

THE LABOR OF THE SUN

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While the earth remaineth, seedtime and harvest, and cold and heat, and summer and winter, and day and night shall not cease.

—Genesis 8:22

How do we explain the earth's seasons and day-night cycle in the geocentric system? The Bible tells us that these phenomena, experienced universally by mankind all over the world, will continue dependably "while the earth remaineth." So we order our everyday lives and make our plans with the confidence that temperatures will vary cyclically and the sun will keep coming up reliably. It's been that way for a long time—since the Genesis Flood. Civilization as we know it would be shut down in a hurry if it were not so.²

Most of us, having been thoroughly brainwashed from our earliest days in the Copernican world view, are familiar with the standard heliocentric explanation of these phenomena: the earth rotates daily on an axis tilted with respect to the ecliptic plane, in which the earth circles the sun annually. This explanation is almost universally accepted by everyone, and is certainly plausible, at least on the surface, given the assumptions that the sun is the "fixed" center of the solar system and the earth moves.

But what if the earth is fixed instead and the sun moves, **as the Bible says**?³ If we want to adopt the Bible's earth-centered scenario, are we stuck for a physical explanation of the seasonal and day-night variations that we observe during the year? Do we have to phenomenize everything the Bible says about the matter, lest is, and we, become a laughing stock in the educated world? We certainly don't want to come up with a theology that is not compatible with real world phenomena, do we?

Many people believe that the geocentric system is a historical embarrassment to Bible believers, a pre-scientific myth that went out with the flat earth and the dark ages, thanks to the efforts of Galileo, Kepler, Newton, and other illustrious figures. They are downright in-

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² Note that the verse does not say "forever," but "while the earth remaineth." We are living on borrowed time, so to speak.

³ There is no doubt that the Bible is overtly geocentric. Anyone can confirm this for themselves with a little honest investigation.

credulous when someone tries to suggest that the question of the earth's motion is not "all settled" as they had been taught, but that the earth might after all be fixed on center stage of the universe.⁴

One thing geocentrists had better do if we want to survive this kind of skepticism is to develop an explanation for the various observable phenomena in a geocentric framework. Of course, we can't just go back to Aristotle. We have to bring current empirical discoveries and data into the picture as well, and little by little we have to understand the whole geocentric layout in some detail. That's quite an ambitious project, I admit, but I'm encouraged by the fact that conventional astronomers have been working on the Copernican system for more than 300 years and haven't got it figured out yet, so we are no worse off than they. I hope that folks can bear with us for a while.

What I am trying to do here is to answer a limited question: How does the sun move with respect to the earth in the geocentric model, and how does this motion cause the day-night cycle and the quarterly seasons?

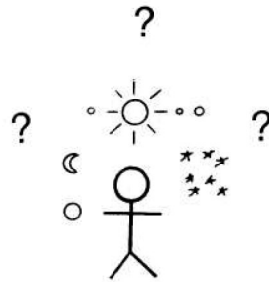
It has been said that scientific progress consists of three steps:

1. "It can't possibly be true!"
2. "What if it is true?"
3. "We knew it all along."

I'm working on step #2—the "explain this, explain that" phase of the modern resurgence of geocentricity. I don't claim to have all the answers by any means, but I have a few of them, and since I'm sort of the resident mechanic in the geocentric camp, I feel a responsibility to get to these explanations one at a time, as long as I am able. The larger project will undoubtedly extend beyond the lifetimes of most of those now working on it.

This paper should be considered a first-cut at the problem, and not an "official" geocentric model, which does presently exist except in its most rudimentary form. Suggestions, comments, and criticisms of the concepts presented from readers are certainly welcome. I'm sure that geocentricity has a great future, so the time others and I spend on this should be very worthwhile.

⁴ Geocentricity involves both a non-rotating and a non-orbiting earth. Some would-be geocentrists allow for a centrally located but still rotating earth. I believe this unscriptural compromise is entirely unnecessary.

