Critique of Barry Setterfield’s “What About Geocentrism?”

By Robert Sungenis

http://www.setterfield.org/Geocentrism.html

**Setterfield**: Geocentrism is the belief that the earth is the center of not only the solar system but of the universe itself. This belief is usually based on the King James translation of some of the verses in Psalms as well as the misunderstanding of a word used in Genesis which has been mistakenly translated. We will deal with the Psalms and the extended quote at the end by Dr. Bernard Northrup deals with that one particular word.

93:1: The LORD reigns, He is clothed with majesty; the LORD is clothed with strength wherewith He has girded himself: the world also is stablished, that it cannot be moved.

96:10 – Say among the heathen that the LORD reigns: the world also shall be established that it shall not be moved.: He shall judge the people righteously.

Of course there is always Psalm 99:1 – The LORD reigns: let the people tremble: He sits between the cherubims; let the earth be moved.

In Psalms 93 and 96, the word for “world” is Strong's 8398: *tedel*. It is derived from 2986: *yabal*, meaning “to flow, something which brings forth with pomp, to bring forth or to lead forth.” Thus, the meaning of *tedel* is referring to the fact that the earth is inhabitable – it was brought forth that way; and that will not be changed. It is in Psalm 99:1 that we find the word “*eretz,*” meaning “that which is firm,” and is often used to denote land masses in the Bible.

It may then be said that to depend on the Bible for any indication that the earth is the physical center of the universe is based upon a lack of understanding of the context and the Hebrew words used. There is more regarding this later.

**R. Sungenis**: Although I admire many of the Protestant creationists (including Barry Setterfield) for their stance on Six-Day creationism and their adherence to the obligation to be faithful to the biblical text, it is precisely that obligation that is ignored when they come to the topic of geocentrism. Most of them don’t know the Hebrew grammar and thus confine their research to doing elementary “word-studies” of Hebrew words, and even those “studies” are usually off-kilter and incomplete. The above attempt by Setterfield is no exception. As we will see later, Setterfield’s presumed expert in Hebrew, Bernard Northrup, is even worse since he makes assertions about Hebrew grammar that are quite erroneous.
To begin, I will give a verse by verse exposé so that we can see that there is more to understanding the Hebrew scriptures than is being told to you by Setterfield or Northrup.

The Earth is Fixed and Shall Not be Moved¹

Psalm 92:1/93:1: The Earth Shall Not be Moved

The Lord hath reigned, he is clothed with beauty: the Lord is clothed with strength, and hath girded himself. For he hath established the world which shall not be moved.

1 THE Lord hath reigned, he is clothed with beauty: the Lord is clothed with strength, and hath girded himself. For he hath established the world which shall not be moved.

2 Thy throne is prepared from of old: thou art from everlasting.

3 The floods have lifted up, O Lord, the floods have lifted up their voice. The floods have lifted up their waves, 4 with the noise of many waters. Wonderful are the surges of the sea: wonderful is the Lord on high.

5 Thy testimonies are become exceedingly credible: holiness becometh thy house, O Lord, unto length of days.

The point of this passage is to portray the Lord’s majesty and strength, the same as a king who wears royal robes signifies that he has supreme reign over all the land and has subdued his enemies.

One particular display of the Lord’s power is that he has established the world so that it cannot move. Like the throne of a king that his enemies cannot move, so the world, the Earth, has been set and will not be moved.

Although the comparison between the strength of God and the stability of the world is quite evident in the passage, the stability can only refer to one specific meaning in order to make the appropriate comparison to God’s characteristics.

As such, the world cannot refer to the political affairs of the nations, for they shift quite frequently.

¹ Please note that Hebrew reads from right to left, as opposed to English and Greek which read from left to right. Also note that there is a discrepancy in the numbering of the Psalms between Catholic and Protestant bibles. Beginning at Psalm 9:22 in the Catholic Bible, that verse becomes Psalm 10:1 in the Protestant Bible. All subsequent Psalms are off by one.
It cannot refer to the whole universe, since it turns repeatedly.

Hence, the only way the Psalmist’s analogy can have its intended effect is if an object is unmoved in the midst of all other objects that are moving.

This intent of the Psalmist would easily be fulfilled if he were referring to an unmoving Earth, for the Earth would be the only body at rest in the midst of a sea of moving bodies in the heavens.

As such, the Earth would be the only foundation point; the only immovable object, and thus it would be the best example to accentuate the immutability of God.

The connection between God’s immutability and the immoveable Earth is noted by the fact that the English word “prepared” in verse 2 is the same Hebrew word translated “established” in verse 1; hence the passage should read:

“For he hath established the world which shall not be moved, thy throne is established from old.”

**PSALM 93**

1. **הָיְתָה הַגִּלְגָּלָהּ לֶאָם וְלֹא יָסָרָה, וְיָהָבָה**
   
   He strength Jeho- clothed is is His majesty 
   
   established; Himself girded vah with: with clothed vah

2. **לֹא יָסָרָה וְיָהָבָה**
   
   Have You from from Your (is) shall it not the up lifted (are) everlasting, then 
   
   throne established; shaken be world

The English word “established” is the Hebrew word וֶל (kun)

It can refer to an original founding date, but it can also refer to stability and longevity.

It can also refer to rest or immobility, such as in Judges 16:26

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2 Ps 93:1 and 93:2 use the same Hebrew word for “established,” the word וֶל (kun), which appears over a hundred times in the Old Testament in most of the Hebrew tenses. In vs. 1 it is utilized in the Niphal imperfect and in vs. 2 in the Niphal participle, which is the simplest of the passive tenses. Although kun includes the concept of an original founding date (e.g., “the building was established in 1955”), it also includes the concept of stability and longevity (e.g., “the rock of Gibraltar was established”). Kun also refers to rest or immobility (Jg 16:26: “and Samson said to the lad who held him by the hand, ‘Let me feel the pillars on which the house rests’”; 16:29: “And Samson grasped the two middle pillars upon which the house rested”; Er 3:3: “They set the altar in its place”).
“and said Samson to the young man grasping his hand, Let me alone and let me feel the pillars which the house is established on.”

Hence, in Psalm 93, the Psalmist’s point is that God’s throne is directly connected to the Earth; and thus the throne does not move since the Earth does not move. The intended imagery is similar to passages that call the Earth the “Lord’s footstool,” since footstools are understood to be at rest, not moving.3

The passages that speak about God’s footstool include Isaiah 66:1, which says...

“Heaven is my throne, and earth the stool of my feet. Where then is the house that you build for me, and where then is the place of my rest.”

We see that the Earth is called a place of rest; the place of immobility that serves as the one and only analogy for God’s omnipresence and immutability.

We see the same truth in First Chronicles 28:2, when David says, “...my heart desired to build a house of rest... even a stool for the feet of our God...”

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3 Is 66:1; Mt 5:35. In all of these passages the notion of “rest” for the Lord’s footstool is emphasized: Is 66:1: “Heaven is my throne and the earth is my footstool; what is the house which you would build for me, and what is the place of my rest?”; 1Ch 28:2: “I had it in my heart to build a house of rest for the ark of the covenant of the Lord, and for the footstool of our God”; Ps 132:7-8: “Let us go to his dwelling place; let us worship at his footstool! Arise, O Lord, and go to thy resting place, thou and the ark of thy might” (see also Ac 7:49). “Rest,” of course, refers to motionlessness, which is appropriate in the Earth’s case only if it is not moving through space.
And again the same truth is in Psalm 132:7-8, when David says...

“We will enter into his dwellings, we will worship at the stool of his feet. Arise O Lord into your rest.”

We again we see the same truth in Acts 7:49, when Stephen says...

“As the prophet says, ‘The heaven is my throne and the earth the footstool of my feet. What house will you build for me says the Lord, or what place of my rest.’”

Here the Lord declares he has “rest” since the whole Earth is his footstool. “Rest,” of course, refers to motionlessness, which is appropriate in the Earth’s case only if it is not moving through space.

“The world shall not be shaken. Your throne is established from everlasting.”
Some might argue that the Hebrew word MOHT מָחַד translated here as “shall not be shaken,” could depict a political context instead of a physical one. But political systems are inherently unstable and thus they would not make a good comparison to display the strength and immutability of God.

Conversely, the physical world, marked as it is by times and seasons that have been repeating themselves in exact precision for eons, is the only possible “world” that could be compared to the infinite stability of God.

In actuality, if the proper translation of the Psalm were “shaken” rather than “moved,” this would only enhance the imagery of an immobile Earth, for “shaken” would require the Earth to be so firm in its position that it would not only be prohibited from rotating or revolving, but it would also be prohibited from shaking.

Since, as we noted in the science documentary, Journey to the Center of the Universe, that the Earth shares a center of mass with the universe, it is held in place by the whole universe. To move the Earth would require that one move the universe.

Consequently, we can see why this particular Hebrew word, MOHT, was chosen, since it includes the Earth’s resistance to even the slightest outside movement.4

If vibration occurs, it will occur within the internal structure of the Earth but not with respect to the Earth’s position in space. In fact, one reason earthquakes occur is that the internal movements within the Earth are rubbing against the external forces that are keeping the Earth immobile in space.

