can only be done within an atheistic frame of reference (or worldview), thus completely removing God from our thinking about the physical world.

It is possible to categorize science into many different categories. Classically, the pure sciences were distinguished from the applied sciences. For an example, as we studied the pure science of how x-rays interact with matter, we were able to apply that knowledge to taking pictures of the bones inside the body. Christians understand this x-ray phenomenon as an extension of the natural laws God has programmed into the universe and employ this knowledge to exercise dominion over the earth (Genesis 1:26–28) and to reverse some of the effects of the Curse (Genesis 3) that our sin brought into the world. They do this by finding cures for disease or developing new technology. Those who hold a naturalistic worldview believe that this phenomenon is just the product of some random events culminating in some beams of radiation that can shoot through some matter and not others. All of this involves testing, observing, and repeating experiments in the present to apply that knowledge in the present.

Another important distinction to make is between operational science and historical science. Operational science employs the pure and applied methods of scientific inquiry to figure out how physical things operate or function to find cures for disease, develop new technology, or otherwise improve our standard of living. In this kind of science, researchers use observable, repeatable experiments to test hypotheses and develop our understanding of the world. Most of chemistry, physics, astronomy, biology, engineering, and medical research are in the realm of operational or experimental science. These types of things can be observed and tested by different individuals with repeatability and can be falsified if contrary evidence comes to light.

Historical science deals with questions of history and origins, such as how the Grand Canyon formed or how living creatures came into existence. Paleontology, archeology, cosmogony, much of geology, and forensics (criminal investigation) fall in the realm of historical or origin science. It looks at evidence in the present to try to figure out what happened in the unobservable, unrepeatable past to produce the evidence that we see, though there is no opportunity to repeat the initial conditions and observe their outcome. There is much conjecture involved in historical science because scientists have to make assumptions about the past. Those assumptions may or may not be correct and, in many cases, may not even be verifiable. So we must take care to understand the limits of this approach. To be clear, both creationists and evolutionists engage in historical science, but biblical creationists look to the authority of the Bible to inform their understanding of the past because it contains the eyewitness

testimony of the Creator about key events in the past that explain the world we live it. But in a naturalistic (atheistic), evolutionary viewpoint, there is no eyewitness of the imagined events of millions of years ago and thus no objective standards to judge the validity of the evolutionary stories. The past cause or sequence of events that produced what we see in the present must be inferred by assuming that present processes have always operated in the same way or at the same rate as we observe today.

While operational science surely involves some levels of inference, when we move into the category of historical science, the level of inference increases greatly. Biological, geological, and cosmological evolution are all based on chains of assumptions and inferences that cannot be observed, tested, or repeated. An inference based on an inference based on an inference leaves a very weak chain.

One example of this chain of assumptions comes in the materialistic view of the age of the earth. First, the assumptions of radiometric dating must be accepted. Then, rather than dating rocks that are from earth, meteorites that are found on the earth are dated. This assumes that these meteorites formed at the same time as the earth, so they will be the same age as the earth. This then assumes that the earth formed from a cloud of dust that encircled the young, forming sun, a process known as the nebular hypothesis, and the particles collected into the earth with fragments left floating in space and later falling to earth as meteorites. The nebular hypothesis assumes that the big bang is true. This is a long chain of assumptions with no directly observed evidence. From a biblical perspective, none of this is consistent with the creation account of Genesis, the eyewitness testimony to the events of creation.

Many people try to discredit biblical creationists and say they can't be real scientists if they don't believe in evolution. However, this is a silly argument. Many will say that it is hypocritical for a biblical creationist to talk on a cell phone and take antibiotics, yet reject the "truths" of the big bang and biological evolution. But what does the big bang have to do with designing a cell phone? And what does the acceptance of a fish changing into a frog over millions of years have to do with testing bacteria in a petri dish to see what chemicals kill the bacteria? To make such claims is to confuse categories of science and appeals to the emotions by getting people to fear that technology cannot advance if people look at the world through the lens of Scripture. Knowing that many of the founders of scientific disciplines were Bible-believing scientists should give those using these scare tactics pause, but they continue to make such claims in the face of many biblical creationists carrying out scientific research and advancing our understanding of the world that God has created.

genealogies that allow us to determine when the universe began. Based on this history, the beginning was only about six thousand years ago (about four thousand years from creation to Christ).

