

Position Paper (November 1992)

GEOCENTRICITY-GEOSTATIONISM: THE FLAT EARTH TEMPTATION

by Gay North

I am writing this on Monday, October 12, 1992: Columbus Day. Exactly five centuries ago, Columbus landed in the New World, and nothing was ever the same again.

One myth that has been almost universally accepted in the United States is this: "Columbus was able to discover the New World because he alone believed in a round earth." His contemporaries, so the myth goes, believed in a flat earth. Somehow, they did not believe their own eyes when they gazed out to sea from some hilltop. When they saw the white sails of a ship appear on the horizon, followed by its bow, they did not conclude the obvious: the earth is round.

Samuel Eliot Morison, the master historian of both the early European voyages and the naval battles of World War II, wrote in his popular book, *Christopher Columbus, Mariner* (Mentor, 1954): "That it was theoretically possible to reach the Orient by sailing west every educated man would admit, since every educated man knew the earth to be a sphere, but nobody had done anything to test the theory. In 1476, when Columbus reached Lisbon, the proposition of sailing west to reach the Orient was at about the same stage as man-made flight in 1900 – theoretically possible but full of practical difficulties" (p. 14).

It seems incredible, but in our day there is still a Flat Earth Society. The last newspaper clipping I have on the organization indicates that there are under two hundred dues-paying members. Flat-Earthers have become the premier symbol of men's intellectual resistance against education and modern discovery. The Flat-Earther is dismissed as the very incarnation of backward thinking. To be labeled a Flat-Earther is to be identified as a kind of intellectual Neanderthal, a person so out of touch with reality that nothing can penetrate the mental darkness.

And yet, and yet . . . the modern intellectual has learned that there is no neutrality. The combination of Marx's doctrine of class ideology and Thomas Kuhn's thesis of intellectual paradigm shifts, announced in his 1962 book, *The Structure of Scientific Revolutions*, has undermined the older liberalism's confidence in objective truth, a worldview which was still dominant on the campus in my undergraduate days. Today, academia insists that all ideas have a right to compete on campus, especially those that have been refuted by recent events, such as Marxism. Well, almost all ideas have this right. Theories of racial inferiority, with or without documentation, are not offered equal time, nor is the suggestion, with or without documentation, that the Nazis did not pursue a genocidal policy of extermination against Jews. The modern humanist insists that all opinions are equal, but some are more equal than others. To use the language of sports teams, the flat earth did not make the cut. It is not taken nearly so seriously as the "Elvis is alive" theory. Not even American supermarket tabloids are ready to promote the flat earth theory.

I assume that no self-respecting Christian would regard as plausible the suggestion that the earth is flat. He would do almost anything to escape the stigma of being labeled a Flat-Earther. But he has a problem, if he believes in the literal interpretation of the Bible. The Bible teaches that the earth has four corners, which indicates that the Bible teaches a flat earth.

And he shall set up an ensign for the nations, and shall assemble the outcasts of Israel, and gather together the dispersed of Judah from the four corners of the earth (Isaiah 11:12).

And after these things I saw four angels standing on the four corners of the earth, holding the four winds of the earth, that the wind should not blow on the earth, nor on the sea, nor on any tree (Rev. 7:1).

Other than simply to ignore the language of these passages, how can a Bible-believing Christian avoid becoming a public defender of a theory of the flat earth? There is an answer, as we shall see, but this answer creates embarrassing problems for those who defend biblical literalism. So, the literalists prefer never to think about, let alone comment on, these passages. They act as though these passages were not in their Bibles. They play a grown-ups' game of "let's pretend."

Principles of Biblical Interpretation

Biblical interpretation (hermeneutics) has three aspects, each equally valid: grammar, logic, and rhetoric. The **grammatico-historical** aspect reveals the literal meaning of words and phrases. It also identifies which period of time the words were revealed or uttered. The logical aspect is in fact the theological: the overarching worldview that reflects and reveals the unchanging God of the Bible. The assumption of God's immutability is the foundation of theology: an unchanging God who does not lie to His people about Himself or His relationship to His creation. Finally, there is rhetoric, or more to the point, biblical symbolism. When Moses threw down the tablets on which God had inscribed the law, he said nothing. He nonetheless announced something. But what? God's wrath, surely. A broken covenant, surely. And perhaps even a coming judgment that would divide righteous from unrighteous. But there is no doubt that the symbolism had meaning. It was not a random act, nor was it the result of Moses' tired arms.

No system of biblical interpretation which emphasizes any one of these three approaches at the expense of one or both of the others deserves to be called orthodox. Thus, the much-vaunted "liberalism" of dispensational fundamentalism's grammatico-historical approach can and does lead to horrendous errors of interpretation. The problem of the four corners of the earth is a good example, both

theologically and rhetorically. Most Bible commentators would agree with me here, if only to avoid the Cain-like mark of Flat-Earthism. They are also ready to grant the non-literal nature of Revelation's prophecies regarding the *stars* falling to earth (Rev. 6:13), since the twinkling little stars are in fact very large and very far away. ("Or are they?", ask the geostationists.)

