
Creation Answers

Creation Education Materials, P.O. Box 1818, Arlington, TX 76004

Who does this newsletter?

This newsletter is produced by Wayne Spencer of Creation Education Materials on a Quarterly basis. Its purpose is to bring creation research within the reach of Christians and provide up-to-date reliable information on creation issues. Wayne Spencer is a creation author and former teacher who has presented papers at the International Conference on Creationism and contributed to radio programs for the Institute for Creation Research.

This newsletter is meant to help people plug into creation resources and get informed about creation and evolution. It is provided free of charge on request. Using the free Adobe Acrobat Reader is the best way to view the newsletter. There are no restrictions in copying this newsletter or passing it on to others. To request to be placed on the e-mail list, send a request to Wayne at wayne@creationanswers.net.

More information on Wayne Spencer's education and publications can be found on the creationanswers.net web site. You'll also find many other resources.

<http://creationanswers.net>

In this issue...

- ! **A Biblical Approach to Astronomy, Part 4**
- ! **Creation curriculum for children - The Seven C's of History**
- ! **The Sea Slug - One of God's Strangest Creatures!**

A Personal Note from Wayne Spencer

I hope your family is having a good holiday this year. It has been a tough year for me. After being laid off from my job about 9 months ago, I am still unemployed. I will continue job hunting but I will also be starting my own business. I will be doing computer support and repairs on-site in the Dallas/Fort Worth area for individuals and small businesses. My business name is Good Computing Services. For more information you can go to <http://goodcomputing.biz>.

When I'm not job hunting, I continue to work on creation related projects. A nontechnical article giving an overview of Genesis appeared recently in *Creation Matters*, a publication of the Creation Research Society. Also, a technical article on the Chesapeake Bay impact crater has been accepted by the Creation Research Society. This is a paper Michael Oard and myself have authored. Michael and I have put a great deal of work into this paper.

If you don't know about my *Our Genesis* book, go to my web site and click on the Price List link, or go to the download page and right click on the file "OurGenesis.exe" and save it to your computer. This is a presentation you can show on any windows pc that explains what is unique about this new book. This book is meant as a resource for someone who teaches about Genesis and creation in their church. It has a unique analysis of the literary structure of the book of Genesis and it addresses most of the creation vs evolution issues. It also has over 160 pages of teaching aids.

If you have never come to the meeting of the DFW Creation Study Group, you might consider coming January 31, 2004. We meet at the Hurst Public Library, Hurst, TX,

from 2:00 to 4:30pm. You can go to my web site to the link on Meetings and Events to find out when the next study group meeting will be. If you are in the Dallas area and you would like to receive an e-mail notice, send me an e-mail letting me know.

Wayne Spencer, M.S., Physics

A Biblical Approach to Astronomy, Part 4

The Age of the Universe and God's Nature

The Bible says in Exodus 20:11 that everything in the heavens, the Earth, and the sea were created within the six days of the Creation week. The Creation account implies that objects in outer space were created on the fourth day. This makes the universe, our solar system, and the Earth all of essentially the same age, which from Biblical considerations would be about 6,000 to 8,000 years. This goes radically against accepted principles in astronomy today, which hold that Earth is about 4.6 Billion years of age and the Universe is about 15 Billion years of age.

There are many confirmations of the Bible's account of history from archeology and science, but in astronomy there are questions we do not have complete answers to. The question of the age of the Earth has been addressed extensively by young-age creationists. Problems with radiometric dating (such as Carbon-14 dating or Potassium-Argon dating), which is the primary basis for arguing for an old Earth, have been documented. Geological evidences of a Young Earth have also been documented by creationists. Creationists have published a number of works showing how geological facts can be reinterpreted from a young-age viewpoint. All of this is easier to do in a sense for geological studies of the Earth than for issues in astronomy because for Earth we have more direct and

more complete data. Being on Earth, we can collect samples and do other types of direct measurements that help answer origins questions.

