
Creation Answers

Creation Education Materials, P.O. Box 153402, Irving, TX 75015-3402

Who does this newsletter?

This newsletter is produced by Wayne Spencer 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 has published in various creation publications, such as the Creation Research Society Quarterly, Creation magazine, the Journal of Creation (TJ), and Origins (from the Biblical Creation Society, UK).

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 necessary for viewing 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 wspencer@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>

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A Personal Note from Wayne Spencer

Greetings,

Merry Christmas and Happy Blessed New Year to all of you. I hope you and your family are having a good holiday. This holiday season has been a bit difficult for me, since one of my brothers recently died of cancer. But I have had a good holiday in spite of that.

On October 16th I spoke to a McKinney Home School group. The evening went well and seemed to be very appreciated. Also I just recently finished final editing of a technical paper I have been writing for the Sixth International Conference on Creationism (ICC), which takes place August 4-6, 2008. My paper is entitled, "Our Solar System: Balancing Biblical and Scientific Considerations." In it I address our Moon as an example of how to balance the Bible and science. My article in this issue summarizes in a less technical form some of the new information in my ICC paper. It mentions an interesting thing on the Moon called swirls and how they are an evidence for a young Moon.

I would like to encourage all of you reading this issue to try out the Discussion Board on my web site. The Discussion Board is a secure system where anyone that registers can post questions or comments on topics related to creation and evolution and the Bible. The system tracks comments by topic. Using it is free. I recommend it for high school age and up. People who have not registered cannot see the posts or take part. To take a look, click on the "Discussion Board" button on creationanswers.net.

Wayne Spencer, M.S., Physics

Creation and Lunar History

The Bible gives us more information about the geological history of the Earth than about moons and other planets in our solar system. Yet, there is a need to apply Scripture where we can to get some guidelines for research in solar system studies, and in astronomy in general. Following is some of my thoughts regarding how to approach the question of the history of our Moon Biblically and still deal with scientific observations realistically. This is based on a new technical paper written for the International Conference on Creationism in 2008.

What Biblical information has relevance to solar system studies? There are questions about the Creation week, intelligent design in the solar system, mankind's Fall (as in Genesis 3), and the significance of changes to the original creation since the beginning. The following will summarize some Biblical information then apply that to unraveling the geological history of our Moon. It may be that some similar ideas may be applicable to solar system objects other than our Moon.

At the end of the Creation week God evaluated all He had made as "very good" and then Genesis says creation was "completed" (see Gen. 1:31-2:1). The late Henry M. Morris wrote the following in 1974 in his book, *Scientific Creationism* describing the Creation week. "The present processes of the universe are, without exception, processes of *conservation* and *disintegration*, as formulated in the two universal Laws of Thermodynamics. The processes of the creation period, on the other hand, were processes of *innovation* and *integration* (emphasis his)."

Isaiah 45:18 says that essentially God created the Earth "to be inhabited." This clearly implies intelligent design of the Earth, for the purpose of providing an environment for life. We may not know all that is implied in Genesis' description of the creation as "very good" but we can at least say that God made the solar system to be a relatively safe and stable place so that people could live on Earth. Certain kinds of processes and events in the solar system could endanger Earth, such as major eruptions or changes in the Sun, or unstable orbits of planets, moons, comets, or other objects. Thus I believe that the way the solar system was initially created, it was stable in that it never would have endangered life on Earth.

This does not mean that creation would have always stayed the same after the Creation week. Stable does not mean static; it means orderly and safe for life on Earth. I suspect that God's supernatural creative activity stopped at the end of the Creation week and after that natural processes determined how objects would change from then on. There could have been special things God did in the Creation week that started processes which led to geological or other events later in time. (Note that I do not mean that God never did any miracles again after the Creation week.)

What kind of processes are appropriate for the Creation week? Could there have been volcanic eruptions in the Creation week, or radioactive decay of unstable radioisotopes, or how about impacts from space? I would lean toward viewing volcanic processes and radioactive decay as neutral in that they can be either constructive or destructive depending on the situation. Thus volcanism and radioactive decay could be allowable in the Creation week as long as they would not endanger life. But impacts

seem to me to be inherently destructive to the order God created.

