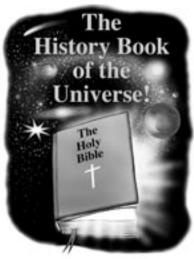
WHAT DOES THE BIBLE SAY ABOUT ASTRONOMY?

by Dr. Jason Lisle, Ph.D. in astrophysics

he Bible is the history book of the universe. It tells us how the universe began and how it came to be the way it is today.

The Bible is much more than just a history book, however; it was written by inspiration of God. The Lord certainly understands how this universe works; after all, He made it. So His Word, the Bible, gives us the foundation for understanding the universe.

It has been said that the Bible is not a science textbook. This is true, of course, and it's actually a good thing. After all, our science textbooks are based on the ideas of human beings who do not know everything and who often make mistakes. That's why science textbooks change from time to time, as



people discover new evidence and realize that they were wrong about certain things.

The Bible, though, never changes because it never needs to. God got it right the first time! The Bible is the infallible Word of God. So when it touches on a particular topic, it's right. When the Bible talks about geology, it's correct. When Scripture addresses biology or anthropology, it's also right. (We have many

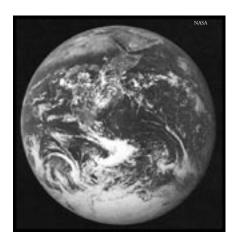
articles that demonstrate this in *Creation* magazine and on our website at AnswersIn-Genesis.org.)

What does the Bible teach about astronomy? Let's take a look at some of the things the Bible has to say about the universe. We will see that the Bible is absolutely correct when it deals with astronomy.

THE EARTH IS ROUND

The Bible indicates that the earth is round. One verse we can look at is Isaiah 40:22, where it mentions the "circle of the earth." From space, the earth always appears as a circle since it is round. This matches perfectly with the Bible.

Another verse to consider is Job 26:10, where it teaches that God has "inscribed" a circle on the surface of the waters at the boundary of light and darkness. This boundary between light and darkness is where evening and morning occur. The boundary is a circle since the earth is round.



THE EARTH FLOATS IN SPACE

A very interesting verse to consider is Job 26:7, which states that God "hangs the earth on nothing." This might make you think of God hanging the earth like a Christmas tree ornament, but hanging it on empty space. Although this verse is written in a poetic way, it certainly seems to suggest that the earth floats in space. And indeed the earth does float in space. We now have pictures of the

earth taken from space that show it floating in the cosmic void. The earth literally hangs upon nothing, just as the Bible suggests.

THE EXPANSION OF THE UNIVERSE

The Bible indicates in several places that the universe has been "stretched out" or expanded. For example, Isaiah 40:22 teaches that God stretches out the heavens like a curtain, and spreads them out like a tent to dwell in. This would suggest that the universe has actually increased in size since its creation. God is stretching it out, causing it to expand.

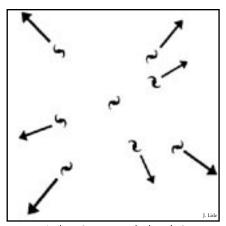
Now, this verse must have seemed very strange when it was first written. The universe certainly doesn't *look* as if it is expanding. After all, if you look at the night sky tonight, it will appear about the same size as it did the previous night, and the night before that.

In fact, secular scientists once believed that the universe was eternal and unchanging. The idea of an expanding universe would have been considered nonsense to most scientists of the past. So it must have been tempting for Christians to reject what the Bible teaches about the expansion of the universe.

I wonder if any Christians tried to "reinterpret" Isaiah 40:22 to read it in an unnatural way so that they wouldn't have to believe in an expanding universe. When the secular world believes one thing and the Bible teaches another, it is always tempting to think that God got the details wrong. But God is never wrong.

Most astronomers today believe that the universe is indeed expanding. In the 1920s, astronomers discovered that virtually all clusters of galaxies appear to be moving away from all other clusters; this indicates that the entire universe is expanding.