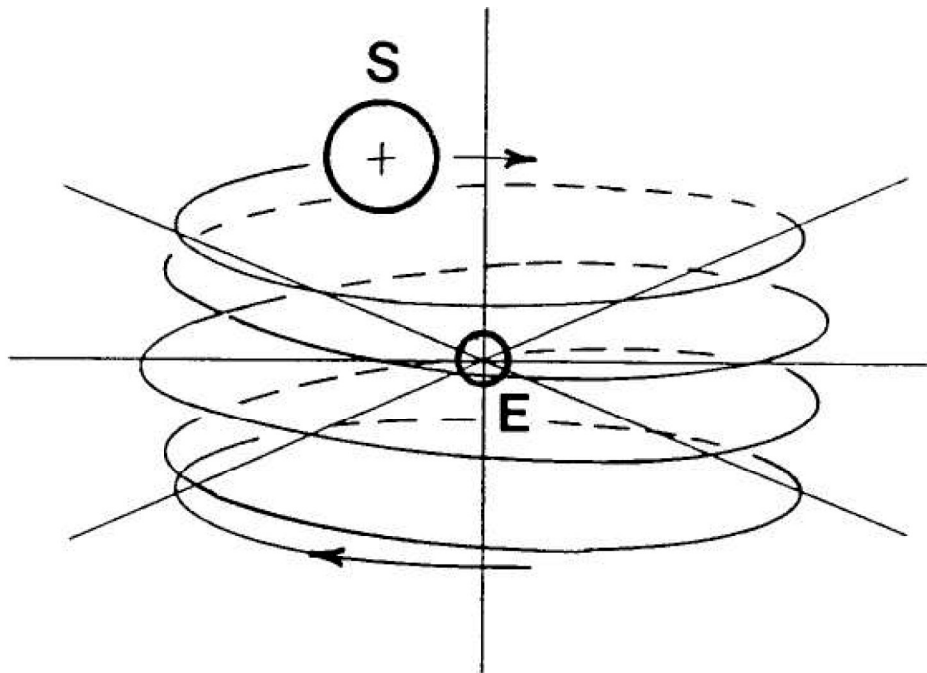


Solar Kinematics.

The accompanying diagram shows the path of the moving sun around the fixed earth in the geocentric model.

In the model, the sun follows a double-helix path, shaped something like a short, fat, slinky spring, reversing itself in the north-south direction at each end, and repeating approximately the same pattern annually. The helix is barrel-shaped, with the top head slightly larger than the bottom head.

The sun travels completely around the earth each day in a clock-



wise direction (as viewed from above the north pole). Gradually it works its way up and down the helix during the course of a year, reaching the bottom in December and the top in June, taking six months to travel each way.

The axis of the helix is the same as the prime axis of the universe, with the earth fixed on this axis and in the center of the helix.⁵ The celestial and earth's equatorial plane cuts the helix in two with respect to its northern and southern ends.

The distance of the sun from the earth varies during the year from 91.5 to 94.5 million miles because of the shape of the helix, equivalent to the elliptical path of the earth's orbit in the heliocentric model.

The seasons are caused by the varying positions of the sun on the helix, crossing the equatorial plane at the spring and fall equinoxes in March and September and reaching the ends of the helix at the summer and winter solstices in June and December. Of course, the northern hemisphere has "summer" in June and "winter" in December, while the southern hemisphere experiences the reverse.

