philosophy and Arts

Back in my early years, while on my school summer holidays, I used to work for my father, who was, and still is, a plumber by trade. There are a lot of handy and beneficial things to learn and my brother was a natural tradesman fitting and bending gas or water pipes to a professional standard. One area that fascinated me back then was the hot press with its immersion boiler. Just how did this lagging-jacket-covered, copper cylindrical boiler work? Well, it was not that difficult to understand in the end – it simply worked like an electric kettle. The immersion heater is a system whereby the water contained in the cylinder tank is heated and brought to the boil like a kettle does. The heat rises



to the top, and the cooler water remains at the bottom, this is known as convection currents, and when a kettle boils the water usually gives off steam through the spout. This struck a chord much later in life while reading a review of a hypothetical account of plate tectonic catastrophe by creation scientist Russell Humphreys.

Convection currents within the earth's core

Here is a quick excerpt from the BBC website giving a bite-size of information on plate tectonic movements for the British GCSE exams:

“Heat rising and falling inside the mantle creates convection currents... The convection currents move the [tectonic] plates”.¹

With this excerpt it's not difficult to imagine philosophically tectonic plates being supported and moved in unison with hot water, the idea I picked up from the review on Russell Humphreys' early tectonic ponderings. Adding to this, I wondered, having also worked in the construction industry, if the tectonic plates were historically as one monolithic unit. The curvature of this monolithic tectonic plate would give natural self-support to its superstructure; a bit like a builders arch at a window opening. Philosophically speaking, the tectonic

¹ BBC website *GCSE Bitesize – Geography, Tectonic plates, distribution*
www.bbc.co.uk/schools/gcsebitesize/geography/natural_hazards/tectonic_plates_rev2.shtml

plates could then be self-supporting, and further strengthened by a composite of tectonic superstructure, buoyed up with water below and floating like driftwood with the aid of convection currents. All this is philosophically conceivable and though not proven is at least a hypothesis with potential merit.

A natural global immersion system

With the home electrical immersion system switched on long enough, you turn on the tap and out comes the hot water. Creation scientist Russell Humphreys of the Institute of Creation Research (I.C.R.) has written on a fascinating topic of collapsed tectonic plates, a concept he borrowed from Antonio Snider of the late 1850s.²

In the review, Humphreys was cited to have mentioned that the hot earth's core would have heated the waters of the great deep inside the earth, and this heated water would have welled up to the surface of the earth in the form of a hot geyser which could mix with the cooler surface waters. This convection current activity happens in a boiling kettle, letting off steam as mentioned earlier. Regarding this article review on Humphreys' idea, I must confess I'm paraphrasing from memory, as I no longer have that article to cross-check for accurate quoting. The idea itself has been firmed up greatly since then. Nonetheless, I could see the Glory of God in this concept Humphreys put forward. I was fascinated by the philosophical possibility that God could create a good world with an immersion system that was big enough to keep the whole planet warm regardless of the latitude; a system that has collapsed with the onset of a catastrophic global deluge.



Any scientific evidence for this concept there?

The same immersion principle can be applied to the phenomena of hot water geysers, such as those in Iceland, and Yellowstone national park. From these two examples, it could be philosophically imagined that there was a global system in place before a catastrophic global deluge. According to scripture, God created a good world. So living in the North Pole must have been a good world to live back in antiquity, whereas now it's a harsh environment for man to survive. As a philosopher I'm straying from

² Snider – Pellegrini, *La Création et ses mystères dévoilés*. Paris: A Franck et E. Dentu

the uniformitarian world view. I need to, if I'm going to come to terms with Humphreys and his alternative geophysical interpretations, based on scripture.

Ancient Greek Philosophers

But is there evidence outside of the Bible to support Humphrey's ideas? Well, as mentioned earlier, Humphreys borrowed his tectonic plate concept from Antonio Snider. But can we go back further? Go beyond any epoch influenced by Christianity? Perhaps we could look to earlier philosophers for answers, such as the ancient Greek philosophers.

In ancient Greek culture, there were some accounts written of a river inside the earth called the 'Okeanos'. Thales, an ancient Greek philosopher, was considered a father of natural philosophy, being the first philosopher known to posit natural explanations about certain phenomena that man had no prior natural explanation for. Thales believed that the earth rests on water like driftwood, and water is the source of all things. This is, according to Aristotle, the most ancient account we have received.³ Aristotle felt that Thales may have



conjectured all things came from water due to the moist nature of things.⁴ Thales' description of the earth resting on water was from non-Greek mythological accounts and was also not out of kilter with the Jewish notion of the earth being supported by water.⁵ But Aristotle questioned Thales' cosmology in that Thales did not solve the mystery of what supported the water, which supposedly supported the earth?⁶ After all, what is supporting the water? This unresolved riddle may simply be a case of man not being able to 'think outside the box'. In

Egypt, the earth was commonly conceived as a flat rimmed dish resting on water.⁷ It is conjectured that Thales may have borrowed his cosmology from Egypt, which he had reputedly visited. A Homeric statement that the

³ Aristotle *de Caelo* B13, 294a28

⁴ Aristotle *Met* A3, 983b6

⁵ Cf. *The Pre-Socratic Philosophers*, Kirk, Raven and Schofield

(New York; Cambridge University Press: 2002) Chapter on Thales p. 90

⁶ Cf. *ibid.* p. 90 (11 sentences down from top of page)

⁷ Cf. *ibid.* p. 92- (beginning of paragraph)

surrounding “Okeanos” is the source of all springs and rivers adds to the notion of the waters of the great deep.⁸

Okeanos is a river flowing inside the earth, and is recorded in ancient Greek mythologies. Humphreys seems to be ‘backing a winner’: the earth could well have been supported by a body of water, and the body of water enveloped the earth’s hot core, like a thermal flask envelopes hot tea; since the great Deluge, the situation is this: the tectonic plates envelop the earth’s hot core, and the water [okeanos] now rests on the earth in the oceans... Presumably Humphrey knows there was already a gathering of waters on the earth called the sea, as mentioned in the creation week of the book of Genesis, but that does not rule out the deluge filling up the seas further, and we now have bigger and deeper seas covering much of the earth.

Back to scripture and philosophical reflections

From my recollections, Humphreys’ pre-flood cosmology is that the hot core once gave rise to boiling substrate water welling up from the great deep through fissures in the earth’s crust. Philosophically speaking then, this hot water could potentially complement the eco-system, allowing life to flourish throughout the earth. But looking from a biblical world view, because of the fallen nature of the world, the fissures may have grown more and more, until the weight of the earth’s crust gave away, creating perhaps, the catastrophic global deluge of water. Such was never seen since the foundation of the world and never to be repeated.