You can think of this like points on a balloon. As the balloon is inflated, all the points move farther away from each other. If the entire universe was being stretched out, the galaxies would all be moving away; and that is what



As the universe expands, the galaxies move away from each other.

they actually appear to be doing.

It is fascinating that the Bible recorded the idea of an expanding universe thousands of years before secular science came to accept the idea.

THE AGE OF THE UNIVERSE

Scripture also addresses the age of the universe. The Bible teaches that the entire universe was created in six days (Exodus 20:11).

We know from the genealogies recorded in Scripture that this creation happened about 6,000 years ago.

Yet, this is quite different from what most schools teach. Most secular scientists believe that the universe is many billions of years old. They usually hold to the "big bang theory." The big bang is a secular speculation about the origin of the universe; it is an alternative to the Bible's teaching (see "Why the big bang is not scriptural" on page 22). The big bang attempts to explain the origin of the universe without God.

People who believe in the big bang usually interpret the evidence according to their already-existing belief in the big bang. In other words, they just assume that the big bang is true and they interpret the evidence to match their beliefs. Of course, the Bible can also be used to interpret the evidence. And since the Bible records the true history of the universe, we will see that it makes a lot more sense of the evidence than the big bang does.

Now let's look at some facts about the universe regarding its age. We will see that the evidence is consistent with 6,000 years but doesn't make sense if we hold to the big bang.

Of course, big bang supporters can always reinterpret the evidence by adding extra assumptions. So, the following facts are not intended to "prove" that the Bible is right about the age of the universe. The Bible is right in all matters because it is the Word of God. However, when we understand the scientific evidence, we will find that it agrees with what the Bible teaches. The evidence is certainly consistent with a young universe.

Recession of the moon

The moon is slowly moving away from the earth. As the moon orbits the earth, its gravity pulls on the earth's oceans, causing tides. The tides actually "pull forward" on the moon, which causes the moon to gradually spiral outward. So, the moon moves about an inch and a half away from the earth every year.



The recession of the moon is consistent with a recent origin.

That means that the moon would have been closer to the earth in the past.

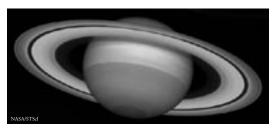
For example, six thousand years ago, the moon would have been about 800 feet closer to the earth (which is not much of a

change, considering the moon is a quarter of a million miles away). So this "spiraling away" of the moon is not a problem over the biblical timescale of six thousand years. But if the earth and moon were over four billion years old (as evolutionists teach), then we'd have big problems. In this case, the moon would have been so close that it would actually have been touching the earth only 1.4 billion years ago. This problem suggests that the moon can't possibly be as old as secular astronomers claim.

Secular astronomers who assume that the big bang is true must use other explanations to get around this. For example, they might assume that the rate at which the moon was receding was actually smaller in the past. But this is an extra assumption needed to make their billions-of-years model work. The simplest explanation is that the moon hasn't been around for that long. The moving-away of the moon is a problem for a belief in billions of years, but is perfectly consistent with a young age.

Magnetic fields of the planets

Many of the planets of the solar system have strong magnetic fields. These fields are caused by electrical currents, and they decay with time. We can even measure this decay for the earth's magnetic field: it gets weaker and weaker every year. If the planets were really bil-



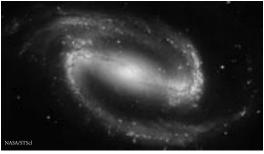
Saturn has a strong magnetic field, which is consistent with the biblical timescale.

lions of years old (as evolutionists believe) then their magnetic fields should be extremely weak by now. Yet they are not. The outer planets of the solar system, in particular, have quite strong magnetic fields. A reasonable explanation for this is that these planets are only a few thousand years old, as the Bible teaches.