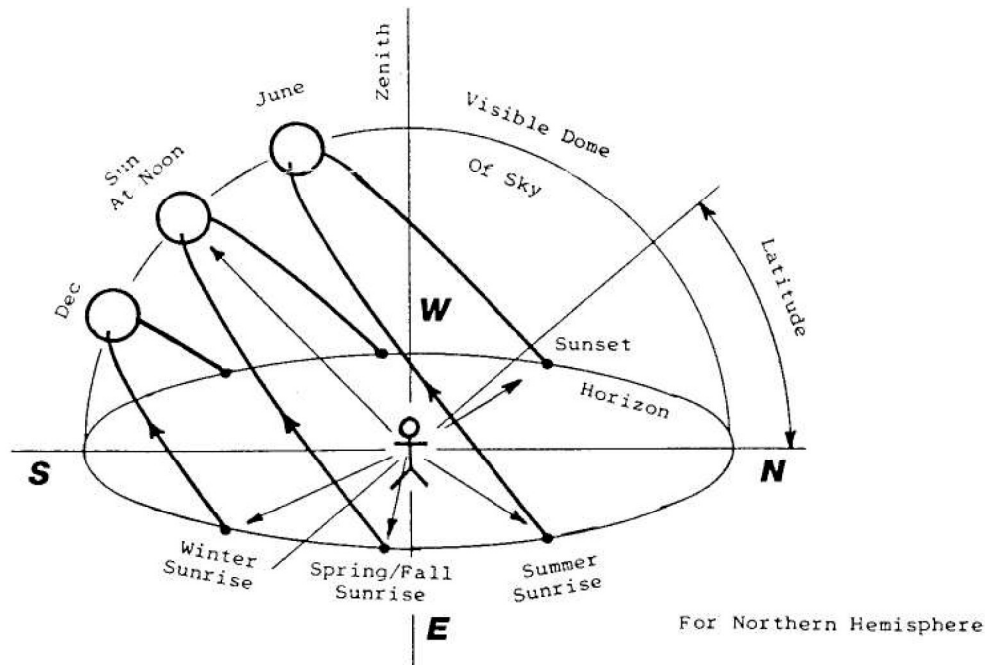
The sun spends a week longer in the northern half of the helix than in the southern half, because the pitch of the helix is finer there. As a result, the sun makes seven more daily circuits while it is above the equatorial plane. This gives the earth's northern hemisphere a slightly longer summer and shorter winter than the southern hemisphere. (Eat your heart out, Aussies!)

The helical pattern is not exactly recursive (i.e. repeating path) from year to year. It wobbles slightly over about a 26,000-year cycle (the precession of the equinoxes), and experiences other small variations, which I haven't looked into. The sun also rotates on its own axis, which is tilted with respect to the axis of the helix, on about a 27-day cycle.

To get around the earth each day, the sun covers about 584 million miles in 24 hours, or about 6800 miles per second. Over the course of a year, it has made about 365 circuits and traveled almost 214 billion miles. That's some *De Labore Solis!*

As we observe the sun from our place on earth, we are viewing only a portion of the helix from inside of it and at an angle to its axis which depends on our latitude on the earth. Our viewing horizon cuts off all but the daily arc of the sun's travel along that portion of the helix:

⁵ One might wonder where the earth is located absolutely, and what holds it stationary in this model. Job 26:7 suggests a possible answer to this: "He stretcheth out the north over the empty place, and hangeth the earth upon nothing." Thus the earth may fill some kind of special "empty place" set aside for it below the line of "north" in the original created universe, and it is held in place by "no-thing," or supernaturally. Far-out idea, huh?