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4 Hebrew: מָחַד (mōḥād) appears 39 times in the Old Testament, 20 in the Psalms. The Qal form appears 13 times, 23 times in the Niphal, and one each in the Hiphil and Hithpael. It can refer to things as simple as slipping with the foot (Dt 32:35; Ps 17:5; 38:16-17) to moving the earth (Ps 82:5; Is 24:19). Mōḥād, in the physical sense, refers to the transition from a state of rest to a state of movement; in the figurative sense, from a state of stability to a state of instability. Of all the words in Hebrew referring to movement (e.g., מָשָׁא, מַשָּׁא, מַשָּׁא, מַשָּׁא, et al) מָחַד (mōḥād) is used when any, even the slightest movement, is in view. Hence, it can refer to a shaking or vibration as well as a change of location.
The only other important detail of Ps 93:1-2 is the meaning and usage of the Hebrew word "TEBEL" translated as “world.” The Hebrew Bible consistently uses TEBEL in reference to the earth, not the universe at large. Hence, it is the Earth alone that is kept immobile, not the universe.

**PSALM 93**

1. יְהֹוָה צְבָאֹות צְבָאֹות שִׁלָּחֵנִי לָךְ מֵאֵת שֹׁלַחְתֶּךָ לָנוּ נַעֲשֵׂה לָךְ נָא יְהֹוָה צְבָאֹות שִׁלָּחֵנִי לָךְ מֵאֵת שֹׁלַחְתֶּךָ לָנוּ נַעֲשֵׂה לָךְ נָא יְהֹוָה צְבָאֹות שִׁלָּחֵנִי לָךְ מֵאֵת שֹׁלַחְתֶּךָ לָנוּ נַעֲשֵׂה Lishamenah leshem yihud le hashemah lishamenah leshem yihud le hashemah lishamenah leshem yihud le hashemah
   
   2. הַלְיָה לֵעָלָה בְּכָלֵּכְהָ לֵעָלָה בְּכָלֵּכְהָ לֵעָלָה לֵעָלָה בְּכָלֵּכְהָ Lishamenah leshem yihud le hashemah lishamenah leshem yihud le hashemah lishamenah leshem yihud le hashemah

Next is Psalm 96:10

“Say among the nations, The Lord reigns, Yea, the world is established; it shall not be moved. He will judge the peoples with justice.”

**PSALM 96**

10. לֶהָזֶה לָךְ יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה יְהוָה Yehovah among the nations the Lord reigns, Yea, the world is established; it shall not be moved. He will judge the peoples with justice.”

Here the Lord’s reign is being compared to the already known fact of the world’s immovability. It is the cadence of Hebrew poetry that brings them together. The Psalmist is using the scientific fact of the Earth’s motionlessness as the basis for the analogy as to why the Lord will always reign and judge with equanimity.

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5 Hebrew: תבל (tebel) appears 38 times in the Old Testament. It is often a poetic synonym of יְהוָה (`erets) referring to the “earth” (e.g., 1Sm 2:8; Ps 33:8; 77:18; 90:2; Is 34:1; Lm 4:12), but in non-poetic contexts it sometimes has a larger focus than the physical world and may include the more abstract notions associated with existence, such as the totality of human consciousness (e.g., Is 24:4; 26:9). In the non-poetic passages that tebel is used without erets, tebel always refers to the earth or that which is inhabited by mankind (e.g., 2Sm 22:16; Is 13:11; 14:17, 21, 18:3), not to the universe at large.
As such, both will always be true:

(1) the Lord will reign with equity, and
(2) the world will never move.

One fact verifies and supports the other. If one fails, the other fails also.

We can imagine how difficult it would have been for the Psalmist to prove his point if, indeed, the world was constantly moving through space. If it were a fact that the Earth was moving, the Psalmist would, instead, have had to make a comparison between the stability of the Earth’s orbit and the stability of the Lord’s reign. The fact is, however, that never once does either the Psalmist or any other biblical writer state that the Earth revolves around the sun.

In fact, he cannot do so, because in an earlier Psalm, namely, Psalm 18, he had made a comparison between the Lord’s reign and the orbit of the sun. There we read:

“The heavens show forth the glory of God, and the firmament declareth the work of his hands... He hath set his tabernacle in the sun and he as a bridegroom coming out of his bride-chamber hath rejoiced as a giant to run the way; his going out is from the end of heaven, and his circuit even to the end thereof, and there is no one that can hide himself from his heat.”

Since the sun is orbiting the Earth, it would not be permissible for the Psalmist to compare the Lord’s reign to the orbit of the Earth, since obviously both the sun and the Earth cannot be orbiting each other.  

6 Moreover, mutual orbiting around a common center of mass will also not satisfy the Psalmist since in that case neither the sun revolves around the Earth nor the Earth revolves around the sun.
On a theoretical basis, one might object that since the Psalmist regards the sun as orbiting the Earth, he could have easily regarded the Earth as orbiting the sun, since, geometrically speaking, both systems are equivalent.

But the Psalmist is working from a perspective of propositional truth that will allow him to appeal only to the actual celestial movements and hence this requires him to discount a moving Earth.

The reason is clear. Since the Psalmist’s major point concerns the eternal stability of God’s reign, he can only communicate that important truth by an analogy if he knows which of the two celestial models is actually true, the heliocentric or the geocentric. Any false information will necessarily falsify his analogy.

More specifically, although one could argue that from a relativistic perspective the Psalmist has the option of using the stability of an orbiting Earth as the analog to the Lord’s stable reign, the fact remains that he chooses an orbiting sun and an immobile Earth.

This choice is significant, since in order to make the analogy valid the Psalmist must base it on an incontrovertible scientific fact. If he chooses the wrong celestial model, his very purpose in creating the analogy is defeated, for the Lord’s reign cannot be compared to something fictitious or something existing by appearance only, otherwise the Lord’s reign will be fictitious.

Either the Earth is fixed and the sun moves around it, or the sun is fixed and the Earth moves around it. Both cannot be true, and the Psalmist must adopt the correct one in order for his analogy to be genuine. And he has done just that.

In retrospect, we can see why the Psalmist does not state cosmological truths as mere story-filler. Rather, to make the strongest argument, he purposely compares the immobility of the Earth to the unshakable reign of the Lord, since in serving as witnesses to one another, both must be absolutely true, or, consequently, both are absolutely false.

Similar to instances, such as Hebrews 6:13, in which God swears to Himself because he can find no one greater to serve as a witness, here in the Psalms the Lord compares his unswerving divine justice to a divinely-established immovable object, the Earth.
Psalm 119:89-91

“Forever, O Yahovah, your word is settled in heaven. Generation to generation is your fidelity. You founded the earth and it stands still. According to your judgments they stand still to this day.”

There are several interesting features to this passage. First, the phrase “stands still” is from the Hebrew AMAD יָכָה, which is the same word utilized in Joshua 10 when Joshua stopped the sun and moon from moving.

Here in Psalm 119 it is applied to the Earth that is always without movement.

Someone might object, however, that this Psalm merely refers to the Earth’s continued existence, and might be better translated “still stands” as opposed to “stands still.”

Although that connotation is certainly possible, the preponderant usage of AMAD in Hebrew refers either to a lack of motion or to the deliberate cessation of motion.7

The word AMAD appears over 500 times in the Old Testament, usually denoting the conscious decision of an individual to cease motion and remain in a certain position, such as Genesis 19:27...

“And arose early Abraham in the morning to the place where he had STOOD there before the Lord.”

7 Hebrew יָכָה (amad) appears over 500 times in the Old Testament, usually denoting the conscious decision of the individual to cease motion and remain in a certain position (e.g., Gn 19:27; 41:46; 2Ch 34:31).
Psalm 119:89-91

The Hebrew AMAD is also the word behind the phrase “they stand” in vr. 91 of Psalm 119.

“You founded the earth, and it stands still. According to your judgments they stand to this day.”

Here AMAD is translated in the plural as “they stand” since it refers to both the Lord’s fidelity and the Earth’s stability. In other words, as sure as God’s fidelity will never change, so the Earth will never move. Or, it could also be said, as sure as the Earth has always stood still, so the fidelity of God will never cease.

As was the case in Ps 96:9-11, the Psalmist is comparing the very character of God to the scientific fact of the Earth’s motionlessness. One unalterable fact confirms the other.

Here it is important to point out that no such comparison with God’s immutable attributes is ever made in the Hebrew Bible in an analogy with the sun, the moon or the stars.

Ecclesiastes 1:1-7, Douay Rheims

“One generation passeth away, and another generation cometh: but the earth standeth forever. The sun riseth and goeth down, and returneth to his place: and there rising again, maketh his round by the south, and turneth again to the north: the wind goeth forward, surveying all places round about, and returneth to his circuits. All the rivers run into the sea, yet the sea doth not overflow: unto the place from whence the rivers come, they return to flow again.”

CHAP. I.
The vanity of all temporal things.