Conclusion...

So it is possible to think that God in effect ‘left the global immersion switch on’, which eventually brought about a high price on man’s tenancy in an antediluvial world. Humphreys has since firmed up his geophysical hypothesis, one entertained by other prominent creation scientists within the ICR. An article published in ‘Answers in Genesis’ (Creation Ministries) discusses: pre-flood geology, pre-flood earth structure, pre-flood sediments, flood dynamics, tectonic subduction, mantle wide flow, atmosphere, sedimentary production, earthquake activity and rapid elastic lithosphere bending. It is a technical guide, but well worth a read [see foot note ⁹].

⁸ Cf. *ibid.* p. 94 (bottom centre of page)

⁹ *Catastrophic Plate Tectonics: A Global Flood Model of Earth History*
www.answersingenesis.org/articles/aid/v5/n1/catastrophic-plate-tectonics

Jesus rocks - Dating method interpretation anomalies

Dr John Donnelly

The dating of rocks by the radioactive decay of certain minerals is undoubtedly the main argument today for the media mantra of an old earth. But our Catholic Bible clearly teaches a recent creation of both the heavens and the earth, so Catholics have often tried to reinterpret this doctrine to accommodate the long ages required by radioactive dating. For those Catholics who believe that Genesis (like the other historical books of the Bible) should be understood as literal history, it has therefore been necessary to show the errors in the so-called "scientific proofs" of an old earth.

Before the discovery of radioactivity, this usually meant evidence of sedimentation rates or salt influx in the oceans. The development of radiometric dating during the early decades of the 20th century, however, soon displaced these arguments, since the method seemed to give a great age for the earth. During the century after Lyell and Darwin and up until about 1950, the reaction of practically all Christian leaders was to accept uniformitarianism¹ and the radiometric ages, accommodating them by either the gap theory or the day-age theory.

There have been many who have written on the subject but the radiometric question is still not totally settled. The Biblical revelation, of course, must be our constraining guide in seeking a firm answer.² Whether or not creationists can ever come to a firm consensus on the significance of the radiometric data, we must never forget that the evidence for the inspiration, integrity, and clarity of God's word is far greater than the illusory and self-serving arguments offered by Darwinist and theistic evolutionists for an ancient earth. We need to remind

¹ Uniformitarianism is the principle that all geologic phenomena may be explained as the result of existing forces having operated uniformly from the origin of the earth to the present time. This was expounded by James Hutton (1785) and popularised by Charles Lyell in *Principles of Geology* (1830-33).

² Subject to the rulings of the Church's Magisterium, such that there cannot be any real contradiction between the dogmas of Faith and the established facts of Science.

ourselves over and over that there is no hint whatever—anywhere in the Bible—that the earth is significantly older than the few thousand years of recorded history.

There are numerous Biblical statements, on the other hand, that clearly require a young earth. For example, there is no evidence in context that the word “day” in the first chapter of Genesis means anything but a literal day. The word (Hebrew, *yom*) is specifically defined by God as the daylight period in the daily succession of day and night the very first time it is used (Genesis 1:5). God Himself unequivocally confirmed in the fourth Commandment (Exodus 31:18) that He had made everything in heaven and earth in six days—days that were the same kind of days as man’s days.

Furthermore, the Lord Jesus Christ clearly affirmed in Mark 10:6 that “from the beginning of the creation God made them male and female,”— not 4.6 billion years after the beginning of the creation! The very concept of billions of years of a groaning, travailing creation (Romans 8:22) with animals suffering and dying during the long geologic ages before God could get around to creating men and women in His own image, is an insult to a loving, omniscient, omnipotent God. Death is, under such a concept, not ‘the wages of sin’, as the Scripture says (Romans 6:23), but ‘the method of creation’, as evolutionists say. Therefore, there must be a true and satisfying answer to this troublesome radiometry problem. If the earth is young, the data must confirm this, if rightly understood.

In most people’s minds today, the radioactive dating of the earth’s rocks by



geologists has supposedly proved that the earth is billions of years old. Yet most people really don’t know much about these radioactive dating methods. So convincing are the presentations of results, particularly in glossy media and museum propaganda, that no one even bothers to question how these dating methods work, what assumptions are

involved, and how reliable they are. Such questions, however, are highly relevant. The answers are not only instructive, but demolish the evolutionary

geologist's case for a 4.5-billion-year old earth. This in turn allows the evidence for a young earth and universe to emerge in support of the scriptural timeline of a 6,000–7,000 year age, which of course leaves no time for any 'big bang' and 'molecules-to-man' evolutionary ideas. Let us find out how radioactive dating methods are supposed to work.

Radioactive dating explained

Some types (technically known as 'isotopes') of 'parent' elements such as uranium, potassium and rubidium are said to be radioactive because the nuclei of the atoms are unstable, resulting in readjustments between the 'particles' (primarily neutrons and protons) in the nuclei with time. To achieve stability, some 'particles' are ejected from the atoms, and these moving 'particles' constitute the radioactivity measured by Geiger counters and the like. The end result is stable atoms of the 'daughter' elements lead, argon, and strontium respectively.

Thus the first step in the radioactive dating technique is to measure the amounts of the parent and daughter elements (isotopes) in a rock sample by chemical analyses. This is done in specially equipped laboratories with sophisticated instruments capable of very good precision and accuracy, so in general there is no quarrel with the resulting chemical analysis.

However, it is with the interpretation of the chemical analyses of the radioactive parents and resultant daughters that the problems with radioactive dating of rocks begin. In order to interpret these chemical analyses and processes geochronologists must make three vital assumptions, otherwise the radioactive 'clock' cannot be made to read the 'age' of the rocks. These assumptions are:

- (1) the initial conditions are known;
- (2) the system has been closed;
- (3) the radioactive decay rate has remained constant.



So that these assumptions are easily understood, they are best explained in the context of the hourglass (or egg timer) analogy. Grains of fine sand fall at a

steady rate from the top glass bowl to the bottom. At a certain time the hourglass is turned upside-down so that all the sand starts in the top bowl. By the time an hour has passed all the sand is supposed to have fallen into the bottom glass bowl. Now this 'clock' works because the initial conditions are known—that is, all the sand grains are in the top glass bowl and none are in the bottom one. If there is already some sand in the bottom glass bowl, then unless this amount is known the hourglass 'clock' cannot 'tell' the time. Similarly, if the system has not remained closed (for example, if sand were somehow added or subtracted), then the calculation of how much time has passed, based on comparing the amounts of sand in the two glass bowls, will again lead to an incorrect conclusion. And finally, if the rate at which the sand grains fall from the top glass bowl to the bottom one varies (for example, moisture causes some clogging of the sand in the narrow passage between the two glass bowls), then again the hourglass 'clock' will be inaccurate.

