

The Biblical BCronologist

WHAT HAS BEEN IS REMOTE AND EXCEEDINGLY MYSTERIOUS. WHO CAN DISCOVER IT?
(Ecclesiastes 7:24)

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The Age of the Earth, Virtual History, and Hebrews 11:3

There are Christians who hold that the Bible is the infallible textbook of Christianity, that all the truth of Christianity can be found there and there alone. There is no external appointed interpreter to its meaning: the believer and presumably the theologian will find its meaning clear and authoritative, the unalloyed word of God.

Most theologians have encountered this view of the Bible in its forthright simplicity. It has, however, had to face adverse criticism. First, the natural sciences developed in the 19th century an account of the universe which seemed irreconcilable with the story of creation and other details in the Bible.

— George Kilpatrick (theologian)¹

“Through the reading of popular scientific books I soon reached the conviction that much of the stories in the Bible could not be true.” — Albert Einstein (scientist)²

Introduction

The Bible teaches, without caveat or apology, that the earth was created approximately seven thousand years ago.

Modern science teaches, without caveat or apology, that the earth is four and a half billion years old.

Are these teachings irreconcilable?

¹George D. Kilpatrick, “Theology,” *The Encyclopedia Americana*, vol. 26 (Chicago: Rand McNally, 1962), 519.

²Ronald W. Clark, *Einstein: The Life and Times* (New York: The World Publishing Company, 1971), 17.

A Simple Thought Experiment

Those who have followed my work in *The Biblical Chronologist* over the past several years know that I do not find these teachings to be irreconcilable.³ It is easy to perform a thought experiment which illustrates immediately why these teachings are not irreconcilable.⁴ Imagine for a moment creating a cat—bringing a full grown cat into existence out of nothing—so that it is this instant sitting on the floor at our feet licking its fur. We now ask whether the following two statements are irreconcilable: 1. The cat was created approximately five seconds ago. 2. The cat is at least a year old.

These two statements cannot be irreconcilable because they are, we realize, both true. That is, the cat was, in fact, only brought into existence five seconds ago, and anybody who knows anything at all about cats can see immediately that this cat is at least a year old.

Real and Virtual Histories

I have previously pointed out that creation miracles always lead to this sort of situation.⁵ In the macroscopic world created things necessarily carry with them an appearance of prior existence. Although the cat was only created moments ago, it

³See, for example: Gerald E. Aardsma, “A Unification of Pre-Flood Chronology,” *The Biblical Chronologist* 5.2 (March/April 1999): 1–18.

⁴The fact that a created cat would necessarily possess many features in apparent contradiction to its real history was first brought to my attention several decades ago by a creationist book whose author and title I can no longer recall. The first to have treated this same basic observation with scientific thoroughness appears to have been the zoologist Philip Henry Gosse in his book, *Omphalos: An Attempt to Untie the Geological Knot*, published in 1857.

⁵Gerald E. Aardsma, “A Unification of Pre-Flood Chronology,” *The Biblical Chronologist* 5.2 (March/April 1999): 1–18.

necessarily appears to have existed long before its actual creation.

I have previously pointed out that two separate histories attach to any created thing. The first is real history. The cat's real history is that it was brought into existence out of nothing only seconds ago. The second is virtual history. The cat's virtual history is that it was born a year or more ago, and has grown to its present adulthood since that time. Real history corresponds to what really happened. Virtual history is what one finds from analysis of the created thing itself.

These two types of history, real and virtual, are unavoidable in macroscopic created things. The earth is no exception. Its real history is that it was brought into existence out of nothing roughly seven thousand years ago. Its virtual history, as best it is understood by science today, is that it coalesced from stellar debris some four and one-half billion years ago.

It is an error to set these two histories in contrast to each other—to say that one is right and the other wrong. Rather, as with the wave-like and particle-like properties of light which have become familiar to modern physics, they are a duality. Both are valid descriptions in their proper context. One will not have a complete description of reality, which functions to explain all the facts in the present, if they attempt to exclude either a created object's real history or its virtual history.

False Contradictions

Unfortunately, failing to understand this duality, many—Christians and non-Christians alike—continue to suppose that the Biblical date of creation and the scientifically determined age of the earth are contradictory. This confusion has, unfortunately, had serious consequences. Indeed, this chronological issue seems, historically, to have caused the first real rift between science and the Bible.