1 The words of Ecclesiastes, the son of David, king of Jerusalem.
2 Vanity of vanities, said Ecclesiastes, vanity of vanities, and all is vanity.
3 What is a man more of all his labour, that he taketh under the sun?
4 One generation passeth away, and another generation cometh: but the earth standeth for ever.
5 The sun riseth and goeth down, and returneth to his place: and there rising again,
6 Maketh his round by the South, and turneth again to the North: the wind goeth forward, surveying all places round about, and returneth to his circuits.
7 All the rivers run into the sea, yet the sea doth not overflow: unto the place from whence the rivers come, they return to flow again.”
There are several important features to the passage. First, by referring to scientific facts, such as the circuits of the wind and the courses of rivers running into the sea, the context establishes itself as teaching specific truths about terrestrial events.

As such, one can surmise that the passage is also giving scientific information about celestial events, namely, the movement of the sun between the horizons.

Although one might object that the language of the ‘sun rising’ and ‘sun going down’ is phenomenal, considering that the author knows the scientific facts about the courses of the Earth’s winds and rivers, it would be safe to conclude that he would also know the scientific facts concerning the other objects that traverse the Earth’s domain, in this case, the sun.

Not only does the author appear familiar with the science of the sun’s course, he also knows enough to describe the movement as one requiring much labor.8

Ecclesiastes 1:4-7

“A generation goes and a generation comes, but the earth forever stands. And arises the sun and goes the sun to its place panting, it arises there again. Going toward the south and turning around to the north, going around and around, is the going of the wind; and one its circuits returns the wind. All the currents are going to the sea, yet the sea is not full. The place where the currents are going, there they are returning to go again.”

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8 The author uses the Hebrew word יָשַׁפֵּה (shaaph) which refers to the panting or gasping that comes from hard labor. As we noted in the scientific portion of this book, the sun travels in the opposite direction to the rotation of the universe, lagging behind by about one degree per day due to the sheer force of the universe’s current, which then makes the sun appear to travel through the zodiac once per year.
Second, similar to other passages that speak of the Earth’s stability, Solomon says that the Earth “stands forever.” Here one might argue that the clause “stands forever” may be making an indicative statement that the Earth exists and remains unchanged while a new population appears every generation.

In the context of a moving sun, however, the implication of the clause tends more toward affirming the truth stated in other passages, namely, that the Earth is motionless in space.

The reason is that the Hebrew word for “stands” is again AMAD נָעַד. As we have seen before, AMAD is the same word employed both by the Psalmist to depict the Earth’s motionlessness and by Joshua to describe the cessation of both the sun’s and moon’s movement.

Hence, while the sun and moon of Joshua’s day became still, Solomon tells us that the Earth maintains its stillness.

Eccl 1:4

“A generation goes and a generation comes but the Earth forever stands.”

The next important passage is Psalm 104 verse 5.

“He founded the earth on its foundations, it shall not shake forever and ever.”

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The salient feature of this verse is that the word for “foundations” is not the normal Hebrew word, but the Hebrew MACHON מַכּחון, which appears 17 times in the Old Testament.\(^\text{10}\)

In the other 16 places, MACHON refers to God’s dwelling place that is impenetrable and immovable, such as 1 Kings 8 verse 13 in which Solomon says to God:

“I have built a house of loftiness for You, a settled place for You to abide in.”

Or a passage such as Isaiah 18 verse 4, which says...

“For so said Yahovah to me, I will rest and I will watch in my dwelling.”

Here we see that the Lord’s MACHON, his dwelling, is the fixed place in which he has “rest.” The word “rest” is from the Hebrew SHAQAT, which refers to “being still” or “undisturbed.” In other words, the verse is saying that the Lord will rest in his fixed place.

As the Hebrew MACHON refers exclusively to a fixed and non-moving place, then, since the Earth is situated on such a non-moving place, the Earth cannot move.

\(^{10}\) Hebrew מַכּחון (mahchon) appears 17 times in the Old Testament, and refers to a settled and immovable place. In 16 of the references it refers to God’s dwelling place that is impenetrable and immovable (e.g., Ex 15:17; 1Kg 8:13, 39, 43, 49; 2Ch 6:2; 30, 33, 39; Er 2:68; Ps 33:14; 89:14; 97:2; Is 4:5; 18:4). The only time God’s “place” is moved is in the apostasy (Dn 8:11). The word מַכּחון is applied to the Earth once (Ps 104:5), which states that the Earth is set into its מַכּחון, from which it cannot be shaken or moved. A similar word is מַכְחַת, the feminine form of מַכּחון, which appears 24 times and is normally translated as “stands” or “base” (1Kg 7:27-43).
Additionally, the whole phrase “on its foundations” is in a Hebrew grammatical placement called the “construct form”, and is introduced by the preposition AL. The construct form means that verse 5 could be better translated as “He founded the earth in a fixed place.”

Scientifically speaking, this precise language would fit the concept of the Earth being the center of mass or center of gravity for the universe, since only the center of mass is fixed and stable, while the rest of the universe rotates around it.

Another important passage is Psalm 82:5.

“They have neither knowledge nor understanding, they walk about in darkness; all the foundations of the earth are shaken”

Here, someone might object that Psalm 82:5 contradicts the idea that the Earth does not shake. A careful comparison, however, shows that the word used for “foundation” in Psalm 82:5 is the Hebrew MUSAD, which specifies that the internal “foundations” of the Earth are shaken, not the Earth’s position in space.

The same emphasis on the Hebrew word MUSAD as referring to internal foundations is noted in Psalm 18:7:

“And shook and trembled the Earth, and the foundations of the mountains moved and were shaken.”
This verse, as well as the rest of the Psalm, is written in a type of poetry called Hebrew parallelism. The first line repeats the truth of the second line but with different imagery.

The first line is:

“Shook and trembled the Earth”

and the second line is

“And the foundations of the mountains moved and were shaken.”

The Hebrew parallelism thus means that as the foundations of the mountains were moved and shaken, it is only in that manner that the Earth shook and trembled.

To make the parallelism even clearer, the word in Hebrew for Earth, which is ERETS can also be translated as “land.” Hence, since the mountains were shaken, the land around it also shook.

All in all, the “foundations” of the Earth are part of the internal structure of the Earth which lie beneath its surface. The foundations may shake but they will not move the Earth out of the position in space God has given it.

Another important passage is Psalm 8:4:

“When I contemplate your heavens, the work of your fingers, the moon and the stars which you have fixed.”

That the moon and stars are said to be “fixed” requires an explanation in light of the fact that the same word is used of the Earth in passages such as Ps 96:10: “Yea, the world is fixed, it shall never be moved.”

Often the Hebrew word that is translated here as “fixed” is also translated as “established.” The point at issue is: if the moon and stars move but the Earth does not, why is the same word “fixed” being used for all three bodies? The answer has three parts:
First, passages such as Psalm 96:10 add the key phrase that specifies the Earth’s immobility, namely, “it shall not be moved,” a phrase that Scripture never applies to the moon, the sun, or the stars.

Psalm 8:4

The verbal form of KUN used here, which is the word KUNANETAH קנןתא is specific to Psalm 8:4. In the Hebrew language, it is a Polel Perfect verb in the masculine singular. This is somewhat of a grammatical oddity in Hebrew.

First, this singular verb, KUNANETAH, is connected to the plurality of the “stars” as well as the “moon.” This means the verb is categorizing all the celestial bodies as a singular mechanized unit.

Second, the Polel Perfect verb is used to indicate that God has so perfectly measured the distances, motions, and places of the heavenly bodies that they all act as if they were one giant clock, with each part functioning precisely as planned and without fail, like a Swiss watch.

Hence, it is the precision of the movement of the celestial bodies about which the Psalmist is marveling.

Hence, the “establishment” or “fixed” nature of the moon and stars refers to their precision in serving as the universe’s time-keepers; whereas the “establishment” of the Earth, due to
the Psalmist’s specific addendum that it does not move, refers to the Earth’s centrality and immobility around which the moon and stars revolve.

The next important passage is Psalm 19 verses 4-6:

“For the sun he has set up a tent in them, and he, as a bridegroom coming forth from his canopy, rejoices like a hero to run a race. From the end of the heavens is his going forth, and his orbit to their ends, and nothing is hidden from his heat.”

In the same familiar manner of Hebrew poetry that is characteristic of the Psalmist, he speaks of the sun in metaphorical terms. The sun is compared to a bridegroom that comes out of his chamber, and a strong man running a race.

These descriptions are not for mere cosmetic value. They are utilized because they portray tremendous energy and movement. There are no better images that can represent single-minded determination and vigor than a bridegroom seeking his bride and an athlete running a race.

So strong are these images that, if the sun did not actually move in a circuit each day, there would be little reason for the Psalmist to employ these intense metaphors.

The Psalmist uses five distinct words to describe the sun’s traverse.

One describes the background against which the sun moves, that is, God has “set a tent for the sun,” and the next four words describe the sun’s movement:

... the words “coming forth,” “run a race,” “going forth,” and “orbit.”
Additionally, the phrase “and there is nothing hidden from its heat” is significant since it is a scientific fact that the sun radiates heat. Hence, since the heat is a scientific fact it follows that the sun’s movement must also be a scientific fact, since it would be inconsistent to treat one characteristic of the sun scientifically and the other unscientifically.

Immediately after the Psalmist’s description of the sun’s movement through space, he speaks of the certainty of the testimony of Yahovah. He says...

