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Front Cover: Sunset on Mars by the Spirit Mars Rover in 2005. (Courtesy, NASA).

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EDITORIAL

The Spring issue is almost a quarter late in production. Two things have made that so, first, Beth and I took a three-week trip out west with our trailer to visit Timothy Unruh to discuss a project to measure the one-way speed of light and we made a vacation of it. Second, work is progressing on a complete revision of our 1992 edition of *Geocentricity*, which is about two-thirds completed. We expect this tardiness to continue for a while. Lord willing, we will continue to publish four issues per year, but in any case, paid subscribers will receive four issues, no matter how long it takes.

In this issue we have an article of historical significance written by David Lifschultz. It has been several years since Mr. Lifschultz has written for us and he is always interesting and insightful. This time he writes about Einstein and the new physics. With Einstein the world entered a new era in physics. Prior to the Michelson-Morley experiment which revealed that the earth does not orbit the sun, physics was predominantly practiced in the lab by experimenters who reported on their lab findings. After the failure of the M-M experiment to reveal the orbital motion of the earth, the power in physics left the hands of the experimenter and ended up in the hands of the speculative theoreticians. It took about thirty years for the theoreticians to explain the M-M experiment's result without having to admit that the earth does not orbit the sun. The final solution was that every object in the universe, from the largest cluster of galaxies to the tiniest proton in the core of the sun, could look as if it were at the center of a universe that spun around it with fantastic speeds and slammed back and forth instantly trillions of times per second. This final theory was Einstein's General Theory of Relativity.

In the next paper we present a theory, an explanation for global warming that demonstrates that the warming we have observed over the last 150 years is not due to the activities of man but can be entirely explained by the heating up of the sun. Heretofore, the amount of heat arriving from the sun has been steadily warming, but not enough to explain the amount of warming we have observed at the surface of the earth. We report here on the theory of Henrik Svensmark which beautifully fits all the observed climate and sunspot data. President Obama has declared a food necessary for plants—carbon dioxide—to be a pollutant. If Svensmark is correct, and I think he is, then Obama will have made a fool of himself. Besides, since we all exhale carbon dioxide, we are now all *polluters* and subject to whatever pollution laws, restrictions and fines that suit the whims of the Congressional Communist Party. I am reminded of the old-line USSR Christians who chose to

live godly lives isolated in Siberia rather than be forced to steal or whore after the will of the enemies of God.

Beyond that, we report that the geocentric movement is progressing slowly, one convert at a time. Work on the revision of *Geocentricity* is proceeding, with about two-thirds of the book revised at this time. Gordon Bane continues to distribute his flyers and gets decent results for a topic as exotic as geocentricity. We visited with him at his home in April.

That's about it for news. We'll follow this with some quotes that have been stored on the computer for years.

SELAH

...While we are on the subject of science, let me digress for a moment. I believe that any Christian who is qualified to write a good popular book on any science may do so much more by that than any directly apologetic work. The difficulty we are up against is this. We can make people (often) attend to the Christian point of view for half an hour or so; but the moment they have gone away from our lecture or laid down our article, they are plunged back into a world where the opposite position is taken for granted. As long as that situation exists, widespread success is simply impossible. We must attack the enemy's line of communication. What we want is not more little books about Christianity, but more little books by Christians on other subjects—with their Christianity latent. You can see this most easily if you look at it the other way round. Our faith is not very likely to be shaken by any book on Hinduism. But if whenever he reads an elementary book on Geology, Botany, Politics, or Astronomy, we found that its implications were Hindu, that would shake us. It is not the books written in direct defense of Materialism that make the modern man a materialist; it is the materialistic assumptions in all the other books. In the same way, it is not books on Christianity that will really trouble him. But he would be troubled if, whenever he wanted a cheap popular introduction to some science, the best work on the market was always by a Christian. The first step to the re-conversion of this country is a series, produced by Christians, which can beat the Penguin and the Thinker's Library on their own ground. Its Christianity would have to be latent, not explicit: and, of course, its science perfectly honest. Science twisted in the interests of apologetics would be sin and folly.