But this symbolic interpretation of falling stars raises a problem with the literal fulfillment of Jesus' prophecy in Matthew: "Immediately after the tribulation of those days shall the sun be darkened, and the moon shall not give her light, and the stars shall fall from heaven, and the powers of the heavens shall be shaken" (Matt. 24:29). If the stars will not literally fall from heaven, what about the darkening of the sun and moon? Is it possible that Jesus was invoking the rhetorical – symbolic – words of Isaiah, which he used to describe the coming fall of Israel to Babylon? "Behold, the day of the **LORD** cometh, cruel both with wrath and fierce anger, to lay the land desolate: and he shall destroy the sinners thereof out of it. For the stars of heaven and the constellations thereof shall not give their light: the sun shall be darkened in his going forth, and the moon shall not cause her light to shine" (Isa. 13:9-10). Could Jesus have had a looming political transformation in mind, just as Isaiah did when he prophesied against Edom? "And all the host of heaven shall be dissolved, and the heavens shall be rolled together as a scroll: and all their host shall fall down, as the leaf **falleth** off from the vine, and as a falling fig from the fig tree" (Isa. 34:4). Could Jesus have been using rhetoric – symbols – in the way that Ezekiel used them against Egypt? "And when I shall put thee out, I will cover the heaven, and make the stars thereof dark; I will cover the sun with a cloud, and the moon shall not give her light. All the bright **lights** of heaven will I make dark over thee, and **set darkness** upon thy land, **saith** the Lord **GOD**" (Ezek. 32:7-8). This is what David Chilton argues in his book, *Paradise Restored* (Dominion Press, 1985). But if Chilton is correct, then what happens to dispensationalism and its defense of prophetic **literalism**? Must it, too, go the way of the theory of the flat earth?

interpreting the Four Corners

These are not literal comers, any more than Governor George Wallace's famous enemies, the "pointy-headed intellectuals," really had pointy heads. The phrase could refer to the four corners of a map or the four directions. Jordan believes that it refers to the earth as a house – a familiar biblical metaphor – as he argued in a December, 1981, article in *The Biblical Educator*. (Partial reprint below.)

Back in 1964, I heard a woman privately announce the following to R. J. Rushdoony shortly after he had delivered a speech to a small group: "They've found the four comers of the earth." Rushdoony remained politely silent. Who "they" were she did not say. Where the four corners are she did not say. But she was convinced that "they" had discovered all four. I filed that incident away in my mind as a classic example of mental derangement produced by a misplaced liberalism.

This should stand as a warning: every fringe movement, which is what any new movement is at its beginning, attracts people who tend to be attracted to fringe movements and ideas. For example, the Fabian socialists had their share of free love advocates, vegetarians, spiritualists, and similar counter-cultural oddities. These people arrive on the doorstep with a lot of fringe-laden baggage, picked up during their previous periods of total commit-

ment to other fringe movements. Some quickly shed the baggage. Others try to integrate it into the new movement. Others eventually move on to the next fringe group.

This has also been the experience of Christian Reconstruction. I still retain my share of opinions that I picked up before there was such a thing as Christian **Reconstruction**, such as the Austrian economics (Misesian) theory of the trade cycle, revisionist history's version of the origins of World War I and World War II, and so forth. But I do my best not to base my opinions on business cycle theory or American foreign policy on the Bible in the sense of these opinions having been revealed there.

The problem comes when a fringe opinion gets tacked onto another fringe movement in the name of shared presuppositions. Let me give an example. Christianity is a minority religion in the world. Protestantism is a minority in Christianity. Evangelical Protestantism is a minority within Protestantism. Calvinism is a minority movement within evangelical **Protestantism**. Christian Reconstruction is a minority movement that grew out of Calvinism, but which overlaps other groups. As we move outward on the fringe (or perhaps inward to the "true" center), which ideas get left behind and which get inserted into the tracts and treatises of the outer fringe (or inner circle)?

Six-Day Creationism

Consider a doctrine universally believed by Christians from at least the days of Augustine (*City of God*, XVIII:40) until the eighteenth century the under 6,000-year-old earth. The rise of **uniformitarian** geology in the early nineteenth century, followed by the triumph of Darwinian biology, moved the vast majority of Christians in the West away from any belief in six literal days of creation that took place recently. Even the stalwarts on the faculty of Princeton Theological Seminary by 1890 **had all adopted some version of the age-day hypothesis or progressive creation**. In this century, Dallas Theological Seminary has never affirmed belief in the six-day creation as necessary to orthodoxy. Neither has any conservative Presbyterian seminary.

Rushdoony and I co-founded Christian **Reconstructionism**. We are both six-day creationists. So are the following leaders: Bahnsen, Jordan, Sutton, Gentry, Chilton, and all the other writers I can think of. This position is shared by many fundamentalists and some evangelical, but not those who teach on **seminary** faculties.

Creation Science is a subset of six-day creationism. Its members appeal to the tenets of Newtonian science – "flood geology" and "entropy" – to defend **their position**. While I think there are serious limits on such appeals, given the existence of miracles in God's providential government, I have no objections to using the techniques of science to explain certain past geological events. But my faith in the six-day creation is not based on such techniques. At best, these arguments and discoveries are small-bore weapons to include in the arsenal of biblical revelation. They are useful in minor skirmishes. They will not win the war.

Geostationists

On the fringes of Creation Science is a small group of devotees of another theory, one offered in the name of Creation Science by its members, but a theory that has never been promoted in the books and journals of the Creation Science movement. This group defends **geocentricity**: the earth as the literal center of the universe. More than this: they defend a theory of an unmoving earth. The entire universe, they insist, revolves daily around our tiny world. They have been publicly promoting this theory

since the mid-1970's. The Tychonian Society is one of the organizations that defends this cosmology.

I prefer not to refer to this movement as geocentrism. They are geostationists. It is a movement with a unique theory of cosmic movement and immobility. When they say that the sun rises in the east and sets in the west, they really mean it. They insist that the galaxies of the universe literally revolve around the earth, once revolution per day.

A cosmology which is this out of touch with modern astrophysics is far more of a tactical problem for Henry M. Morns and his natural science associates than it is for Christian Reconstruction, which concentrates on social theory and policy. Dr. Morns has prudently chosen to ignore the geostationists' theory in (as far as I can recall) all of his books. In his book, *History of Modern Creationism* (San Diego: Master Book Publishers, 1984), there is not one word about **geocentricity** or geostationism, nor is there any reference to the main promoter of this theory, James Hansen.

