#### **Hugh Ross and Robert Sungenis**

#### **Debate Cosmology on Moody Radio**

On November 21, 2014, Moody Radio conducted an hour-long discussion between myself and Dr. Hugh Ross on the subject of modern cosmology. The debate can be found at the following URL:

http://podcasts.moodyradio.org/UpforDebate/2014-11-22 Up for Debate.mp3?pt=1

Julie Roys also wrote a review of our movie, The Principle, which can be found at this URL:

http://www.julieroys.com/2014/11/is-everything-we-think-we-know-about.html

Below, I have transcribed, verbatim, selected topics from the discussion that deal specifically with geocentrism or general cosmology. I have excluded the topics on the program that dealt with "fine-tuning" and the movie, Interstellar.

In addition to the verbatim transcript, I have added further rebuttal to Dr. Ross' views (which are preceded by the words "added comments"). If Dr. Ross wants to add more commentary, I will gladly add that to this discussion.

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### **Topic: The Copernican Principle and the Cosmic Microwave Radiation**

Robert Sungenis (radio program): The Copernican Principle is basically a belief in modern science today, and it's more or less the foundation of modern science, because it means that everything they see in their telescopes or their microscopes, they are going to interpret through the grid of the Copernican Principle. And that principle says the Earth is not anything special, it is just a product of time and chance, either from a Big Bang explosion or from a Multiverse prior to that, or whatever the origin is, the Earth was just part of the mix, it wasn't anything special, it wasn't in the recipe, so to speak, it just sort of popped out of existence just like everything else did, and it was placed somewhere, we don't know where, in the universe; there are no signposts that say "here is Earth," and so it could be out in the remote recesses of space, and has no rhyme or reason to its existence; it's just there and life just happened to come from it because the molecules rearranged themselves somehow, and there we are. So that principle basically takes God out of the equation. It takes an intelligent designer out of the equation. It puts Earth out there somewhere where mankind does not have to be responsible for what he does and who he is because he is here one day and gone the next. So the Copernican Principle is very comfortable for modern man, especially today since most of them are atheistic in their outlook on life. If there is no Creator to evaluate you and you've basically tucked him away because you've made a time and chance universe, that becomes very comfortable for modern mans today. So when we come along and say it isn't exactly that way and we have hard scientific evidence, not just theological or biblical interpretations, to put Earth in a special place in the universe, well that means that it couldn't have happened by chance. And that is what they are very frightened of. They know in the very deepest recesses of their hearts that if the Earth is either at or near the center of the universe, that means someone with a capital S had to put it there, and it didn't happen by time and chance. So if we bring the evidence along, they will squirm and they will fight and they will do everything they can to try to keep Earth out of the center because they know the implications of it.

What led us here first of all was we started to examine the evidence from the cosmic microwave background radiation. They already had hints of this in 1978, that the universe they thought was isotropic and homogeneous from the Big Bang explosion, wasn't exactly that. There were what they call 'inhomogeneities and anisotropies' in the universe. They sent up a probe in 1990 called the COBE probe [interrupted by host to ask for clarification]...like homogenized milk, you don't see any lumps of fat, that's what they expected the universe to be, like homogenized milk and it wasn't, there were lumps in it, and those lumps were placed in strategic places. It wasn't just random. "Strategic" meaning that they found the lumps made an Axis, what they call now the "Axis of Evil," showed that the alignment of the cosmic microwave background radiation was aligned with our ecliptic, that is the 23.5 degree angle that we are all familiar with that make the seasons; and also the dipole, which was the other measurement they made, was aligned with our equator, the Earth's equator, or the celestial equator, what they sometimes call the "equinoxes." So here you have two alignments from the cosmic microwave background radiation, and they confirmed it in 2001 with the sending up of the WMAP satellite, and that came back with the same information they had found in 1990. So they were puzzled about this and wondered if it was some kind of contamination in their instruments. So they sent up a third probe in 2009 called the "Planck probe," and that came back with the same information. These alignments were there and they were real.

**Hugh Ross (radio program):** Well, Dr. Sungenis is defining the Mediocrity Principle, which says there is nothing special about Earth or humanity at all in the context of our universe, and I would very strongly disagree with the mediocrity principle. The Copernican Principle says that the Earth, the solar system, is not in a specially favored geometric position in the universe.

**R. Sungenis (added comments):** Dr. Ross stated that I had only defined the Mediocrity Principle instead of the Copernican Principle, and proceeded to say that the latter says "that the Earth, the solar system, is not in a specially favored geometric position in the universe." But my above answer was an attempt to tie both the Mediocrity and Copernican principles together, since I state: "They know in the very deepest recesses of their hearts that if the Earth is either at or near the center of the universe, that means someone with a capital S had to put it there, and it didn't happen by time and chance. So if we bring the

evidence along, they will squirm and they will fight and they will do everything they can to try to keep Earth out of the center because they know the implications of it."

**Hugh Ross (radio program):** And I would point out that the Dipole moment in the cosmic microwave radiation establishes that we are not in a specially favored geometric position in the universe. If we were then there would be no Dipole moment in the cosmic background radiation.

**R. Sungenis (added comments):** Throughout the program, Dr. Ross would make assertions (such as the one above) without providing any scientific evidence to support his views. If one is going to claim that the Dipole "establishes that we are not in a specially favored geometric position," then one needs to give at least some evidence supporting the claim.

The probable reason that Dr. Ross holds that the Dipole does not provide a "specially favored geometric position," is that he and other secular cosmologists want to attribute the Dipole to a movement of our solar system through the Milky Way galaxy. As such, the leading edge of the solar system would create the blue-shifted pole against the CMB and the posterior edge would create the red-shifted pole (the two poles making a "Dipole"). Since such movement of the solar system makes Earth merely the baggage of the Milky Way, the Earth has no central geometric position. The geocentric implications of the Axis of Evil are minimized.

But this only begs the question, since Ross, a believer in heliocentrism, can only assume the solar system is moving through the Milky Way. The fact is, there is no scientific proof that the Earth is either moving or on one of the spiral arms of the Milky Way galaxy. There are no cameras outside the Milky Way taking pictures for us. The pictures we see of the Milky War are merely artists' rendering of what the Big Bang believers and Copernicans think the Milky Way looks like, which is all based on their supposition that there was a giant explosion 13.7 billion years ago that eventually formed the Milky Way. Their logic is as follows: if the Earth is moving (which everyone "knows" to be the case), then it moves around the Sun; and the Sun must then revolve around a galaxy; and if our galaxy is like Andromeda, then it must be a spiral galaxy; and thus we are all taught that the Earth is on the spiral arm of the Milky Way. But there is no proof for these concepts at all. It is all theory, based on their presupposition, which they can't prove.

Moreover, those who contend that the CBM Dipole is created from the solar system moving through the Milky Way galaxy are faced with the following anomalies:

(1) if the Dipole is kinematic, then how does one explain the origin of the Quadrupole? Why doesn't Ross say that the Quadrupole is also kinematic? As it stands now, the science community understands the Quadrupole as intrinsic. Since that is the case, why can't the Dipole be intrinsic instead of being attributed to solar motion? But if they answer this by claiming that the Quadrupole is kinematic, then they must explain why the Quadrupole is

going in a different direction than the Dipole. How can you have two motions in opposite directions with just one CMB?

- (2) Kothari showed that a kinematic Dipole does not match the presumed 371km/sec motion of the solar system, but is four times higher, and his results are at a 5 sigma level (http://arXiv:1307.1947v1).
- (3) Likewise, D. Schwarz concluded he "can exclude that the estimated radio dipole is just due to our proper motion and amplitude bias at 99.6% CL" and agreed with Kothari that "all measurements so far point towards a higher radio dipole amplitude than expected" (July 2013 (http://arxiv.org/pdf/1301.5559.pdf).

Second, Dr. Ross avoided the clearer and more important evidence I presented. In my statement on the program (transcribed above) I said:

"the Axis of Evil, showed that the alignment of the cosmic microwave background radiation was aligned with our ecliptic, that is the 23.5 degree angle."

This particular alignment with our Sun-Earth is created by the Quadrupole of the cosmic radiation, not the Dipole. It is only the Quadrupole that is designated as the "Axis of Evil" in the secular literature, and that is precisely because it aligns with the 23.5 degree ecliptic plane between the Sun and Earth. It was the precise alignment of the CMB with our ecliptic that caused Lawrence Krauss to state:

But when you look at CMB map, you also see that the structure that is observed, is in fact, in a weird way, correlated with the plane of the earth around the sun. Is this Copernicus coming back to haunt us? That's crazy. We're looking out at the whole universe. There's no way there should be a correlation of structure with our motion of the earth around the sun — the plane of the earth around the sun — the ecliptic. That would say we are truly the center of the universe....The new results are either telling us that all of science is wrong and we're the center of the universe, or maybe the data is simply incorrect, or maybe it's telling us there's something weird about the microwave background results and that maybe, maybe there's something wrong with our theories on the larger scales.