In the rush to examine all these amazing scientific "evidences," it's easy to lose sight of the big picture. Such a mountain of scientific evidence, accumulated by researchers, seems to obviously contradict the supposed billions of years, so why don't more people rush to accept the truth of a young earth based on the Bible?

The problem is, as we consider the topic of origins, all so-called "evidences" must be interpreted. Facts don't speak for themselves. Interpreting the facts of the present becomes especially difficult when reconstructing the historical events that produced those present-day facts, because no humans have always been present to observe all the evidence and to record how all the evidence was produced.

Forensic scientists must make multiple assumptions about things they cannot observe. How was the original setting different? Were different processes in play? Was the scene later contaminated? Just one wrong assumption or one tiny piece of missing evidence could totally change how they reconstruct the past events that led to the present-day evidence.

When discussing the age of the earth, Christians must be ready to explain the importance of starting points. The Bible is the right starting point.

That's why, when discussing the age of the earth, Christians must be ready to explain the importance of starting points and assumptions. Reaching the correct conclusions requires the right starting point.

The Bible is that starting point. This is the revealed Word of the almighty, faithful, and true Creator, who was present to observe all events of earth history and who gave mankind an infallible record of key events in the past.

The Bible, God's revelation to us, gives us the foundation that enables us to begin to build the right worldview to correctly understand how the present and past are connected. All other documents written by man are fallible, unlike the "God-breathed" infallible Word (2 Timothy 3:16). The Bible clearly and unmistakably describes the creation of the universe, the solar system, and the earth around six thousand years ago. We know that it's true based on the authority of God's own character. "Because He could swear by no one greater, He swore by Himself" (Hebrews 6:13).

In one sense, God's testimony is all we need; but God Himself tells us to give reasons for what we believe (1 Peter 3:15). So it is also important to conduct scientific research (that is part of taking dominion of the earth, as Adam was told to do in Genesis 1:28). With this research we can challenge those who reject God's clear Word and defend the biblical worldview.

Indeed, God's testimony must have such a central role in our thinking that it seems demeaning even to call it the "best" evidence of a young earth. It is, in truth, the only foundation upon which all other evidences can be correctly understood!

Following are the ten best evidences from science that confirm a young earth.

#1 Very Little Sediment on the Seafloor

If sediments have been accumulating on the seafloor for three billion years, the seafloor should be choked with sediments many miles deep.

Every year, water and wind erode about 20 billion tons of dirt and rock debris from the continents and deposit them on the seafloor¹ (figure 1). Most of this material accumulates as loose sediments near the continents. Yet the average thickness of all these sediments globally over the whole seafloor is not even 1,300 feet (400 m).²

Some sediments appear to be removed as tectonic plates slide slowly (an inch or two per year) beneath continents. An estimated 1 billion tons of sediments are removed this way each year. The net gain is thus 19 billion tons per year. At this rate, 1,300 feet of sediment would accumulate in less than 12 million years, not billions of years.

This evidence makes sense within the context of the Genesis Flood cataclysm, not the idea of slow and gradual geologic evolution. In the latter stages of the year-long global Flood, water swiftly drained off the emerging land, dumping its sediment-chocked loads offshore. Thus most seafloor sediments accumulated rapidly about 4,350 years ago.⁴

Rescuing Devices

Those who advocate an old earth insist that the seafloor sediments must have accumulated at a much slower rate in the past. But this rescuing device doesn't "stack up"! Like the sediment layers on the continents, the sediments on the continental shelves and margins (the majority of the seafloor sediments)

John D. Milliman and James P. N. Syvitski, "Geomorphic/Tectonic Control of Sediment Discharge to the Ocean: The Importance of Small Mountainous Rivers," *The Journal of Geology* 100 (1992): p. 525–544.

William W. Hay, James L. Sloan II, and Christopher N. Wold, "Mass/Age Distribution and Composition of Sediments on the Ocean Floor and the Global Rate of Sediment Subduction," *Journal of Geophysical Research* 93, no. B12 (1998): p. 14,933–14,940.

^{3.} Ibid.

^{4.} For a fuller treatment and further information see John D. Morris, *The Young Earth* (Green Forest, AR: Master Books, 2000), p. 88–90; Andrew A. Snelling, *Earth's Catastrophic Past: Geology, Creation and the Flood* (Dallas, TX: Institute for Creation Research, 2009), p. 881–884.