Surely it was not an oversight on Morris' part that the **geocentrists** are absent in a book he wrote that serves as the standard history of the modern six-day creation movement. He could have attacked them, but Dr. Morris has always chosen to avoid confrontation with those Christians who hold to a six-day creation but who sometimes go beyond what he regards as the bounds of legitimate scientific discussion. For example, my 1988 book, *Is the World Running Down?*, as far as I know has never been mentioned or reviewed in journals associated with Dr. Morns. What we can say is this: when he publicly ignores something "within the camp," we can be fairly sure that he privately disagrees with it.

For over a fifteen years, I have imitated Dr. Morris with respect to the **stationary** earth movement. Except for publishing Jordan's essay in *The Biblical Educator* (edited by David Chilton), I have left the topic alone. Recently, however, I have inadvertently been drawn into the debate after having stayed out for so long. I shall explain this a bit later.

Joshua's Long Day

There are several people who claim to have earned Ph.D's in physics who are promoting the theory of the unmoving earth. Extremely important to them is a unique event of Joshua's time. "And the sun stood still, and the moon stayed, until the people had avenged themselves upon their enemies. Is not this written in the book of Jasher? So the sun stood still in the midst of heaven, and hasted not to go down about a whole day" (Joshua 10:13).

That the sun did not appear to move across the sky, I have no doubt. That it literally stood still – on all fours? – I have grave doubts. What we have in this verse is a good example of biblical rhetoric. Strong's Concordance defines the Hebrew word for "stood as follows:

Hebrew 1826. *damam*, *daw-mam'*; a prim. root [comp. Heb 1724, Heb 1820]; to be dumb; by impl. to be astonished, to stop; also to perish: -cease, be cut down (off), forbear, hold peace, quiet self, rest, be silent, **keep**(put to) silence, be (stand) still, tarry, wait.

Hebrew 1724. *daham*, *claw-ham'*; a prim. root (comp. Heb 1740); to be dumb, i.e. (fig.) **dumbfounded**: -be astonished.

So, the sun was dumbfounded. Not only dumbfounded; it was astonished. It remained silent. It held its peace. It tamed. So says the Hebrew, literally interpreted.

When I received my first newsletter from a **geostationist** in 1976 — handwritten, no less — I became like the sun.

I was dumbfounded. I was astonished. I held my peace. But I shall hold my peace no longer.

Why not? Restructuring **astrophysics in terms of this** misinterpretation is preposterous but inherently harmless – as harmless as some anti-establishment physicist who spends his evenings puttering in the basement, using his own money, to build a perpetual motion machine. (I can think of at least one non-physicist Christian Reconstructionist author – "The New Age Christian," as one prominent conservative national leader has described him in private – who has used his frequently bizarre newsletter to promote inventors of what can best be described as perpetual motion machines.) Misinterpreting the Bible, however, is always dangerous. Furthermore, recruiting ill-informed and emotionally vulnerable laymen (theological and scientific) in terms of both the misinterpretation of the Bible and an outer fringe theory of the cosmos endangers the victims' spiritual maturity.

Geostationism strains the outer limits of both cosmology and credulity. If the naive victims' faith in **geostationism** is ever shaken by the breaking-in of reality, their faith in the word of God-becomes at risk. Playing **bizarre** games with astrophysical theory in private is one thing, so long as no one hires the practitioner to work in the space program. Developing bizarre theories in the name of anti-establishment science is normally neither dangerous personally nor significant culturally. It is the pastime of very bright, very bizarre people. But a problem arises when others with far more to lose emotionally are attracted to these bright but bizarre people. These bright, bizarre people had better be correct, not just bizarre. Other people's spiritual and emotional stability is at stake.

The Achilles Heel

In case you should come across one of these well-meaning defenders of the unmoving earth, keep the following argument in the back of your mind. I call it the Achilles heel of geostationism. There is always a "soft underbelly" or Achilles heel in every movement: one obvious inconsistency or **anomaly** that the position's defenders find so difficult to answer that they never deal with it in public. They only respond in private letters. When you find such an area, probe relentlessly. Do not take **double-talk** for an answer. Pressure them to speak in English and stop mumbling. Ask them to show you their published answers that have been seen by their critics, and also any criticisms and their subsequent replies.

There is an old rule of formal debate: when two debaters are equally matched intellectually and tactically, the one with the stringer case will be revealed in the second rebuttal. When you find some issue that one side refuses for years to debate in public, you can be **pretty** certain that you have located the defender's Achilles heel. Let me mention the obvious, real-world Achilles heel of the stationary earth movement: the lowly (or "highly") telecommunications satellite.

Twinkle, Twinkle Little **Satcom**

Back in the 1940's, scientist-author Arthur C. Clarke described the best position in outer space for the placement of a geosynchronous satellite. Had he patented the idea, he might have made millions. Perhaps not; the patent probably would have lapsed before the first commercial telecommunications satellite was launched. But he made his prediction in terms of the conventional theory of a rotating earth. Launch a satellite to an orbit that is about 21,500 miles above the earth, so that its motion

parallels a fixed point on earth, and it can receive and re-transmit electrical signals.

Because they move parallel to the earth in a synchronous orbit, these satellites appear to be motionless in the sky. We base our modern telecommunications system on this visual illusion. Because they appear to be stationary, we know they are moving. They remain in the sky, apparently suspended in one spot as if by magic, because their centrifugal movement away from the earth, like the moon's, is counterbalanced by the gravitational pull of the earth. So, they neither fly into outer space nor fall back to the earth's surface.