#### Here is another source:

Developing the multipole vectors allowed us to examine how the CMB's large-scale features align with each other and the ecliptic – the plane of Earth's orbit around the sun....Not only are the quadrupole and octopole planar, but the planes are nearly perpendicular to the ecliptic....The likelihood of these alignments happening by chance is less than 0.1 percent....Why CMB patterns are oriented to the solar system is not at all understood at this time.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> *Ibid.*, p. 43. See also *Scientific American*, December 9, 2011 article titled "Universal Alignment: Could the Cosmos Have a Point" by Michael Moyer, which makes reference to Huterer's findings, stating: "The

**Hugh Ross (radio program):** It's basically telling us we are on the edge of the Virgo cluster, which is on the edge of a much more concentrated central mass of galaxies clusters, which itself is on the edge of an even more massive and centrally concentrated clusters of clusters of galaxies.

**R. Sungenis (added comments):** Again, Dr. Ross gave us no evidence for his claims. He wants us to accept that everything is in motion around something bigger, but he has no proof for this model. The only thing the CMB tells us is that the Dipole extends from Earth through Virgo and beyond to the edge of the known universe. But as to what is moving against what, Ross has no proof. The Earth could be motionless in the universe and still be on the "edge" of the Virgo cluster since Virgo could be revolving around a fixed Earth instead of Earth revolving round Virgo.

**Hugh Ross (radio program):** However, there is something very favored about the position of our solar system, namely, that we are in the one location of the vastness of the cosmos where we human observers can actually witness 100% of the history of the universe, all the way back to the beginning of the universe itself. And it's our ability to witness 100% of the history of the universe that gives us some of the most compelling scientific evidence that a God beyond space and time especially designed the universe for the explicit benefit of humanity. So we may not be in a favored geometric position of the universe, but we are in a favored position in terms of our capacity to observe all of the universe. But the Bible says that the heavens declare the glory of God. God made sure we are in the best possible position in the universe to see all of that glory.

**R. Sungenis: (added comments):** I believe what Dr. Ross means is related to a statement he made in the program that said our solar system is not precisely on one of the arms of the Milky Way galaxy, but between two of the arms, which would allow us to view the universe unobstructed (except for when we try to look through the spiral arms). Again, this is all based on an unproven theory that we are revolving around the Milky Way, which comes from Dr. Ross' belief in a Big Bang universe. Ross believes we can see the remnant of the Big Bang explosion at the "background" of the universe, namely the cosmic microwave 'background' radiation. He doesn't know this to be fact, he is just assuming it to be so.

universe has no center and no edge, no special regions ticked in among the galaxies and light. No matter where you look, it's the same – or so physicists thought...hot and cold spots speckle the sky....Cosmologists have called it the 'axis of evil.'" Likewise, Federico Urban and Ariel Zhitnitsky state "Similarly, one can employ different vectorial and tensorial decompositions of the multipoles to see that there is a very easily identifiable preferred axis, the cosmological dipole once again; that is, the normal vectors to the planes determined by the quadrupole and the octupole (there are four of them) point all in the same direction, that of the ecliptic and equinox" "The *P*-Odd Universe," University of British Columbia, July 13, 2011, p. 2.

#### Topic: The Biblical Account of Creation in Genesis 1

**Robert Sungenis (radio program):** I take Scripture at face value and I interpret it literally, that is, Day 1, Day 2, all the way through Day 6. The chronology, that is the most important part; keeping the chronology of the Genesis record. So the Earth was created first as verses 1 and 2 says. There was darkness on that day, and then on that same day the Light was made. So you have a chronological sequence occurring; the Earth first, then the Light. The second day you have the firmament created, which is called the heavens in verse 8 of Genesis 1. So when Genesis 1:1 says, "In the beginning God created the heavens and the Earth," well, the heavens show up in verses 6 to 9, and the Earth is the first thing that is created. That's where we base our whole confidence on the inspiration and inerrancy of God's word. That is, the Earth came first; nothing else was there prior to that. There were no stars, there was no sun, there was no nothing. And I know that is where Dr. Ross is going to disagree. He believes the sun and the start were already there on Day 1, and I beg to differ with that, vehemently. He bases his view on the fact that on the Fourth Day the Hebrew word ASAH is a past tense verb that allows the stars and the sun that were created to appear prior to the Fourth Day. But that Hebrew word is not a past tense verb. It is a present or future, and Imperfect verb in Hebrew.

**Hugh Ross (radio program):** I would answer Mark's question that the Bible really does address the question of the origin and the history of the universe and the Earth. As you work your way through the creation texts and the Bible it says four things about the universe: that it's traceable back to a beginning, not just a beginning in matter and energy but a beginning of space and time itself;

**R. Sungenis (added comments):** I don't have a problem in saying with Dr. Ross that the Creation is "traceable back to a beginning, not just a beginning in matter and energy but a beginning of space and time itself," but I do have a problem with how Dr. Ross will then state that all matter, energy, space and time was created on the First Day of Genesis, instead of being created at different Days over the Six Days specified in the text. We will see this momentarily.

**Hugh Ross (radio program):** that is expands from that beginning throughout the history of the universe, the Bible is the first to speak about the expansion of the universe, how it expands under the laws of physics that don't change,

**R. Sungenis (added comments):** The Second Day of Genesis certainly speaks about the Firmament expanding in order to separate the waters above and below the Firmament, but Dr. Ross wants to make the Firmament expansion as being caused by a Big Bang explosion, which then requires that the stars already be in existence on the First Day as opposed to the Fourth Day specified by the text of Genesis 1:14-17. As we will see, Dr. Ross consistently changes the chronology of the Genesis text to conform to his Big Bang theory.

**Hugh Ross (radio program)**: that there is this pervasive law of decay, so the basic law of decay, aka, the Second Law of Thermodynamics, and expanding universe from the spacetime beginning, that would imply that the universe would get colder and colder as it gets older and older in a highly predictable way.

**R. Sungenis (added comments):** The problem here is not the Second Law of Thermodynamics, but the fact that Dr. Ross believes that the Second Law was put in place on the First Day, that is, that there was "decay" at the very beginning of creation such that death was a normal part of biological life on Earth long prior to Adam's sin in Genesis 3. This is another case in which Dr. Ross plays fast and loose with the chronology of Genesis, not to mention the Christian doctrine of Original Sin. Genesis becomes the wax nose that Ross allows himself to mold in accordance with his Big Bang theory, which he believes is scientific fact that must be used to guide the interpretation of Genesis and the rest of the Bible.

**Hugh Ross (radio program):** And today we astronomers are able to confirm all of the statements that the Bible made thousands of years ago.

**R. Sungenis (added comments):** Not quite. Dr. Ross picks and chooses from the chronology of Genesis the passages he wishes to interpret at face value and the passages he will alter in order to fit his preconceived ideas about how the universe came into being. To put it bluntly, the Bible doesn't "confirm" anything Dr. Ross believes about creation. Not one word. Dr. Ross has merely formed a biblical hermeneutic that starts with the Big Bang as the foundation upon which all interpretation must be based, and only then does he attempt to understand various biblical statements about Creation. This forces Ross to ignore the Bible's explicit chronology so that Ross can fashion an alternate chronology, which he does by adding things and events that Genesis 1 does not include.

**Hugh Ross (radio program):** With respect to Genesis 1 there's a very strong exegetical case that the universe comes first. In the beginning God created the heavens and the Earth. That phrase "heavens and Earth" in Hebrew refers to the entirety of physical reality.

**R. Sungenis (added comments):** First, there is no biblical passage which specifies that "heavens and earth" means "the entirety of physical reality." But even if there were such passages, it doesn't mean that Genesis 1:1 is using that particular definition.

But for the sake of argument let's assume that "heavens and earth" refers to everything created. Still, that doesn't mean or prove that everything was created on the First Day. It might only mean that "heavens and earth" is being used like the title of a chapter in a book, or as a summary statement of what will occur during the creation rather than what has already occurred, which the Hebrew language often does, as does English and every other modern language. The Hebrew will often begin the narrative with a waw-disjunctive on the noun, as is the case with "And the Earth [נְהָאַבֶּרֶץ] was without form..." in order to show

when the actual sequence of the narrative begins, thus leaving the opening sentence ("In the beginning God made the heavens and the earth") as a title sentence. Instead, Ross claims that because the Hebrew grammar of Genesis 1:1 places the verb before the subject (that is, places "created" before "God"), this always means

... that biblical Hebrew establishes that a particular action has already been completed. Thus, Genesis 1:1 declares that the universe has a beginning and that its creation is a completed event... That is, the universe and Earth already are in place before the events of the six creation days.<sup>2</sup>

If we examine Ross' claim about the order of Hebrew words more closely, however, it does not exhibit what he is claiming above. The very next time that "created" and "God" are used in Scripture is Genesis 1:27, which says, "And God created the man in his own image." Identical to Genesis 1:1, the verb "created" comes first in the Hebrew sentence and "God" comes second. But if the grammar had put "God" first and "created" second it wouldn't have made a bit of difference. An entire man would have been created and as such it would have been a completed action, since man was not made in parts at different times. The same principle is true in other passages that have the perfect tense verb "created" before "God" and speak about the creation of man (e.g., Genesis 5:1; Deut 4:32). Moreover, some passages that have the perfect tense Hebrew verb "created" before "God" are referring to a future event, not yet accomplished (e.g., Jer. 31:22 "God created a new thing in the land, a woman shall enclose a man").