“The testimony of Yahovah is sure, making wise the simple. The precepts of Yahovah are upright.”

Although this verse is regarded as the heading of a new section of the Psalm, it is still an important foundation for the cosmological truths that are told in the previous six verses.

More specifically, it would certainly be difficult to trust in what Yahovah has to say about the spiritual things we cannot see if, indeed, He was not accurate about the cosmological movements we can see.

In fact, looking in hindsight at history, we can safely say that a relativistic interpretation of Scripture’s cosmological passages has produced a relativistic interpretation of Scripture in general, which has then led to a relativistic view of faith and morals.

Whereas we might normally understand Psalm 19 to be describing the sun’s daily orbit around the Earth, the Hebrew word TEQUPHAH, which is here translated as “orbit,” refers to the time span of one year. TEQUPHAH only appears four times in the Hebrew Old Testament.11

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11 הֱקִינָה (tekuphah) appears four times in the Old Testament. The word literally means “the revolution of the year” (Ex 34:22: “and the feast of ingathering at the year’s end”; 2Ch 24:23: “At the end of the year the army of the
Of those instances, it refers to the end of a year’s time, as noted in Exodus 34:22:

“and the feast of the ingathering at the turn of the year”

For those who have our CDROM of Galileo Was Wrong, see the ZodiacShiftB animation of sun revolving with stars on a daily basis but lagging behind by 3 minutes and 55.9 seconds.

In the geocentric system, the universe rotates clockwise around the Earth on a sidereal rate of 23 hours, 56 minutes and 4.1 seconds, and it carries all the celestial bodies with it, including the stars and the sun. In this way the sun traverses clockwise from one end of the sky to the other in a single day.

But as the sun daily moves clockwise with the stars and the universe, it also has a counterclockwise movement against the stars of 3 minutes and 55.9 seconds per day. Since it thus moves slower clockwise than the stars move clockwise, it will complete its daily revolution around the Earth in the 24 hours as opposed to 23 hours, 56 minutes and 4.1 seconds.

This lag of the sun behind the stars makes it appear as if the sun is moving counterclockwise through the constellations over the course of a year. In a year’s time, it travels through 12 constellations, which we call the Zodiac. Hence, in each month of the year, the sun moves through one constellation of the Zodiac.

Syrians came”; 1Sm 1:20: “and in due time Hannah conceived”). Each of these usages is based on the time elapsed in a year.
Since the Psalmist is implying an annual orbit of the sun, it is the counterclockwise movement of the sun with respect to the stars that he may be referring to when he says of the sun “From the end of the heavens is his going forth, and his orbit to the other end of the heavens.” When two ends of a line meet, they form a circle or orbit.

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**Science Issues**

**Setterfield:** Still, the question remains, and it is one we have been asked a number of times: does the earth really revolve around the sun or do the sun and other astronomical bodies revolve around the earth.

Here are a few simple indications that the earth is indeed circling the sun, as are the other planets: several times each year we are hit by meteor showers. How is this possible if they are circling the earth? They would not be able to close in on the earth. If, on the other hand, we are circling the sun, it makes good sense that we occasionally pass through sections of our orbit which contain these remnants of past cometary passages.

**R. Sungenis:** This just shows that Setterfield has not really studied the geocentric model. Some Protestant creationists don’t know that the Ptolemaic model from which Setterfield is making this conclusion about meteors was abandoned 500 years ago. The Tychonic model is the exclusive model now used in astronomy for geocentrism (which Setterfield acknowledges only much later in his paper). In the Tychonic model the planets, asteroids and meteors are circling the sun just as in the modern heliocentric model. The only difference between the two models then, is that in the Tychonic geocentric model the sun is also circling the Earth. As the sun circles the Earth, it is going to bring the meteors and everything else with it, and thus asteroids or meteors may hit the Earth.

**Setterfield:** In fact, we can see the comets actually orbiting the sun and predict their appearances based on that.

**R. Sungenis:** Again, comets in the Tychonic model will also orbit the sun and we can predict their appearances just as the heliocentric model can.

**Setterfield:** The primary proponent of the geocentric idea is Dr. Gerardus D. Bouw. He is a very personable individual. Because he is involved in mathematics, he can show you mathematically how it is possible to get a rocket to the moon or to another planet in a geocentric universe. However, that method has not been used by NASA or other agencies
to get spacecraft into orbit around the earth, to land on the moon, to land on Mars, to orbit other solar system bodies, or out to Pluto to photograph it. The mathematics used by these agencies is based on the fact that the earth and the other planets in the solar system are rotating around the sun. So we have two mathematical systems available to us to get things out there – the very complicated Bouw system or the relatively simply NASA system.

**R. Sungenis:** None of what Setterfield said is true, and that is because he doesn’t understand the geocentric model. The geocentric and heliocentric models would use the same math to send up rockets and satellites since the distances and geometry are exactly the same. Each system has its choice of using either the Earth Centered Inertial Frame (ECIF) or the Solar barycentric frame. The former is used for satellites near the Earth and the later is used for more distant probes.

**Setterfield:** Then, of course, there are the geostationary satellites. They are designed to remain in one spot above a certain part of the earth. The way that is done is to figure their orbit rate in conjunction with the earth’s rotation rate. At about 22,000 miles out, if they were not in a maintained orbit, they would fall back to the earth. This is definite proof the earth is rotating.

**R. Sungenis:** The same is true in the geocentric system, but the Geo-satellite is stationary against space that is moving 7000 mph east-to-west whereas in the heliocentric system the Geo-satellite is moving 7000 mph west-to-east to keep up with the Earth that is moving 1054 mph west-to-east. The same Newtonian mechanics is being used in both systems. But because people don’t understand the full implications of Newton’s laws of motion, they think that Newton’s laws only apply in the system in which the Geo-satellite is moving at 7000 mph. In this system the Geo-satellite’s 7000 mph circular movement causes a centrifugal force on the satellite that is necessary in order to counteract the gravity of the Earth, and thus the satellite can hover above the Earth that is rotating at 1054 mph. In the geocentric system, the same Newtonian law applies only it is inverted.

To explain this, let’s use the example of a roulette wheel and the little marble that is moved in the opposite direction of the spin of the wheel. Here are two scenarios:

1) The roulette wheel is stationary but the marble is flung around the inside rim of the wheel. The centrifugal force on the marble will keep it clinging to the inside of the wheel until the marble slows down and falls into one of the slots near the center of the wheel.

2) The roulette wheel is rotating rapidly and the marble is clinging to the inside rim of the wheel. The centrifugal force caused by the rotating wheel will keep the marble
mechanics, geostationary

Now, Setterfield

This satellite

Satellite

clinging to the inside rim of the wheel. When the roulette wheel slows down sufficiently, the marble will fall into one of the slots near the center of the wheel.

In both these scenarios, the inside rim of the roulette wheel creates a centripetal force on the marble and this causes the marble to have a centripetal acceleration which will force it to go against its inertial path (a straight line) and make it follow the circular path around the inside rim of the roulette wheel. There is no other force on the marble. In Newtonian mechanics, the marble is creating a centrifugal force on the rim of the roulette wheel but there is no centrifugal force on the marble itself, only a centripetal force.

Now, we can also invert this scenario and view the roulette wheel as a system of coordinates rotating around the center, but we now make the marble stationary with respect to the rotating wheel. In this case, the inside rim of the wheel is still creating an inward centripetal force on the marble and yet, in terms of the rotating coordinate system, the marble is not accelerating since it is stationary. This is analogous to a Geo-satellite in the geocentric system in which space (like the roulette wheel) is rotating 7000 mph east-to-west but the satellite (like the marble) is hovering over a stationary Earth.

This state of movement is allowed by Newton’s laws since the homogeneous form of the second law (i.e., the solution to Newton’s $F = ma$ equation that equals zero such that $F – ma = 0$) maintains a direct proportion between the second derivative of the position coordinate and the time coordinate (wherein $a = d^2v/dt^2$). But that relationship is applicable only to the motions of inertial coordinate systems, and since the roulette wheel, because it is rotating, cannot be an inertial coordinate system, we must seek another means of viewing this scenario.

Hence in order to apply the homogeneous solution to Newton’s second law, we must add “fictitious forces” to the above non-inertial coordinate system of the rotating roulette wheel. Thus if we add a centrifugal (outward) force on the stationary marble, it will balance the centripetal (inward) force on the marble (i.e., the inward force caused by the rim of the roulette wheel). In this way, the stationary and non-accelerating state of the marble can be understood by the homogeneous form of Newton’s second law. That is, we can say that the marble has zero acceleration (i.e., is stationary in the rotating roulette wheel) because the net radial force (i.e., the centrifugal force minus the centripetal force) is zero.