Here is the Achilles heel of the geostationary earth theory: if the **earth does not move, then the satellites do not move**. If the satellites do not move, then there is no physical force pushing them away from the earth (centrifugal force) to counterbalance the pull of the earth's gravity. How do they stay up there?

Consider also the gravitational pull of the moon, a force great enough to affect ocean tides on earth. If the earth is stationary, then when the moon moves "behind the earth" from the perspective of a particular satellite, its gravitational pull is added to the earth's. Put differently, whatever upward gravitational pull that the moon had this afternoon on the satellite becomes a downward pull tonight. The satellite could not remain suspended in outer space unless God intervened 24 hours a day to hold each one right where it is. Add to this the pull of the sun when sun and moon are both pulling together, and we have a most remarkable phenomenon: **suspended satellites. I contend that it is not just the satellites that are suspended**. Also suspended is the scientific disbelief of those who believe in the geostationary earth theory and who then observe the satellites.

It may be possible for a Christian to defend scientifically both the stationary earth and stationary satellites. He needs only to present a theory of astrophysics which offers a series of testable mathematical formulas regarding what God predictably will and will not do to overcome the force of gravity in specific cases. That is, as long as the Christian (or Jew or anyone else) can specify predictable mathematical limits for his theory of God's cosmic thwarting of the Newtonian-Einsteinian laws of gravity, he can make a case in public and not be laughed off the podium or out of the profession.

The stationary earth movement refuses to take this approach. Its members never publicly offer formulas that present a precise description of God's continuing, full-time miracle of satellite suspension. Moment by moment, God has to alter the pull upward or downward on each satellite in order to compensate for the ever-shifting gravitational pull of the sun and the moon. But geostationists refuse to appeal to this inescapably necessary moment-by-moment miraculous intervention by God. They present themselves to the world as men totally committed to, and supported by, the conventional Newtonian-Einsteinian equations governing astrophysics. They also appeal to their credentials as scientists. I know; I received two letters last week from self-proclaimed physicists who challenged my view that their system lacks a scientifically testable theory of astrophysics, i.e., physical principles that got the satellites up there and keep them there.

The inescapable problem of the truly stationary satellites was raised by someone in an audience that had just listened to a 1979 speech by James Hansen. I heard the audio cassette tape in 1981 or 1982. Hansen mumbled a reply. That is the most polite thing I can say about his

attempt to evade the question. It **was obvious to me (though of course not to Hansen and his disciples)** that at that moment his theory had been blown out of the sky, or at least pulled down from the heavens. This is not some recently discovered problem. I have waited for over a decade to see a published article by a **stationary** earth scientist that explains why the communications **satellites do not fall down**. In a published article, evasive gobbledygook becomes risky.

When men put their most controversial views in print, defending the truly hard cases, then I take them seriously. When they refuse, year after year, to put in print something scientifically testable that their peers can respond to, then I do not take them nearly so seriously. That is to say, I do not take the geostationists seriously except as a peculiar religious sect on the fringe of a fringe of a fringe. Neither should anyone else. Hardly anybody does.

The Rhetoric of Mathematics

I noticed years ago that what the geostationists do, year after year, is circulate arcane mathematical essays printed with dot-matrix printers. (They also send out audio cassette tapes.) Their limited-circulation essays frequently insist that the mathematics of the stationary earth hypothesis is as conformable to – though of no logically greater authority than – the astrophysical phenomena described as is the mathematics of conventional astrophysics. They use mathematics as a kind of rhetorical battering ram against their critics. Their critics are rarely either academic or professional physicists, since professional physicists are unaware of the existence of geostationists. This technique presumably works well against non-physicists. If it didn't, they wouldn't keep using it.

Astrophysics is more than mathematics. It is also mechanics. It has to do with physical objects that possess mass. Astrophysics is the application of mathematics to repeatable cosmic phenomena, primarily as a means of explanation, but also as a means of control in the case of communications satellites. Mathematics is applied by scientists to a wide range of physical phenomena in their search for fixed relationships. The speed of light is the bedrock foundation of astrophysics: a constant to which modern physical science returns again and again, the "measuring rod" of astrophysics. But whatever the area of observation, mathematics as such is a tool to discover predictable relationships. One of these predictable relationships is the distance between the surface of the earth and a band of communications satellites high overhead.

What the geostationist movement has needed for over a decade – now that I think of it, for over four centuries – is a comprehensive textbook in physics that moves from the atom to the galaxies by means of a coherent, mathematics-based, testable series of logical and empirical steps. This geostationist textbook must be internally consistent, just as conventional physics and astrophysics are. The empirical examples and theoretical assertions must fit together in a coherent exposition. Most important for a successful defense of the movement, this textbook must be available for other physicists to challenge: line by line, equation by equation, assumption by assumption. Such a textbook is long overdue. Until it appears, geostationism will retain the character of a bizarre Christian sect. Audiotapes and brief essays will no longer suffice – not that they ever did.

Vulnerable Victims of the Bizarre

A few months ago, I received a letter from a man in a California prison. He seemed genuinely interested in Chris-

tian Reconstruction. As a side comment, he referred to his commitment to the stationary earth movement. He apparently assumed that I also hold it because I defend the six-day creation. I replied briefly to him that he had better consider the satellite problem.

Well, this poor fellow was crushed. He replied by mail; then I replied. He began writing to others within the unmoving earth movement about my "heresy." I sent him the following suggestion:

I think it would be wise for you to refocus your attention from the realm of astrophysics, which you really don't need to understand, to the world of ethics, especially the world outside prison walls to which you will eventually return.

You have a problem. You want to believe the Bible. You have also accepted the teachings of the "geostationicity" movement as almost the equivalent of the Gospel. If this movement is wrong, you fear, maybe the Bible is wrong. This is not the case; the movement is almost certainly wrong while the Bible is certainly true – just not a literal interpretation of a few passages.