Since Ross desperately wants to squeeze the Big Bang into Genesis, he insists that "In the beginning God made the heavens and the earth" must mean the whole universe, including the sun, stars, the Earth. Since for Ross it was all created during the First Day, there is nothing else left to create. This will then force Ross to claim that the subsequent Days in Genesis, especially the Fourth Day which specifies that the sun, moon and stars were "made" at that time, were not actually made on the Fourth Day. Instead, Ross claims that there was a massive cloud which blocked the sun and stars from being seen on Earth prior to the Fourth Day. He claims that God then removed the cloud from the sky on the Fourth Day, which allowed the sun and stars to be seen on earth. For some reason it doesn't bother Ross that the Genesis text does not mention one word about "clouds" blocking sunlight.

All in all, Hugh Ross has a rather idiosyncratic way of interpreting Genesis. I don't know of any scholar, biblical or scientific, who holds his view. In the end, the Big Bang theory is his infallible guide, since he believes it is an indisputable scientific fact. To make it fit into Genesis, the only thing that can be altered is the text of Genesis. As such, Ross gives non-conventional meanings to words and phrases in the Hebrew, as well as adding elements to the narrative that aren't specified in the text (e.g., clouds to block light) and puts objects in

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<sup>&</sup>lt;sup>2</sup> Navigating Genesis, p. 32.

one Day that are specifically stated to be made on another Day (e.g., the sun, moon and stars). Suffice it to say, Galileo had the same problem when he tried to make his heliocentrism fit into Scripture.

**Hugh Ross (radio program)**: And in Genesis 1:3 we have the Earth. The Earth comes after the universe.

**R. Sungenis (added comments):** Once again, we see Ross defining and rearranging the text to suit the Big Bang theory. Even if were to permit Dr. Ross to say that the sentence "In the beginning God created the heavens and the earth in Hebrew refers to the entirety of physical reality," he has a big problem, since above he also says "the Earth comes after the universe." The contradiction is glaring. If he maintains that "heavens and earth" refer to "the entirety of physical reality," then the Earth must have been created at the same time as the heavens, not afterward. In effect Ross fails to abide by his own stipulations.

**Hugh Ross (radio program):** And I would take a different order of events in Genesis 1, that it begins with Light appearing for the first time on the surface of the Earth. If you look up the parallel texts in Job 38, it tells us why it was dark on the primordial Earth. It was dark because God had blanketed the Earth with clouds that wouldn't let the Light through.

**R. Sungenis (added comments):** Since Ross doesn't find any "clouds" in Genesis 1 to help with his "light obstruction" theory, he had to search for other passages that mention clouds in a creation context. He glommed onto Job 38:9, which says, "when I made clouds its garment, and thick darkness its swaddling band," and Ross concluded that it gave him the exegetical right to place "clouds" between the "darkness" of Genesis 1:2 and the creation of the "Light" in Genesis 1:3. That is, since Ross has already stated that the Light came when the "heavens" were created in Genesis 1:1, then he must posit a reason why there is "darkness" on the Earth. The "clouds" of Job 38:9 become his reason.

The first problem with Ross' interpretation is that the Genesis text says the "darkness" already existed before the Light was created. The second problem is that Dr. Ross can't demonstrate that Job 38:9 is speaking about why it was dark in Genesis 1:2. The context of Job 38:8-11 states:

8 Or who shut in the sea with doors, when it burst forth from the womb; 9 when I made clouds its garment, and thick darkness its swaddling band, 10 and prescribed bounds for it, and set bars and doors, 11 and said, 'Thus far shall you come, and no farther, and here shall your proud waves be stayed'?

First, since the passage specifies that the "sea" was "shut in with doors," this passage is speaking about the Second and Third Days of Genesis when God corralled the waters and separated them from the land. (On the First Day the water was one big mass around the Earth with no differentiation).

Second, although clouds are noted as existing during the Second or Third Days in Job 38:

- (a) this is most likely referring to the normal clouds that would form from evaporation of sea water, which we see even today,
- (b) there is nothing in the text of Job 38 that says these clouds would remain for eons of time Dr. Ross requires for his Big Bang interpretation of the text. As normal clouds, they could easily form and dissipate within hours;
- (c) the clouds of Job 38:8-11 are those that originate from the sea, that is, normal water vapor made up of H2O that rises by evaporation from the sea, not clouds required of Dr. Ross that are made up of methane and ammonia gas.

**Hugh Ross (radio program)**: And so on Day 1, the atmosphere becomes translucent. On Day 4 it becomes transparent.

R. Sungenis (added comments): Once again, the text says nothing about translucent versus transparent. It says that darkness surrounding the Earth and then God made the Light, "and there was evening and morning one day," that is, there was darkness and then there was light, all in one day. The most likely scenario is that, when God created the Earth, there were 12 hours of darkness. God created the Light at the end of the 12<sup>th</sup> hour, which provided Light for the next 12 hours. On the Second Day, the Firmament was created and was expanded, which means that it would have carried most of the water and the Light with it, but a residual amount of the water and Light was left to continue the 24-hour rhythm, at which time the Firmament would begin rotating with the Light around the fixed Earth. That the majority of the Light was expanded beyond the environs of Earth is most likely why Scripture continues to refer to the "Light" as still existing (e.g., Eccl 12:2; Psalm 148:3). Since the Firmament is called "the heavens" in Genesis 1:8, it is the completion of the description of the title that was introduced in verse 1, namely, "In the beginning God created the heavens..." In other words, Genesis 1:6-9 is telling us how the heavens mentioned in the title of verse 1 were created on Day 2.

**Hugh Ross (radio program):** And it explains why on creation Day 4, "Let there be the great lights so that they may be signs to make seasons, dates and years." And all the light after Day 4 needs to know where the sun, moon and stars are in the sky; the light previous to Day 4 does not.

**R. Sungenis (added comments):** Dr. Ross' emphasis on the Light "knowing" is superfluous. Ross is trying to say that time-keeping didn't really start until Day 4. But the text already told us three times that there was "evening and morning" for the first three days of Creation (verses 5, 8, 13), and this same pattern of "evening and morning" continues on Day 4 through Day 6 (verses 19, 23, 31). Hence, exact time was being kept throughout Creation week. For the first three days, time was kept by the Light; and the next three days it was kept by the sun, moon and stars. Of course, the reason Dr. Ross has trouble with having time-keeping present on the first three days is that he has no Light to keep time,

since it is obscured by clouds, not to mention that he believes the Light is really the Big Bang explosion carried out over billions of years.

Hugh Ross (radio program): I explain this in quite a bit of detail in my latest book, Navigating Genesis, where I actually analyze the definitions of the Hebrew words, and it's a little bit different than how Dr. Sungenis portrayed it a few minutes ago.

R. Sungenis (added comments): This is one of the more blatant errors that Dr. Ross makes, and I am surprised that no one has brought it to his attention since he seems to have been teaching the same error for several decades. He claims that the Hebrew word ASAH, which is the Hebrew word translated "made" in Genesis 1:16 ("and God made the two great lights... He made the stars also") is a past tense verb in Hebrew. Since it is a past tense verb, it can refer to anytime in the past. Let's observe what Dr. Ross says in his book, Navigating Genesis:

Verse 16 tends to cause confusion for readers who fail to recognize it as a parenthetical note, or a brief review....The Hebrew verb asa, translated "made," appears in an appropriate form for past action....Verse 16 makes no specification as to when in the past the Sun, Moon and stars were made. However, the wording of verses 17 and 18 does provide a hint....The echo of wording from day one (verses 3-5) is significant. It suggests both when and why God created the heavenly light. The mention of shamayim wa'eres (heavens and earth) in Genesis 1:1 places the existence of the Sun and stars before the first creation day; thus, the Sun was already in place to fulfill its role on the first creation day.<sup>3</sup>

Obviously, the reason Dr. Ross would like ASAH to be "an appropriate form of past action" is that he desperately needs grammatical license to claim that the sun and stars were made BEFORE the Fourth Day of creation, since his Big Bang exegesis of the Bible requires that all the celestial bodies were already in existence at the beginning of creation. But the crucial error Ross makes here is that ASAH in Genesis 1:16 is not a past tense verb in Hebrew. It is the Imperfect tense, which means it conveys only a present or future tense in Hebrew, and would thus mean, "and God was making the sun, moon and stars at that very day," or "God made the sun, moon and stars during the Fourth Day." The same present tense is used in verse 17 when it says "and God SET them in the expanse of the heavens to give light on earth," which tense requires that they were placed in the heavens on the Fourth Day, not in the past.

<sup>3</sup> Navigating Genesis, published 2014, p. 54.