**Setterfield:** Bouw’s response to this is that the 22,000 mile point is exactly where the gravity of the earth is balanced by the pull of gravity of the rest of the universe. That is why the geostationary satellites do not fall into earth. They are not moving, they are simply at a point of balance.
**R. Sungenis:** Bouw is using the Machian solution instead of the Newtonian. In the Machian solution the “fictitious forces” used in the Newtonian system become “non-fictitious.” That is, there is a real centrifugal force created by the gravity of the stars in the universe on the Geo-satellite. The gravity of the stars balances out the gravity of the Earth and thus the Geo-satellite can hover above the stationary Earth. Andre Assis, in his book, *Relational Mechanics*, explains how this works:

As we have seen, Leibniz and Mach emphasized that the Ptolemaic geocentric system and the Copernican heliocentric system are equally valid and correct...the Copernican world view, which is usually seen as being proved to be true by Galileo and Newton...the gravitational attraction between the sun and the planets, the earth and other planets do not fall into the sun because they have an acceleration relative to the fixed stars. The distant matter in the universe exerts a force, \(-m_g \ddot{a}_{mf}\), on accelerated planets, keeping them in their annual orbits.

In the Ptolemaic system, the earth is considered to be at rest and without rotation in the center of the universe, while the sun, other planets and fixed stars rotate around the earth. In relational mechanics this rotation of distant matter yields the force (8.17)\(^{13}\) such that the equation of motion takes the form of equation (8.47).\(^{13}\) Now the gravitational attraction of the sun is balanced by a real gravitational centrifugal force due to the annual rotation of distant masses around the earth (with a component having a period of one year). In this way the earth can remain at rest and at an essentially constant distance from the sun. The diurnal rotation of distant masses around the earth (with a period of one day) yields a real gravitational centrifugal force flattening the earth at the poles. Foucault’s pendulum is explained by a real Coriolis force acting on moving masses over the earth’s surface in the form

\[-2m_g \ddot{u}_{me} \times \omega_{Je}e \]

where \(\ddot{u}_{me}\) is the velocity of the test body relative to the earth and \(\omega_{Je}\) is the angular rotation of the distant masses around the earth. The effect of this force will be to keep the plane of oscillation of the pendulum rotating together with the fixed stars.\(^{14}\)

We can also use the same understanding to explain the bulge of the Earth or the rotation of the Foucault Pendulum. Assis explains it using the homogeneous formulation of Newton’s second law:

As the earth is at rest...we arrive at

\[
\sum_{j=1}^{N} \ddot{r}_{jm} - m_g \ddot{u}_{Je} \times (\ddot{u}_{Je} \times \ddot{r}_{me}) = 0.
\]

In this frame there will appear a real centrifugal force of gravitational origin due to the rotation of distant galaxies around the earth. This centrifugal force flattens the earth at the poles.

\(^{12}\) \(\ddot{r}_{jm} = -\Phi m_g (\ddot{a}_{ms} + \ddot{u}_{Us} \times (\ddot{u}_{Us} \times \ddot{r}_{ms}) + 2\ddot{u}_{Ms} \times \ddot{u}_{Us} + \ddot{r}_{Us} \times \frac{d\ddot{u}_{Us}}{dt} \), p. 176.

\(^{13}\) \(\sum_{j=1}^{N} \ddot{r}_{jm} - m_g \ddot{u}_{Je} \times (\ddot{u}_{Je} \times \ddot{r}_{ms}) + 2\ddot{u}_{Ms} \times \ddot{u}_{Us} + \ddot{r}_{Us} \times \frac{d\ddot{u}_{Us}}{dt} = 0,\) p. 185. Notice here that the homogeneous form of Newton’s second law is being utilized by Assis.

What would happen if the external galaxies were annihilated or did not exist? According to relational mechanics the centrifugal force would disappear, except for a small value due to the rotation of the earth relative to the sun, planets and stars belonging to our galaxy. The earth would no longer be flattened....If we double the density of galaxies, then the Earth would have a double oblateness...provided it kept the same angular rotation relative to the distant universe....The flattened figure of the Earth or Foucault's pendulum can no longer be utilized as proofs of the earth's real rotation. In relational mechanics, both facts can be equally explained with the frame of distant galaxies at rest (exerting a gravitational force – \( \Phi m_g \vec{a}_{me} \) on bodies at the earth’s surface while the earth rotates relative to this frame, or with the earth at rest while the distant galaxies rotate around it exerting a gravitational force –\( \Phi m_g (\vec{a}_{me} + 2\vec{u}_{me} \times \vec{w}_{ue} + \vec{w}_{ue} \times (\vec{w}_{ue} \times \vec{r}_{me}) ) \)) on bodies at the earth’s surface. Both explanations are equally correct and yield the same effects. It then becomes a matter of convenience or of convention to choose the earth, the distance galaxies or any other body or frame of reference to be considered at rest.\(^5\)

**Setterfield:** If this were true, however, then the rest of the universe could not possibly be rotating around the earth but would be rotating in respect to its own stronger gravitational forces outside the 22,000 mile mark. This distance, even in comparison to the moon, is very, very close to earth. The moon, our closest astronomical neighbor is about 250,000 miles away. There seems to be no argument about that. So if the earth's gravitational force is balanced by the rest of the universe at the tiny distance of 22,000 miles, why is the moon still there? Why is the rest of the solar system going around the earth? There is no way for that to be possible in the geocentric model.

**R. Sungenis:** First, Setterfield is somewhat misrepresenting Bouw’s explanation. In Bouw’s book, Geocentricity, he states that the cause is due to the limited speed of gravity, not an balance of gravity, per se. The limited speed of gravity creates a point in which the Geosatellite can remain at rest. Bouw writes:

Each of the aforementioned geocentric analyses demonstrates that the geosynchronous satellite will hover over the same place on the earth’s equator in the same fashion as in a heliocentric universe. Basically this is so because gravity is effectively transmitted at finite speed throughout the universe (presumably at the speed of light). The finite speed of gravity means that a change in any given body in the universe will take some time to be communicated to any other point in the universe. In particular, if we look at the center of the universe (for example, the earth) with the stationary satellite located about 24,000 miles above the equator and the universe spinning around the two at one rotation per day, then the finite speed of propagation of gravity results in the satellite “feeling” the gravitational pull of the half of the universe “above” it more strongly than it “feels” the half

(earth included) “below” it. The satellite experiences a new “upward” gravitational pull (centrifugal force) which – and this is the definition of the geosynchronous satellite – at about 22,000 miles above the equator exactly matches the gravitational pull of the earth plus the lesser-felt half of the universe “underneath” the satellite. Thus the satellite is suspended in space some 22,000 miles above the equator. The same type of pull, though not necessarily at the same strength, is felt by any satellite at any altitude.\(^{16}\)

In actuality, although in 1992 Bouw appealed to a limited speed of gravity as the cause, he now maintains that gravity is not limited to the speed of light; rather, because it is a compression wave as opposed to light being a transverse wave, it can travel much faster. In fact, it can travel almost instantaneously across the universe.\(^{17}\) Hence, the “imbalance” between the stars above the 22,000 mile mark and stars on the other side of the Earth is due to the distance difference in relation to Newton’s equation \(F = \frac{G m_1 m_2}{r^2}\). That is, the stars on the other side of the Earth are farther away from the Geo-satellite and thus exert less gravitational force on it than the stars above the 22,000 mile mark, and thus the Geo-satellite can remain on the 22,000 mile side.

Second, Setterfield is incorrect to say “the universe...would be rotating in respect to its own stronger gravitational forces outside the 22,000 mile mark.” The universe will not rotate around anything but its center of mass, a place where there are no gravitational or inertial forces. Hence the universe will not rotate around “its own stronger gravitational forces” since they would all be outside its center of mass.

In the geocentric system, the universe and the Earth share a center of mass, and thus the universe can rotate around both. And since there is a shared center of mass, the Earth cannot be moved, just as Scripture says. In order to move the Earth one would need to move the whole universe, which is impossible.

Third, Setterfield ignores the fact that the 22,000 mile mark (or even a little above it) is not a unique place where the gravity of Earth is balanced by the gravity of the universe, as if it were some kind of universal balance point to the exclusion of every other possible point of balance. It is only the balance point for a Geo-satellite with a specified mass and acceleration (an acceleration, as we saw earlier, that is true even of a “stationary” Geo-satellite when we use the homogeneous formulation of Newton’s second law).

\(^{16}\) Geocentricity, 1992, p. 287.

\(^{17}\) See my book, A Googolplex of Tiny Blackholes: A Theory on the Cause of Gravity, Inertia and the Speed of Light, 2016, CAI Publishing, Inc. It is also true that Bouw himself has abandoned the belief that gravity is limited to the speed of light.
In fact, Setterfield’s appeal to the moon will explain why his criticism of a “balance” is not correct. The moon, because it is much more massive than the Geo-satellite, will need to be placed farther away from Earth than the Geo-satellite in order to reach the appropriate “balance” point between itself and the Earth. Newton’s gravitational equation is $F = \frac{M_1 M_2}{R^2}$. To compensate for the greater $M_2$ for the moon as compared to the $M_2$ for the Geo-satellite, the moon must be placed much farther away from the Earth. Moreover, since the moon is accelerating around the Earth it has a centrifugal force to counterbalance the Earth’s gravity. With both these criteria, the moon must be at least 250,000 miles from the Earth. In effect, the 250,000 mile mark is the “balance” point between the Earth, the moon, and the rest of the universe; whereas the “balance” point between Earth and the Geo-satellite is 22,000 miles. Likewise, if we placed the Geo-satellite at 10,000 miles above the Earth it would need an additional compensating factor in order to reach the “balance” point needed. In this case it would need an acceleration greater than 7000 mph.