Unproven assumptions

The radioactive decay of 'parent' isotopes of uranium, potassium and rubidium to 'daughter' isotopes of lead, argon and strontium respectively is analogous to our hourglass 'clock', including these three assumptions. However, in the case of these radioactive 'clocks' these three assumptions can be shown to be not only unprovable but invalid, rendering these 'clocks' virtually useless.

In regard to the initial conditions, no scientist can ever be sure what they were, because no scientist was present here on the earth at its origin. Thus the amount of daughter isotope that has actually been derived from the parent isotope by radioactive decay is unknown, since some of the daughter isotope might have been present with its respective parent isotope at the time of the earth's origin. So, for instance, a uranium isotope decays to lead isotope and this can be measured very accurately. By observing how fast U-238 decays into lead-(Pb) 206, we can calculate the half-life of U-238. This is a theoretical calculation, and we can therefore determine that the half-life of U-238 is 4.5 billion years. But wait a minute! How does one know that there was no lead isotope in the rock sample to begin with? One has to make assumptions that there was no lead at all originally in that rock! Or the assumption is made that the uranium has decayed at a constant rate. Granting that U-238 has a half-life of 4.5 billion years in no way negates the idea that the Earth is only 6,000 years old.

Also, geochronologists have assumed that the uranium and lead isotopic compounds in particular meteorites are equivalent to the initial composition of these isotopes when the earth came into existence. This is assumed because it is supposed that these meteorites represent fragments from another planet in the solar system similar to our earth that disintegrated very early in the history of the solar system. However, not all meteorites have the same uranium-lead isotopic composition, so why should the isotopic composition of these particular meteorites be considered to be the 'correct' composition for the earth at its origin rather than some other composition found in other meteorites? An hourglass 'clock' tells the elapsed time by comparing the amount of sand in the top bowl ('parent') with the amount in the bottom bowl ('daughter'). Furthermore, even if today's scientists believe they have the methods, for example graphical and mathematical, for determining how much of the daughter isotope might have been present either at the origin of the earth or the origin of the rock being dated, no one can ever be sure that these answers are correct, because there was no scientist present at the beginning to observe those initial conditions, even though the scientists' calculations may be extremely methodical and accurate.



Similarly, there is no way that it can be proved that these radioactive systems have been closed through all the supposed millions of years of decay of parent isotopes into daughter isotopes. Again, the main reason for this is because no scientist has been present to observe everywhere these radioactive systems and so report that they have been closed through all their history. Indeed, the evidence indicates the very opposite, that is, that these systems have been open to all sorts of external influences.

For example, it is known that uranium is generally a mobile element in the natural environment, particularly in ground water near the earth's surface. Thus, if a rock sample is analysed at or near the earth's surface for its uranium and lead isotopes, it would be incorrect to assume that all the uranium and lead

in the sample were there only because of the amounts placed in the rock at its origin and because of undisturbed radioactive decay from uranium into lead. Some of the uranium might have been disturbed or leached out of the rock sample, hence making the rock appear older than it really is according to this radioactive 'clock'. Or, some uranium might have been deposited by ground waters into the sample, thus making it appear younger than what it really is.

The final assumption is, of course, that the radioactive decay rates have remained constant. However, once again, this assumption can in no way be proved, because there were no human observers present right throughout the earth's history to be constantly measuring the radioactive decay rates and to have recorded them. It is special pleading on the part of geochronologists and physicists to say that the radioactive decay rates have been carefully measured in laboratories for the past 80 or 90 years and that no significant variation of these rates has been measured. The 'bottom line' is really that 80 or 90 years of measurements are being extrapolated backwards in time to the origin of the earth, believed by evolutionists to be 4.5 billion years ago. That is an enormous extrapolation. In any other field of scientific research, if scientists or mathematicians were to extrapolate results over that many orders of magnitude, thereby assuming continuity of results over such enormous spans of unobserved time, they would be literally laughed at by fellow scientists and mathematicians. Yet geochronologists are allowed to do this without fear, primarily because it gives the required millions and billions of years that evolutionists need, and because it makes these radioactive 'clocks' work! Remember that all one is measuring is a decay rate of a particular isotope of uranium, potassium or rubidium. To assume that the decay rate has been constant through time is bad science.

So we have seen that none of these three basic assumptions which are foundational to all the radioactive dating techniques can be proved. Indeed, we have also seen that each of these three assumptions is invalid, not only because no scientist has been present from the origin of the earth to see what it was like back then and to report as an eyewitness all that has happened everywhere since, but because we know of observations contrary to these assumptions.

Creation scientists have their own research

Creation scientists known as the RATE team (Radio-isotopes and the Age of The Earth) have recently produced their own research . The radioactive decay

process that is described above can be seen to produce 8 alpha-particles for each single atom of U-238. Each α -particle could gain new electrons and become an atom of helium. The rate of diffusion of helium from a zircon crystal in granite rock can be measured. It turns out that this rate of diffusion of helium is compatible with the crystals being about 5,000 years old, not 1.5 billion years old as evolutionary scientists believe. Although assumptions (1) and (2) above are not provable, they actually seem very likely to be valid in this particular research example. Therefore, it seems that the last assumption must be wrong. Remember that we have already implied that these experimenters/scientists are accurate in measuring the decay rate. It is therefore unlikely that the laboratory technicians have made a mistake in their measurements of U-238 or lead (Pb-206). The only possible conclusion, therefore, is that the half-life of U-238 has not been constant throughout the lifetime of the granite and its zircon crystals.

Other radiometric dating methods are based on similar assumptions. If the assumptions cannot be trusted, then the calculations based on them are unsound. It is for this reason that creationists question radiometric dating methods and do not accept their results. The RATE team research does show that the helium diffusion method gives an age of rocks at around 5000 years!

For more on this important work, please see Humphreys, R., Young, "Helium Diffusion Age of Zircons Supports Accelerated Nuclear Decay", in Vardiman, L., Snelling, A.A., and Chaffin, E.F. (2005), *Radioisotopes and the Age of the Earth (RATE)*, Vol 2, (California: Institute for Creation Research), pp 25-100.

It remains for me to say that Jesus knew that man was made at the beginning only days after the original rocks were created. That would mean rocks are only 5- 6000 years old . Was He misguided? Did He not know about science? Or was He correct? My view is that He was right and that's why, in the words of one school student I know, "Jesus rocks!!!"