You feel trapped. You keep referring my letters to those people who you hope and pray can answer me. You expect them to be able to do this as experts. Maybe they can, but they don't. **The geosynchronous satellite problem** has been the trap door problem for these people for well over a decade. It keeps getting asked. They cannot answer it in terms of Newtonian science, yet they keep pretending that they are faithful adherents of Newtonian science. They have maintained this schizophrenia for a long time. **It's very sad. All they have to do is be honest: accept their view of the Bible by rejecting physics.** They refuse to do this. **They elevate Newton to equality with the Bible.** They refuse to admit that their view of the Bible cannot be reconciled with Newton.

It is unwise for you to take these people seriously until you see their *published defenses* of their theory of the stationary earth and geosynchronous satellites. Then **you need** to send copies of these published defenses to a few conventional astrophysicists and ask if these articles have any mistakes in them. Then you can better decide what to believe: Newtonian mechanics or the arguments of the geostationary movement. Until then, think about other more profitable things.

When I wrote this, I forgot that a man in prison has a lot of spare time to write letters. If he is a "true believer," he will do so. This man began sending letters to the intellectual leaders 'of the geostationist movement. "Answer North! Answer North!" His is the problem faced by any non-specialist true believer who has been drawn into a movement led by specialists whose academic specialty the disciple is unprepared to understand, let alone defend intelligently. The disciple does not seem to understand that these apparently certified specialists do not actually practice their bizarre theory as professionals. They do it on the side as a kind of hobby. Not being able to persuade their peers, they concentrate on persuading the amateurs.

This is characteristic of every fringe movement in its early stages. The question is: Is the fringe movement grounded in reality or merely psychology? I think geostationism is grounded in **the psychology of desperate cultural resistance**, not grounded in physical theory and certainly not in biblical principles of biblical interpretation.

Private Letters vs. Published Defenses

~ Because of the inmate's letters, I have begun getting letters from these leaders. **They apparently take very seri-**

ously the frantic appeal by that lone inmate. (I should think they would be far more concerned with the deafening silence of the physicists.)

Because of my unfortunate weakness, I began to reply to those who kept sending me letters promoting this utterly bizarre thesis. The problem is, I have more valuable things to do with my time than correspond with practitioners of the blatantly bizarre. The practitioners, in contrast, have made the defense of their position their life's financially unrewarding calling. They regard their defense of their position as top priority. So, I will surely run out of incentive to continue these postal debates long before they do. I am therefore publishing this essay in an attempt to force these folks to do what they needed to do a decade ago: publish in a scientific journal – even their in-house journal – a detailed study of the physics of stationary communications satellites.

There is no doubt that these men are serious. They are attempting to defend the Bible as they interpret it. They are doing their best to replace a Copernican theory of the universe with a version that conforms to their misreading of Joshua and other passages – a literalism which they are not ready to defend when it comes to "the four corners of the earth." They provide equations in their letters. They sometimes cite the conclusions of essays published in mainstream scientific journals which they contend prove that the mathematics of geostationism are equal to (but not superior to) the mathematics of the Copernican system. Problem: they do not include photocopies of geostationist essays on the stationary satellite problem.

In my letters, I continually ask for photocopies of these published articles. The leaders never send them. There is a reason for this: such published defenses do not exist. I deliberately annoy them by asking to see these essays. One Ph.D. physicist professes to be too busy to respond to me further.

A second correspondent sent me a typical letter with a couple of equations – mathematical rhetoric for the great unwashed. He says that he is a physicist and engineer with an M.A. degree. He also says he is a Christian Reconstructionist. (That, of course, creates a sense of uneasiness inside me.) In a page-and-a-half letter using space-and-a-half spacing, he purports to provide an answer to the communications satellite problem. The heart of his answer is this. I would not call it coherent – certainly not as coherent as my simple question: "How come they don't fall down?"

One must remember that the entirety of the universe is spinning. This leads to a statement of the "rest" condition in a universe that is undergoing continual acceleration (rotational motion is an accelerated reference frame). Since the reference frames are in motion the motion of all particles in the system must be taken in reference to these frames.

(If this man had instead majored in philosophy, he would probably be a follower of Herman Dooyeweerd. He has an affinity for obtuseness.)

Then follow a couple of equations that do not address the problem directly. Then his conclusion: "The shift to scalar notation is permitted since the direction of the vectors is known in the problem. The observed rotation rate is zero. . . ." He also includes the familiar geostationist claim: "This simply gives us the same equation used previously for the case of the heliocentric system with the same resultant expression of the orbital radius." In short, the mathematics are the same; therefore, geostationism cannot be shown to be scientifically false.

There is **one problem that he neglected to address: the mass of the universe**. It is not evenly distributed across the heavens, and surely not in the heavens in the immediate (relatively speaking) vicinity of the earth. The man-made satellites that "hover" high above a **stationary** earth will be pulled back to the earth unless there is a perfectly offsetting pull upward, meaning forces that perfectly and continually compensate for the ever-changing, tide-shifting pull of the moon, not to mention the sun, as it circles the earth. It is my belief that a brief dot-matrix letter containing a couple of equations will not offset this astro-physical reality.

Then he cites the guru of the movement, James Hansen: "A similar derivation has been undertaken by Dr. James Hansen (in a private communication) who discusses all of the relevant objections of this type; such as the **Foucault** pendulum." As I mentioned earlier, Hansen has been publicly sitting on this thorn for over a decade. I heard a questioner torpedo his entire system with this question on a cassette tape. That Hansen has disposed of "all of the relevant objections" – relevant to a true-believing disciple – in a private communication indicates that Hansen so far has been psychologically or intellectually incapable of responding in public communication so that physicists rather than prison inmates, engineers who are already in the movement, and newsletter **publishers** can comment on his handling of this problem. Such reticence on his part since 1979 testifies to his authority as the leader of a tiny religious sect rather than a scientific movement.