**Setterfield:** In fact, geocentrism claims the entire universe swings around the earth once every 24 hours. If this were true, then even the closest astronomical objects outside our solar system would be flying apart.

**R. Sungenis:** Not a proper conclusion. The centrifugal force and its effects all depend on what constitutes the universe; how fast it is rotating in proportion to its size; and the internal gravitational attraction of its constituent parts. If the universe were like an air-inflated ball with marbles in it, then a sufficient rotation of the ball will cause a centrifugal force on the marbles and the marbles will be forced to separate and cling to the rim of the ball. If the universe were more like a gel with marbles, it would take more rotation speed to cause the same effect. If the universe is more like a bowling ball, although spinning the bowling ball will create a centrifugal force on all its constituent parts, they will remain in the same place in the bowling ball. The only thing that could disrupt that stability is if the bowling ball was spun so fast that the internal molecular or cohesive compounds could not sustain the force, and thus the bowling ball would break apart.

**Setterfield:** Geocentrists admit that the stars are outside our solar system, although they usually claim the stars are much, much closer than astronomers say they are. That leads to the problem that if the stars were really that close, they would be interacting with each other, and probably violently. We do not see that.

**R. Sungenis:** It’s a puzzle why Setterfield says that “geocentrists...usually claim the stars are much, much close than astronomers say they are.” Perhaps he is trying to make geocentrists look as odd as possible to help him in his quest to marginalize them. The truth is, the very person who Setterfield stated above is “The primary proponent of the geocentric idea,”
namely, “Dr. Gerardus D. Bouw,” does not hold that the stars are close. In fact, he also believes in an expanding universe. It was only his former partner, Walter van der Kamp, who believed the stars were closer.

Be that as it may, geocentrist can work with either a small or large universe, since the same geometric and dynamic principles will operate in both. But we must fault Setterfield for his reasoning, nevertheless. He claims that “if the stars were really that close, they would be interacting with each other, and probably violently. We do not see that.” This is false. If the stars were close, they would be proportionately smaller in size, and thus their gravity would be proportionately less, and thus they would not interact with each other anymore than they do now.

**Setterfield:** They attempt to overcome that problem by saying that space, in the Bible, is described as “the firmament,” which means something solid, and so the universe itself must be a solid, dense rotating body. This, then, gives the lie to a great deal, if not just about all, of standard astronomy.

**R. Sungenis:** I assume the “problem” Setterfield is referring to is how the universe can rotate daily around the Earth without the celestial bodies being overcome by centrifugal force. Setterfield tries to head off the answer by objecting that a Firmament as a “solid, dense rotating body” is a “lie” and opposed to “all of standard astronomy.” This is a half-truth. Astronomy is now coalescing with Quantum Mechanics, and the latter holds that the universe is solid and dense. Quantum Mechanics realizes that space is not empty (contrary to what Einstein told us), but is filled with particles at the Planck scale. These Planck-particles make the universe “solid and dense,” but since the particles are so small (10^{-33} cm as opposed to the electron which is 10^{-13} cm), they are not perceptible to us or our instruments.Setterfield must know about this fact since he claims to be an authority on the issue, but he has obviously failed to mention it. His effect is to make it appear that the universe as a “solid and dense body” is unscientific, and thus further marginalize geocentrist. In reality, it is the geocentrist who are on the cutting edge of cosmology.

**Setterfield:** This is also a reason they must deny the red shift is due to motion. While we agree the distant red shifts are not due to motion,

**R. Sungenis:** Again, Setterfield has either ignored what Bouw has said or purposely fails to mention it. Bouw believes the universe could very well be expanding, and it does so within the Firmament, which is bigger than the universe. Hence, in this model, redshifts would be due to motion.
**Setterfield:** ...there seems to be pretty indisputable evidence that the red and blue shifts in our local group of galaxies is due to motion both away from and toward us, respectively.

**R. Sungenis:** It’s only “indisputable” among those who first hold that the Earth is moving around the sun and the sun is moving round the core of the Milky Way. The fact is, both redshifts and blueshifts within our local group can just as well be created by the galaxies moving toward or away from a fixed Earth, since such light spectrum shifts don’t care from which direction the motion comes.

**Setterfield:** There is another relatively sticky point for geocentrism that I have not seen satisfactorily dealt with. When we have a major earthquake, it changes the earth's rotation rate. We know this because we can see the difference in the apparent movement of the background stars. Is the entire universe reacting to the quakes on earth, or is it simply that the earth is stuttering a bit in its rotation rate so that we do not see the background stars exactly where they should be? While the changes on earth are quite minor, if the earth itself were not affected by the earthquakes, but the universe was, then the reaction of the universe to our little earthquakes must be massive.

**R. Sungenis:** This is nothing but a myth, but those who believe the Earth is rotating are forced to accept this myth since Newton’s laws demand that internal and external inertial forces MUST retard the Earth’s rotation rate. But we don’t see any appreciable change between the stars and Earth. The relative rotation rate is always 23 hours, 56 minutes and 4.1 seconds and has never changed as far as recorded history goes. But if we added up the millions upon millions of earthquakes that have occurred during that history, a very appreciable change in the rotation rate should have been seen, but there is none. For example, Venus’ rotation rate has decreased by 6 minutes in the last few years, and so has Saturn’s. The claim that there is a change in the rotation rate is based on results of the VLBI (very long baseline interferometry), but it is doomed from the start since it only focuses on one star. At the least, there should be two stars, if not three or more, to verify any change in the relative rotation rate between the stars and Earth. Even then, its supposed changes are in the microns of seconds, which is simply not convincing of any appreciable change. Conversely, the geocentrists have the best answer as to why there is no rotation change. Since the universe is so massive, its inertia will allow it to rotate around a fixed Earth at the same speed, *ad infinitum*. It is like a giant flywheel due to its extreme mass. In contrast, the Earth, like a tiny pea in space, would be greatly affected by any internal or external force, just as Venus is so affected. But since the relative rotation rate between Earth and space has not changed, Setterfield’s complaint is neutralized.
**Setterfield:** One thing that convinced Galileo that we are in a heliocentric (sun-centered) solar system was when he saw, through the telescope, the four main moons of Jupiter rotating around Jupiter, not around the earth. They were clearly not rotating around the earth. Jupiter itself gave clear evidence that it, also was not going around the earth, but was rather going around the sun, following Kepler’s laws.

**R. Sungenis:** Again, Setterfield does not seem to understand the geocentric system. The geocentric system used today (and also by Bouw) says that Jupiter IS going around the sun, and that Jupiter’s moons are going around Jupiter. In that sense, the geocentric system is identical to the heliocentric system. The only difference is that, in the geocentric system the sun, in turn, is going around the Earth since it is moving with the universe’s rotation around Earth. Since the universe and the Earth share a center of mass, the universe can rotate around the Earth and carry the sun and planets with it. Additionally, the planets have a separate revolution around the sun to complete their respective orbits. The sun, in turn, has an independent lag behind the stars by about 4 minutes per day, which forms our year.

**Setterfield:** Because of the argument that the stars are actually quite close, we have been asked if parallax is a viable way to measure star distances. Parallax is a way of measurement where a closer object is measured against a background object. If you are standing in a field and there is a tree close to you and a forest of trees farther on, then if you move, the relative position of that close tree against the background trees will change. The change in the “movement” of the background trees relative to the near tree creates an angle, whose point is the near tree. That angle, coupled with knowing how far you have moved on the ground gives you the distance between the near tree and the far trees.

The same thing is done with relatively near stars. When we can see a change in the relative positions of a nearer star against the background stars, first of all we can check it for a year or more to make sure it is due to our movement and not something else. When we know it is due to our movement, and we know how much the earth has travelled, we can then determine the distance between the near star and its background. This depends on knowing the diameter of our orbit. Geocentrists, however, state this method of determining distances is entirely inaccurate as the earth does not move. Bouw has worked out a system called the “Tychonic Model,” in which, in addition to the sun and the entire universe revolving around the earth once a day, also has the sun and other stars following an annual path around the earth. This gets complicated. The annual orbit of the sun around the earth is a path whose diameter is equal to what we see as the diameter of the earth’s orbit. This results, in his model, of stars having an annual parallax movement which exactly corresponds to standard parallax measurements based on the diameter of the earth’s orbit.
Now, if their measurement of the sun’s annual change is the same as our earth’s orbital diameter, then the parallax measurements must be the same and the distances measured the same in either case. If this is true, then why do so many geocentrists claim the stars and other galaxies are actually quite close and not as far out as standard astronomy claims? Parallax works in either case, determining the same distances for the same objects.

**R. Sungenis:** First, the “Tychonic Model” does not show parallax since in that model the stars are revolving around the Earth as their center. It is the Neo-Tychonic model that shows both stellar parallax and stellar aberration, since the stars are centered on the sun, and the sun is revolving around the Earth as its center on a 1AU pivot.

Second, Setterfield’s objection has no merit. He says, “If this is true, then why do so many geocentrists claim the stars and other galaxies are actually quite close and not as far out as standard astronomy claims?” Once again, the very person Setterfield says is “the primary proponent of the geocentric idea,” namely, “Dr. Gerardus D. Bouw,” does not hold that the stars are close.