<sup>&</sup>lt;sup>4</sup> For example, a popular Hebrew grammar states, "The imperfect aspect expresses action or state as unaccomplished, continuing, or customary. It corresponds generally to English present and future." Of the Hebrew perfect tense it states: "Each verb pattern has two aspects: the perfect and an imperfect. The perfect...denotes action that is completed and over with, or a state achieved and complete. It generally corresponds to English past tenses and is conventionally rendered by the English past..." (An Introduction to Hebrew, Moshe Greenberg, pp. 49, 45-46)

But in Ross' case, it seems clear to me that he knew exactly what he was doing when he avoided the past tense of ASAH. He knew that his whole theory would be falsified if ASAH was not a past tense verb, and thus it appears he had the intent to mislead. For if one reads Ross' books one notices that he consistently provides a meticulous conjugation of Hebrew verbs whenever he is analyzing a text. For example, on page 32 of *Navigating Genesis*, Ross quotes from a Hebrew grammar regarding Genesis 1:1, which says, "The verb created in Genesis 1:1 is in the perfect, and the normal use of the perfect at the very beginning of a pericope is to denote an event that took place before the storyline gets under way." Obviously, then, Ross knows the difference between a Hebrew perfect tense and a Hebrew imperfect tense. He would thus know that the former refers to the past and the latter refers to the present or future. Hence Ross would have also known that ASAH in Genesis 1:16 is not a perfect tense that denotes the past but is an imperfect tense denoting the present or future. In other words, ASAH cannot be the "appropriate form of past action" that he claimed it to be. That Ross would allow this crucial grammatical fact to continually appear unchecked in his books is unconscionable.

Instead, Ross tries to convince us that Genesis 1:16 means only that the sun and stars finally "appeared" in the sky because God took a cloud away on the Fourth day so we could see them. But there were plenty of Hebrew words the Hebrew author could have used to render that kind of meaning. Obviously, he didn't, and thus wanted us to understand that God actually created the sun, moon and stars on the Fourth Day, not on the First Day.

Unfortunately for Dr. Ross, this error is fatal to his whole thesis. If the sun, moon and stars of the Fourth Day cannot be the Light that existed on the First Day, then everything Ross has written about Genesis 1 and Creation is categorically wrong. These passages have also been a perennial problem with modern exegesis of Genesis 1. Both modern Catholic and Protestant exegetes consistently conflate the Light of Day 1 with the sun moon and stars of Day 4, and thereby destroy the whole text of Genesis 1.

## Topic: Does Earth Need to be in the Geographic Center to be Very Special?

Robert Sungenis (radio program): Well, I think there is a knee-jerk reaction that occurs when people hear the idea that the Earth may be in the actual center of the universe, because they have been taught since childhood that that's just not the case, ever since Copernicus changed our minds about that 500 years ago. So I would just return the question. I would say, "Well, why can't the Earth be in the geocentric center?" Why does it just have to be some kind of ideological center or religious center? That's not what the Bible says. It says more than that.

**Hugh Ross (radio program):** Because our observations tell us that it is not. My critique of the movie is that it is overlooking clear evidence that tells us that the Earth is in no way in a geographically favored position or center of the universe.

**R. Sungenis (added comments):** Again, Dr. Ross merely makes assertions of what he believes but gives no evidence of why he believes it. If he is here referring to the CMB Dipole, he cannot use that as proof since he hasn't proved that the Dipole is caused by solar motion. In fact, if Dr. Ross can provide just one indisputable proof against a motionless Earth, he will win the debate and I will give him the \$1000 still standing from my challenge posted over 10 years ago, and I will thank him from relieving me of this responsibility.

**Hugh Ross (radio program):** We are in a favored position for our ability to exist on our planet in a technological state. We are in a favored position in terms of our observability, but we are certainly not in any central geometric position in the universe. If we were, light wouldn't be possible on planet Earth. So the very fact that we are having this discussion on the phone tell us that we are not in a geographic or geometrical position in the universe. That would actually rule out the possibility of light.

**R. Sungenis (added comments):** I don't know what Dr. Ross is referring to. This is another occasion that he asserts something without explaining or giving evidence. Perhaps it has something to do with the next topic of discussion below.

# Topic: How can we see galaxies that are said to be millions of light years away?

Robert Sungenis (radio program): Let me just back up a little bit and say where that originated from. That is from Einstein's Special Relativity theory that says light can only go 186,000 miles per second. His General theory of Relativity, however, says just the opposite. It says light can go any speed. People don't know this but there is a blatant contradiction between those two theories. So even if we use modern science's version of physics, General Relativity, which is what is used basically to make the Big Bang theory, light can go any speed. As a matter of fact, any material object can go superluminal speeds. So there is no limit, according to modern science.

**Hugh Ross (radio program):** There is definitely a speed limit to the universe. There's got to be in order for light to be possible. That is one of the characteristics of the fine-tuning of the universe – that the velocity of light must take a particular value and can't vary over the history of the universe.

**R.** Sungenis (added comments): Again, Ross makes mere assertions without giving any reason or evidence for them. If a limit on light is necessary for light to exist, why? Ross doesn't say. Ross believes light has a speed limit because Einstein said so in his Special

Relativity theory; and Ross believes Einstein's Relativity runs the universe. Since in his Special Relativity theory Einstein took away the ether that was believed to compose all of space, this left a vacuum in space. Since the vacuum would be the same everywhere in the universe, then light would have to travel the same speed in outer space as it does near the Earth.

But Einstein's dismissal of ether was wrong, since all the experiments that tested for ether found ether. But since these experiments didn't find enough ether to account for an Earth moving around the sun at 66,000 mph, Einstein claimed they didn't measure ANY ether and called the results "null." He was highly motivated to do so because his Special Relativity theory would require the presence of no ether. If there was just a tiny bit of ether, his Special theory would have been nullified.

The upshot is this: the speed of light depends on the medium in which it travels, and the speed it travels in the medium depends on the tension and density in the medium. Since Einstein had no medium for light, light always had to go the same speed. But since ether exists, then Einstein is wrong. As a result, any fundamental constant that attempts to base itself on a constant speed of light throughout the universe is necessarily wrong. The only place light has been measured to be fixed at 186,000 miles per second is here on Earth, and even then there have been many doubts about its speed on Earth.

**Hugh Ross (radio program):** And there is no contradiction between Special Relativity and General Relativity.

**R. Sungenis (added comments):** Well, let's see. Special Relativity says that the speed of light is limited, but General Relativity says it is not limited. Special Relativity says everything in the universe is in motion, but General Relativity says either the Earth rotates in a fixed universe, or the universe rotates around a fixed Earth. Also, gravity and inertial forces don't affect answers to Special Relativity equations, but they do affect General Relativity equations. Here are some quotes which verify my contentions.

"In the second place our result shows that, according to the general theory of relativity, the law of the constancy of the velocity of light in vacuo, which constitutes one of the two fundamental assumptions in the special theory of relativity and to which we have already frequently referred, cannot claim any unlimited validity. A curvature of rays of light can only take place when the velocity of propagation of light varies with position. Now we might think that as a consequence of this, the special theory of relativity and with it the whole theory of relativity would be laid in the dust. But in reality this is not the case. We can only conclude that the special theory of relativity cannot claim an unlimited domain of validity; its results hold only so long as we are able to disregard the influences of gravitational fields on the phenomena (e.g., of light)." (Albert Einstein, Relativity: The Special and General Theory, 1920, p. 76).

A book on General Relativity spells it out even more descriptively. Notice that he says the stars can rotate around the Earth at superluminal speeds:

"Relative to the stationary roundabout [the Earth], the distant stars would have... linear velocities exceeding  $3 \times 10^8$  m/sec, the terrestrial value of the velocity of light. At first sight this appears to be a contradiction... that the velocities of all material bodies must be less than c [the speed of light]. However, the restriction  $u < c = 3 \times 10^8$  m/sec is restricted to the theory of Special Relativity. According to the General theory, it is possible to choose local reference frames in which, over a limited volume of space, there is no gravitational field, and relative to such a reference frame the velocity of light is equal to c.... If gravitational fields are present the velocities of either material bodies or of light can assume any numerical value depending on the strength of the gravitational field. If one considers the rotating roundabout as being at rest, the centrifugal gravitational field assumes enormous values at large distances, and it is consistent with the theory of General Relativity for the velocities of distant bodies to exceed  $3 \times 10^8$  m/sec under these conditions. (An Introduction to the Theory of Relativity, William Geraint Vaughn Rosser, 1964, p. 460).

**Hugh Ross (radio program):** Now, where you can get faster than light movement is on the space surface of the universe.

**R. Sungenis (added comments):** So something can, indeed, go faster than light in Dr. Ross' universe. It's called "space surface." Dr. Ross makes this exception without even a notice to his audience that he just violated the Special Theory of Relativity, a theory by which he claims to abide. Notice also that Ross does not tell us what "space surface" is. We are merely supposed to accept this apparent violation of a speed limit because Dr. Ross says that space must travel faster than light.

Why is Dr. Ross forced to make this exception? Because, based on his interpretation of 1A supernovas as his measuring stick for the expansion rate of the Big Bang universe, it requires him to hold that the universe is expanding way beyond the speed of light. If so, then he has no choice than to allow space to expand faster than light, even though we aren't told what "space" is. In other words, Dr. Ross' universe is full of contradictions, but he pretends they don't exist. After all, every cosmological theory is allowed at least some contradictions, no?

**Hugh Ross (radio program):** So yes, with Dark Energy there will come a time in the future when the farthest reaches of the space surface of the universe will move faster away from us than the velocity of light. But that is the space surface of the universe.