—C. S. Lewis, 1970.
God in the Dock, p. 93

THE BIBLE AND THE NEW PHYSICS OF EINSTEIN

David Lifschultz

Werner Heisenberg wrote in his *Physics And Philosophy* that “The repetition of the Michelson’s experiment by Morley and Miller in 1904 was the first definite evidence for the impossibility of detecting the translational motion of the earth...” All physics and modern science collapsed which was based on the earth moving. It had been the source of the so-called rationalism of the new science versus the irrationalism of faith in the Bible. Heliocentricity had raised science above the Bible based on the heliocentric principles outlined in the distant past in Hellenism of the Greek astronomers, Aristarchus, Philolaus and others of the Pythagorean School. The ideas were not original in Galileo or Copernicus. The best that Einstein could do in the end to save appearances was to say, “The struggle, so violent in the early days of science, between the views of Ptolemy and Copernicus would then be quite meaningless. Either coordinate system could be used with equal justification. The two sentences, “the sun is at rest and the earth moves”, or “the sun moves and the earth is at rest,” would simply mean two different conventions concerning two different coordinate systems.” The substitution of the heliocentrism of Aristarchus or Copernicus for the Biblical geocentricity had been a purposeful effort to destroy faith in God but to all intents and purposes, what Einstein was saying was that the Biblical astronomy had never been disproved. Faith had been lost for a nothing as valueless as the fiat money in our pocket for which faith is abundant. That is what modern times is all about: faith in nothing.

The interferometer experiment of Albert Abraham Michelson sought to measure the interference that a moving body such as the earth encounters when it passes through the luminiferous aether as the aether, using a metaphor, forms a kind of wind against the windshield of a boat as it speeds along on a lake whose air is otherwise still. Light was used as the moving substance in the interferometer, and it proved impossible to measure any resistance or interference as every which way the instrument was pointed whether vertically upward or horizontal in the direction of the earth’s alleged motion or in reverse still resulted in equal speeds. Physicists were initially struck dumb as this would prove based on the concept of the luminiferous aether that the earth was not moving as there was no resistance or aether wind that was measurable. Historically the teaching that the earth moved around the sun, in con-

tradistinction to the teaching of the Bible, had caused the masses to fall away from the creator and the Bible as it had been thought to be proved false in this scientific fact that the earth was immobile. Biblical moral laws such as the laws against sodomy were gradually swept away as the Bible was thought to be in error and thus had no divine sanction. It had paved the way for Darwin. In other words, the foundation of the so-called rational science of heliocentrism against the so-called irrational Biblical science of the earth's immobility was destroyed by the Michelson-Morley experiments. Heliocentrism had also been responsible for the explosion in empirical learning, as answers for life's truths were no longer sought from the creator's words in the Bible but in masses of evidence to be understood by new theories such as that of heliocentrism as Copernicus had discovered from Aristarchus. Copernicus in his book *De Revolutionibus* even gave credit to the Greeks for his heliocentrism that raised the ideas of man above those of the creator. Poor children as described in Charles Dickens' *Hard Times* were force fed with masses of facts as education deteriorated into quantity from Biblical quality.

The basis for this was that if you could prove the Pentateuch to be scientifically inaccurate, then the Bible and the creator were not true, and all the Biblical laws meaningless. In that sense, Einstein followed that tradition in believing that the creator of the universe was the universe itself as Spinoza did for which reason he did not like the uncertainty of Heisenberg's views. The Bible said that sun moved (see Joshua 10:13 or Genesis 15:12 as in "when the sun was going down"). Disprove that the earth is stationary and the Bible becomes just another ancient myth. Man becomes supreme.

Humanism then sought natural laws which was a Greek way of making a substitution for the Biblical laws with nature becoming a substitute for the creator.