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Creation, Evolution, Catholicism and Christianity – a Seminar by Dr John Donnelly – 8-hour DVD available from Daylight for £6 per copy (inc postage). For further information, visit: www.insixdays.ie

THE FIRST ORDER OF MAMMALIANS BIMANA, OR MAN (Part 2)¹

From Baron Cuvier, *The Animal Kingdom* [1893 Edition; pp 34-37]

Man has a particular pre-eminence in his organ of voice: of all mammalians, he can alone articulate sounds; the form of his mouth and the great mobility of his lips being probably the cause of this. Hence results his most invaluable mode of communication; for of all the signs which can be conveniently employed for the transmission of ideas, variations of sound are those which can be perceived at the greatest distance, and in the most various directions simultaneously.

It seems that even the position of the heart and of the great vessels bears reference to the vertical carriage. The heart is placed obliquely on the diaphragm, and its point inclines to the left, thereby occasioning a distribution of the aorta differing from that of most quadrupeds.

The natural food of Man, judging from his structure, appears to consist principally of the fruits, roots, and other succulent parts of vegetables. His hands afford every facility for gathering them; his short but moderately strong jaws on the one hand, and his canines, being equal only in length to the other teeth, together with his tuberculated molars on the other, would scarcely permit him either to masticate herbage, or to devour flesh, were these condiments not previously prepared by cooking. Once, however, possessed of fire, and those arts by which he is aided in seizing animals or killing them at a distance, every living being was rendered subservient to his nourishment, thereby giving him the means of an indefinite multiplication of his species.

His organs of digestion are in conformity with those of manducation [*chewing/eating – Ed.*]; his stomach is simple, his intestinal canal of mean length, his great intestines well marked, his coecum short and thick, and augmented by a small appendage, and his liver divided only into two lobes and one small one; his epiploon [*greater omentum – Ed.*] hangs in front of the intestines, and extends into the pelvis.

To complete this abridged statement of the anatomical structure of Man, necessary for this Introduction, we will add, that he has thirty-two vertebrae, of which seven belong to the neck, twelve to the back, five to the loins, five to the sacrum, and three to the coccyx. Of his ribs, seven pairs are united to the

¹ The first extract, comprising anatomical peculiarities of the human body, appeared in *Daylight* No 43 (March 2012), pp 34-36. *Ed.*

sternum by elongated cartilages, and are called true ribs; the five following pairs are denominated false ones. His adult cranium consists of eight bones; an occipital (*occipito-basilaire*); two temporal; two parietal; a frontal; an ethmoidal, and a sphenoidal. The bones of his face are fourteen in number; namely, two maxillaries; two jugals, each of which joins the temporal to the maxillary bone of its own side by a sort of handle named the zygomatic arch; two nasal bones; two palatines, behind the palate; a vomer, between the nostrils; two turbinated bones of the nose in the nostrils; two lachrymals in the inner angles of the orbits: and the single bone of the lower jaw. Each jaw has sixteen teeth: four cutting incisors in the middle, two pointed canines at the corners, and ten molars with tuberculated crowns: five on each side, in all thirty-two teeth. His blade-bone has at the extremity of its spine or projecting ridge a tuberosity, named the acromion, to which the clavicle or collar-bone is connected, and over its articulation is a point termed the coracoids process, to which certain muscles are attached. The radius turns completely on the cubitus or ulna, owing to the mode of its articulation with the humerus. The wrist has eight bones, four in each range; the tarsus has seven; those of the remaining parts of the hand and foot may be easily counted by the number of digits.

Enjoying, by means of his industry, uniform supplies of nourishment, Man is at all times inclined to sexual intercourse, without being ever furiously incited. His generative organ is not supported by a bony axis; the prepuce does not retain it attached to the abdomen; but it hangs in front of the pubis: numerous and large veins, which effect a rapid transfer of the blood of his testes to the general circulation, appear to contribute to the moderation of his desires.

The uterus of woman is a simple oval cavity; her mammae, only two in number, are situated on the breast, and correspond with the facility she possesses of supporting her child upon her arm.

PHYSICAL AND MORAL DEVELOPMENT OF MAN

The ordinary produce of the human species is but one child at a birth; for in five hundred cases of parturition, there is only one of twins, and more than that number is extremely rare. The period of gestation is nine months. A foetus of one month is ordinarily an inch in height; at two months, it is two inches and a quarter; at three months, five inches; at five months, six or seven inches; at seven months, eleven inches; and at nine months, eighteen inches. Those which are born prior to the seventh month usually die. The first or milk teeth begin to appear a few months after birth, commencing with the incisors. The number

increases in two years to twenty, which are shed successively from about the seventh year, to be replaced by others. Of the twelve posterior molars, which are permanent, there are four which make their appearance at four years and a half, four at nine years; the last four being frequently not cut until the twentieth year.

The foetus grows more rapidly in proportion as it approaches the time of birth. The infant, on the contrary, increases always more and more slowly. It has upwards of a fourth of its height when born, attains the half of it at two years and a half, and the three fourths at nine or ten years. By the eighteenth year the growth almost entirely ceases. Man rarely exceeds six feet, and seldom remains under five. Woman is ordinarily some inches shorter.

Puberty manifests itself by external signs, from the tenth to the twelfth year in girls, and from the twelfth to the sixteenth in boys. It arrives sooner in warm climates. Either sex very rarely produces before the epoch of this manifestation.

Scarcely has the body attained its full growth in height, before it commences to increase in bulk; fat accumulates in the cellular tissue. The different vessels become gradually obstructed; the solids become rigid; and after a life more or less prolonged, more or less agitated, more or less painful, old age arrives, with decrepitude, decay, and death. Man rarely lives beyond a hundred years; and most of the species, either from disease, accidents, or merely old age, perish long before that term.

The child needs the assistance of its mother much longer than her milk, whence results an education intellectual as well as physical, and a durable mutual attachment. The nearly equal number of individuals of the two sexes, the difficulty of supporting more than one wife, when wealth does not supply the want of power, intimate that monogamy is the natural condition of our species; and as, wherever this kind of union exists, the sire participates in the education of his offspring, the length of time required for that education allows the birth of others, whence the natural perpetuity of the conjugal state. From the long period of infantile weakness results domestic subordination, and, consequently, the order of society at large, as the young persons who compose the new families continue to preserve with their parents those tender relations to which they have so long been accustomed. This disposition to mutual assistance multiplies to an almost unlimited extent those advantages previously derived by isolated Man from his intelligence; it has assisted him to tame or repulse other animals, to defend himself from the effects of climate, and thus enabled him to cover the earth with his species.