No doubt I will now receive lots of dot-matrix letters from other leaders in the movement, perhaps even the guru himself. Let me state my request in advance: "Gentlemen, please enclose photocopies of your publicly published answer to the Satcom Problem. My time is valuable. I will answer only your published responses to this problem, and only after I have three or four professional astrophysicists examine them. Then I will publish their responses." Just like a Satcom communications satellite, until they publish their solution, and until they publish detailed replies to the conventional physicists who respond, the geostationist movement will remain suspended high above the earth, completely out of touch with terra firma.

The geostationists are the closest thing **epistemologically** and psychologically to **Flat-Earthers** that we find to **day in the** Christian community. I suspect that this is why Henry Morns stays prudently silent about them. Why invite trouble? He has enough tactical problems in defending the six-day creation publicly without also having to fend off reporters' inquiries about the speed of light and the **galactic** spinning top.

Responsible Anti-Establishment Scholarship

What should we do when we believe fervently in some idea that the modern world rejects as preposterous? First, we should make sure that we separate what we believe about this or that event from what we believe is taught in the Bible. The Bible has greater authority than this or that anti-establishment thesis.

Second, if what we believe is taught in the Bible is at the heart of our anti-establishment affirmation, then we must make as certain as we can that the Bible really does teach the anti-establishment position we are proclaiming. This means that we, or some Bible-believing specialist in Hebrew and Greek, can show that the grammar of the various texts really does affirm our position. Then we must

test the grammar with both biblical theology and systematic theology, and then compare our findings with biblical symbolism. If all three confirm our position – grammar, theology, and symbolism – then we can begin to elaborate the implications of our belief. We can begin to publish Bible specific commentaries on the topic.

Third, we must compare these biblically derived implications with the present-day beliefs of specialists in science, if we are discussing a scientific issue. What have conventional scientists written on the topic? What have other scientists replied? What anomalies exist in the currently accepted theory of the particular phenomenon? Where is the Achilles heel of the current establishment view? Is there more than one Achilles heel? Can our theory solve these anomalies better than rival suggestions?

Thomas Kuhn argues in *The Structure of Scientific Revolutions* that paradigm shifts – shifts in scientific **world-view** – occur when observed anomalies can no longer be explained away successfully by the prevailing practitioners of establishment science. This provides an opportunity for skeptics within a scientific guild or skilled outsiders to challenge the prevailing theory. I think he is correct on this point.

If he is correct, then the **geostationists** have a monumental problem **facing** them. They argue that the equations adopted by conventional astrophysicists apply equally well to their own theory. But equality is not sufficient; there **must** be superiority in order for a new paradigm to replace the older one. The geostationists do not point to such superiority except on the basis of their misuse of certain biblical texts. (See Jordan's essay, below.) I ask the following question. So should you. **What major anomalies in establishment astrophysics have been detected that are uniquely solvable by the geostationist theory?** Kuhn's thesis indicates that unless there is an overwhelming reason for a guild to shift to a new worldview – a reason internal to the accepted prevailing standards of the guild – the shift will not take place. The costs of such a shift are high; the expected payoff is low. The establishment will not be moved off center. Therefore, it is not sufficient for the geostationists to maintain that their theory is mathematically equal to modern astrophysical theory. They must be able to demonstrate that their theory and the mathematics that support it are **far superior** to the prevailing theory.

This third stage requires one or more scholarly journals. After several years of interaction with conventional scholarship, and with other practitioners of the new paradigm, the promoters of the new paradigm need to publish one or more textbooks. A stream of textbooks, at least one per decade per academic discipline, is necessary to recruit younger men into the fold. The fact is, until there are competing journals and competing textbooks, the new paradigm has not even begun to approach establishment status, i.e., has not yet come close to winning the field.

The step-by-step approach that I have described here is what Henry Morris and the Creation Science movement have been doing their best to achieve since the early 1960's. They keep pointing to anomalies in uniformitarian geological theory and in Darwinian biology – anomalies that the evolutionists cannot easily explain or explain away. Morns & Co. also suggest theoretical approaches based on the presupposition of creationism that provide far more coherent – scientifically coherent – solutions to these anomalies. They attempt to develop research strategies that can demonstrate the validity of their theones. This is science. It is not a bunch of guys sending dot-matrix letters to each

other with little beyond this message: "Their equations always fit our theory; therefore, the communications satellites don't fall down." To which those of us outside their sect reply: "Does not compute."

Jordan's Critique

For the record, I reprint here the bulk of James Jordan's 1981 essay, "The Geocentricity Question." He was responding to James Hansen's 1979 audio cassette tapes on geocentricity. A photocopy of the original essay is available from ICE for \$1.00. He deals with the hermeneutical issue – biblical interpretation.

Dr. Hansen states early on that "the issue is the inerrancy of Scripture." This is not the case, and is an example of argument by sloganizing. The issue is what the Bible inerrantly teaches. As we shall see below, the Bible unquestionably and inerrantly teaches that the earth is flat and square, if taken according to the principles of interpretation used by the Biblical-geocentrists.

Dr. Hansen goes on to say that as far as he is concerned, the King James Version is a God-given translation, and inerrant; there is no need to be back to the Hebrew and Greek. Now, we've heard this type of thing before; it is a way of discounting the authority of experts in the area of theology and exegesis. In contrast, Dr. Hansen a few minutes later assures his audience that he knows all about astrophysics. He says, "My business is science . . . it's my area." Now, we cannot have it both ways: if we are going to allow Dr. Hansen some more-than-ordinary expertise in the area of astrophysics, then Dr. Hansen is going to have to allow theologians and exegetes some more-than-ordinary expertise in the area of Biblical interpretation.