It is interesting as in the case of the transubstantiation of valueless paper money and credit, scientists tried to similarly use faith to rework science in believing in what they could not see. Essentially, this new science followed Socrates in the cave metaphor in the "Republic." It was only the shadows that could be seen but not the actual truth, and this became the source of idea that nothing was certain or absolute but continuously changing with each new theory or with every wind of doctrine. Instead of deducing from what you see as Aristotle when he said man was born from a man and a woman from the infinite past and so it would be into the infinite future, it was his philosophy to deduce from what he could see but not from what he could not see. Aristotle did not have the benefit of divine revelation so that he regarded matter as eternal which is a confusion of matter with the creator himself who

is the only eternal. Anaximander never saw man evolve from animals as his disciple Darwin never did, but they saw unprovable shadows. No one saw a man born from a female ape, a concept as absurd as it is stupid. Actually, Bertrand Russell thought the idea of natural selection came from the ideas of economic competition of Jeremy Bentham and had no scientific basis. Freud developed his ideas from the shadows of the unconscious that was by its very definition unknown to the conscious mind. Thus, anything can be believed to be true based on the otherwise undecipherable cave's shadows that can be made to mean whatever the imagination said it meant.

In physics the cave shadows were brought forth by George Francis Fitzgerald when he said that the reason there was no measurable difference of the light's resistance to the luminiferous aether as it passed through the aether, as in the vertical movement of the light, was that the measuring instrument, or interferometer, contracted in the same proportion as the light as it met the aether wind. And so we had the Fitzgerald Contraction of great fame and repute. Here we are asked to believe in what we cannot see as we cannot visibly see the contraction of the instrument. This enables science to say the earth moves and thus preserves the entire Tower of Babel learning that passes for truth. The mathematical work in the formulation of these equations was done by Hendrik Antoon Lorentz as his Lorentz Transformation, and that earned him universal fame. But the greatest fame of all was reserved to Albert Einstein who brought forward the cave metaphor to heights unimagined by any of his predecessors. He became a worldwide celebrity in the media for advancing ideas so obscure that no one could understand them, and thus achieved the status of the greatest genius in history.

As if it were not enough that we had contracting instruments (according to Lorentz,) that no one could see, Einstein declared unilaterally that space was empty of emptiness, and aether was dispensed with in its entirety to the applause of the world press that might have been accorded to a prophet. How could you measure the aether wind if it was not there at all? The Fitzgerald Contraction was done away with as pure superfluity. This stupendous observation was something Fitzgerald could not have conceived of, weighed down by the gravity of the doctrines of Sir Isaac Newton who taught "that gravity should be innate inherent and essential to matter so yet one body may act upon another at a distance through a vacuum (as you cannot talk in a vacuum as the air has to be there to carry the words) without the mediation of any thing else by and through which their action or force may be conveyed from one to another is to me so great an absurdity that I believe no man who has in philosophical matters any competent faculty of thinking can

ever fall into it.” This meant that without the luminous aether, it was the opinion of Newton that light could not travel in a vacuum from the sun to the earth and that anyone who thought so was mad.

SELAH

All science is...one. The true key to power lies in the knowledge of the underlying reasons for the succession of events. If it is pure causation—that is, if any given state of things follows as an inevitable consequence because of the state existing an infinitesimal instant before—then the entire course of the macro-cosmic universe was set for the duration of all eternity in the instant of its coming into being. This well-known concept, the stumbling block upon which many early thinkers came to grief, we now know to be false. On the other hand, if pure randomness were to govern, natural laws as we know them could not exist. Thus neither pure causation nor pure randomness alone can govern the succession of events.

The truth must lie somewhere in between. In the macro-cosmos, causation prevails; in the micro-, randomness; both in accord with the mathematical laws of probability. It is in the region between them—the intermediate zone, or the interface, so to speak—that the greatest problems lie. The test of validity of any theory...is the accuracy of the predictions which are made possible by its use, and our greatest thinkers have shown that the completeness and fidelity of any visualization of the Cosmic All are linear functions [amplifiers —*Ed.*] of the clarity of definition of the components of that interface. Full knowledge of that intermediate zone would mean infinite power and a statistically perfect visualization. None of these things, however, will ever be realized; for the acquirement of that full knowledge would require infinite time.