In other respects, Man appears to possess nothing resembling instinct, no regular habit of industry produced by innate ideas; all his knowledge is the result of his sensations, his observations, or of those of his predecessors. Transmitted by speech, increased by meditation, applied to his necessities and his enjoyments, they have given rise to all the arts. Language and letters, by preserving acquired knowledge, are a source of indefinite perfection to his species. It is thus that he has acquired ideas, and made all nature contribute to his wants.²

There are very different degrees of development, however, in Man.

The first hordes, compelled to live by hunting and fishing, or on wild fruits, and being obliged to devote all their time to search for the means of subsistence, and not being able to multiply greatly, because that would have destroyed the game, advanced but slowly; their arts were limited to the construction of huts and canoes, to covering themselves with skins, and fabricating arrows and nets; they observed such stars only as served to direct them in their journeys, and some natural objects whose properties were of use to them; they gained the dog for a companion, because he had a natural inclination for the same kind of life. When they had succeeded in taming the herbivorous animals, they found in the possession of numerous flocks a never-

² The numerous structural concurrences, all of which are required to promote the intellectual development of mankind, are worthy of serious consideration with reference to the unaided faculties of other animals.

For example, if the superior intelligence of Man were not seconded by his admirable hands (so vastly excelling those of the monkey tribe), by his efficient vocal organ, &c., which are obvious to all as mere physical conformations, indeed, but slight modifications of what occur in other animals,— if, in short, he were reduced in these respects to the condition of the Dog, how effectually would the privation operate to prevent that progressive advancement which, under existing circumstances, is achieved by the human race only.

But, even to grant to Man the use of all his organs, yet deprive him of the accumulated experience of his predecessors, and all mental culture beyond the result of his incidental experience (which in brutes is a necessary consequence of their imperfect means of communication), and we perceive how immensely he is indebted also to these accessories.

On the other hand, however, a duly developed brain and commensurate intelligence are required to enable Man to avail himself of the advantages of his structure, for otherwise he appears doomed to remain stationary like a brute (...) even in the midst of civilization. There are also casualties, as the general insecurity of life or property arising from situation or misgovernment, which ordinarily suffice to repel the efforts of advancement, even of the most intelligent races.

It would accordingly, then, appear that the characteristic traits of human intellect are mainly due to the co-operation of extrinsic causes, and to the accessory aids afforded by physical conformation.

failing source of subsistence, and some leisure, which they employed in extending the sphere of their acquirements. Some industry was then employed in the construction of dwellings and the making of clothes; the idea of property was admitted, and, consequently, that of barter, together with wealth and difference of conditions, those fruitful sources of the noblest emulation and the vilest passions; but the necessity of searching for fresh pastures, and of obeying the changes of the seasons, still doomed them to a wandering life, and limited their improvement to a very narrow sphere.

The multiplication of the human species, and its improvement in the arts and sciences, has only been carried to a high degree since the invention of agriculture and the division of the soil into hereditary possessions. By means of agriculture, the manual labour of a portion of society is adequate to the maintenance of the whole, and allows the remainder time for less necessary occupations, at the same time that the hope of acquiring, by industry, a comfortable subsistence for self and posterity, has given a new spring to emulation. The discovery of a representative of property, or a circulating medium, has carried this emulation to the highest degree, by facilitating exchanges, and rendering fortunes more independent and susceptible of being increased; but by a necessary consequence, it has also equally increased the vices of effeminacy and the furies of ambition.

In every stage of the development of society, the natural propensity to reduce all knowledge to general principles, and to search for the causes of each phenomenon, has produced reflecting men, who have added new ideas to those already accumulated; nearly all of whom, while knowledge was confined to the few, endeavoured to convert their intellectual superiority into the means of domination, exaggerating their merit in the eyes of others, and disguising the poverty of their knowledge by the propagation of superstitious ideas.

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These extracts are included in *Daylight* for the purpose of illustrating that the unique features of humans were studied and recognised before Darwin's time as being scientifically incompatible with the evolutionary hypothesis [cf. *Darwinism Applied to Man*, A.R. Wallace – see *Daylight* 42]. The first edition of Cuvier's *Animal Kingdom* was dated 1816. He proposed other ideas including multiple catastrophism which we do not support.

His work also contains descriptions of racial characteristics and other theories which we consider inappropriate at this time to be re-published in the public forum.

However, readers who would like to have A4 photocopies of these other pages (5 text, 3 plates) for **personal** academic or research use should contact the Editor – price £2 (UK); £3 (Europe); £4 (rest of world).

ANTIQUITIES OF THE JEWS

Flavius Josephus



BOOK I

CONTAINING THE INTERVAL OF THREE THOUSAND EIGHT HUNDRED AND
THIRTY-THREE YEARS

[FROM THE CREATION TO THE DEATH OF ISAAC]

CHAPTER I

The Constitution of the World, and the disposition of the Elements

1 (27) In the beginning God created the heaven and the earth. But when the earth did not come into sight, but was covered with thick darkness, and a wind moved upon its surface, God commanded that there should be light: (28) And when that was made, he considered the whole mass, and separated the light and the darkness; and the name he gave to one was *Night*, and the other he called *Day*; and he named the beginning of light, and the time of rest, the *Evening* and the *Morning*.—(29) And this was indeed the *first* day. But Moses said it was *one* day; the cause of which I am able to give even now; but because I have promised to give such reasons for all things in a treatise by itself, I shall put off its exposition till that time. (30) After this, on the second day, he placed the heaven over the whole world, and separated it from the other parts, and he determined it should stand by itself. He also placed a crystalline [firmament] round it, and put it together in a manner agreeable to the earth, and fitted it for

giving moisture and rain, and for affording the advantage of dews. (31) On the third day he appointed the dry land to appear, with the sea itself round about it, and on the very same day he made the plants and the seeds to spring out of the earth. On the fourth day he adorned the heaven with the sun, the moon, and the other stars, and appointed them their motions and courses, that the vicissitudes of the seasons might be clearly signified (32) And on the fifth day he produced the living creatures, both those that swim, and those that fly; the former in the sea, the latter in the air. He also sorted them as to society, and mixture for procreation, and that their kinds might increase and multiply. On the sixth day he created the four-footed beasts, and made them male and female: on the same day he also formed man (33) Accordingly Moses says that in just six days the world, and all that is therein, was made. And that the seventh day was a rest. and a release from the labour of such operations; whence **it** is that we celebrate a *rest* from our labours on that day, and call **it** the *Sabbath*; which word denotes *Rest* in the Hebrew tongue.