Spiral galaxies

A galaxy is an enormous assembly of stars, interstellar gas and dust. The galaxy in which we live is called the Milky Way; it has over 100 billion stars. Some galaxies are round or elliptical. Others have an irregular shape. But some of the most beautiful galaxies are spiral

in nature. Spiral galaxies slowly rotate, but the inner regions of the spiral rotate faster than the outer regions. This means that a spiral galaxy is constantly becoming more and more twisted up as the spiral becomes tighter. After a few hundred million years, the galaxy would be wound so tightly that the spiral structure would no longer be recognizable. According top the big bang scenario, galaxies are supposed to be many billions of years old. Yet we do see spiral galaxies—and lots of them. This suggests that they are not nearly as old as the big bang requires. Spiral galaxies are consistent with the biblical age of the

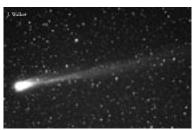


The barred spiral galaxy NGC 1300

universe, but are problematic for a belief in billions of years.

Comets

Comets are balls of ice and dirt. Many of them orbit the sun in elliptical paths. They spend most of their time far away from the sun, but occasionally they come very close to it. Every time a comet comes near the sun, some of its icy material is blasted away by the solar radiation. As a result, comets can orbit the sun for only so long (perhaps about 100,000 years at most) before they completely run out of material. Since we still have a lot of comets, this suggests that the solar system is much younger than 100,000 years; this agrees



Comets like Comet Hyakutake provide evidence for a young solar system.

perfectly with the Bible's history.

Yet, secular astronomers believe the solar system is 4.5 billion years old. Since comets can't last that long, secular astronomers must assume that new comets are created to replace those that are gone. So they've invented the idea of an "Oort cloud." This is supposed to be a vast reservoir of icy masses orbiting far away from the sun. The idea is that occasionally, an icy mass falls into the inner solar system to become a "new" comet. It is interesting that there is currently no evidence of an Oort cloud. And there's no reason to believe in one if we accept the creation account in Genesis. Comets are consistent with the fact that the solar system is young.

SUPERNATURAL CREATION

Aside from age, there are other indications that the universe was supernaturally created as the Bible teaches. These evidences show God's creativity—not a big bang. For example, astronomers have discovered "extrasolar"

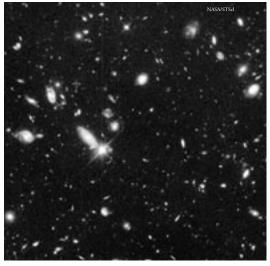
planets. These are planets that orbit distant stars—not our sun. These planets have not been directly observed. Instead, they have been detected indirectly—usually by the gravitational "tug" they produce on the star they orbit. But the principles being used here are all good "operational science"—the kind of testable, repeatable science that can be done in a laboratory. So, we have every reason to believe that these are indeed real planets that God created.

These extrasolar planets are actually a problem for big-bang, evolutionary models of solar system formation. Secular astronomers had expected that other solar systems would resemble ours—with small planets forming very close to their star, and large planets (like Jupiter and Saturn) forming far away. But many of these extrasolar planets are just the opposite; they are large Jupiter-sized planets orbiting very close to their star. This is inconsistent with evolutionary models of solar system formation, but it's not a problem for

biblical creation. God can create many different varieties of solar systems, and apparently He has done just that.

CONCLUSIONS

We have seen that when the Bible addresses the topic of astronomy, it is accurate in every



The Hubble Deep Field reveals hundreds of beautifully designed galaxies.

aspect. This shouldn't be surprising, for the Bible, which teaches that the heavens declare the glory and handiwork of God (Psalm 19:1), is the written Word of the Creator. God understands every aspect of the universe He has created, and He never makes mistakes.

In addition, the Word of God provides the correct foundation for understanding the scientific evidence. At the same time, the Bible provides more than just information on the physical universe. It also answers the most profound questions of life. Why are we here? How should we live? And what happens when we die? The Word of God even answers the question of why there is death and suffering in the world.

