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Nothing has received a more vehement attack in the geological sciences than radiometric dating techniques. Unfortunately, too many people are willing to accept the young-earth theorist arguments against it. If you step back, and take the time to examine the true methods behind the science, and not the slanderous half-truths produced by the young-earthers, you will see the reliability of these methods.

As usual, the half-truths start on the very first page. The claim that Christians take the Words of Jesus seriously, and then they state that His words only make sense with a young earth. Not true. As a Christian, I have no problem with any of the words of Jesus, and as an old-earth believer, this presents absolutely no problems. It is a mystery why the young-earth proponents so vehemently defend their young-earth belief, when in reality, you can be a Christian and believe in and old earth.

How the Carbon Clock Works (Page 75)

The authors give a good discussion of how Carbon dating works; however, they do have one major flaw. At the bottom of page 78, they state that Carbon dates should be adjusted because of the global flood of Noah. No reputable scientist has accepted this into their calculations for carbon dates, as this would provide an invalid date. Because of this, any dating performed by young-earth theorists should be disregarded as inaccurate.

Other Radiometric Dating Methods (Page 79)

At the bottom of page 79, the authors make the claim that there are three assumptions the scientist must make to accept radiometric dating. Two of their arguments are not valid. One claim is that the decay rate is constant. Since it is, this is not an assumption, but a fact. Another is the third one, or closed system argument. For the most accurate dates, one would want the sample being dated to be in a closed system, or, in other words, not exposed to other sources of radioactive material which would upset the balance of original radioactive material. Great pains are taken to ensure the purist samples. Since you can hack your way into the rock, and take a sample from the middle, you can reasonably assume that the overlying rock insulated your sample well enough to eliminate any doubt about contamination.

The first assumption given concerns the starting conditions, i.e. the amounts of isotopes present at the time the rock formed. This one is a valid assumption

which the scientist must make. However, given the tens of thousands of samples that have been successfully dated, we have built a reliable database for reference for other dates that we seek, and thus we can be reasonably certain that we can believe the dates obtained, with a reasonable margin of error.

The main thing to remember here is...although dating may not provide an exact date, you can rely on it to give a good estimate. Young earth creationists refer to dating methods as “the dating game.” The difference between old and young earth creationists is this...at least the old earth creationists are in the game, trying to find a solution to the ages of the rocks...whereas the young-earth earthers refuse to play the game, and flatly state that the earth is only 6,000 years old, despite the fact that they have no solid evidence. Who would you rather believe...someone who is trying their best to obtain ages for rocks, or someone who totally ignores science? Actually, since old-earth proponents are “playing the game,” they are the unequalled experts, and thus should be believed.

If you walk up to me and Tiger Woods, and we both start talking about golfing techniques, who are you going to believe first? Obviously, you would listen to Tiger, since I’m an 18-handicap player. The same should apply to dating...listen to those who are playing the game, not those who are on the sidelines.

There Are Patterns (Page 81)

The authors claim there are no “infallible” techniques. I agree. However, at least we are playing the game.

The authors mention John Woodmorappe, who did a critique of radiometric dating, and provided 100 samples of bad dates. However, several real scientists have disproved his reasoning. Even without this, think about this...there have been many thousands of radiometric dates done. Supposing that there have been 100,000 dates performed (the actual number is probably much higher), to find 100 errors would yield an error rate of 100/100,000, or 1/10th of 1 percent. This error rate is extremely low, and scientifically, these 100 so-called bad dates don’t invalidate the other 99,900 good dates.

Bad Dates (Page 81)

The authors claim that when bad dates surface, researchers quickly form excuses for discarding them. Nothing could be farther from the truth. Given the expense involved in dating, every attempt is made to make sense of the dates before they are non-chalantly discarded. However, since the young-earth theorist considers any date older than 6,000 years to be inaccurate, they non-chalantly discard them...thus it is the young-earth proponents that actually ignore 99.9 percent of all dates as “bad.” Using the formula above, the old-earth scientist would only disregard the 100 dates mentioned, or 1/10th of 1 percent.

First, the authors give the Australopithecus example, where the scientists apparently threw out 9 dates which did not fit the expected age. I would reason

that they were using sound scientific methods, but that won't convince you they were right with their 4.4 million year old age...therefore, I must tell you what the young earth authors of this book omitted. There is an inherent problem with Argon dating, which involves excess Argon in recent age rocks. Young-earth theorists know about this, yet they don't readily provide this information (it is mentioned in Grand Canyon: Monument to Catastrophe). Due to this problem, geologists and other scientists know that they must look at recent radiometric dates with great scrutiny. The key is to know when to disregard them, and when to accept them. Again, at least the old-earth scientists are playing the game, whereas the young-earth theorists completely refuse to play.

At the bottom of page 82, the authors appeal to Job 38:4. I love it when they do this. It states, "Where were you when I laid the foundations of the earth?" They use this to stab at the old-earth creationists. However, the same question can be asked of the young-earthers. They were not present either! So again, we must play the "dating game" to find out the answer. At least the old-earth creationists play in this game.

At this point it is appropriate to state this...when considering ages for the earth, always look at the references for the material. If the reference work was accomplished in or by a young-earth theorist, it must be ignored. Again, they don't play the dating game, so they have no clue about the true age of the earth.