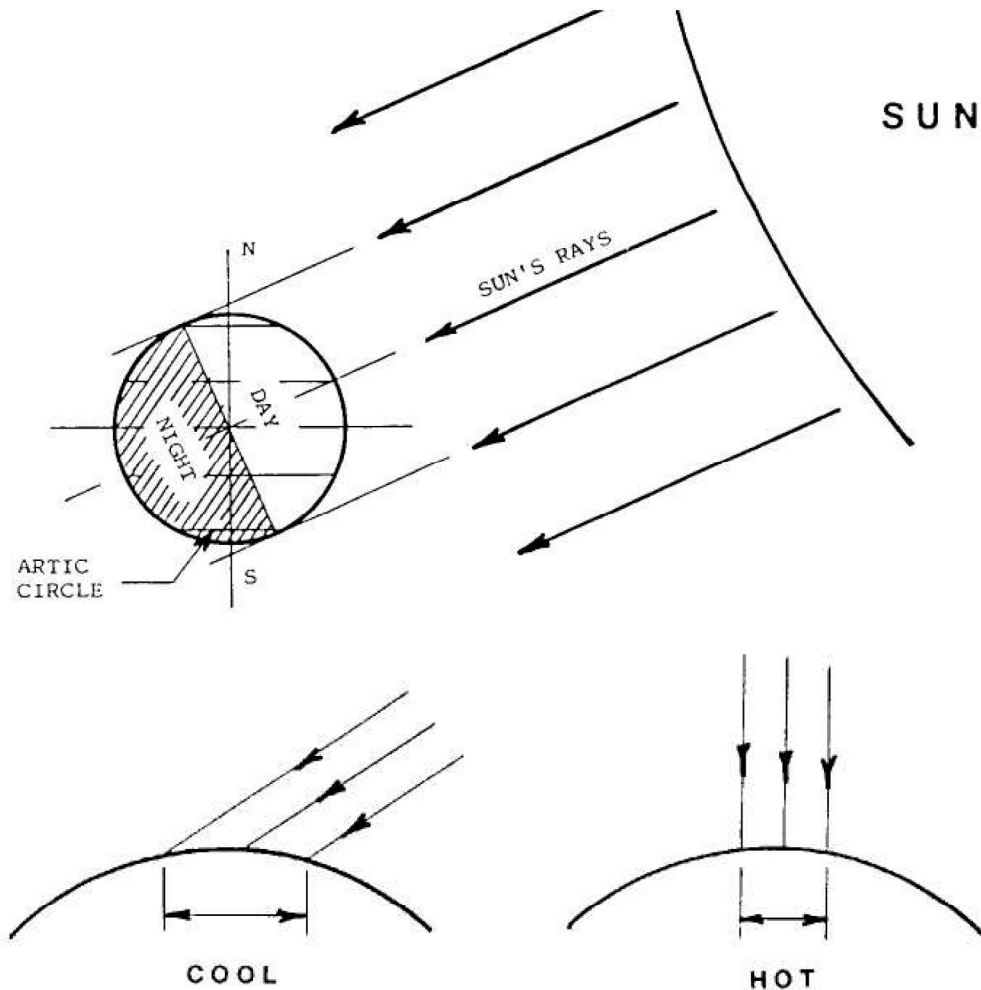
Sunrise and sunset occur at the ends of that visible arc, and at a varying angle to the horizon, which at the equator is 90° . This angle is the same at a particular latitude for all seasons (except for the variation in pitch of the helix), but as the observer sees it, the angle varies because of his different perspective to the arc at different times of the year.

Sunrise is always in the east and sunset always in the west all over the earth because of the clockwise direction of the sun's travel around the helix, as mentioned earlier. Daytime is longer in summer than in winter because we see the sun in a higher and therefore longer arc of the helix. This reaches an extreme beyond the arctic circles (latitude $66\frac{1}{2}^\circ$), where near the solstices the sun never rises or never sets and continuous daylight or darkness prevails (see figure at the top of the next page).

The local climate in summer is warmer than in winter because of the higher angle of incidence of the sunlight, not because the sun is closer. (It is actually closer to the earth in the northern hemisphere's winter than in summer.) The contribution of the difference in distance is minor compared to the effect of the sun's angle in the sky.

Similarly, the greatest radiation received from the sun during the day occurs when the sun is at its highest point in the sky, not at sunrise or sunset (see second figure on the next page). In both cases the hottest part of the day and year occur somewhat later because of the "heat sink" effect of the earth's oceans, atmosphere, and land areas.

An interesting description of the cause of seasonal variations in the geocentric system is found in Galileo's *Dialogues*, where he wrote in a section concerning the moon:



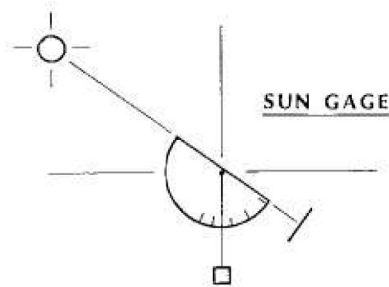
The annual sinking and rising by which the sun causes the various seasons and the inequalities of day and night are finished for the moon in a month.⁶

I assume the lack of criticism of geocentricity in the immediate context was an oversight on Galileo's part. In any case, he got the observation right and understood the cause of the seasons and length of days in the geocentric model.