2 (34) Moreover Moses, after the seventh day was over, begins to talk scientifically concerning the formation of man and says thus, That God took dust from the ground, and formed man, and inserted in him a spirit and a soul. This man was called Adam, which in the Hebrew tongue signifies one that is *red*, because he was formed out of *red earth* kneaded together; for of that kind is virgin and true earth. (35) God also presented the living creatures, when he had made them according to their kinds, both male and female to Adam, and he gave them those names by which they are still called. But when he saw that Adam had no female companion, no society (for there was no such created) and that he wondered at the other animals which were male and female, he laid him asleep, and took away one of his ribs, and out of it formed the woman; (36) whereupon Adam knew her when she was brought to him, and acknowledged that she was made out of himself. Now a woman is called in the Hebrew tongue *Issa*; but the name of this woman was *Eve*, which signifies the *Mother of all living*.

3 (37) Moses says farther, that God planted a paradise in the East, flourishing with all sorts of trees; and that among them was the *Tree of Life*, and another of *Knowledge*, whereby was to be known what was *Good and Evil*: (38) And that when he had brought Adam and his wife into this garden, he commanded them to take care of the plants. Now the garden was watered by one river, which ran round about the whole earth, and was parted into four parts. And Phison, which denotes a *Multitude*, running into India, makes its exit

into the sea, and is by the Greeks called *Ganges*. (39) Euphrates also, as well as Tigris, goes down into the Red Sea. Now the name Euphrates, or Phrath, denotes either a *Dispersion*, or a *Flower*; by Tigris, or Diglath, is signified *what is swift with narrowness*; and Geon runs through Egypt, and denotes the river which arises from the opposite quarter to us, which the Greeks call *Nile*,



4 (40) God therefore commanded that Adam and his wife should eat of all the rest of the plants, but abstain from the *Tree of Knowledge*; and foretold to them that if they touched it, it would prove their destruction. (41) But while all the living creatures had one language at that time, the Serpent which then lived together with Adam and his wife, shewed an envious disposition, at his supposal of their living happily, and in obedience to the commands of God; and (42) in imagining, that when they disobeyed them, they would fall into calamities, he persuaded the woman, out of a malicious intention, to taste of the *Tree of Knowledge*, telling them, that in that tree was the *Knowledge of Good and Evil*; which knowledge, when they should obtain, they would lead an happy life; nay, a life not inferior to that of a god: (43) By which means he overcame the woman, and persuaded her to despise the command of God. Now, when she had tasted of that tree, and was pleased with its fruit, she persuaded Adam to make use of it also. (44) Upon this they perceived that they were become naked, and being ashamed thus to appear abroad, they invented somewhat to cover them, for the tree sharpened their understanding; and they

covered themselves with fig-leaves; and tying these before them, out of modesty, they thought they were happier than they were before, as they had discovered what they were in want of. (45) But when God came into the garden, Adam, who was wont before to come and converse with him, being conscious of his wicked behaviour, went out of the way. This behaviour surprised God; and he asked what was the cause of this his procedure? And why he, that before delighted in that conversation, did now fly from it, and avoid it? (46) When he made no reply, as conscious to himself that he had transgressed the command of God, God said, 'I had before determined about you both, how you might lead an happy life, without any affliction, and care, and vexation of soul; and that all things which might contribute to your enjoyment and pleasure should grow up by my providence, of their own accord, without your own labour and pains-taking; whereby old age would not come on speedily and your life would be long. (47) But now thou hast abused this my good-will, and hast disobeyed my commands; for thy silence is not the sign of thy virtue, but of thy evil conscience,' (48) However Adam excused his sin, and intreated God not to be angry at him, and laid the blame of what was done upon his wife: and said that he was deceived by her, and thence became an offender; while she again accused the Serpent. (49) But God allotted him punishment, because he weakly submitted to the counsel of his wife; and said, the ground should not henceforth yield its fruits of its own accord, but that when it should be harassed by their labour, it should bring forth some of its fruits, and refuse to bring others. He also made Eve liable to the inconveniency of breeding, and the sharp pains of bringing forth children; and this because she persuaded Adam with the same arguments wherewith the serpent had persuaded her, and had thereby brought him into a calamitous condition. (so) He also deprived the Serpent of speech, out of indignation at his malicious disposition towards Adam. Besides this, he inserted poison under his tongue, and made him an enemy to men; and suggested to them, that they should direct their strokes against his head, that being the place wherein lay his mischievous designs towards men, and it being easiest to take vengeance on him that way. And, when he had deprived him of feet, he made him to go rolling all along, and dragging himself upon the ground. (51) And, when God had appointed these penalties for them, he removed Adam and Eve out of the garden into another place.

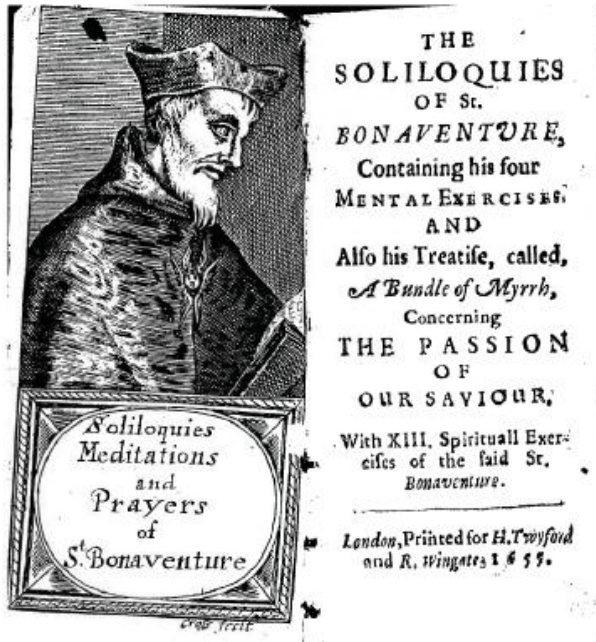
Josephus, Flavius, *The Antiquities of the Jews*, tr. Wiston, W., R. Mipos, pp. 1-3.

Josephus was born in AD37 from a wealthy priestly Jewish family. After capture by Romans, he later became a Roman citizen. *Antiquities of the Jews* recounts the history of the world from a 1st century Romanised -Jewish perspective, making this an interesting commentary on Genesis 1-3.

The Soliloquies of St Bonaventure (extracts)

b. 1221, d. 1274, canonised 1482. Feast Day July 14th (old calendar).
Franciscan; Cardinal Bishop of Albano. The 'Seraphic Doctor'.
One of the **Heavenly Patrons** of Daylight Origins Society.