In the geologic history of the Moon from old age evolutionary scientists, it is believed that there was a period early in the Moon's history where its entire surface was hot molten rock. This is believed because of the presence of certain minerals that are believed to require long slow cooling in order to form. This doesn't account for the possibility of miraculous creation with fully formed minerals.

Near the Moon's South Pole on the far side of the Moon is an extremely large impact crater called Aitken. Scientists have been puzzled at Aitken in that though it is so large (2500 Km in diameter) it should have dug down into the Moon's mantle, but from the composition of the floor of the crater it looks like Aitken did not fill up with lava from below. Why did Aitken not fill with molten material when some craters inside it did fill with molten material? Also many craters on the near side of the Moon filled with lava after the crater formed. We know that for the near side of the Moon the crust is thinner on the average than the crust on the far side. I think this can be explained easier if the Moon were created initially solid, instead of having a completely molten surface for some time after it formed. But it didn't fill with lava because the heat from the radioactive decay took time to melt enough rock to provide the lava. But after Aitken formed and there had been more heat generated inside the Moon, it was then easier for some craters to fill with lava inside Aitken.

After Creation, processes began to change things on the Moon, probably because of periods of intense radioactive decay generating a lot of heat. There is now some evidence that there may have been periods of rapid intense radioactive decay during the Creation week and again during Noah's Flood. There has been a significant research project by qualified scientists from the Institute for Creation

Research and the Creation Research Society that point to this conclusion. (See the June 2004 through March 2005 issues of *Creation Answers* for articles on this research.) Rapid radioactive decay in the past may be a very useful concept for explaining many things in the solar system. It would provide an energy source that could drive a variety of geological and other processes in planets, moons, and other solar system objects.

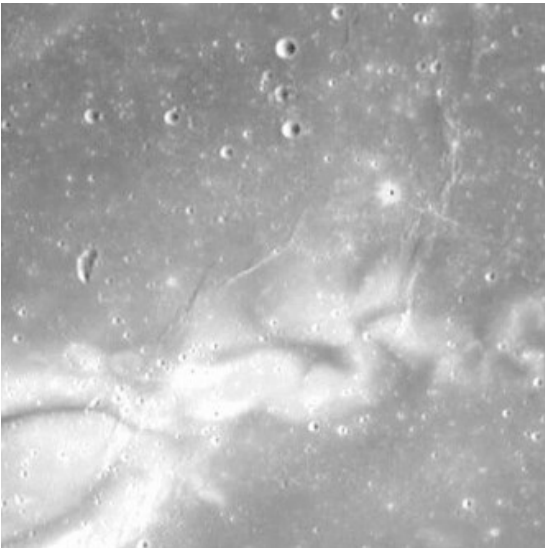
Thus the picture that seems to emerge to me regarding the Moon's history is that after being created solid, there were periods of intense volcanism and a period of impacts from space. There is more than one way the details of these processes could be understood and young age creationists are only beginning to consider such details.

Some might argue for there being impacts from space during the Creation week, or right after the Creation week (when Adam & Eve sinned) in addition to more impacts at the time of Noah's Flood. The impact craters found on Earth throughout Flood deposited rock layers points to impacts during and after Noah's Flood. What is debated among creationists now is the question, was the Flood the only time of impacts from space or did some happen before that? I would take the view that all the impacts in the inner solar system and maybe in the entire solar system, happened surrounding Noah's Flood. By this I don't mean that it was all over in a month or a year. There is some indication the impact bombardment of the Flood may have lasted for 150 or 200 years. But I think the oldest known craters on Earth suggest the bombardment started around the beginning of the Flood.