Our Limitations

In astronomy, we have to get data more indirectly since we cannot travel to distant stars or galaxies. We can send unmanned spacecraft to other planets in our solar system, so in solar system studies we have some data collected directly (such as moon rocks) and the rest is collected indirectly by remote sensing technology. Remote sensing data includes pictures, radar surface mapping, spectra of light reflected off object surfaces, magnetic measurements, etc. In solar system studies there are some indications of a young age. But in the solar system, there is more of an emphasis on remote sensing data.

Outside our solar system, the only source of information we have is the light and other radiation that we receive from space. The entire electromagnetic spectrum, from radio waves, to X-rays, to visible light, to infrared, to gamma rays, is all measured by astronomers and physicists. Much can be learned from the electromagnetic spectrum from stars and galaxies. The light received from space can also be compared to radiations emitted by laboratory sources on Earth. This allows us to identify the elements present in a distant star, for example. But in astronomy, it is often not a simple thing to determine the meaning of what we see and measure. Thus, we should approach astronomy with a lot of humility, since it is easy to build a tall "house of cards" on assumptions that turn out to be wrong.

I believe that where we have better and more complete data regarding the age of things, such as on Earth, we have better evidence for things being young as the Bible suggests. As we consider our solar system, there is evidence of the solar system being young, but it is not as clear as it is for Earth. I hope that the evidence will become more clear with more research.

For broader issues in astronomy, such as the age of galaxies and the age of the universe, I see the age evidence as unclear. I say this because we are still at an early stage in creationist astronomy where we are only beginning to work out some of the fundamental principles. I can point to evidence for the Earth being young, but it is difficult to point to specific examples that imply a young universe. In my view, this is due to two things primarily, first, the limited resources that young-age creationists have that has been put into working seriously on the technical issues. Secondly, because in astronomy young-age or old-age assumptions are often inherent in how the data is interpreted. The issue of the age of the universe is tangled into the interpretation of almost every piece of data.

As Christians who hold to the inerrancy of the Bible I do not see how we can accept the concept of an old universe. It just does not agree with Genesis. There are some Christians who hold that the universe is old but the Earth is young. I do not believe this is a legitimate option either. So, for the universe, I believe the universe is young primarily because of my interpretation of Scripture. There have been some things put forward from creationists as evidences of a young universe. It is not the purpose of this article to address these arguments for a young universe. In general, I feel many of these arguments need to be researched better and brought up to date.

God's involvement with His Creation

Though modern science rejects the possibility of the supernatural, a Christian point of view must acknowledge it as possible. This raises questions about whether God's supernatural creative work only took place during the creation week or whether it continues to the present in some sense. After Isaac Newton's success in describing motion and gravity, the concept became accepted in some circles that the universe ran like a mechanical clock that was wound up in the beginning and needed

no other input to continue running. This is not a Biblical concept and I doubt that Newton would have held this view.

The Bible does acknowledge the existence of physical laws, but Scripture implies they are dependent laws. See Jeremiah 33:25 and Jer. 31:35-36. The physical laws are a normal mode of operation of things but they are somehow dependent on God. The universe depends on God to sustain and hold it together in an ongoing sense (see Hebrews 1:3 and Colossians 1:17). Also, God can supercede physical laws anytime he has reason to. He is not limited by physical laws because He is not part of the physical universe; He is transcendent and omnipotent. The physical laws themselves exist by intelligent design and have come about by God's command. God thus has complete authority and control, though nature seems to run with a very machine-like predictability. This predictability allows us to do experimental science and use our knowledge of nature for mankind's benefit.

We should bear in mind that when God intervened supernaturally at the time of creation, this could produce effects that we cannot explain by the laws of physics. There may be mysteries that are a result of God's supernatural actions. We do not know for instance the exact initial conditions at the time of creation. Thus we do not know the exact composition of a star one minute after it was created. However we can measure the composition of a star using spectroscopy. In doing this, are we measuring its initial composition at the time of creation, its composition today, or of some time in-between? This is not a simple question. Yet this type of question comes up again and again in trying to understand many things in astronomy.