—E. E. “Doc” Smith
Children of the Lens, p. 108

THE SUN'S EFFECT ON CLIMATE

Gerardus D. Bouw, Ph.D.

For some ten years now we have pointed out the blatant errors and outright fraud of the global warming alarmists. The effect of the solar cycle on climate is reflected in the coincidence of solar cycle and weather patterns, but the climate terrorists keep insisting that no correlation is possible simply because there is no theory that can explain the relationship between changes in weather with the number of sunspots. It turns out that there is a theory that explains the relationship between the number of sunspots and climate but that the politically motivated and funded meteorologists have simply chosen not to look into the theory.

The global warming terrorists refusal to look at the theory is reminiscent of the priest who refused to look at the sun through Galileo's telescope to see the sun-spots for himself on the grounds that even if he saw such spots they would have to be due to faults in the telescope or the eye because everyone *knows* that that great god, the sun, cannot be spotted.



Figure 1: E. W. Maunder

ied with an eleven-year cycle.¹ Figure 2 shows the monthly number of sunspots counted from 1610 through 2003. The tips of each successive

The Solar Cycle

In 1904, Edward Walter Maunder (1851-1928) published a paper that demonstrated that the number of sunspots on the sun's surface var-

¹ Maunder, E. W., 1904. "Note on the Distribution of Sun-Spots in Heliographic Latitude, 1874-1902," *Monthly Notices of the Royal Astronomical Society*, **64**:747.

maximum and minimum average about eleven years apart. In the latter part of the Twentieth century it was discovered that the sun's magnetic north and south poles flip over every eleven years, returning to their original orientation every 22 years. This phenomenon is called the *solar cycle*.

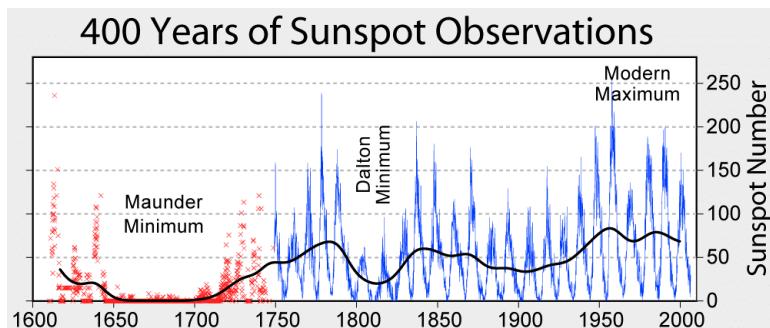


Figure 2: Monthly Sunspot Counts since 1610. Note the lack of sunspots between 1645 and 1715, a gap called the Maunder Minimum in honor of Edward Maunder. (Credit: Robert A. Rhode, Global Warming Art Project.)

Throughout the Twentieth century scientists tried to correlate the solar cycle, as the 22-year period is called, with weather or climate. It was known that during the Maunder Minimum, and to a lesser extent during the Dalton Minimum (named after British meteorologist John Dalton), the weather was significantly colder, resulting in famines and pestilence.² By the 1980s, despite the strong correlation in the data (see Figure 3), the correlation was dismissed as futile because the amount of solar heating during sunspot maxima and cooling during sunspot minima were insufficient to explain the correlation.

Nevertheless, there is a correlation between the number of sunspots we observe on the surface of the sun and the surface temperature of the earth; the question is: What causes the temperature to increase more than expected? Scientists started looking at other possibilities, including the connection between sunspots and cosmic rays (high-energy atoms, protons, neutrons, and electrons from deep space), which dependency threw carbon-14 dates out of whack if not corrected for the cosmic ray flux. Could cosmic rays and other such processes affect other weather-related processes as well?

² "Global Warming Will Improve Your Health," *B.A.*, 19(127):5.