One of the problems we have in trying to unravel the history of objects outside the Earth is that it is difficult to date events, especially when we know about the problems with radioactive dating methods. We can often figure out something of the sequence of events on the Moon from study of the surface but to actually date volcanic or

impact events is difficult. We do have lunar rock samples from the Apollo program that were dated with radioisotope dating methods, but young age creationists do not trust those age results. Some might say the lunar samples can give us a relative age to understand a sequence of events, even if they do not give us a reliable absolute age. There are also limits in what types of lunar samples we have. Since the Apollo years much has been discovered about the Moon from combing through the Apollo data and from other studies of the Moon. It turns out that all the lunar samples we have are taken from in and around one particular large impact crater called Imbrium. Imbrium is one of the large dark flat plains you can see on the near side of the Moon with the naked eye.

But there are unanswered questions about many areas on the Moon that we have no samples from. Because of this and because of how we have better technology for investigating certain things there is now a renewed interest in researching the science of the Moon. There is an interest among scientists today in returning to the Moon to address some questions that have been lunar mysteries for years. China, Japan, India, and Russia



all have new plans for new missions to explore the Moon. Also, NASA plans to send a new spacecraft in 2008 to orbit the Moon to survey it for resources and future landing sites. This is the first step in planning some kind of lunar base.

Lunar Swirls and Lunar Magnetism

One of the mysteries on the Moon is something called the Lunar swirls (see photo of the Reiner-Gamma swirl from the ESA's SMART-1 spacecraft). Swirls are areas of the surface that are much brighter than the surroundings. The bright regions are not a difference in elevation or in mineral composition. They are found in very flat regions. The swirls are found to correspond to positive magnetic anomalies. That means that the bright areas are in magnetic highs where the magnetic field strength is greater than the surroundings. Note that the Moon has no magnetic field overall, but there are regions where there is some magnetic material. Scientists generally believe the Moon did have a global magnetic field in the distant past (around 3.8 Billion years ago). Some of the Lunar swirls are located on the side of the Moon exactly opposite large impact sites. It seems likely that some of the large impacts on the Moon had strong shock waves that concentrated magnetic material on the opposite side of the Moon, making a magnetic anomaly. Swirls are located in some of these regions. The picture provided here is of an area on the near side of the Moon called Reiner-Gamma. This photo shows a region roughly 60 km in width. Reiner-Gamma is an exception to the rule in that it does NOT seem to be opposite a large crater, but it is in a magnetic anomaly.

The only plausible hypothesis currently put forward to explain the Swirls is that the magnetic anomaly acts to shield the surface minerals from the solar wind. Ions from the Sun constantly bombard the lunar surface. It is known that this radiation from the Sun tends to darken minerals appearance over time. One research study

did simulations to determine how strong a magnetic field would have to be to deflect solar wind ions enough to produce a Swirl effect. Their conclusion was that a local magnetic field of about 1000 nanotesla (nT) would be enough to produce swirl patterns over distances of about 30 km. To compare this with the present, the Apollo 12 mission discovered lunar rocks that were magnetized at a level of 35 nT. This was only certain rocks, not a global magnetic field on the Moon. It was only a remnant of a field present in the past. When would the Moon have a field strong enough to form the swirls? Creationist Russ Humphrey's has proposed a creation model for how magnetic fields of planets and moons could have started in the beginning. Humphrey's model has worked well in explaining Earth as well as Uranus and Neptune. Humphrey's model also is quite unlike old age evolutionary concepts in that the mechanism would work even for smaller bodies like moons. In 1984 Humphrey applied his model to the Moon and to a certain lunar rock sample (numbered 15498, from the Apollo 15 mission). In Humphrey's magnetic model for the Moon, the Moon's magnetic field would have a decay time (related to the term "half-life") of 364 years. This means the Moon's field would not last till the present. Lunar sample 15498 had a magnetization of 2100 nanotesla (nT). This implies that the Moon's field would be around 2100 nT at about 1840 years after Creation, or about 183 years after Noah's Flood. Thus not only does Humphrey's magnetic model work when applied to the Moon but it also is plausible for explaining the lunar swirls. If the Moon is old, the swirls should not have such a bright white appearance today because the Moon's magnetic field would have decayed away over 3 billion years ago. In that case, the Reiner-Gamma area would have been exposed to the solar wind for over 3 billion years and should be all dark in color, as is

most of the lunar surface. But, if the Moon is young and the Moon's magnetic field decayed away only thousands of years ago, it is more plausible that the swirls could still look white. The idea of accelerated radioactive decay at the time of Noah's Flood also fits into this. Radioactive decay during the Flood could melt magnetic material that could make its way to the lunar surface through fractures and other channels that led to the surface. There are indications on the Moon that it was common for there to be lava eruptions from inside newly formed craters. Large impacts can also concentrate magnetic material the side of the Moon opposite the impact.