But it was not the last issue arising out of this confusion over real and virtual histories of the created world to have done so. The full flowering of this confusion must obviously include at least the titanic struggle over evolution which followed Darwin's publication of *Origin of Species*. Here the specific confusion was over the fact that the

Bible teaches that God supernaturally created all living things, including the first humans, Adam and Eve, while modern science finds that the data from all fields shows that all living things, including humans, have come about naturalistically by a process of evolution.

This apparent conflict, of course, is part and parcel of the same duality. The Bible reveals the real history of how the earth and its multitudinous creatures came to be—they were supernaturally created; science can elucidate only the virtual history it finds by analysis of the created matter itself. And, like our created cat, nothing about the created matter itself reveals that it was brought into existence only a little over seven thousand years ago.

Neither the Bible nor science is telling a lie. Both descriptions are valid in their proper context and each needs to be accepted in its proper context without denigrating the other, just as in our created cat example. Error only enters in at the point at which one or the other of these dual descriptions is denied. When, for example, the scientist says that the physical evidence shows only a history of natural cause and effect, *so that the Biblical account of Creation is clearly not true*, (as per the quote by Einstein at the beginning of this article) we have error. And when the theologian says that the Bible clearly teaches supernatural creation, *so that the evidence from nature can not possibly show evolution*, we have error. (We have an even more egregious error when the *theologian* says, as in the quote which opens this article, that since the scientific evidence shows only a history of natural cause and effect, the Biblical account of Creation cannot be accepted as historically true.)

Hebrews 11:3

It is easy enough to understand the confusion of the unbelieving materialist who mistakenly concludes from his study of the physical evidence that the earth has been around, in fact, for billions of years. Much more difficult to explain is the widespread, persistent dismay of Christians over this issue. The materialist has only atoms to fall back on. But the Christian has the revealed Word of God. And it informs us, rather clearly, in Hebrews 11:3, that “what is seen was not made out

of things which are visible”.

The materialist is obviously making a very basic mistake, according to Hebrews 11:3, if he supposes he can deduce anything about the date of Creation by analysis of its parts—by measurement of the thickness of its sedimentary strata, or measurement of the ratios of radioisotopes in its rocks. Can he deduce anything about the time of creation of our cat by measuring the length of its hair, or by counting its teeth?

The difficulty, of course, is that the cat “was not made out of things which are visible”. That is, the cat was not made out of preexistent hair or teeth. These visible parts were called into existence out of nothing too.

When the materialist says, “I will take this ancient rock apart atom by atom to see how and when it was that this rock was made” he is saying, right at the outset, that what is seen (the rock) was made out of things which are visible (its atoms). Hebrews 11:3 says, not so. It says that the rock was made NOT out of things which are visible/tangible, but “by the word of God”.⁶ No amount of atom counting will ever reveal the true Creation history of a rock because the true Creation history of a rock can only be understood, Hebrews 11:3 informs us, by faith. Such is the nature of created things. Investigation of the material substance of a created thing—the fur or teeth or cells of a created cat, or the atoms of a created rock—will only reveal its virtual history, not its real Creation history.

And since this is the nature of the case with created things, including the earth, there is no reason why Christians should find their faith in the integrity of the Bible shaken in the least by whatever age science may pin upon the earth, or by any account of the origin of species scientists may piece together from data dug from the earth.

So I find it curious when Christians assert that the trouble with the age of the earth given by science is that the scientists’ measurements are in error due to inaccurate tools—that radiometric dating is unreliable. If a veterinarian examines our created cat, and informs us the cat is over a year old, will they also say that the vet’s method of

estimating the age of cats is unreliable?

Conclusion

Hebrews 11 is sometimes called the “Faith Hall of Fame” of the Bible. Hebrews 11 contains one example after another of faith in action. But rather than noticing all the examples of faith which *are* found in this chapter, notice what is *not* found in this chapter.

After declaring, “By faith we understand that the worlds were prepared by the word of God. . .” the author of Hebrews does not go on to say, “by faith we understand that Noah’s Flood happened”, or “by faith we understand that the Exodus happened”. Hebrews does not make Bible history in general a matter of faith—and neither, I want to be very clear, do I. The Exodus, the Flood, and all the rest, are—unlike Creation—empirically verifiable facts of history.