If the reader wants to follow the position of the sun in the sky during the changing seasons for himself, he can do so by using the "Sun Gauge," available from the author without charge in kit form for this purpose. This simple device will enable him to confirm among other things that the sun really is at the equator on the vernal and autumnal equinoxes, and at the ends of the helix on the solstices. He

⁶ Galilei, Galileo, 1967. *Dialogues Concerning the Two Chief World Systems*, (Berkeley: Univ. of Calif. Press), 2nd edition, p. 100.

will then have “ocular proof” that the sun is where it is supposed to be, and gain a better understanding of the motion of the sun in the geocentric model:



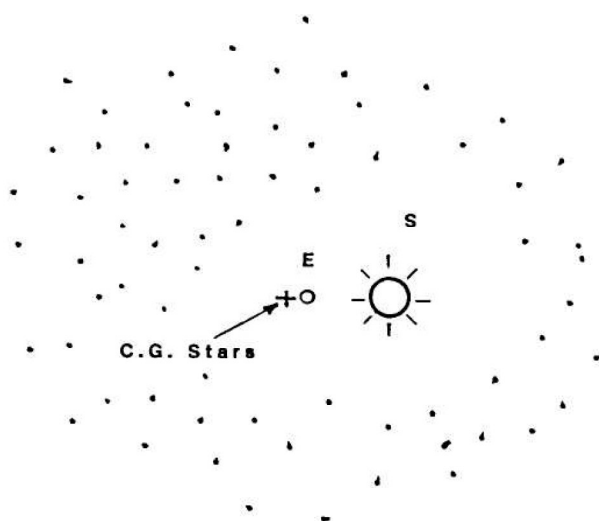
A common objection to the geocentric arrangement of things is expressed in the question, “What furnishes the gravitational balance to keep a ‘big’ sun going around the ‘little’ earth, rather than vice-versa?” The idea is that in the heliocentric model the large, heavy sun is in the center of the solar system and doesn’t move (much), while the small, light earth and other planets run around that center, held by the gravitational pull of the sun. That is certainly a persuasive argument, assuming the validity of Newtonian gravitational principles, but it doesn’t constitute conclusive proof if valid alternate explanations based on the geocentric arrangement are available. They are not hard to come by.

In the first place, nobody really knows what the mass of the sun is. All current statements about that are based on arbitrary, unconfirmed assumptions about the physical structure of the sun and a lot of other unknown factors. For all we know, the sun may be a giant “gas bag,” filled mostly with hydrogen and helium, very light elements, and not even having a particularly dense core. Detailed photographs of sunspots look to me (and, incidentally, looked to Galileo) like holes in the bag, revealing a black (and thus cooler) interior, the composition of which is not known with certainty.

The fact that different latitudes (and possibly different layers) of the sun rotate at different rates is evidence that the sun is not solid and does not even have a solid surface. For that matter, the sun may not be a nuclear-fusion star at all, but a very different kind of object. It shivers all the time and loses mass at a phenomenal rate to radiation and the solar wind, so how can anybody reliably calculate its mass? The point is that even though the sun is big (over 100 earth diameters) it is not necessarily as massive as we have been led to believe.

Apart from this consideration, the heliocentric scenario leaves out the mass of the whole rest of the universe, made up of billions of stars and other objects beyond the solar system. This is no trivial omission.

If we were to extend our geocentric diagram to include the stars, the center of gravity of this enormous mass could be offset from the prime axis by a small amount (say six inches—who knows?), so that it would easily balance the puny mass of the sun, no matter how that is calculated. In the geocentric model, the function of the earth is primarily to furnish a small gravitational stabilizing influence to the rest of the universe, not to generate the physical forces of orbital mechanics for everything else. Here again, the earth is truly unique. I just don't see a problem with this "balance" argument. With geocentricity, you just have to "think big," that's all:



It might be useful to add a few preliminary words about the moon and planets here, although they are not the subject of this paper.

The moon orbits the earth daily and follows a double-helix path somewhat similar to the sun's but in a monthly rather than a yearly cycle, as Galileo noted, exhibiting its various phases, positions, and timing depending on where the sun, earth, and moon are relative to one another.