The Hebrew language and context used in Genesis 1 can only mean literal (24 hour) days. Furthermore, as history, the genealogies in Genesis 5 and 11 provide an accurate chronology, so that from the creation of the first man, Adam, to the present day is only about 6,000 years. Since the earth was only created five literal days before Adam, then on the authority of God's Word, the earth is only about 6,000 years old.

Does the Earth Look Old?

Nevertheless, most people, including Christians, would still claim dogmatically that the earth *looks* old. But why does the earth supposedly look old? And how old does the earth really look? If we rightly ask such questions, then we are likely to get closer to the right answers.

The use of the word *looks* gives us the necessary clue to finding the answers. Looking at an object and making a judgment about it requires two operations by the observer. There is first the observation of the object with one's eyes. Light impulses then go from the eyes to be processed by one's brain. How one's brain interprets what has been seen through one's eyes is dependent on what information is already stored in the brain. Such information has been progressively acquired and stored in our brains since birth. So, for example, as a child we learn what a rock is by being shown a rock.

We observe that a sandstone is made of sand cemented together, and we see a trilobite fossil inside the sandstone (figure 1), so we wonder how the tri-

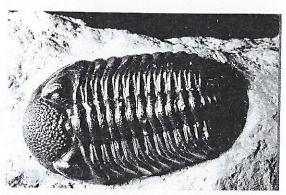


Figure 1. A trilobite fossil in a piece of sandstone

lobite came to be fossilized in the sandstone and how both the sandstone and the trilobite fossil formed. However, we never actually observed either the trilobite being buried by sand and fossilized or the deposition of the sand and its cementation into sandstone. Therefore, we don't really know how and when the trilobite fossil and the

sandstone formed — so just by looking at them we really don't know how old they are.

How, then, can we work out how old they might be and how they formed? Because we can't go back to the past, it *seems* logical to think in terms of what we see happening around us today — in the present. Today, rivers slowly erode land surfaces and gradually transport the sand downstream to their mouths, where they build deltas. The sediments also are eventually spread gradually out on the seafloor, where bottom-dwelling creatures like trilobites could perhaps be occasionally buried and then fossilized.

So with this apparently logical scenario in our minds, based on our everyday experience, when we look at that piece of sandstone with the trilobite fossil in it, it seems totally reasonable to conclude that, because it took such a long time to erode and transport the sand and then deposit it to bury and fossilize the trilobite, the sandstone and trilobite fossil must be very old. Perhaps they may even be millions of years old. However, it needs to be remembered that there are no particular intrinsic features of the sandstone and the trilobite fossil that are incontestably diagnostic of any supposed great age. The conclusion that they must be old wasn't because they actually look old, but because it was assumed they took a long time to form based on present-day experience.

Long Age Reasoning Questioned

Now let's extend this reasoning to the earth itself. Why is it that most people think the earth looks old? Isn't it because they assume it took a long time to form based on their present-day experience of geological processes? After all, volcanic eruptions only occur sporadically today, so the vast, thick lava flows stacked on top of one another — for example, in the USA's Pacific Northwest — must have taken a long time to accumulate. However, this reasoning is wrong for three very valid reasons:

First, it ignores the fact that we *cannot* go back to the past to actually verify by direct observations that vast, thick stacks of lava flows — and sandstones with trilobite fossils — took a long time to form millions of years ago. The inference that the present is the key to the past is only an assumption, not a fact.

Second, that assumption deliberately ignores the fact that we do have direct eyewitnesses from the past who have told us what did happen to the earth and how old it really is. The Bible claims to be the communication to us of the Creator God who has always existed. Its authenticity is overwhelmingly verified by countless exactly fulfilled predictions, archeological and scientific evidences, corroborating eyewitness accounts, and the changed lives and testimonies

^{1.} S.W. Boyd, "Statistical Determination of Genre in Biblical Hebrew: Evidence for an Historical Reading of Genesis 1:1–2:3," Radioisotopes and the Age of the Earth: Results of a Young-Earth Creationist Research Initiative, L. Vardiman, A.A. Snelling, and E.F. Chaffin, eds. (El Cajon, CA: Institute for Creation Research and Chino Valley, AZ: Creation Research Society, 2005), p. 631–734.

insisted that "the past history of our globe *must* be explained by what can be seen happening now" (emphasis added).