The lunar sample mentioned above would have been magnetized by the local magnetic field when it cooled and solidified right after the Imbrium impact. This would imply the Imbrium impact would have been in the post-Flood period, possibly in the early part of the post-Flood ice age creationists have proposed. Then the swirls formed sometime after the impact and after the volcanism that filled up the Imbrium crater.

There will be much new research on the Moon in coming years. Thus these ideas should be considered tentative because in some ways we need more information about the Moon. But, these are encouraging indications that a young-age creationist approach can work in explaining the Moon.

"Expelled" Movie coming in 2008

In 2008 a movie will be coming to theaters called "Expelled: No Intelligence Allowed." In the movie, host Ben Stein (Ferris Bueller's Day Off) goes on a quest to expose the suppression by science's anti-theist elite, and unveil new scientific facts that may suggest evidence of intelligent design in the universe.

Perhaps in February, this movie will be aimed at raising awareness of discrimination against people in science and

education who believe in intelligent design. There are many examples I could cite of students treated disrespectfully by teachers, teachers or professors who've lost their jobs or been denied tenure, just because they believe in a creator. There have also been court cases in the news about local school boards who tried to take steps to allow students to consider concepts about design that question aspects of evolution. But these kind of actions by school boards have often been shot down by legal action from the ACLU.

To get more information on the *Expelled* movie, go to <http://www.expelledthemovie.com>. Note that this movie is promoted by the people of the Intelligent Design (I.D.) movement. This movement includes individuals of a variety of beliefs, not always Christians, who question evolution in some ways but who believe the origin of life requires an intelligent creator. The I.D. movement does not have any commitment to Scripture or to a six-day view of Genesis 1, as I would. Still, there is a great need to make people more aware of the unfair discrimination that is happening. This is why I would recommend Christians support the movie. The website above has information on how you can help promote the movie.

New Discussion Board on creationanswers.net

The creationanswers.net website has a Discussion Board or Bulletin Board available. There has been limited use of the Board and I would like to encourage people reading my newsletter to try it out. It allows users who have registered to post comments or questions and all the posts are tracked under topic threads. It is free to register and set up your own login. Then your login must be activated so you can use the Board. The Discussion Board is

recommended for high school age and up. Anyone can start a new topic thread on any issue they like and others can reply with comments. Nonchristians are also welcome as long as the posts are clean and respectful. People who do not behave appropriately on the board can be set to read only or their access turned off. After first setting up the Board, I had to take steps to make it more secure because of dishonest attempts to hack into it and misuse it. Those problems have been resolved. People who have not registered will not be able to view the posts but will be able to see the main topic categories.

Wayne Spencer is the Admin for the Board. The goal for the Board is to get a mix of people using it, some of whom are knowledgeable creationists who've published on creation and others who are just average Christians with an interest who have questions. It can also be a way for Christians to help each other by recommending good materials, commenting on news items, books, or TV programs, etc. Parents are welcome to post questions or comments from their kids. So far the main topic categories set up on the Board are Genesis, Biology, Geology, General Astronomy, World Views and Creation, Education and Creation, and the Historical Accuracy of the Bible.

To get started using the new Discussion Board, go to <http://creationanswers.net/BBentry.html>. After entering the Board, the top Forum topic is for announcements and instructions. Click on the Register link at the top and fill out the form by creating your own login name and password. Your email would only be used for sending occasional necessary notifications to users of the Board. Your email address will not be visible to the other users but you can use the Board to email other users.