Starlight and the Age of the Universe

The concept of a young universe as implied by the Bible has been challenged frequently by skeptics and individuals in science who believe evolution and the Big Bang. This challenge is put in one of two

ways. One is to ask how Adam and Eve could see stars during the creation week when it takes from a few years to billions of years for light to reach Earth from outer space. Another way to present the issue is in terms of modern measurements made today. Astronomers measure changing processes in space and objects in motion. How can scientists today detect objects millions of light-years distant if the universe is only 6 or 8 thousand years old? Remember that one light-year is the distance that light travels in one year and the speed of light is over 186,000 miles per second.

Young-age creationists have put forward several explanations for how we are able to see distant objects in a young universe. One argument, now over 20 years old, was that the distances to the stars and galaxies used by astronomers were not accurate, but were much too large. Today distances to objects in space are determined by a number of techniques. Though there are always uncertainties in measured distances, there is no way that distances can be off enough to explain the starlight issue.

It has also been proposed that the speed of light was much much faster in the past than it is today (called "cdk"). Though this might answer the starlight issue in some ways, the implications of this in physics and astronomy are very problematic. This was proposed by Australian creationist Barry Setterfield first in 1987. After much discussion, most of the creationist community came to a consensus against the 1987 model. Setterfield then proposed a new reworked model of cdk in 2000 but he has had great difficulty getting this new model published. Most creationists I know with backgrounds in physics do not believe this model is credible either. There are also Big Bang scientists, not Christians or creationists, who have proposed that light speed was higher in the past, in the early moments of the Big Bang. The idea of the decay of the speed of light continues to be very controversial. At this time, I do not consider it an option because the physics of

it just doesn't seem plausible. It is a very technical issue that will probably continue to be debated by creationists.

Today it is my opinion that there are two possible options for answering how we can see distant objects in a universe only thousands of years old. One is referred to as "Mature Creation" or "Appearance of Age" and the other involves an application of time dilation effects in General Relativity. General Relativity can be thought of as a theory about gravity and space that came from Albert Einstein. However, there are a number of possible mathematical approaches that can be used to apply General Relativity to theories about the universe.

The creation account in Genesis implies that God created many things mature and fully functional in the creation week. Thus, Adam and Eve would have looked like young adults when they were only a day old, for instance. This has been sometimes referred to as "Appearance of Age." I prefer to call it "Virtual Age." In relation to astronomy, it has been suggested God created the light waves stretched out from stars to Earth, at the time He created the stars themselves (maybe even before the stars were created). This would also make it necessary for God to create in the light waves all the variations and changes that would allow us on Earth to see events and processes in space using our telescopes.

This view has received a lot of criticism by some on the grounds that it is deceptive because it would make things appear as if there were objects or processes seen in space that do not actually exist. Or we might see evidence of events and processes that may not have really happened. I would say that for this view to be possible it simply cannot be deceptive. What we observe in space has to accurately represent real events, objects, and processes because God is not deceptive. This view requires some supernatural action by God in order to work and it has some implications that are difficult to accept from scientific considerations. But I would not rule it out as

an option. However, I prefer a more scientific approach to the problem, if that is possible.

In recent years an attempt at a scientific answer to the starlight question has come from creationist physicist Dr. D. Russell Humphreys. Dr. Humphreys published his cosmology model answering the starlight issue in the popular book, "Starlight and Time." There has been a mixed acceptance of Humphreys model among creationists. Humphreys model uses principles of General Relativity and applies them to our universe in a way very different from Big Bang theories. He says the universe has a finite size and a center, which is different than Big Bang theory. The general idea is that in the beginning space was rapidly expanded as God stretched out the universe. While space was rapidly expanding, there was an effect on time. So during the expansion, many years of time would go by at the outer edge of the universe while time essentially stopped at Earth. Time would have stopped (or nearly stopped) at Earth because Earth was close to the center of the sphere of matter that made up the universe.