This kind of talk does not inspire confidence in the discerning hearer. I am personally relatively certain that Dr. Hansen is indeed an expert in astrophysics, and I don't mean to insult him or discount the scientific parts of his lecture. He is not, however, on a par with a trained, orthodox, evangelical exegete when it comes to the interpretation of the Bible. . . .

The Bible repeatedly speaks of the "ends" of the earth. Sometimes the word in Hebrew is *ephes*, which means "end, extreme limits, nothingness." Other times it is *qatsah* or *qetsef*, which means, again, "end, extremity." Deuteronomy 13:7, for instance, uses the expression "from one end of the earth to the other end." The same expression, or a reference to the "end of the earth", occurs in Deut. 28:49, 64; 33:17; 1 Sam. 2:10; Psalm 19:4; 22:27; 46:9; 48:10; 59:13; 65:5; 67:7; 98:3; 135:7; Prov. 17:24; 30:4; Job 28:24; 37:3; Isaiah 5:26; 24:16; 40:28; 41:5; 42:10; 45:22; 48:20; 49:6; 52:10; 62:11; Jeremiah 10:13; 16:19; 25:33; Micah 5:4.

Moreover, not only does the Bible indicate that the earth is flat and has ends, but it also teaches that the earth is square and has corners. Isaiah 11:12 says that God will "gather the dispersed of Judah from the four corners of the earth." Ezekiel 7:2 says that "the end is coming on the four corners of the earth." See also Revelation 20:8.

At this point, let's have a little scientific confirmation of the flatness of the earth. The geocentrist often argues that his position corresponds most with common sense, has been held by the majority of people in world history, and that scientific calculations are always done on the assumption of a fixed earth. Fair enough; but the same is true of the flat earth position. Go out and look at the land. Looks flat, doesn't it? Moreover, most people in most cultures of the earth have held to a flat earth. Even today, surveyors assume an essential flatness to the earth, and

railroad tracks are manufactured in straight pieces, not in slightly curved ones. Many theologians in the history of the church, including the late Arthur Pink I am told, held to a flat earth. So, there you have it.

Convinced? Probably not. But now, how are we to understand the Biblical language at these points? Well, some references to the "ends of the earth" actually refer to the ends of the *land*, the holy land (Jer. 12:12; Is. 26:15), because the Hebrew word for "earth" and for "land" is the same. Similarly, some references to the fixity of the earth actually refer to the fixity of the holy land, that it would not be subject to earthquakes.

But beyond this, the phrase is used figuratively. In Job 38:13, God says He will take hold of the ends and shake, as one shakes a rug. In Psalm 61:2, David, apparently praying in his palace, for he speaks of himself as the king, says that he is calling from the ends of the earth, a figurative usage. Isaiah 43:6 refers to the lands surrounding Israel as the "ends of the earth."

How about the corners of the earth? To understand this, we have to realize that the Bible pictures the earth as a house, as in Job 38:4-6. Moreover, the Bible pictures the earth as an altar, with four corners, in Revelation 7:1; 9:13-21. All of this goes back to the Garden of Eden, which had four rivers flowing out of it to water the whole earth, headed for the "four corners." The word for "corner" in Hebrew is *kanaf*, which literally means "wings." The cherubim have four wings (Ezekiel 1). The garment worn by each Hebrew male was to have four wings or corners, so that his garment was analogous to a house or tent which he carried with him at all times (Num. 15:38; Deut. 22:12; Haggai 2:12).

What this gives us is a series of analogous models; the Garden of Eden is like a house, and they are like an altar, and they are analogous to the human person (who is the temple of the Spirit), etc. For an extended, if somewhat confusing to read, treatment of this subject, see Meredith Kline, *Images of the Spirit* (Baker, 1980).

So, when the Bible uses language that indicates that the earth is flat, that it has ends, and that it has corners, we are to understand such language in its Biblical context. And that Biblical context is the house-model of the world, seen in the glory cloud, the Garden of Eden, the Tabernacle, the Temple, the holy land, the entire earth, the human body, the clothing of the human body, the cherubim, etc. We are *not* to try to stretch this language to answer cosmological questions which it was not intended to address. . . .

Genesis 1:2 tells us that originally the earth was without form and empty, dark and covered with water. Then, after making light, God created a "firmament" to separate waters above and below (vv. 6, 7). This firmament He called "heaven." Now there are two heavens, the one the dwelling place of God and the angels, made on the first day, and the second created *within the original earth* as a reminder of the original heaven. The fact that the word "heaven" is used for the firmament means that the firmament is analogous to the original heaven, is symbolic of it. But it is important to see that the firmament-heaven is actually part of the original earth of Genesis 1:1.

On the fourth day, God placed lights in the firmament-heaven, to be symbols (signs) and to act as clocks (seasons, days, and years). This means that the sun, moon, and stars are not part of the original heaven, but part of the original earth. The original earth is being differentiated into the globe on which we live on the one hand, and upper waters and lights on the other hand. On the fifth day, God created birds to fly in the firmament-heaven.

What is firmament-heaven? Dr. Hansen thinks it is

"ether," because it is an environment common to both stars and birds. This won't work, however, because the firmament is the same in Hebrew as the verb meaning to beat out or flatten. The idea is of a shell or surface cast over the earth. A synonym for firmament (*raqia*) is *aggudah* (Amos 9:6), which means a vault made of strong bands.

Now as a matter of fact, there is no hard shell around the earth, nor do birds fly inside a hard shell. Thus, we need to see the language here as pointing to a symbolic structure. Heaven is like a fortress, and the firmament-heaven which symbolizes the original heaven, presents an *appearance* of a hard surface, a wall, to the viewer.