**R. Sungenis (added comments):** Dr. Ross threw in "Dark Energy," but didn't explain its relevance. The relevance is this: since Dr. Ross and his Big Bang followers believe in a superluminal expanding universe, there must be some great energy that fuels the

acceleration. It is conveniently called, "Dark Energy." But here is the problem that Dr. Ross doesn't reveal: THEY HAVEN'T FOUND ANY SUCH ENERGY. It is simply invented out of thin air because the Big Bang believers need it to fuel their theoretical expansion. They can't tap into Quantum Mechanics because that gives them 10^120 too much energy. They can't tap into the baryonic energy or matter in the universe, since that only provides 4% of what they need. Consequently, they are forced into Alice in Wonderland physics and just make it up as they go along, hoping that someday they will find the "missing" energy.

**Hugh Ross (radio program):** Relativity still tells us that it is impossible for an object to be accelerated beyond the velocity of light in a vicinity that is closer. So if you take away the space surface of the universe, then Relativity still holds, and Relativity has always claimed.

R. Sungenis (added comments): So now Dr. Ross revises the limit of light speed set by Einstein in Special Relativity to "the velocity of light in a vicinity that is closer." But Einstein held that the speed limit of light was universal, so we have yet another contradiction. But to patch up this contradiction, Dr. Ross proposed that we "take away the space surface of the universe, then Relativity still holds." Apparently, then, Relativity does "not hold" regarding the "space surface" of the universe. What does hold? I presume anything Dr. Ross wants to hold. He hasn't given us the physics for "space surface expansion." Why Dr. Ross simply didn't invoke General Relativity to explain it is a puzzle, since other physicists have done so. But, of course, if Dr. Ross had attributed the superluminal expansion of the Big Bang to General Relativity, he would be proving the point I made in the radio program that General and Special Relativity contradict each other.

**Hugh Ross (radio program):** And by the way, Special and General Relativity rank as the most exhaustively tested and best proven principles in all of physics.

**R. Sungenis (added comments):** No, that is merely a myth created by the modern science establishment that seeks to promote Albert Einstein as the premier scientist of the known world. As noted above, Special Relativity was invented in order to answer all the interferometer experiments that showed the Earth was standing still in space. Einstein's Special theory was invented to give the illusion that the Earth was still moving. Consequently, the world hailed him as the greatest scientist ever known, for he rescued the world from having to bow at the feet of the Catholic Church who all along had stated that the Earth wasn't moving. If Einstein is falsified, then the world has no answer to all the experiments that show the Earth isn't moving. So the world has great incentive to prop up Einstein no matter how contradictory his theories become in the face of the empirical evidence.

**Hugh Ross (radio program):** And it's because of such proof for General Relativity that we now know beyond any shadow of a doubt that there must be a causal agent beyond space and time that created the universe.

**R. Sungenis (added comments):** Likewise, there is no "proof" for General Relativity. All the so-called proofs of years prior (e.g., Mercury's perihelion, the bending of light near the sun, the Hefele-Keating experiment) were all fudged to make them fit Einstein's equations. You can read all about it in my book *Galileo Was Wrong*, Vol. 2, 10<sup>th</sup> edition, in the Appendices. The only reason General Relativity came into being is because Einstein didn't add gravity into his theory of Special Relativity. But the irony is, once Einstein added gravity to make General Relativity, it allowed the speed of light to exceed the limit enforced in Special Relativity, and also allowed the Earth to be the center of the universe with the latter revolving around the former. In effect, Einstein was hoist by his own petard.

**Hugh Ross (radio program):** So General Relativity and Special Relativity are the friend of the Christian, not the enemy of the Christian faith. It's the best thing that's happened to us for establishing that there must be a God beyond time and space that created everything.

**R. Sungenis (added comments):** Since they are both contradicted theories, they are lies, and thus cannot be the "friend of Christian," and consequently, neither are those who promote them.

Robert Sungenis (radio program): General Relativity allows for both an Earth rotating in a fixed universe as well as a fixed Earth with a universe rotating around it. Either one is correct, according to General Relativity. So if you take the latter one, where the Earth is fixed and the universe is rotating around it, well, you have a lot of centrifugal force the further you go out. And the more centrifugal force you have, the faster the speed of light is going to be, according to the equations of General Relativity. So here you have the perfect scenario for the geocentrist. You have a rotating universe that increased in centrifugal force the further you go out, and so the speed of light can get faster and faster the further it goes out. So there is no problem from our perspective. As far as General Relativity and Special Relativity, they do contradict one another, because one says light can go faster and the other says it can't go faster, it's limited. So there is a contradiction there. It's not just space that is supposed to be expanding beyond c. Light and everything else... I beg Dr. Ross to go and examine the General Relativity principles because that's what they say. I've read all about it. And I have it footnoted in my book. So he can read it. As a matter of fact, Special Relativity was created in 1905 by Albert Einstein as an answer to all the experiments that were done in the 1800s that showed the Earth wasn't moving in space. Science had to come up with something. So what they did was make light the limit, and made that unmoveable, so to speak, in its speed, and let the Earth move. That's the history behind this whole thing. So there is a long story we probably can't get into now but that's what we have in our book.

**R. Sungenis (added comments):** For those interested in knowing this sordid history, please pick up a copy of the short version in my book, *Geocentrism 101*, of the long version in the three volumes of *Galileo Was Wrong*. Both are available at Amazon or our website at robertsungenis.com.

#### A More Detailed Critique of Hugh Ross:

Although there are many Bible Christians today who have sought to establish a scientific cosmology and cosmogony based on the opening words of Genesis, they invariably distort these same Scripture passages due to the scientific presuppositions they bring to it. Scripture does not teach heliocentrism, relativity, or evolution, yet various modern Christian exegetes invariably force these unproven beliefs into the words of Holy Scripture. One advocate and prolific spokesman for such modern exegesis is Hugh Ross.<sup>5</sup> Although Ross is more consistent to his own principles of biblical exegesis than someone like Russell Humphreys, this often leads him to even more erroneous interpretations, since Ross is more confined by his hermeneutic to meld atheistic science's beliefs into the theism of Scripture.

For example, in Ross' view, the battle for cosmogony today is limited to the Big Bang versus the Steady-State theories. Since the Big Bang offers Ross a "beginning" to time, whereas the Steady-State model holds there is neither a beginning nor an end to the universe, logically, with only these two options at his disposal Ross feels compelled to defend the Big Bang, and consequently he interprets Genesis 1-2 exclusively from that single scientific perspective. Consequently, as we will see, he ends up with a significant number of forced interpretations.

Ross begins by affirming his belief in Copernican cosmology. As he sees it:

Arguably the most famous example of misapplication of the scientific method was the Roman Catholic Church's rejection of Galileo's heliocentric (sun-centered) theory of the solar system.<sup>6</sup>

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<sup>&</sup>lt;sup>5</sup> Some of Ross' works include: The Fingerprint of God: Recent Scientific Discoveries Reveal the Unmistakable Identity of the Creator, California: Promise Publishing Co., 1989, 1991; Creation and Time: A Biblical and Scientific Perspective on the Creation-Date Controversy, Colorado: NavPress, 1994; Beyond the Cosmos: What Recent Discoveries in Astronomy and Physics Reveal about the Nature of God, Colorado: NavPress, 1996; The Creator and the Cosmos: How the Greatest Scientific Discoveries of the Century Reveal God, Colorado: NavPress, 1993; The Genesis Question: Scientific Advances and the Accuracy of Genesis, Colorado: NavPress, 1998.

<sup>&</sup>lt;sup>6</sup> The Genesis Question: Scientific Advances and the Accuracy of Genesis, Colorado: NavPress, 1998, p. 189. In another place Ross primes his reader to consider an Earth-centered cosmos as an example of "Bible Illiteracy," following with: "...I have heard professors assert before scholarly audiences that the Bible teaches a flat Earth geocentrism (placing the Earth at the center of our solar system or the universe)..." (ibid., p. 15). Ross' subtle yet deliberate attempt to bond "flat Earth" advocates and geocentrism (even though he conveniently blames it on "professors") is typical of the scientific demagoguery he uses in most of his books to persuade people to his Big Bang/Relativistic viewpoint. With just a little open-minded study, Ross could have learned quite quickly that the Fathers of the Catholic Church all believed in a spherical Earth, even though they were all firm believers in geocentrism. As even Stephen Gould admitted: "There never was a period of 'flat Earth darkness' among scholars (regardless of how many uneducated people may have thus conceptualized out Earth both then and now). Greek knowledge of sphericity was never lost, and all major medieval scholars accepted the Earth's roundness as an established fact of cosmology" ("The Persistently Flat Earth," Natural History, March 1994, p. 14). Similarly, Jeffrey Russell, in Inventing the Flat Earth, Praeger Paperback, 1997, reveals that neither Christopher Columbus nor his contemporaries thought the Earth was flat. Unfortunately, since the late 1800s this falsehood is perpetuated in academia and in the media today in order to create the perception that the medieval period was scientifically illiterate.