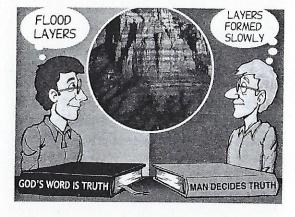
It was Charles Lyell, a lawyer-turned-geologist, with his two-volume *Principles of Geology* (1830–33), who eventually convinced the geological establishment to abandon the biblical Flood in favor of this "principle" he called uniformitarianism. Lyell openly declared that he wanted to remove the influence of Moses (the human author of Genesis) from geology, revealing his motivation was spiritual, *not* scientific.⁶ He insisted on the uniformity through time of natural processes only at today's rates — a belief that was later encapsulated in the phrase "the present is the key to the past."

This is the belief that now underpins virtually all modern geological explanations about the earth and its rock layers. And it is a *belief* because it cannot be proved that *only* today's geological processes can explain the earth's history and determine its age. No one has ever observed past geological processes, except for God — and Noah and his family — during the Flood when these processes were definitely catastrophic on a global scale. Yet most people today, even Christians, have unwittingly imbibed this uniformitarian belief, having been brainwashed by the constant barrage of teaching over many decades by the world's education systems (schools, colleges, and universities), museums, and media (newspapers, magazines, television, and even Hollywood). Indeed, most

people automatically see the earth as old because they have accepted it is a proven scientific fact that it is old!

Using the Right Glasses

However, based on the authority of God's Word, we can dogmatically say they are absolutely wrong. Looking at the world through "glasses" that are based on



human reasoning alone (man's word) makes people wrongly think the earth looks really old. On the other hand, when we as Christians see the world through the biblical "glasses" provided by God's inerrant Word — so that we

see the world as God sees it — we can assert unashamedly that the earth does not really look that old at all, being only about 6,000 years old (which, of course, is young). Indeed, the earth we see today is the way it looks because it is the destroyed remains of the original earth God created, still marred by the subsequent Curse.

Furthermore, not only should we understand that the Bible provides the true history of the earth, but that history tells us the earth only looks the way it does today because of what happened in the past. In other words, the past is the key to the present!

Conclusion

Paul, in 2 Corinthians 11:3, warns us about the way Satan subtly beguiled the mind of Eve in the Garden of Eden by questioning and twisting God's Word. Today, Satan has subtly beguiled so many people, including Christians, by twisting the clear testimony of God's Word that "the past is the key to the present" into "the present is the key to the past." And just as he used the appealing look of the fruit on that tree to entice Eve, so he uses the snail's pace of geological processes today to make people doubt or deny what God has told us about the young age of the earth and His eyewitness account of the formation of the rock layers and fossils.

It also must be emphasized that even though we must trust God and His Word by faith alone (Hebrews 11:3), it is neither an unreasonable nor a subjective faith. This is because God is not a man that He should lie, so the evidence we see in God's world will always ultimately be consistent with what we read in God's Word. Thus, when we put on our biblical "glasses," we should be able to immediately see and recognize the overwhelming evidence that the earth looks (and is) young and that the earth's fossil-bearing rock layers are a product of the global, catastrophic Flood.

After all, if the Genesis Flood really did occur, what evidence would we look for? Genesis 7 says all the high hills and mountains under the whole heaven were covered by the water from the fountains of the great deep and the global torrential rainfall so that all land-dwelling, air-breathing creatures not on the ark perished. Wouldn't we, therefore, expect to find the remains of billions of plants and creatures buried in rock layers rapidly laid down by water all around the earth? Yes, of course! And that's exactly what we find — billions of rapidly buried fossils in rock layers up on the continents, rapidly deposited by the ocean waters rising up and over the continents all around the earth. This confirms that the rocks and fossils aren't millions of years old — and neither is the earth.

^{5.} A. Holmes, *Principles of Physical Geology*, second ed. (London: Thomas Nelson and Sons, 1965), p. 43–44, 163.

^{6.} R.S. Porter, "Charles Lyell and the Principles of the History of Geology," *British Journal* for the History of Science, IX, 32 no. 2 (1976): 91–103.