Third, since Setterfield says that “Parallax works in either case, determining the same distances for the same objects,” that is, parallax works for the geocentrists whether the stars are close or farther away, then Setterfield has neutralized his own objection.

**Setterfield:** Because we have determined the distances by parallax to some Cepheid variable stars, and know their intrinsic brightness, when we see similar Cepheid variable stars in distant galaxies, and measure their brightness, we know how far away those galaxies are.

**R. Sungenis:** No we don’t. It’s all guesswork made upon assumptions that cannot be proven. Cepheid variables are certain for one thing and one thing only – they vary in their light output. But no one knows for certain what the “intrinsic brightness” is of a Cepheid variable or any other star.

**Setterfield:** There is so much more that can be said scientifically. Theologically, Dr. Bernard Northup, a close friend of ours for many years who is with the Lord now, wrote an excellent theological argument countering Bouw’s presentation of his model. Dr. Northrup was a recognized scholar in Hebrew and Greek and was often consulted by Bible translators around the world regarding the proper meanings which were needed in various tribal languages. He gave us a copy of that paper years ago and the following excerpts are from the paper by Dr. Northrup.
Excerpts from “Eccentricities Observed in Bouw’s 'Geocentricity’” by Bernard E. Northrup, Th.D, October, 1995

**Northrup**: For years Gerardus D. Bouw has edited the “Bulletin of the Tychonian Society,” a creationist publication which has insisted that the earth is the center of the universe. It is a position which insists that rather than recognizing that the earth rotates on its axis before the sun, the center of our solar system while it is in orbit around it, holding that the universe is within the firmament which rotates at immensely high speed around the earth. In his paper, “Massive Superstrings and the Firmaments,” which he delivered in August, 1995, at the Sixth European Creationist Congress, Bouw seeks to develop a mathematical defense of his position, arguing from “mathematical logic.” He is Professor of Math and Computer Science at Baldwin-Wallace College in Berea, Ohio. THE POSITION SUMMARIZED. It is obvious from his paper that mathematics is his specialty rather than astronomy or the Bible.

**R. Sungenis**: This is false. Bouw’s Ph.D. is in Astronomy. Mathematics is also a specialty of his, and thus he can combine his knowledge of Astronomy with Mathematics, as all good and honest scientists must do.

**Northrup**: In the paper he presents his “firmament theory” which has been a major focus for him since 1977. In his “mathematical logic” he rejects the concept of space which was popular when I studied physics over 50 years ago and accepts the idea that the aether is an infinitely dense medium called a plenum.

**R. Sungenis**: The “concept of space which was popular when Northrup studied physics over 50 years ago” was dominated by Einstein who taught everyone that space was empty, a vacuum of nothing. This model has been discredited, not only from physics, but also from metaphysics. In the metaphysical sense, space cannot be “nothing” because “nothing” does not exist, by definition. Space must be a “something,” otherwise it would not exist. Even Einstein abandoned this concept by accepting ether back into his system in 1920. At that time Einstein said something very similar to what Bouw is proposing, namely, that the ether which constitutes space is “imponderable,” that is, it cannot be seen or measured. This is precisely the same kind of “ether” accepted today by Quantum Mechanics. It is “imponderable” because it is in the Planck dimensions. As such, Quantum Mechanics believes space is a plenum, since there is nothing more dense and pervasive in the material world.

**Northrup**: He does so for a reason which seems strange to me as a theologian. He says that “…in the last century the field of mathematical logic has shown that motion is possible in a plenum if the plenum is infinite in extent, eternal, and uncreated.” On the basis of the Word
of God, which is my final authority I cannot accept any one of these three elements, especially when he seeks to distinguish between the eternal plenum, which he equates with God, and the created universe. He says:

Recall that, according to mathematics, motion within a plenum is impossible if the plenum is created or finite in extent. At first glance this would appear to leave us only with the rare aether models such as the ill-fated luminiferous aether model, but is it possible that a created, finite medium could behave as a plenum to objects inside it? God would have to create that plenum so that the material bodies within it could not physically perceive that it is neither infinite nor eternal. In other words, such a created plenum could under no circumstances allow its finiteness to be noticed by the material in the universe. In particular, this means that material measurements could never be made to infinite precision; that the absolute properties of matter in space must be indeterminate. As long as that condition is met, bodies can move through that created plenum without hindrance...Furthermore, the created plenum, as is the case for the uncreated plenum, must allow motion only along closed or cyclical paths. In particular, such allowable paths would include rotational and revolutionary motions as well as waves; but perfectly straight-line (rectilinear) motion is not allowed.

THE POSITION QUESTIONED: For one whose advanced mathematics barely enable him to meet the requirements of the Internal Revenue Service, this sounds like quite a bit of ivory tower gobbledygook. It seems to me to be a thesis that is exceedingly difficult to prove except on paper. I will not attempt to dispute Bouw’s math since that is not my field.

R. Sungenis: That Northrup appeals to such condescending statement (whatever “whose advanced mathematics barely enable him to meet the requirements of the Internal Revenue Service” means) shows that he comes to this discussion with an axe to grind and is not open to alternative views. In any case, since Northrup admits that his knowledge of mathematics is less than Bouw’s, then perhaps Northrup’s audit by the Internal Revenue Service might reveal that he is guilty of tax evasion. 😊

Northrup: But when Bouw turns to extract Scriptural statement from its linguistic and contextual settings in order to adapt it to fit the interpretation which he promotes, that is quite a different matter. He plainly demonstrates his inadequacies in the understanding and handling of the clear import of Scripture.

For example, he says:

Now the key to identifying the created plenum is to recognize that there must be a space for it first. After the creation of the heaven (space) [parenthesis in original] and earth, we find that there is mention of the creation of such a medium in the Holy Bible. God calls it
the firmament, and inside it he set the sun, moon, and stars (Genesis 1:15,17). Since firmament is the God-chosen name for the created aether, we shall henceforth use it instead of the word aether.

One should immediately recognize the logical leap in his words, “After the creation of the heaven (space)…” and the fact that his interpretation scarcely is in alignment with Psalm 104:2. There the Psalmist, undoubtedly reading the flow of Genesis One when careful consideration to the flow of events in the Psalm is given. The Psalmist speaks first of the Eternal Lord’s creation of the heavens. As the Psalmist considers the successive events of the creation week he speaks of this first event as he views the Eternal Lord “…stretching out the heavens like a curtain…” It must be recognized that the Psalmist does not utilize the root RQ’ (the letters RESH, QUOPH, AYIN) from which RAQIA’, firmament in the KJV, to describe the act of the Creator’s stretching out the heavens.

Rather the Psalmist used the continuous action participle NOTEH from the verb root NTH. This Hebrew verb includes such meanings as “to stretch out, to extend and to spread out.”

The participle and its clause properly could be translated timelessly as “…continually stretching out the heavens like a curtain.” Such an interpretive translation would be made if the translator had made the decision that he must support the concept that the universe is continually expanding.

R. Sunjenis: No, the Hebrew grammar can go either way. Just because a participle is used does not mean the action is indefinitely continuous. Northrup’s injection of “continually” or his statement that NOTEH is a “continuous action participle” is specious. Every participle connotes a continuing action and thus there are no “discontinuing” action participles as opposed to “continuing” action participles.

The relevance of the “continuing action” of a participle is dependent on its context (and even then we don’t know for sure) as to whether the participle refers to one action that occurred over a definite period of time or an extended action that goes on indefinitely. Such is the case in Psalm 104:2.

It’s the same in English. If I said, “I was stretching out the curtain” or “I stretched out the curtain,” both, in reality, have the same meaning, that is, the curtain was stretched out. Whether or not the curtain will be continually stretched out indefinitely will require more information than what Psalm 104:2 provides us. The same would be true if we said, “I am stretching out the curtain.” The “stretching” only refers to the action of stretching and cannot tell us the duration of the stretching. That Northrup would try to pass off a Hebrew
participle as being an indefinite stretching means that Northrup is either misconstruing the Hebrew grammar or is trying to deceive the reader.

We can easily see that NOTEH is not giving such specific information about the time duration of the stretching by realizing that the previous participle used in Psalm 104:2 is CHATSAH (“covering yourself”) in the sentence “who coverest thyself with light as with a garment, who hast stretched out the heavens like a tent” (RSV). Notice two things. First, the participle “coverest” does not mean that God continually seeks to cover himself with light as if God is continually gathering light to cover himself, but that God once covered himself with light and the action is over. He now stands covered with light, and will be that way indefinitely.

Second, notice that the RSV translates both Hebrew participles (CHATSAH and NOTEH) in the past tense, even though participles don’t have a tense. That is because the RSV understands that the participles are not necessarily denoting a continual or indefinite action as they are denoting a continual and definite state of being.

We see the same thing in the next participle. In Psalm 104:3 it says God, “lays beams in the waters of his upper rooms.” The word “lays” is a Hebrew participle HAMEQURAH, but we would be amiss to interpret this as saying that God is continually laying beams in the waters. Rather, it means that the beams were laid at one time and continue to exist that way in the waters.