We can have confidence that what the Bible says about our need for salvation is true, because the Bible has demonstrated itself to be accurate time after time. In this booklet, we have seen that the Bible is accurate when it touches on astronomy. To see how other fields of science are also consistent with Scripture

when the evidence is interpreted correctly, and to learn how the Christian faith can be defended in this scientific age, be sure to visit us on the web at www.AnswersInGenesis.org.

HERE'S THE GOOD NEWS

Answers in Genesis seeks to give glory and honor to God as Creator, and to affirm the truth of the biblical record of the real origin and history of the world and mankind.

Part of this real history is the bad news that the rebellion of the first man, Adam, against God's command brought death, suffering and separation from God into this world. We see the results all around us. All of Adam's descendants are sinful from conception (Psalm 51:5) and have themselves entered into this rebellion (sin). They therefore cannot live with a holy God, but are condemned to separation from God. The Bible says that "all have sinned, and come short of the glory of God" (Romans 3:23) and that all are therefore subject to "everlasting destruction from the

presence of the Lord and from the glory of His power" (2 Thessalonians 1:9).

But the good news is that God has done something about it. "For God so loved the world, that He gave his only-begotten Son, that whoever believes in Him should not perish, but have everlasting life" (John 3:16).

Jesus Christ the Creator, though totally sinless, suffered, on behalf of mankind, the penalty of mankind's sin, which is death and separation from God. He did this to satisfy the righteous demands of the holiness and justice of God, His Father. Jesus was the perfect sacrifice; He died on a cross, but on the third day, He rose again, conquering death, so that all who truly believe in Him, repent of their sin and trust in Him (rather than their own merit), are able to come back to God and live for eternity with their Creator.

Therefore: "He who believes on Him is not condemned, but he who does not believe is condemned already, because he has not believed in the name of the only-begotten Son of God" (John 3:18).

What a wonderful Savior—and what a wonderful salvation in Christ our Creator!

(If you want to know more of what the Bible says about how *you* can receive eternal life, please write or call the *Answers in Genesis* office nearest you—see inside front cover.)

APPENDIX

Why the big bang is not scriptural

In an attempt to explain the origin of the universe without God, secular astronomers have come up with an idea called the big bang. This story teaches that the entire universe was once contained in a point of no size. This point supposedly expanded rapidly and formed matter, which became galaxies, stars and planets. Sadly, some Christians have been taken in by the big bang story, and have tried to add it to the Bible.

But that doesn't work because the big bang is really a secular alternative to the Bible and contradicts it in many ways. For example, the big bang teaches that the universe is billions of years old, whereas the Bible indicates that it is thousands of years old. The big bang also teaches that stars came before the earth, but the Bible teaches the reverse. Additionally, the big bang scenario puts the creation of human beings many billions of years after the

creation of the universe. However, Jesus confirmed that human beings were there at the beginning of creation (Mark 10:6).

Of course, the big bang has many scientific problems as well (see pages 8–16). For more information on these, and for answers to other questions about astronomy (e.g., how can we see distant stars in a young universe?), go to www.AnswersInGenesis.org.

ABOUT THE AUTHOR

While most astronomers and astrophysicists believe in the big bang, a billions-of-years-old universe and other evolutionary ideas, the Bible and the best interpretation of the scientific evidence reveal that they are wrong.

That's the view of Dr. Jason Lisle, AiG's newest speaker and researcher. An astrophysicist with a Ph.D. from the University of Colorado at Boulder, USA, Dr. Lisle will also help design exciting planetarium programs for the future Creation Museum in Northern Kentucky (near Cincinnati, Ohio), USA.

Dr. Lisle is not the stereotypical "egghead" research scientist. He can easily and effectively communicate to audiences ages 11 and up.

The author of this booklet, Dr. Jason Lisle, is writing scripts for AiG's new planetarium in Northern Kentucky, USA (www.CreationMuseum.org).