That is why so much time and effort have been spent in *The Biblical Chronologist* in past issues deducing the true nature of the Flood from the chronologically controlled physical data bearing on that historical event, and why so much time and effort have been spent determining the true route of the Exodus, and the true Mount Sinai, from the chronologically controlled archaeological data bearing on the Exodus event. These events are not matters which can only be apprehended by faith—there is a wealth of physical data witnessing their veracity.

But not so the historical event which started it all—the supernatural Creation event. It is in a class by itself, intrinsically beyond the reach of scientific investigation. No amount of physical evidence will ever yield the conclusion that Creation happened. This event of history can only ever be apprehended by faith—by believing that God has told us the truth about it.

How much faith does this take? Given the overwhelming evidence verifying the Biblical historical narrative of the Flood, the Exodus, and so much else of Biblical history subsequent to Creation—evidence which has filled every issue of *The Biblical Chronologist* for 47 issues now—I suggest: not a whole lot more than the faith it takes to believe the sun will rise again tomorrow morning. ◊

⁶Hebrews 11:3 says, “By faith we understand that the worlds were prepared by the word of God, so that what is seen was not made out of things which are visible” (NASB).

Biblical Chronology 101

Guest Lecturer: Mark Aardsma

In parts I and II of this series I presented information about the history and culture of Ai before it was destroyed by Joshua. In this third and final part of the series I want to attempt a historical reconstruction of Ai's tragic end. The plot is supplied by the Bible in Joshua chapters 6, 7, and 8. The photographs of the scene are supplied by Judith Marquet-Krause's archaeological expedition. Speculative details are supplied by my imagination.

The Resurrection of Ai: Part III

The king of Ai took his seat in the grand room. He was eager to hear the latest news about the swarm of foreigners who were camped on the other side of the Jordan River. There had been news from various sources that these foreigners had produced quite a path of destruction behind them across the Jordan. He was well aware of what had happened to Egypt when they left there forty years previously. Most recently he'd heard that a couple of their spies had been seen in Jericho, but had somehow disappeared. It seemed they were intent on crossing the Jordan. He was getting concerned about the safety of his city.



The remains of the grand room of the palace. From Marquet-Krause Plate IX.

As he waited for the messenger from Jericho to arrive, reports about the ongoing crop harvest were presented. But his thoughts drifted to a mental review of Ai's fortifications. They were impressive, no doubt about it. The massive walls had been built long before his time, but he had seen to it that they were skillfully maintained to a height

of over fifteen feet. The few gates in the walls were securely constructed and well-guarded. Ai was built on a hill, giving it an intrinsic advantage over any adversary. Their gods and these walls had protected them for over 300 years. What did they have to be afraid of?

The breathless messenger was shown in and gave his news. The Jordan had magically run dry when the foreigners began to cross it, and 40,000 of them were equipped for battle and on the move in the plains near Jericho.

When the king heard the news he was relieved. Let Jericho fend for itself—at least his city wasn't under attack.

Over the next week the reports continued to arrive. The foreigners were acting strangely—marching around Jericho once a day. After nearly a week of that the bad news came—Jericho had fallen to the foreigners and was completely destroyed in a great massacre.

Then the king's worst fears began to come true. One of his lookouts thought he saw foreigners lurking around, probably spies. He sent his own spies to the foreigners' camp, and the report came back that attack appeared to be imminent.

That evening, after a day filled with preparations for battle, the king of Ai made his way through town to the temple.

The city was crowded with field hands and residents of the surrounding countryside who had come inside the walls for protection. Children played games in the crowded streets as mothers watched from doorways.

The king climbed the ramp to the temple entrance, walked through the thick smell of incense in the outer chamber, and into the altar room. The citizens of Ai watched nervously as a thin column of smoke rose from the temple. It made a faint silhouette in the western sky, still glowing with the sunset. They hoped their gods, their walls, and their men would protect them from the attack they knew was coming.

The watchmen saw nothing to disturb the peace that night, but the king didn't sleep. The next morning an army of about 3,000 could be seen marching toward the city. That was strange—40,000 men had marched on the plain at Jericho, and Ai was a city of 12,000. Why had they sent



The view to the north, across the valley. From Marquet-Krause Plate II.

only 3,000 soldiers?

As the foreigners marched toward the city, the army inside waited in a hubbub of nervous excitement. The 3,000 foreigners continued their approach. The king and his army poured out of the gate into the plain before the city to meet them. Everyone knew battle was only minutes away.