What Dates Would You Like? (Page 83)

The authors mention the fact that dating labs have you estimate the age of the material to be dated. So what! If I put down 40 million years, and it dates to 100 million years, the lab will tell me 100 Ma. Are the authors implying that the lab would test it to 100 Ma, but because it is only expected to be 40 million years old, so the lab will disregard the 100 Ma date and will tell you something around the date you expected. It is like the lab saying, "It is expected to be 40 Ma, but it is 100 Ma, so we'll guess it is 45 Ma and report that to the customer." In implying this, the authors are questioning the integrity of all dating labs, and in essence are saying they lie about their work.

Methods Should Work Reliably....(Page 83)

Yes, in a perfect world this would be a nice thing. However, we don't live in a perfect world. Fortunately, geologists know when to accept dates, and when to reject dates. In other words, they know the limitations of the dating methods, and take them into account. The examples they give are for young lava flows. Geologists have known for years about the excess argon problem which throws off the dates. The authors imply that the methods are considered "foolproof." This is not the case...scientists know there is no foolproof methods, but the young-earth theorists would have their followers believe that scientists consider their methods to be error free, when in reality, nothing is farther from the truth.

Look at the date chart at the top of page 85. The dates range from 10,000 years to 2,600 million years. Yet geologists say these lava flows are about 1.2 million years old. Why? They know the limitations of the dating methods, and in this case, rely upon the relative position of the lava to other rocks, and completely ignore the radiometric dates. This is a perfect example of knowing the limits of dating.

Carbon-14 in Millions of Year Old Fossils (Page 85)

The authors state that no coal has been found that does not contain Carbon-14...of course not! While it is true that older than 50,000 year old rocks should not show much carbon, the very process of collecting and analyzing samples contaminates the sample. In order to perform a perfect test, the rock sample would have to be excavated in a vacuum, then kept in a vacuum during transport and testing. This can never happen, so a perfect "zero" reading for 14C will never occur, because at some point exposure to the atmosphere will happen.

Even if you could do this "vacuum" law, when you expose the fresh sample, it is also exposed once again to cosmic rays, which could in turn produce more Carbon-14 in the sample.

The authors mention wood in Triassic sediments, which dates to 33,720 years. It is impossible for me, without the source documentation, to determine the validity of this claim. There are other claims in this chapter that I am not addressing as well, for the same reason. The important thing to remember is...if it's stated by a young-earth creationist, and it has to do with radiometric dating, you can't trust their statements to be true. Again, they are not playing the "game."

So-Called "Physical Evidences" (Page 86)

The authors claim that 90 percent of dating methods point to a young earth. I'm not sure where they get this figure...it makes me want to ask them..."What are you smoking?" Rest assured, there is no truth to their 90 percent claim.

A. Rapid formation of Strata. This has been disproved in several other articles on this site, such as Stratigraphy, The Coconino Sandstone Article, and others. At the bottom of page 86, they use the plastic folding diagram for the Grand Canyon rocks. However, they fail to explain the science behind it. All materials, including rocks, have a viscosity value, which can be calculated. Viscosity is the ability to resist flow. Even rocks, which are hard to the touch, are viscous. Given time and pressure, they will bend and fold. The argument that they should crack is only proposed by two sets of people...those who don't understand fluid mechanics, and those who seek to discredit old-earth belief. Since the young-earth theorists are obviously smart (they have PhD's), this means they know about viscosity, but choose to ignore it, in the hopes their followers will not look too deeply at the science.

B. Red Blood cells in dinosaur bone. This has long since been disproved by the scientists that examined the bones in question. However, the authors refuse to update their web site articles and book articles.

C. Earth's Magnetic Field. They claim it can't be more than 10,000 years old. However, to their credit, they recognize that it has undergone reversals. To explain this simply, think about a pendulum. At its strongest point of potential energy, it is farthest away from the center. As it gets closer to center, the potential energy weakens, and once it crosses the center, it begins to strengthen again until it comes to a stop. We are currently in a downswing, moving towards center. The energy of the magnetic field is getting weaker, as we move toward a field reversal. Once we cross the center, or, switch polarity, it will build back up again. The age of the field, and its strength, has absolutely no relation to each other.

D. Radioactive Decay. I have not seen the original work, and thus I will not comment on this one. However, the study is by a young-earth theorist, so it probably should not be given any merit.

The next two are astronomic, so I'll leave that to Dr. Hugh Ross. The salt idea has one flaw...the young-earth theorists must assume that the rate of salt deposition into the sea is the same for the last 62 Ma. There is no way to know this.

The most amazing statement is on page 88, seven lines down. It states that creationists (young-earth) understand the limitations of dating methods better than evolutionists! How could they do this, if they refuse to play the "dating game." However, let's break it down further. I'm a creationist, and I'm certain that I understand the limitations, so their statement is obviously flawed for not considering the old-earth creationists.

They state that creationists date the earth from the history of the Bible. However, it is not the earth that they date...it is the age of Adam that they date. The earth existed before Adam, therefore using genealogies only runs the date back to Adam's existence, not the earth.

The final sections of this chapter deal with several issues from young-earth creationists, thus they must be thrown out as valid evidences. Remember, when it comes to dating techniques, listen to the experts...the ones actually using the techniques. You would not ask me to fix your golf swing, when you have Tiger Woods available to help you. Listen to the experts!