*These thoughts remind us to always prioritise our personal relationship with our
Creator over just seeking more knowledge of the profane sciences.
[The spelling has been updated, but the language and punctuation retained].*



MAN: Know thyself O man, what thou art, look that thou consider what enters into thee in thy thought, what passeth from thee in thy discourse. Examine thy life therefore, O my Soul, by a daily discussion, consider diligently, how much thou profitest, how much thou art deficient, what thou art in manners, what thou art in affection, how like or dislike, how near or afar off, thou art to God. Ever acknowledge this, that it is much more commendable and better for thee, I thou knowest thyself, than if (thyself being neglected) thou knowest the course of the Stars, the virtues of Herbs, the complexions of Men, the natures of living

creatures, hadst the knowledge of all heavenly and earthly things. Render therefore thyself to thyself, and if not always, yet at least sometimes. Govern thy affections, direct thy actions, correct thy ways. Therefore O my Soul, keep the Counsels of holy men, and first of all convert the rays of contemplation to the last region, (that is to say) to the consideration of thy own condition. Diligently therefore consider how nobly thou art made of God by nature, how viciously by thy own will thou art deformed through sin, how graciously by the divine goodness thou art often reformed by Grace.

First therefore consider how nobly thou art formed by nature. Thy natural nobility, as I conceive, consists in this, because that there is imprinted in thee naturally to beautify thee, the image of the most blessed Trinity, whereupon *S. Anselm* in his *Prologie* saith: I confess of Lord, and give thee thanks, because thou hast created me according to thy own image, that I might be mindful of thee, think of thee, and love thee.

S. Bernard. According to the interior man, three things I find in me, by which I call to mind, behold and desire God. These three are, Memory, Understanding, and Will. For when I am mindful of God, in him also I am delighted, for the memory of him is upon one, when with my understanding I behold him how much in himself he is incomprehensible, because he is the beginning and end of all things.

In Angels desirable, because they desire to behold him.

In all his Saints delectable, forasmuch as continually (they being happy) do rejoice in him.

In all his Creatures admirable, because he powerfully createth, wisely governeth, bountifully dispenseth all things.

When I look into these things, him also I desire. When I love God by my will, I transform myself into him. For this is the power or virtue of love that it maketh thee to be like unto that which thou lovest.

Re-acknowledge therefore O my soul, how wonderful and inestimable a dignity it is, not only to be a mark of the Creator, which is common to all creatures, but to be the very Image of him, which is only proper to a reasonable creature.

Praise therefore, O my soul, our Lord; praise thy God O Sion.

[from *The First Exercise*, pp. 5-8]

MAN: Even as by a looking Glass a threefold vision is demonstrated unto us, in that we see ourselves, the Glass and whatsoever is present, so by the mirror of divine clearness, we know God himself, and whatsoever is present, that is ourselves and all creatures.

SOUL: O Blessed truth I now perceive, that to be wise without thee, is to be foolish, and to know thee perfectly is to become wise.

MAN: O my soul, those things which thou desirest naturally to know, earnestly endeavour to see in this mirror, seek continually to study and read therein; because to have seen this once is to have learned all things. Truly Plato's Contemplation, Aristotles Philosophy, Empedocles Speculation, Hypocrates Searches, Ptolemys Astrology &c shall be seen there, and accounted but foolishness: Because whatsoever we understand here concerning the truth, is the least part of those things which we are ignorant of. But then, O my soul, thou shalt see, and abound, and thy heart shall admire and be enlarged.

SOUL: AND WHAT SHALL I SEE?

MAN: The King of Heaven in his glory: the splendour of eternal pulcritude is of such and so great pleasantness, and of so great sweetness, that the very Angels themselves, who are incomparably more clear than the Sun, cannot be satisfied therewith. Therefore thou shalt then abound with delights in the admirable and wonderful knowledge of the Divine clearness, thou shalt admire at the consideration of thy own glory, thou shalt be enlarged in the perfect speculation of all Creatures, O stupendous and admirable Contemplation! O sweet and delectable consideration! O joyful and unspeakable speculation!

O Lord my God, how worthily is it spoken of thee: One day in thy Courts is better than a thousand elsewhere.

[From *The Fourth Exercise*, pp 277 – 280]

oooOooo

The Soliloquies of St Bonaventure, Twyford & Wyngate, London, 1655,
Open source <http://www.archive.org/details/TheSoliloquiesOfSt.Bonaventure>

St Bonaventure (Doctor of the Church) – *Pray for us*

Proofs Adduced in Favour of Evolution - Intermediary Forms

Cardinal Ernesto Ruffini

The intermediary forms, it is said—the forms of transition between one group and another—do exist: hence, evolution, continual and gradual, receives its strongest support from their existence. We enumerate some of the forms held to be intermediary. The most famous is the *Archaeopteryx*.

This type of “primitive bird” was discovered in 1861 in the lithographic schists of the *Upper Jurassic* of Solenhofen in Bavaria. From many aspects it is a bird, but from others it is a reptile: it has the teeth and the very long tail of the reptile with 21 vertebrae (in other birds 6 vertebrae as well as the pygostyle).

In reality, the *Archaeopteryx* is not an intermediary form, that is, a reptile in a state of transformation. It is only a way of speaking to place it between the reptiles and the birds. Apart from the tail it has nothing of the nature of the reptile. In all other respects it is a bird. It had feathers and it was a warm-blooded animal; as such, it would have had all the anatomical and physiological characteristics of birds: even the teeth are those proper to all birds of the Cretaceous period. If it shows any affinity with the reptiles, this affinity is not greater than that which associates reptiles and birds in the one group of the *Sauropsida*.

Another form held to be intermediary and considered as a link between the land mammals and the Cetaceans is the *Zeuglodon* of the Eocene Age. Under some aspects it is a cetacean and, on the other hand, it has two characteristics proper to the ordinary mammal: a set of teeth composed of incisors, canines and molars, and also the nostrils are placed horizontally. But if, instead of considering these characteristics by themselves—and this is always the error made as regards “intermediary” forms—attention were paid to the total structure of the type, it would be seen that the *Zeuglodon* is simply a cetacean. As such, it has a skeleton corresponding to what is needed for aquatic life. Consequently the pelvis and the rear parts are restricted or reduced. In conclusion, the *Zeuglodon* was an organism completely adapted to the kind of life it lived, and was not, in fact, a form that was searching for some adaptation. [...] Today, however, to these forms is given a significance that differs greatly from that attributed to them fifty years ago, even though they are still called forms in transition. Rather do they represent forms that are ideally, and not really, intermediary, and that only in some characteristics and not in their entire organisation.