Ross has a somewhat freewheeling interpretive methodology that, although claiming to be faithful to the text, in actuality exhibits a faithfulness that is defined by Ross' commitment to the Big Bang theory, not a commitment to a thoroughgoing literal interpretation of Genesis. This foundation in his thinking comes from Ross' own words:

By the time I turned sixteen, I had studied enough cosmology to become convinced that of all the origins models ever proposed, the big-bang model best fit the observational data. Soon after my sixteenth birthday, the implications of that model began to dawn on me. Without consciously doing so, I took a huge philosophical and spiritual step.... I understood that the big-bang meant an expanding, "exploding" universe. I agreed with Einstein that an exploding universe can be traced back to an explosion, a beginning. If the universe had a beginning, it must have a Beginner. The big-bang theory implied that a Creator exists.<sup>7</sup>

In one sense, Ross is correct, since the idea of a "beginning" is the very reason that Stephen Hawking has recently distanced himself from the Big-Bang theory<sup>8</sup> (and which, we suspect, a lot more secular scientists will do in the coming years, especially since the flaws in Big Bang cosmology are almost appearing daily in the scientific journals and secular newspapers). Still, Ross remains a die-hard advocate of the Big Bang, more or less denouncing anyone who rejects the theory as scientifically and biblically illiterate. We submit, however, that Ross' interpretation of Genesis consistently attempts to foster a meaning and motivation on the text that is totally foreign to what is plainly stated by its inspired words. For example, Ross writes:

Scientifically, the movement of the sun across the sky could be the result of the sun moving relative to the Earth or the Earth relative to the sun. Biblically, the "foundations of the Earth" indeed are "immovable" in spite of any revolution of the Earth about the sun or rotation of the Earth about its axis because the Bible verses making such statements always are from the perspective, or point of view, of an observer on the surface of the Earth.<sup>9</sup>

The operative word in Ross' analysis is "relative." Having already accepted Einstein's Relativity as the foundation from which to view the world, it is easy for Ross to appear "scientific" as he fosters the idea that biblical language can mean either the Earth moves relative to the sun or vice-versa. To Ross there is no contradiction in such opposite propositions, since he has already made the Big Bang and Relativity the foundation upon which he stands, and he does his best to convince the reader that the biblical language allows this kind of interpretation. In fact, to support his thesis, Ross delves deeply into the Hebrew text seeking to discover its original meaning, but unfortunately his conclusions are

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<sup>&</sup>lt;sup>7</sup> The Genesis Question: Scientific Advances and the Accuracy of Genesis, pp. 10-11.

<sup>&</sup>lt;sup>8</sup> A Brief History of Time, p. 100ff.

<sup>&</sup>lt;sup>9</sup> The Genesis Question: Scientific Advances and the Accuracy of Genesis, p. 189.

always shaded by what he has already convinced himself is the only possible answer. For all his lexical analysis of Hebrew words, one of the main things Ross fails to see is that the Hebrews who wrote Genesis 1 did not assign the meanings to its words that Ross so desperately wants to attach to them. The writers of the Hebrew text, as is well known among biblical scholars and historians, understood the Hebrew words of Genesis to be teaching an Earth-centered cosmos that was created in six literal days, since that is obviously the plain meaning of the Hebrew words. They did not speak of "relative" perspectives or "points of view," since to them nothing was relative and there was only one point of view – the correct one. Ross attempts to sprinkle his analysis with qualifications and disclaimers that attempt to convince the reader that the Bible

...stands apart, and dramatically so. From the first page I could see distinctions. The quantity and detail of the scientific context far exceeded what I found in the other books. To my surprise, the scientific method was as clearly evident in Genesis 1 as it is in modern research.... I calculated the odds that the writer could have guessed the initial conditions and correctly sequenced the events... and I discovered that the odds are utterly remote... <sup>10</sup>

But in the end, it appears that what Ross respects more is his self-attested ability to mold the Genesis text into his own scientific presuppositions, and then he congratulates himself by asking the reader to marvel at what an accurate piece of literature Genesis turns out to be. Although his enthusiasm for the biblical text certainly shines through, it is an enthusiasm that actually gets in the way of the biblical text rather than explicating it more clearly. In brief, Ross simply makes an eisegesis out of the text from what his scientific presuppositions desire to see.

Case in point: Since he is aware that Genesis 1 specifies the existence of the Earth on the First Day of Creation but reserves the appearance of the sun and stars to the Fourth Day, Ross needs some exegetical basis for positing that the Big Bang occurred before the appearance of the Earth. Although Ross does not succumb to the temptation common among other biblical enthusiasts (*e.g.*, those who claim that the clause "And God said, Let there be light" refers to the Big Bang, which causes an obvious conflict with the fact that the Earth was in existence before the "light" was called into being), "Ross decides that the opening sentence of Genesis 1:1 will suffice for the task. He writes:

Hashamayim we ha'erets ("heavens" plural and "Earth" singular with the definite articles and the conjunction) carries a distinct meaning, just as the English words "under" and "statement" or "dragon" and "fly" put together as compound nouns take on specific meanings. Hashamayim we ha'erets consistently refers to the totality of the physical universe: all of the matter and energy and whatever else it contains. All of the stars, galaxies, planets, dust, gas, fundamental particles,

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<sup>&</sup>lt;sup>10</sup> The Genesis Question: Scientific Advances and the Accuracy of Genesis, 1998, pp. 11-12.

<sup>&</sup>lt;sup>11</sup> As proposed, by Professor Dermott Mullan, astrophysicist at the University of Delaware, (letters on file).

background radiation, black holes, physical space-time dimensions, and voids of the universe – however mysterious to the ancient writer – would be included in this term.<sup>12</sup>

So that we don't falsely accuse Ross, we need to see his further development of this particular interpretation before we comment. Two paragraphs later he explains even more clearly his intention:

New scientific support for a hot big-bang creation event, for the validity of the space-time theorem of general relativity, and for ten-dimensional string theory verifies the Bible's claim for a beginning. In the final decade of the twentieth century, astronomers and physicists have established that all of the matter and energy in the universe, and all of the space-time dimensions within which the matter and energy are distributed, had a beginning in finite time, just as the Bible declares.<sup>13</sup>

In other words, Ross has firmly sealed in his mind that two theories, Relativity and String Theory, have been proven beyond much doubt, and thus, as he puts it, this evidence "verifies the Bible's claim for a beginning." Ross is so enthused that these modern cosmologies start with a "beginning" that it doesn't really matter to him just what *kind* of beginning the two theories propose, or even if the beginning of one is different than the beginning of the other. In an ironic sort of way, Ross reverses the common cliché "the end justifies the means" to "the beginning justifies the end."

Let's examine his claims a little closer. In regard to Gn 1:1, biblical exegetes normally haggle over whether the opening sentence ("In the beginning God created the heavens and the Earth") is merely an introductory statement of all that follows in vrs. 2-31, or an actual statement of fact that the heavens and the Earth were created prior to the objects created in vrs. 2-31. The closer to Ross' view is the latter. Ross depends on this interpretation, obviously, since he must have the Big Bang placed chronologically prior to anything else in the narrative. But this presents a serious problem for Ross. By claiming that the clause "God created the heavens" refers to "All of the stars, galaxies, planets..." this means that the Genesis writer's detailed description of the creation of the stars and sun on the Fourth Day (Gn 1:14-19) is either superfluous or does not refer to an actual creation of the stars and sun. More specifically, it means that as the Genesis writer specifies these heavenly bodies were "created" on the Fourth Day, not the First Day, Ross insists that this information simply cannot be interpreted literally. Ross must then change the normal denotation of the Hebrew words to mean something other than a creation of the sun and stars.

As an aside, Ross' type of interpretive methodology could lead to the proposition that even the remaining Days of Genesis 1 do not require a literal interpretation (although Ross is not

<sup>13</sup> *Ibid.*, p. 21.

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<sup>&</sup>lt;sup>12</sup> The Genesis Question: Scientific Advances and the Accuracy of Genesis, 1998, p. 20.

guilty of this himself). For example, one could argue, based on Ross' line of reasoning, that since the Fourth Day is not an act of creation, then the firmament was not created on the Second Day; the plants were not created on the Third Day; and the birds, fish, animals and man were not created on the Fifth and Sixth Days, respectively. In fact, there would be little to stop someone from concluding that there is anything in the narrative we can take at face value.

Ross, however, wants to be a bit more discriminating concerning the things he applies to the "heavens and the Earth" since, although he asserted that "the heavens" includes all the "matter and energy" in the universe, he did not say that it included the plants, fish, fowl, animals and man. Perhaps Ross sees "the heavens" as completely stocked with its essential ingredients on the First Day but the Earth has, as yet, to be furbished. But this also presents a problem, since Gn 1:1 suggests no such imbalance in the constitution of heaven and Earth. Based on its simple wording, Ross cannot claim that the heavens are complete but the Earth is incomplete; not, at least, without imposing his personal view on the text. <sup>14</sup>

The problems continue to mount for Ross. Once he commits himself to what he believes is a literal interpretation of the words of Gn 1:1, then, to be exegetically fair with the text, he should interpret Gn 1:2-31 in exactly the same fashion. Unfortunately, he cannot do so because he has already presupposed that the sun and stars were created on the First Day as opposed to the Fourth Day.