An analysis of the moon's motion promises to be much simpler than in the heliocentric model, because it is orbiting a fixed earth instead of following an earth which is itself performing various complicated motions as it goes around the sun. Newton himself became frustrated in trying to figure out the moon's motion in that system, and finally gave up.⁷ I think we will have a lot easier job of it with the geocentric arrangement.

In the geocentric model, the planets (less the earth) can still be considered to be a conventional gravitational system orbiting the sun and carried around the earth each day, the fixed earth furnishing the stabilizing influence for all this, which is now so lacking as the solar is

⁷ Newton recalled bitterly that "his head never ached but with his studies on the moon." The irony here is that the heliocentric system has departed considerably from the original Copernican model, and the supposedly "fixed" sun is now moving again, rotating with the Milky Way galaxy and shifting its position within it. The galaxy itself is also moving with respect to other galaxies, and the whole thing without any true center or basis of stability left, *a la* Einstein. This sad state of affairs *really* would have given Newton a headache.

conceived heliocentrically. This important matter of stability and the earth's unique function as the anchor of the universe will be covered in a future article.

In the geocentric system, the so-called "ecliptic plane," more or less encompassing the path of the planets, is not fixed but moves and tilts with the sun as it travels in a celestial band from $23\frac{1}{2}^{\circ}$ north latitude to $23\frac{1}{2}^{\circ}$ south latitude. The planets never experience true "retrograde" motion in the geocentric arrangement, as the stars themselves circle the earth daily. The planets as seen from the earth will speed up and slow down some, and be on the sun side or opposite side of the heavens, depending on their orbital positions around the sun, but they are always moving forward, never backwards, and their daily motion is substantially geocentric, *a la* Ptolemy.

Solar Scripture

As an example of the many Bible verses which refer in one way or another to the sun, there is a wonderful description of the sun's daily and annual journey around the helix in Ecclesiastes 1:5-6. The Catholic Douay Old Testament version⁸ (taken from the Septuagint via the Vulgate) translates these verses as:

[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 spirit goeth forward surveying all places round about, and returneth in its circuits it returneth.

The Thompson⁹ translation of the Septuagint has it this way:

[5] The sun riseth and the sun setteth and cometh round to his place. [6] Rising there he marcheth southward, then wheeleth about to the north. The wind wheeleth in circuits, and in its circuits it returneth.

Now if "wind" or "spirit" refers to the *solar wind* (the powerful supersonic stream of charged particles flowing into space from the sun's corona) instead of to an earthbound meteorological wind, the sixth verse becomes eerily more significant. The solar wind could even be

⁸ New Catholic Edition, (Catholic Book Publishing Co.: New York), 1949-1950.

⁹ 1954. Thompson was secretary of the U.S. Continental Congress from 1774 to 1789. (Falcon's Wing Press: Indian Hills, CO). Zondervan's translation of the LXX is similar to this.

considered to be the “spirit” of the sun, and thought of as a type of the holy spirit, just as the sun itself is often considered to be a type of Christ.¹⁰ The solar wind certainly exhibits physical characteristics which are compatible with this idea.

Looked at this way, even the King James (sourced from Jewish Masoretic texts) takes on new significance:

[5] The sun also ariseth and the sun goeth down, and hasteth to his place where he arose, [6] The wind goeth toward the south, and turneth about unto the north; it whirlleth about continually, and the wind returneth again according to his circuits.

The translators of the King James, however providentially preserved and excellent their work is generally, apparently chose to relocate the word “wind” to the beginning of verse 6 instead of using the word “it” there to refer back to the sun in the previous verse and leaving wind in the middle of verse 6 to be the subject of the following sentence as the Hebrew text has it. I wonder also why the translators used the word “wind” instead of the word “spirit,” since it is exactly the same word in the Hebrew. The earth-bound wind is never referred to as “his” in the Bible.

I hope King James fans won’t get all bent out of shape when I mention these ideas. I’m no Bible scholar, so I can’t get into arguments about the relative merits of the various translations. In any case, **all** of the translations of verse 5 at a minimum describe the motion of the sun going around the earth in geocentric fashion. They certainly do not refer to a fixed sun and a moving earth, at least not if taken literally and not brushed off as a pre-scientific mistake by the author of the Bible. There is no way to turn verse 5 into a heliocentric description of the solar system. It is geocentric, period.