The Theory of Evolution Judged by Reason and Faith, 1959, pp.23-24.

Fossil Geology and the Age of the Earth: some recommended DVDs



Set in Stone – Evidence for Earth’s Catastrophic Past £12.95 + p&p
A. Snelling, J. Whitmore, P. Garner; 58 m.; www.truthinscience.org.uk

Biblical Geology – Properly Understanding the Rocks £7.50 + p&p
Dr Tas Walker; 36m; Creation Ministries International www.creation.com

Darwin’s Dilemma – The Mystery of the Cambrian Fossil Record
72m; Illustra Media + 60m extra features. £12.50 + p&p www.creation.com

The Age of the Earth £7.50 + p&p www.creation.com
Dr Tas Walker; 56m; Creation Ministries International

Thousands not Billions – Challenging an Icon of Evolution; Questioning the Age of the Earth [RATE project] ; 48m; Institute for Creation Research
£12 + p&p www.answersingenesis.org/uk

General Evolution/Creation DVDs

The God Delusion Debate – Richard Dawkins vs John Lennox [2007]
112m + features; Fixed Point Foundation £12.56 www.eden.co.uk
or view on line at <http://fixed-point.myshopify.com>

Darwin – The Voyage That Shook The World (documentary drama).
52m + features; Creation Ministries International £12.50 www.creation.com

Creation and Evolution from a Scriptural Perspective – Hugh Owen & Tim Murnane – 2011 talks recorded in England. Please contact www.flionline.org .

N.B. It is often worth searching www.amazon.co.uk or www.ebay.co.uk .

Index to Daylight No 40-43

[Jan 2011 – March 2012]

40 January 2011

Quote from Pope Benedict XVI on evolution	front cover
Editorial – welcome to new edition – subscriptions – new writers.	1
Paradigm Shift – A Change in World Views – <i>G. Spáinneach</i>	3
Petrified Wood – <i>James Lynch</i>	7
The Historical Story of Ancient Ireland – <i>Philip Lynch</i>	
Address & details for copies	11
Creation in the Classroom – <i>John Donnelly</i>	12
Past issues of Daylight – details of availability	19
Ten Year Report from the Kolbe Center for Creation <i>Hugh Owen</i>	20
Evolution – <i>Rev T.E. Flynn, PhD, MA</i>	26
Creation Seminar – <i>Dr John Donnelly</i> – details of free DVD	30
“More Science please – we’re Creationists!”	
<i>Recommending CREATION magazine for origins news</i>	31
The Eagle – designed for sight and flight	back cover

41 May 2011

Quote from Catechism of the Catholic Church 1992, No 341	front cover
Editorial – AMDG – Catholic scientists e.g. D’Abrera, Berthault –	
Pope Benedict XVI quote on creation – errata – editing by D. Tozer	2
Haeckel’s drawing are lies – <i>John Donnelly</i>	3
Aquinas, Aristotle and the theory of evolution – <i>Gearóid Spáinneach</i>	11
Longevity of Mankind – <i>James Lynch</i>	17
From your letters; past issues of <i>Daylight</i> – information	24
The End of Man: Reverence, Service, Praise – <i>Joseph Rickaby, S.J</i>	25
Bernard d’Abrera – World Butterfly Expert – <i>Anthony Nevard</i>	28
The Jesuits and Newman – the Study of God in Nature – <i>A. Nevard</i>	31
New Research on Sedimentology Shows Rocks Deposited Rapidly	35
Creation Seminar – <i>Dr John Donnelly</i>	
(Free DVD enclosed with this issue for subscribers)	36
Butterfly Metamorphosis – evolutionary mystery or act of Creation?	cover
Supplement available: New Catalogue of Resources	

42 October 2011

Quote from A Practical Commentary on Holy Scripture, p.6	front cover
Editorial – Douglas Adams – John Campbell – Wallace – Collins	1
The Earth – Created for Man – <i>Anthony Nevard</i>	4
The Delusion of Millions of Years – <i>Dr John Donnelly</i>	14
‘The Language of God’ – book review – <i>G. Spáinneach</i>	18
The value of Eye Witness accounts of our Shared History – <i>J. Lynch</i>	24
Darwinism Applied to Man – <i>Alfred Russel Wallace</i>	30
Pontifical Biblical Commission on <i>Genesis</i> (1909) (From ‘Creation Rediscovered’) <i>G. R. Keane</i>	33
RIP list of Daylight supporters	inside back cover
The Solar Eclipse – Unique to Planet Earth	back cover

43 March 2012

Quote from Pope Pius XII, address to PAS, Nov 1941	front cover
Editorial – Cuvier & comparative anatomy – welcome to new writers	
Website addresses	1
The Scientific Method – <i>Martin Molloy</i>	3
The Early Church – the Greeks and Creation – <i>Dr John Donnelly</i>	7
Breaking the Anti-God Illusion – <i>Charles F. Byrne</i>	13
The Uniqueness of Man – <i>Anthony Nevard</i>	18
Pre-Socratic Greek Philosophers who exhibit similar elements to theism – <i>Gearoid Spáinneach</i>	24
Editorial Policy	29
Genesis in the Traditional Catholic Liturgy – Season of Septuagesima	30
The First Order of Mammalians: Man – <i>Baron Cuvier</i>	34
The Creation of Eve	back cover

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Archaeopteryx— a classic fossil intermediate species?

The first specimen of a feather from *Archaeopteryx* was found in 1861 in a quarry in Solnhofen, Germany; since then, six skeletons have also appeared (as below). At the time, Richard Owen, of the British Museum (Natural History) considered it an ancient bird; T. Huxley noted its similarities to dinosaurs (claws on wings and teeth in jaws).



Over the 20th century, there have been conflicting theories of the evolutionary position of this species. They include connections with: archosaurs (Heilmann, 1926), ornithischian dinosaurs (Galton, 1970), crocodiles (Walker, 1972), theropods (Ostrom, Gauthier, 1970s) and Protoavis (Chatterjee, 1991).

It now seems agreed that *Archaeopteryx* was (a) an extinct bird (b) related to reptiles (c) not the ancestor of modern birds. The supposed evolutionary relationships of modern birds based on their anatomy and DNA is still a contentious issue, and there is relatively little fossil evidence of extinct bird forms. There is no explanation of how birds could have evolved their unique features—their feathers, hollow bones, breathing systems, muscle proportions, breeding systems—not to mention their physiology, flight, behaviour patterns, colouration, hearing, birdsong and migration.

“And God created ... every winged fowl, according to its kind” Gen. 1:21

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