As the battle was joined, confusion spread in the front ranks of the foreign soldiers. They were fleeing! The king ordered a full pursuit. Even his soldiers stationed inside the walls to guard the city streamed through the gate and down the hill on the heels of the desperately scrambling foreign soldiers. A few didn't scramble fast enough and were speared to death by the king's men. All over the city fear turned to pride and excitement. Their men, their walls, their gods, and their king had protected them once again.

That evening, after a day of celebrating, the king of Ai again made his way through town to the temple. Again the children stopped their games and the people watched as the sacrificial smoke rose against the western sky.

The unstoppable foreigners had been stopped. The king knew the significance of that, but he also knew that there were many more soldiers where those 3,000 had come from. It would only be a matter of time before they tried again.

Sure enough, just a few days later, the entire foreign army was on the move. They came up and camped north of Ai. Only a broad valley separated them from Ai.

It took nearly all day for the foreign army to move into position. As night fell the king attended the sacrificial ceremony he had attended so many

times before, and the people of Ai saw the smoke rise as it always did. They knew that outside the walls the foreign army could see it too.

The next morning the king of Ai led his army out to meet the foreigners in battle. As the moment of battle drew near, the king noticed confusion in the foreigners' battle lines, just like before. They were fleeing again, and again the king ordered a full pursuit. All the men of Ai rushed to join in this second victory. The foreigners ran, and the men of Ai chased them, just like before.

As fear turned once again to familiar pride, the king turned to look at his city. His pride turned instantly to panic. Huge clouds of smoke were rising from the city—Ai was burning! He realized, too late, that part of the foreign army had been hiding in the ravine behind his city. He had been baited and ambushed. His city, which had sat on that hill much longer than anyone could remember, was going up in smoke.



The ravine where the ambush hid. From Marquet-Krause Plate II.

Soon his whole army realized what was happening, and they started to panic. The king watched in shock as things went from bad to worse. The foreigners seized the moment of panic and turned on the men of Ai, killing them one after another. Then foreign hands grabbed him, and he was carried away.

That evening, as the sun set, the king's body swung lifeless from a tree. Columns of smoke still rose from the smoldering ruins of Ai. No children played in the streets, and no mothers watched from doorways. No men patrolled the walls, and no priests offered sacrifices in the temple. The men, the mothers, and the children were dead. The



The ruins of Ai seen in profile from the southwest in 1933. The heap of stones is circled. From Marquet-Krause Plate I.



The heap of stones from closer range. I have added a six-foot stick figure for approximate scale. From Marquet-Krause Plate I.

houses and the temple were ashes and stone rubble. The walls were broken through and useless now.

The king's body was removed from the tree and thrown down near the temple. As darkness fell swarms of victorious Israelite soldiers ran back and forth carrying stones which they threw onto a growing heap. Eventually the heap covered the king's body, the temple, and the thickest part of the wall.

And that was the end of Ai. The army of foreigners moved on to other battles, and the city sat in ruins with its heap of stones still marking the demise of its king.

The heap of stones sat undisturbed for 4,340 years—until Judith Marquet-Krause hired 100 men to move it so she could see what of archaeological interest might be found beneath it.

It took those 100 men one month of hard work to remove the heap of stones. But Judith was not disappointed. Underneath she found the ruins of an ancient temple, and a strongly fortified section of an ancient city wall.

Points of Conclusion

- The Bible's story about Ai is a true story. The events it describes happened to real people in a real place. You can visit the scene of the battle and see excavated remains of the city of Ai in Israel today.
- Skilled and dedicated archaeologists like Judith Marquet-Krause, as well as other scientists and scholars, have made a great wealth

of factual information about history available. Such information can, and should, be used to illuminate our understanding of the Bible, and to strengthen and defend the historical reliability of the Bible.

- God acted in judgment, and an entire city of real people—soldiers, fathers, mothers, and children—were mercilessly slaughtered. We ought to take Him, and His words, very seriously. ◇

The Biblical Chronologist is a bimonthly subscription newsletter about Biblical chronology. It is written and edited by Gerald E. Aardsma, a Ph.D. scientist (nuclear physics) with special background in radioisotopic dating methods such as radiocarbon. *The Biblical Chronologist* has a threefold purpose:

1. to encourage, enrich, and strengthen the faith of conservative Christians through instruction in Biblical chronology,
2. to foster informed, up-to-date, scholarly research in this vital field within the conservative Christian community, and
3. to communicate current developments and discoveries in Biblical chronology in an easily understood manner.

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