**Northrup:** On the other hand, in the light of the following context, the time of the action more likely should be treated as past be past. Then it would be translated “...having stretched out the heavens like a curtain.”

**R. Sungenis:** Northrup is not being consistent. Either the Hebrew participle denotes a continuing and indefinite action or it denotes a past completed action. He cannot have it both ways. Since it is used as a past, then Northrup’s complaint against Bouw is neutralized.

**Northrup:** The use of the simile “like a curtain” scarcely suggests the creation of empty space. It implies that the heavenly bodies which are dispersed through the stellar heavens could be likened to the delicate, diaphanous texture of a fine curtain.

**R. Sungenis:** This just shows that Northrup’s “50 years ago” concept of space is amiss, since it is not “empty space.” There is no such thing as “empty space.” In order to exist, space cannot be empty. It may have places where no stars or planets are contained and thus we could call it “empty” in that relative sense, but space, as space, is not empty. Hence, since space is a substance, it can therefore be stretched. In fact, since the Planck dimensions of
Quantum Mechanics are so dense, a stretching of it is precisely the thing we would expect. Moreover, it is precisely this “stretching” of space that gives it tension so that light and gravity can travel through it at great speeds, much greater than the limited speed of light and gravity that Einstein gave us.

**Northrup:** Furthermore, it absolutely must be recognized that the Divine and human authors of Psalm 104 clearly recognized that this act of stretching out the stellar heavens like a curtain preceded the laying of the foundation of the earth in perfect accord with the order in Genesis 1:1.

**R. Sungenis:** No it did not “precede the laying of the foundation of the earth.” Psalm 104 does not claim to be a chronological outlay of creation, only Genesis 1 does. Genesis 1 uses the formula of “the evening and the morning were the first day” and “the evening and morning were the second day,” and so on until the sixth day. Genesis 1:1 is merely a titular introduction to the rest of the chapter, not a statement that God made the heavens before he made the earth. In fact, Genesis 1:8 says “and God called the Firmament heaven,” thus denoting that the material heaven was made on the Second Day, not the First.

**Northrup:** It should be noted that Bouw’s correct recognition that the Bible is the Word of God somehow has allowed him to speak of the word firmament as it is used by the translators in the King James Version to translate the Hebrew noun “RAQIA’ as “...the God-chosen name for the created aether...””

**R. Sungenis:** Northrup has not proven otherwise. In fact, Northup has shown himself to be a very poor exegete not only of the Hebrew grammar but of the English as well.

**Northrup:** It is obvious that he has not had enough to do with the translation of the original text even to know that the King James Version is scarcely “the God-chosen translation which replaces the original languages.”

He assumes that it is proper for the English reader fully to infuse a translation of the original languages with that which can only be ascribed to the Scriptures in the original languages. It is only in the original languages that one can be assured that the reader has before him the “God-chosen” words. Inspiration as defined in the Word of God relates to the work of the Holy Spirit, the Divine Author as the human author was guided in his own word choice by that Divine Author so that what he wrote was without error. It is regrettable but true that no translation can lay claim that the Word of God gives one the right to claim this “God-chosen” inspiration.
R. Sungenis: For this position Bouw is to be faulted. The King James version is not a divinely authorized version. No version is. Be that as it may, Bouw’s interpretation of the Firmament as a material ether is a lot closer to the truth than Northup’s concept of “empty space.”

Northrup: When Bouw speaks of the English translation of firmament, which is the key word at the base of his entire assumption concerning our universe, he fails to recognize how every translation falls short of being a perfect translation in so far as translator assumptions, misunderstandings and theological biases cause the translator to fail accurately to reproduce that intended by the Revelator, the Holy Spirit. As a result of the human factor which is altogether too fallible, the translator or translation team may fail to provide the reader with “God-chosen” words in the translation. Indeed, the major problem facing the reader of any translation is one which most readers to not even recognize. This is the fact that a translation cannot help but contain “man-chosen” words which do not fully or accurately translate the meaning of a word in a particular context. After all the context in which a word is used in any language affects the precise shade of meaning.

Bouw does not seem to recognize that an interpreter/translator’s theological bias or even his failure fully to understand a text or a word can hinder his translation’s attempt fully to convert the explicit meaning of the original language to another language. Having worked in the original languages for more than 45 years, I constantly have been faced with translator errors and inadequacies (in my own work as well) as I have compared English translations of the original languages. As a result, I am very sensitive to this basic error in Bouw’s approach to Scripture.

R. Sungenis: All very true, but that issue has nothing to do with Bouw interpreting the Hebrew RAQIA (“Firmament”) as referring to a material plenum of ether. The word RAQUIA means “hard and flexible,” which is precisely how the Planck-particles of Quantum Mechanics are understood.

Northrup: ...The fact that the uses of “firmament” or “the stretched out space of the heavens” in Genesis 1:15 and 17 are bracketed by very clear explanations that this word refers to the atmospheric heavens removes the major pillar from beneath the geocentric explanation of our universe.

R. Sungenis: Northrup more or less contradicted himself. If, as he says above, that the translators often make mistakes in their Bible translations or interpretations, then how can the “bracketed...explanations” added to the Bible by the human translator be guaranteed as correct? To add any kind of notation to the pages of the Bible is a bold move, since it gives the impression that the human interpretation is somehow on par with divine revelation. It is
not. It is merely the human author’s opinion. And if that opinion is as biased as Northrup’s opinion seems to be, then it is not worth the paper it is written on.

In fact, to designate the Firmament as merely “the atmospheric heavens” is a gross error. Genesis 1:8 tells us that the Firmament is the heavens, and Genesis 1:14 and 17 tell us of the “Firmament of the heavens” (wherein the Hebrew means they are one in the same). Since Genesis 1:14-17 also tells us that the sun, moon and stars are placed in the “Firmament of the heavens” and we know the sun, moon and stars are not in “the atmospheric heavens,” then how can the Hebrew RAQUIA (“Firmament”) refer only to “atmospheric heavens”? It is apparent that Northrup is inept to tell us the real truth. The sun, moon and stars are in the Firmament of heaven, but they are not in the “atmospheric heavens.”

**Northrup**: It categorizes the presentation of a geocentric universe with other wild ideas which have arisen through improper exegesis. This discarding of the theory from future creation conferences will remove one of the obstacles which seeking naturalists find standing in the way of their recognizing that the Word of God actually is a fully trustworthy testimony of precisely that which happened in earth’s earlier event series.

**R. Sungenis**: The only one with an “improper exegesis” is Northrup. In fact, I have not seen such bias and ineptness from a supposed Hebrew scholar in a long time. The only exegesis that should be “discarded” is his own. Unfortunately, it is precisely this kind of shoddy exegesis of Scripture that has hampered the Protestant creationist movement since the time of Henry Morris. That these people can be so adamant about a literal interpretation of Genesis 1:18-31 and practically bend over backwards to avoid the same literal hermeneutic when interpreting Genesis 1:1-17, is appalling.

**Setterfield**: Additional note from Barry regarding "RAQUIA." -- Geocentrists require a solid firmament so that the whole universe can rotate around the earth in 24 hours. If it were not solid, this could not happen. The argument may be presented that we have an example of the planets orbiting around the sun which is not solid. However each of the planets orbits at its own individual speed. Geocentrism states that the entire universe actually is rotating around the core, the earth, once every 24 hours -- there are no individual orbiting times. For this to be possible, the earth's firmament must be surrounded by a solid covering. The core of the universe must be solid. In fact, the universe itself must be a solid for it not to disrupt at the incredible speeds required to spin around the earth once every 24 hours, despite the idea presented by a number of geocentrists that the universe is not that large at all. Even if it were no larger than our Milky Way Galaxy, the disruption caused by the speeds required would be quite evident. Disruption is not evident.
R. Sungenis: We have already answered most of these objections above. I would suggest that Setterfield put more study into the quantum mechanical understanding of the Planck-particle plenum. Just as the Hebrew RAQUIA (“Firmament”), by definition, can be something that is both hard and flexible, so is the concept of a Planck-particle spatial medium. When we reach particulate sizes that are 20 orders of magnitude smaller than the electron, amazing things happen. And when this very fine particulate medium is cooled to 2.75 Kelvin (which is the ambient temperature of the universe), even more amazing things can happen, as has been discovered with Helium 4 and other elements which show no friction at such low temperatures. Thus the planets can travel independently around the sun in a frictionless medium. In fact, the Planck-particle medium helps us answer the very difficult claims of Genesis 1, such as how light from the stars could reach Earth in a single day. It just so happens that a “stretched” Firmament will allow light to travel way beyond c. Even Einstein’s General Relativity recognizes this aspect of the universe, since it admits that the centrifugal forces created by a rotating universe will allow light and any material object to exceed c. As noted by General Relativist G. V. Rosser:

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.\(^\text{18}\)

Additionally, the speed of gravity in a stretched material plenum would allow it to cross the universe in about $10^{11}$ seconds and thus solve the problem of how gravity can hold the universe together if it is limited to c.

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\(^{18}\) *An Introduction to the Theory of Relativity*, William Geraint Vaughn Rosser, 1964, p. 460. Rosser was the senior lecturer in Physics at Exeter University.