With Humphrey's cosmology, the farther away from Earth an object is, the more the time dilation effect. Time was only affected during the creation week while the universe expanded rapidly. The result is that measured from Earth today, objects at great distance would seem much older than objects at Earth. After the creation week, time proceeded normally everywhere. Humphrey's model is still controversial and there could yet be refinements to details of how it works out. Some of the Humphrey's mathematics received some criticism for a while but I feel he adequately answered those criticisms.

Humphrey's cosmology is a promising model for answering some tough questions in astronomy. At the present time, I feel it, or something similar to it, is the best answer we have to how we can see distant objects in a young universe. Further

research can always change the picture as our understanding grows. But there have been many exciting discoveries in astronomy in recent years. These discoveries tell us about what God made. We must hold onto our Biblical convictions and also deal honestly and carefully with the scientific evidence. We still have much to learn about doing this in the exciting field of astronomy.

Creation curriculum for children - The Seven C's of History, from AIG

Answers in Genesis (AIG), a ministry led by Ken Ham, produces a creation curriculum for kids called "The Seven C's of History." This consists of seven lessons that essentially summarize a Biblical view of history. The seven C's refers to seven concepts from the Bible: Creation, Corruption (the Fall), Catastrophe (Noah's Flood), Confusion (the Tower of Babel), Christ, and Consummation (Christ's return). AIG publishes an 80 page Teacher's Manual for this and color 4 page handouts for kids on each of the seven "C's" called "Answers for Kids." The Teacher's Manual says it is recommended for children ages 7-11. I suspect 7 year olds would have trouble with some of the vocabulary in the book, but with help they would understand most of it. These children's handouts are very nicely done, with lots of color graphics and some puzzle or quiz type activities on the back. Anyone who teaches children about the Bible would do well to use this curriculum. Adding some hands-on activities to it would complement it very nicely.

The Sea Slug - Strange but Real



The pictures above are one particular variety of sea slug. These pictures were adapted from the August 1989 issue of Smithsonian magazine. This is one of my favorite examples of intelligent design among ocean creatures. Sea slugs are considered to be mollusks; they live in essentially all the world's oceans, from polar regions to tropical areas. The best-known type of sea slugs are known as the nudibranchs. They get oxygen using something similar to gills except its like their gills are sort of "inside-out," since the branchial structures that absorb oxygen are outside its body instead of inside like in a fish. Sea slugs are somewhat like a snail except that they do not have a shell, except for a short time as larvae.

Sea slug larvae metamorphose from something similar to a snail to a non-shelled form. Sea slugs are also hermaphrodites, which means each of them have both male and female sex organs. Sea slugs are

generally very colorful. They may be white, yellow, purple, or red. Their color is often determined by what they eat. They have tentacle or finger like structures (called cerata) that can practically cover their whole body. The cerata can regenerate if a fish or something bites one off. At the end of the cerata are special stingers called nematocysts. So if you ever see one, you don't want to grab it. Many Sea slugs also secrete some sort of acid or other toxic chemicals that drives off many fish. Sea slugs look very strange as they undulate through the water. For some of them it is hard to tell which end is the head. Some of them have excellent camouflage and can hide on coral for instance. They cover a wide range of sizes also. The smallest can move between grains of sand and the largest, called the black sea hare, is over three feet long.

One group of sea slugs have an amazing means of protection. The aeolid nudibranch sea slugs eat sea anemones. Sea Anemones live on the bottom and have tentacles with stingers on them and the anemone can catch and kill fish that swim by. When an aeolid sea slug eats a sea anemone, its digestive system neutralizes the mature functioning stingers so it isn't hurt. But the immature stingers that do not yet function in the anemone are eaten and then moved out to the ends of the cerata in the body of the sea slug. Then the stingers from the anemone actually function in the sea slug! How amazing, that the sea slug can use the nematocysts from another organism!

These creatures highlight God's creativity. From the point of view of evolutionists, they are accidents of evolution. But God creates everything with a purpose. Some sea slugs have been very useful in neurological research because they have very large nerve cells that are easy to study. They also are important in marine ecosystems. When God made sea slugs, he was thinking way "outside the box," or maybe I should say "outside the shell."