So what?

This brings me to a point that I think is very important. The Bible tells us a lot about the physical universe. It was not written just for spiritual purposes as many people believe. Every worldview is founded on a physical scenario of the cosmos, which forms the stage on which the drama of human existence is presented and explained. And everybody has a world view, whether conscious of it or not, which deter-

¹⁰ Unfortunately, there are many pantheistic references to the wind as spirit, able to “illuminate the soul,” etc. And plenty of sun-worshipping connections to occult mystery religions of various types, so I don’t want to push this angle too far.

mines their attitude toward the world and their actions in everyday living, so it's important to get the world picture straight. I can't think of a better place to check out a world view than the Bible. The natural world as we view it and the written word of the creator of that world had better be compatible, or one or the other is seriously out of whack. I am convinced that it is modern science and not the Bible that is out of whack.

When the Copernican Revolution upset the geocentric view of the cosmos which had reigned for thousands of years, it had a profound effect on a lot of things, not the least of which was that the Bible was seen to be in error about the earth's place in the cosmic scheme of things, and had to be relegated to second-class status as far as its authority in every other area was concerned. Many people logically and understandably concluded that if scripture wasn't reliable in telling us "how the heavens go," it couldn't be trusted when it tells us "how to go to heaven." And that had profound consequences.

The philosophical consequences of the geocentric/heliocentric controversy are plain enough that even Bible skeptics understand that if the earth is not fixed on center stage of the universe, then life on earth and man himself are essentially meaningless. John Donne expressed his concern over the new world view with the lament: "'Tis all in pieces, all coherence gone!" That's so true.

I think it is shameful that many otherwise sound Bible believers have allowed themselves to be faked out or a fully scriptural commitment on this issue and cannot summon the courage to accept what God says concerning the special place of the earth in the physical universe. Creationists in particular should not be pussy-footing around on this matter, and as a long-time windmill-tilter in the creation/evolution controversy, I'm plenty disappointed in many of them. I wish they would stop acting like their brains were made of reinforced political concrete.

The Bible is geocentric, there is no doubt about it. After all, what was the earth doing when it was first created in Genesis 1:1—orbiting and being gravitationally held by a sun which was not even present until three days later? There is no logical, scriptural or scientific reason for believers to consider the earth as anything but what the Bible says it is, the physical as well as the philosophical centerpiece of the universe.

Here's a parting shot: In 1630 Galileo added a note to the preliminary leaves of his own copy of the *Dialogues* which reads as follows:

Take note, theologians, that in your desire to make matters of faith out of propositions related to the fixity of the sun and earth you run the risk of eventually having to condemn as heretics those who would declare the earth to stand still and the sun to change

position—eventually, I say, at such a time as it might be physically or logically proven that the earth moves and the sun stands still.

The Catholic Church, recognizing the seriousness of Galileo’s challenge to the Bible, did condemn Galileo as “vehemently suspect of heresy.” Now, almost 400 years later, we are still waiting for the physical or logical proof that the earth moves and the sun stands still. I have offered a substantial reward¹¹ for such proof if it exists, and haven’t seen anything remotely resembling what I seek in almost two decades since the offer was first made. I’m sure it is not out there.

So take note, theologians. Take note, scientists. Take note, Galileo. And quit bluffing. Geocentricity is coming back, and there isn’t a thing you can do to stop it. It offers tremendous advantages over the reigning Copernican model, both scientifically and scripturally. I can just hear you guys saying a few years from now: “We knew it all along.”

¹¹ The \$1000 Reward offer asks for scientific proof-positive (not hearsay, popular opinion, “expert” testimony, majority vote, personal conviction, organizational ruling, conventional usage, superficial analogy, appeal to “simplicity,” or other indirect means of persuasion) that the earth moves. I have recently increased the offer to \$10,000. Still no takers. Copies of the reward offer are available from the author.