After all, the Bible clearly speaks of "windows" of heaven (Gen. 7:11; 8:2; 2 Ki. 7:2, 19; Is. 24:18; Mal. 3:10). There are "doors" in heaven (1 Ki. 9:35; 2 Chron. 6:26; 7:13; Ps. 78:23; Rev. 4:1; 11:6; 19:11). Heaven has "gates" (Gen. 28:17; Lev. 26:19), and so does the house of hell (Matt. 16:18). Heaven has stories or stairs (Amos 9:6). A study of these passages will indicate that rain and food come through heaven's windows, clearly symbolic language.

What we have here is phenomenal language, **language** of appearances. The Bible frequently uses phenomenal language, as when it refers to rodents, reptiles, and insects as "creeping things"; language not acceptable in Biology 101, but perfectly adequate for the Bible's purposes. This is not at all to say that the Bible is irrelevant for science; but it is to say that we must interpret the Bible correctly, on its own terms, if we are to make proper applications to the questions of modern science.

Genesis 1, for instance, clearly tells us that God created the universe in six normal days. It tells us the order in which He developed things. It tells us also that He made two lights, which we understand to be the sun and moon, but which are not called sun and moon in Genesis 1. It tells us that these lights were made to function as symbols and clocks. We understand that the sun is an energy source, a source of heat, etc.; but the Bible does not call attention to this in Genesis 1. We have to take Genesis 1, and all the Bible, as it stands, and not try to force it to say things it does not intend to say.

Recognizing that the Bible does indeed use **phenomenal** language, and that much of the language which speaks of heaven and earth is speaking of them is symbolic house-analogy language, let us turn to some of the specific passages which have been taken to "prove" that the Bible teaches that the earth is fixed.

If we insist that Psalm 19 teaches a fixed earth and a moving sun (v. 5), we shall also have to hold that it teaches a flat earth, for it speaks of the ends of the earth and of the ends of heaven (vv. 4, 6). **I think it safe to say that the language** here is symbolic; for we have seen from Genesis 1 that the sun was given in part to be a symbol.

Ecclesiastes 1:5 speaks of the sun's rising, and verses 6 and 7 certainly seem scientifically accurate. The argument is that this is not a symbolic passage, and so should be taken "literally" (that is, non-symbolically). We may argue that symbolism is not in view here, but that it is no proof that phenomenal language is not being used. Moreover, many passages, such as Jeremiah 51:16, mix phenomenal and symbolic language with "scientifically accurate" language: "When He utters His voice, there is a tumult of waters in the heavens, and He causes the clouds to ascend from the end of the earth; He makes lightening for the rain, and brings forth the wind from His store-

houses." Note the reference to the end of the earth, and to the house imagery: storehouses in heaven for the wind. Yet, clouds do indeed ascend from the earth, and lightning does come with rain. Finally, as regards Ecclesiastes, it is well to keep in mind that Solomon uses a very extensive house-analogy in chapter 12.

Let's be clear about this. We do not hold that the Bible was written by ignorant people, nor that God was writing it to ignorant people. What we are saying is that the Bible uses symbolic, analogous, and phenomenal language purposefully, and that the Bible needs to be interpreted on its own terms, not in terms of the course outlines of Biology 101 or Astrophysics 421.

The Bible says that the earth shall not be moved, apparently speaking of the whole earth, not only of the holy land, in Psalm 93:1, 96:10; and 104:5. What is being spoken of here, however, is not an absolute fixity in space, but a relative fixity: the earth is fixed and still *at the righteous* and with respect to the floods which threaten it. As far as the wicked are concerned, the earth is not fixed at all, but is shaken (Ps. 82:5). When God **is** angry, the earth is not **still**, but subject to **earthquakes** (Ps. 60:2; Is. 24:18-20; and see Ps. 18:7; 46:2; 68:8, 97:4; 99:1; 104:32).

If we are going to force the Bible to speak to the issue of geocentricity, let's take Psalm 76:8, which says "the earth feared, and was still." Does this mean that the earth usually moves? You see, there are "proof texts" on both sides. The real question is this: does the Bible intend to say anything about the fixity of the earth in space (or in the ether)? Almost certainly not. . . .

Conclusion

Like tourists on international flights, Christian Reconstructionists already are way over their excess baggage limits. It is time to cast off the extra-heavy stuff that we are dragging around unless it produces demonstrably good fruit. The theory of geocentricity-geostationism is, exegetically and scientifically, still-unripened fruit. In fifteen years, not one piece of edible fruit has blossomed. They keep assuring us: "Next year, next year our tree will blossom!" In the parable of the fig tree, Jesus allowed it only four years of fruitlessness before cutting it down (Luke 13:6-9). Geocentricity-geostationism is way overdue.

Those of us in the "Tyler" branch of Reconstructionism do not agree with the "Vallecito" branch on the question of geostationism. James Jordan informed me after I had written most of this essay that Rushdoony is now promoting geostationist audio tapes by Martin Selbrede. (*Chalcedon Report*, Oct. 1992, pp. 26-27). While we in the "Tyler wing" are willing to suffer the slings and arrows of outrageous Darwinism, we remain content with Copernicus. There comes a point at which those of us who live on the theological fringe must begin to resist the short-term ecstasy of embracing, in knee-jerk fanatic fashion, every anti-establishment fad that comes along. We must resist what I call **the Flat Earth Temptation**. **There is more to the Christian walk than grabbing insatiably at every screwball theory that gets offered to us by self-designated experts** in the name of biblical orthodoxy. **This lust for the epistemologically bizarre is the Reconstructionists' version of the charismatic' endless quest for the "new thing."** We must remind ourselves: He who lives by the bizarre dies by the bizarre.