Accordingly, now is the crucial point in whether Ross' whole approach to melding Scripture and modern cosmology will survive. This is precisely why Ross covers this particular subject (the creation of the sun and stars) in the opening pages of his book, for without a satisfactory solution to the apparent contradiction between the First Day and the Fourth Day, he knows he will be building on sand. In fact, if Ross cannot provide a convincing answer, then every book that he has written on this subject is virtually worthless, since they are all based on the same premise. So does Ross have a solution? Well, he has what he believes is the clinching argument. Titled: "A Crucial Shift," Ross explains his exegetical rationale in the next paragraph:

The frame of reference, or point of view, for the creation account suddenly shifts in Genesis 1:2, from the heavenlies that make up the entire physical universe to the surface of planet Earth. For whatever reasons, perhaps because it comes so abruptly, most readers – even scholarly commentators – miss the shift. I am

<sup>14</sup> References to the creation of the "heaven and Earth" appear many times in the Old Testament, but in each case

Earth are said to pass away at the same time (Mt 5:18; 24:35; 2Pt 3:10). The heavens may also refer to the angels and their abode, as is suggested by such passages as Dt 30:19; 31:28; Ps 69:34 [68:35]; 115:15 [113:15]; Ap 12:12).

there is no stipulation that the heavens contained their complete adornment prior to the Earth's, or that Genesis 1:1 suggests some type of chronological priority for the heavens over the Earth. Rather, the heavens, as well as the Earth, await their material constitution in the remaining six days (*cf.*, Ex 20:11; 31:17). In fact, the heavens and the Earth are often addressed separately from the material bodies subsequently added to them (*e.g.*, Ps 146:6 [145:6]; Ac 4:24; 14:15; Cl 1:16; Ap 10:6; 14:7). There is never a reference in Scripture to the heavens being created first and the Earth second (*cf.* 2Kg 19:15; 2Ch 2:12; Ps 121:2 [120:2]; 124:8 [123:8]; 134:3 [133:3]; Is 37:16). The heavens and the

convinced that my absorption in science prepared me to see it. In fact, I was struck with amazement that this ancient document actually is structured like a modern research report.... In each case the passage identifies the reference frame (or viewpoint) from which events are described, the initial conditions, a chronology, a statement of final conditions, and some conclusions about what transpired.<sup>15</sup>

Thus, in Ross' interpretation of the text, the Genesis narrator is said to be following the "scientific method" such that he establishes the correct interpretive scheme by making a specific statement regarding the all-important "reference frame" from which he speaks. But is Gn 1:1 really a "reference frame," or is it just a plain statement about certain actions that occur? If both the "heavens" and the "Earth" are mentioned, then there is no attempt to impose a specific "reference frame" on the text, since what is being created are two viewpoints, one from heaven and one from Earth, not merely the heavens. If the passage had said something similar to the following: "In the beginning God created the heavens, and then he created the Earth," or "In the beginning God created the heavens, and after that was completed he created the Earth" Ross might have an argument since the text would be clear that the heavens were created first and thus would serve as the primary reference frame. But the text of Gn 1:1 insists otherwise. This is evident by the fact that Gn 1:2 continues its description of events based on the fact that the Earth now exists, and thus we are then given more information as to its condition such that the narrator adds the appropriate contiguous wording: "and the Earth was without form and void, and darkness was upon the face of the deep." Consequently, there is no particular "reference frame," and thus there is no "crucial shift" between Gn 1:1 and 1:2. If anything, there is a flow of thought since the waw-disjunctive of the original Hebrew ("and") that begins Gn 1:2 makes the continuity clear. 16

We must also point out that if the text announces in Gn 1:1 that the Earth was created, yet insists in the remaining account that it needs to be furbished because it was initially made "without form and void and darkness on the face of the deep," then it only makes sense that "the heavens" have neither been created as yet nor have received the accessories that will make its abode functional. Needless to say, on the very same Day, the First Day, God says, "Let there be light" (Gn 1:3). This is not a light that is generated by the Earth, and thus it must have its origin somewhere above the Earth's surface, in order for it to provide the "evening-morning" sequence stipulated at the end of Day One ("and there was evening

<sup>&</sup>lt;sup>15</sup> The Genesis Question: Scientific Advances and the Accuracy of Genesis, 1998, p. 21.

<sup>16</sup>Gn 1:2 begins with the Hebrew waw-disjunctive or what is also known as a waw-explicative (פְּהַאָּהַה), wherein a waw is placed before a noun, as opposed to a waw-consecutive which places the waw before a verb. The waw-disjunctive of Gn 1:2 represents a continuation of thought from Gn 1:1, not a change in scene or perspective. As such Gn 1:1 is a titular or introductory statement for the chapter, consequently leaving the earth independent of the heavens until the heavens are introduced in Gn 1:8 under the title "firmament" that is created on the Second Day (Gn 1:6-7). The waw-disjunctive thus makes vrs. 1-5 describe the earth existing by itself for a whole day, and subsequently have the heavens come into being in vrs. 6-9 on the Second Day. Interestingly enough, Scripture never refers to the Earth as being "in the heavens," but always independent of the heavens.

and morning day one"). Likewise, on the Second Day, God creates the firmament, a mysterious substance that has the ability to divide and form a barrier between massive amounts of water. Although some of this water remains on Earth, the remainder, according to the text, is sent to a place above the firmament or heavens (Gn 1:6-9). That the firmament is the ornamentation of the heavens, not the Earth, is noted by the fact that Gn 1:8 says, "God called the firmament the heavens." The final furbishing of "the heavens" comes on the Fourth Day, wherein the sun, moon, and stars are created. All in all, the account is seamless. After the heavens and the Earth are created, both are still missing their most vital parts, that is, the parts that will make them functional and which will cause the heavens and the Earth to cooperate with one another and share each other's commodities. Thus, whatever "scientific" paradigm Genesis 1 is following, it is certainly one that neither creates preferred "reference frames" nor makes dramatic shifts in its historical account.

Consequently, Ross' thesis does not hold. Gn 1:1 does not, in any sense, describe a primordial explosion commonly dubbed "the Big Bang." If read in its plain sense, there is, indeed, a primordial birth, but it is the Earth which awaits its adornment scheduled for the remaining hours of the First Day, and the subsequent fixtures added from the Second through the Sixth Days.<sup>18</sup>

Once again, if one is going to commit himself to a literal interpretation of Genesis 1, he must acknowledge that the Earth was created before the other heavenly bodies, e.g., the sun and stars. That being the case, the Genesis writer gives us an Earth-centered cosmos around which all the other celestial bodies will be situated. Scientifically speaking, it only makes sense that the Earth cannot be revolving around a sun or have its day/night sequence caused by a sun that will not yet exist for three days. According to the text, the only entity moving is the Spirit (who is hovering over the waters), not an Earth in rotation. In the midst of the Spirit's movement the light is created, which, because of light's nature, also moves, and the Spirit is thus directing the light and causing the day/night sequence.

Suffice it to say, since Ross has committed himself to the stipulation that the celestial functions were already in progress in the opening moments of the First Day, this leads him to give a somewhat pedantic list of scientific processes that must be strung together in order to provide his reader with some semblance of logic to his already convoluted exegesis of Genesis 1. At one point Ross is hypothesizing about an atmosphere so thick around the Earth that light becomes impenetrable, which suddenly disappears because "a body at least the size of Mars... possibly twice as large, made a nearly head-on hit and was

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<sup>&</sup>lt;sup>17</sup> The Hebrew uses the plural שׁמִים ("the heavens") in Gn 1:8, the same as it does in Gn 1:1.

<sup>&</sup>lt;sup>18</sup> What is also neutralized by Ross' failure to support his foundational interpretation of Gn 1:1 is his attempt to support theistic evolution or progressive creationism since, if there is no break between the creation of "the heavens" and "the Earth," then there is no time for a development of the cosmos on an evolutionary time scale. Moreover, without a cosmic evolutionary time-scale, there cannot be a geologic evolutionary time scale, since one depends on the other.

absorbed, for the most part, into Earth's core." Indeed, these kinds of wild concoctions and unproven theories permeate Ross' books. One's head is swimming with speculation after speculation in Ross' account of what may, or must, have happened in the past in order to account for how everything should fit together in the present.

For economy of space we will analyze just one of the Days for which Ross provides a subsequent interpretation – the Fourth Day. Ross writes: ""On Creation Day Four, the sun, the moon, and the stars became distinctly visible from Earth's surface for the first time." Immediately we see the twisting of the text that is going to pervade Ross' interpretation in order to make his Big Bang theory fit. We now see that in order to compensate for his confinement of "all the stars, galaxies, planets, dust, gas" to the opening line of Genesis 1, Ross must now turn what has been traditionally understood as the actual creation of the sun and stars on the Fourth Day (and what the Hebrew writer himself believed) into a mere unveiling of what Ross says are already-present celestial bodies. According to Ross, these celestial bodies become visible on the Fourth Day because of the removal of a dense cloud that was already present due to the primordial condition of the Earth. Apparently, even though the above-described collision with the Mars-like planet cleared some of the dense atmosphere from the Earth, according to Ross it did not remove enough to allow an Earthbased observer to see the disc of the sun or the twinkle of the stars (although Ross conveniently adds that there was at least enough filtered sunlight to allow the process of photosynthesis for the plants created on the Third Day).<sup>20</sup> Of course, all of Ross' hypothesizing is predicated on his insistence that the account is written from an "Earthly frame of reference," yet he fails to reconcile this hypothesis with the fact that there is yet no one on Earth to view the sun and stars as they peek their way through the clouds. That, of course, will not occur until the Fifth or Sixth day.

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<sup>&</sup>lt;sup>19</sup> The Genesis Question: Scientific Advances and the Accuracy of Genesis, 1998, p. 32. In his other books, Ross assumes as proven many scientific theories that are still in dispute. For example, Ross claims: "Despite the obsession of many scientists - and even some theologians - to avoid the dramatic conclusion of an expanding universe, no substitute explanation has ever been put forward to account for the red shifts of distant galaxies. All tentatively proposed alternatives have been easily struck down" (The Fingerprint of God, pp. 82-83). Either Ross has been selective in his reading of the redshift controversy, or the modern science establishment has led him to believe that alternatives to equating redshift to distance and speed have been "easily struck down." According to the literature, the only way the alternatives have been dismissed is by suppression of the evidence. Scores of books have been written on this issue, and at the least, Ross should have the intellectual honesty to alert his reader to these sources, especially since his book, The Fingerprint of God, is a voluminously annotated work. Perhaps the reason Ross has chosen not to reveal these sources is that they come from opponents to his cherished Big Bang theory, e.g., Halton Arp's Quasars, Redshifts and Controversies, 1987; Seeing Red: Redshifts, Cosmology and Academic Science, 1998; Eric Lerner's The Big Bang Never Happened, 1992; Tom Van Flandern's Dark Matter, Missing Planets and New Comets, 1993; just to name a few of modern science's opponents to the popular "redshift equals distance" theory. Edwin Hubble himself doubted whether redshift could be used to measure distance, and his partner M. L. Humason had denied it outright. Opposition to alternative explanations to redshift were advertised no better than when Arp (a protégé of Edwin Hubble), after documenting hundreds of pages of controverting evidence, was suddenly denied telescope time at the major observatories in the United States (forcing Arp to go to Germany to continue his studies). Fred Hoyle, who supported Arp, also had his own persecutions. In one instance, Arp recalls dining at Hoyle's university and his mention of Hoyle's name at the dinner table. One of the diner's stated: "He is a great scientist who was treated very badly round here." Arp adds that he could never forget "the fearful whisper in which it was spoken, as if we were in some kind of occupied territory" (Halton Arp, Quasars, Redshifts and Controversies, p. 170). <sup>20</sup> *Ibid.*, p. 39.

Aware of the fact that he cannot just assert that the sun and stars are merely *unveiled* rather than *created* on the Fourth Day, Ross tries his hand at Hebrew etymology and verb parsing in order to convince the reader that although one sees the word "create" or "made" in his English Bible, it doesn't really mean what it says. Ross explains:

The Hebrew verb 'asa, translated "made," appears in the appropriate form for completed action. (There are no verb tenses in the Hebrew language to parallel verb tenses in English, but three Hebrew verb forms are used to denote action already completed, action not yet completed, and commands.) Verse 16 does not specify when in the past the sun, moon, and stars were made. However, the wording of verses 17 and 18 does provide a hint: "God set them in the expanse of the sky to give light on the Earth, to govern the day and the night, and to separate light from darkness." Notice the echo of wording from Day One (verses 3-5). This verse tells us why God created the sun, moon, and stars and suggests that the sun was in place to fulfill its role on the first creation day. The syamayim wa'eres (heavens and Earth) in verse 1 places the making of the sun and the stars before the first day of creation. The moon, however, could possibly have been made during the first creation day.<sup>21</sup>

So, according to Ross, despite the fact that Gn 1:14-19 presents itself as one specific day in the sequence of consecutive days during which God is creating new objects to place in the heavens and the Earth, Ross insists that this particular pericope is written only to tell us "why God created the sun and stars" but not, as he does with the other Days, to tell us that God actually created the sun and stars on this particular day. That Gn 1:14-19 is the only such Day to which Ross attributes such anachronism doesn't seem to bother him, even though the Genesis writer gives us absolutely no indication that such anachronistic wording is intended.

Ross' appeal either to the verb "asa" or to some idiosyncrasy in "Hebrew verb forms" is a form of argument that is simply incapable of proving anything so grand as the claim that these celestial bodies were not created on the Fourth Day but were already in existence in the opening words of Gn 1:1. First, the opening verb of Gn 1:14 is identical to that appearing in Gn 1:3 (information that Ross does not supply to his reader). In Gn 1:14 the narrator writes: "Let there be lights," and in Gn 1:3 he writes, "Let there be light." The translation "let there be," in both verses, comes from the Hebrew verb hayah, each using the identical form, tense, person, number and gender. This same precise verb form appears also in Gn 1:6 in the creation of the firmament. In other words, the narrator uses the same verb three

<sup>&</sup>lt;sup>21</sup> The Genesis Question: Scientific Advances and the Accuracy of Genesis, 1998, pp. 44-45.

The only difference between the two clauses is that Gn 1:3 uses the noun  $\ \%$  (pronounced: or) for "light," while Gn 1:14 adds the common prefix to produce the base noun  $\ \%$  (pronounced: ma'or) for "lights."

<sup>&</sup>lt;sup>23</sup> The verb is היה (*hayah*) and is used hundreds of times in the Hebrew Old Testament. In Genesis 1:3, 6, 14 it is in the Qal Imperfect, third person, masculine, singular, יהי, Other uses of the same form in Genesis noted in Gn 30:34; 33:9; 49:17.

separate times, two of which Ross has already admitted refer to the *creation* of the entity in view (*e.g.*, "let there be light" in Gn 1:3 and "let there be a firmament" in Gn 1:6), not some type of "unveiling." So why does Ross suddenly change the same verb form to mean "why" an object was created as opposed to specifying that it was actually created on that very day, just as the "light" and the "firmament" were created in their respective days? The answer is simple: it is only because of Ross' insistence on imposing modern science's Big Bang hypothesis into the text that he is willing to distort it in such a crude manner.

Ross' treatment of the Hebrew verb *asah* is equally dubious. In Genesis 1:16 the narrator writes: "And God made two great lights." The word "made" is the Hebrew *asah*. A Ross asserts that, because this verb represents a "completed action," it is referring to an event performed in the past, in this case, three days prior, on the First Day of Creation. But Ross' proposition is an egregious misrepresentation of the Hebrew language, not to mention the context of Genesis 1. Hebrew has only two basic tenses, the *perfect* and the *imperfect*. Of these, the *perfect* denotes a past, completed action, while the *imperfect* denotes the present or future. The verb tense of *asah* in Gn 1:16 is the *imperfect*, not the *perfect*, and therefore it is referring either to the present or future, not the past. This is a terrible blunder by Ross, for it now raises the question of whether he is able to interpret the text correctly at all.

Moreover, even if, perchance, the *perfect* tense was employed in Genesis 1:16, still, the writer could be using the past tense simply because he was writing the account after the event already had taken place. <sup>26</sup> Unfortunately, Ross does not enlighten his reader to these vital grammatical nuances regarding Hebrew tenses, yet he confidently assures him that the verb can only refer to an event in prior time. Unfortunately for Ross, once these blunders are discovered, his whole attempt at melding Genesis with the Big Bang theory is rendered utterly futile. For all of his innovative interpretations, Ross' attempt once again confirms that Genesis 1, literally and faithfully interpreted, defies any and all attempts to escape its consecutive sequence of six days of creative *fiat*, and thus denies every theory concocted by modern science as to how the world began. The only scientific theory that the Bible will sustain (without having its words twisted and contorted totally out of context, whether intentionally or not) is a cosmos that begins with the Earth created with

<sup>&</sup>lt;sup>24</sup> The root of the Hebrew verb is משלה (asah) and appears in the Qal Imperfect, third person masculine singular with the waw-consecutive in Genesis 1:16.

<sup>&</sup>lt;sup>25</sup> The Hebrew language also contains infinitives, such as the Infinitive Absolute or the Infinitive Construct, or it can contain participles, but none of these are germane to what appears in Genesis 1:16. Hebrew can also put verbs in the active, passive, or reflexive voice, as well as signify the intensity of the verb (*e.g.*, the Piel, Pual, or Hitpael forms), but these do not apply to Genesis 1:16. The verb *asah* of Genesis 1:16 is one of the simplest forms in the Hebrew language, the Qal Imperfect, and thus should present no difficulty in meaning to one who knows the Hebrew language.

<sup>&</sup>lt;sup>26</sup> We write the same in English. The sentence "John made Mary a hat on the fourth day of their honeymoon," does not mean that John made the hat on the first day. No matter what past tense form we use (*e.g.*, "had made," "did make") the fact that the "fourth day" is specified as the time of completion limits the action to the fourth day. The only way this interpretation could be modified is if "fourth day" were symbolic or metaphorical of a previous day. That type of interpretation, however, is ruled out in Ross' case since, by his own admission, he has confined himself to a literal, or even "scientific," interpretation.

the heavens, and then both of which are progressively adorned in six successive days with: firmament, plants, celestial bodies, fish, fowl, animals and man, respectively. Ross can believe whatever he chooses about evolution (and his books are a virtual library of interesting evolutionary theories), but he simply will not be able to reconcile that information with the text of Genesis without distorting both his own theories and Holy Writ.

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