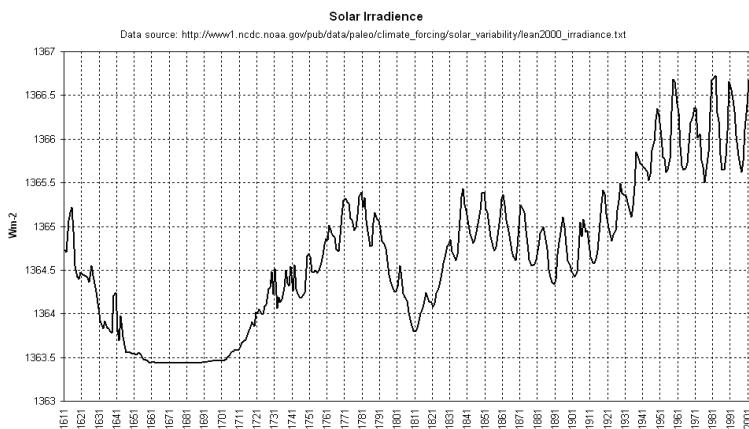


Figure 3: Solar Irradiance from 1611-2001. Irradiance is the amount of heat from the sun striking one square meter of the earth. The Maunder and Dalton minima show significantly less heat reaching the earth, but the earth's temperature records show that the earth cooled more than this chart would allow. (The measured units of the left axis are Watts per square meter.)

Correlations

That there is a correlation, a relationship, between solar irradiance and solar cycle is easy to see by comparing Figures 2 and 3, but as noted above, the increase of wattage in Figure 3 cannot account for the increase in global temperature. We will now examine some other correlations; but first let us look at one of the pitfalls (Figures 4 and 5) we can fall into while on such a quest.

Consider Figure 4 which plots the number of births as a function of the age of the moon, that is, how many days it has been since the last new moon. A man named Canton looked at some 70 million births in the USA from 1980 through 1999. If you look at the plot, you might think that there is a trend in the data, but consider this, the vertical axis runs in the range of 2.48 to 2.50, not from 0 to 2.50 **million**. If we were to draw the latter range, we would get Figure 5. In that figure it is hard to see anything but a straight line. In other words, the spikes and trends in Figure 4, that look so significant, are really not statistically distinguishable from noise, that is, random scatter in the full-scale picture we see in Figure 5. Figure 4 is now a common way of misrepresenting data in newspapers, stock market analyses, crime statistics, poll results, and so forth. Indeed, the red lines drawn from point to point are also deceptive. There should only be points in the plot.

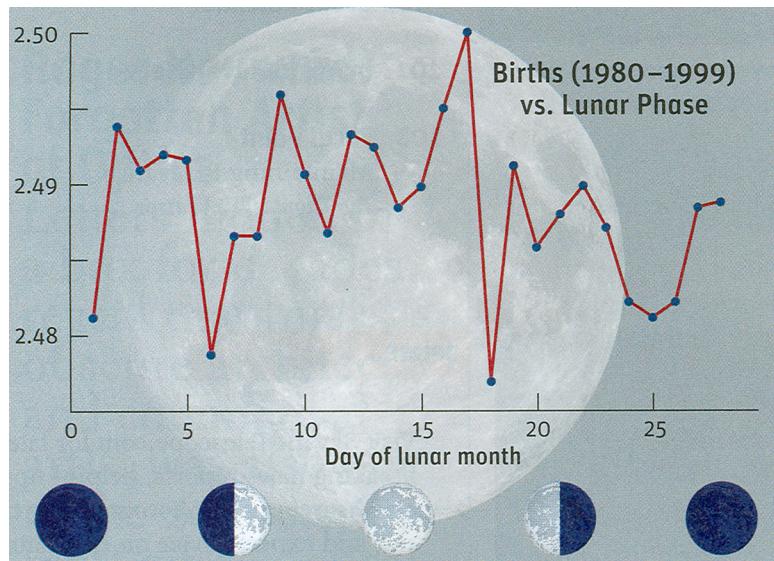


Figure 4: Canton's Birth Data as a Function of the Day of the Month

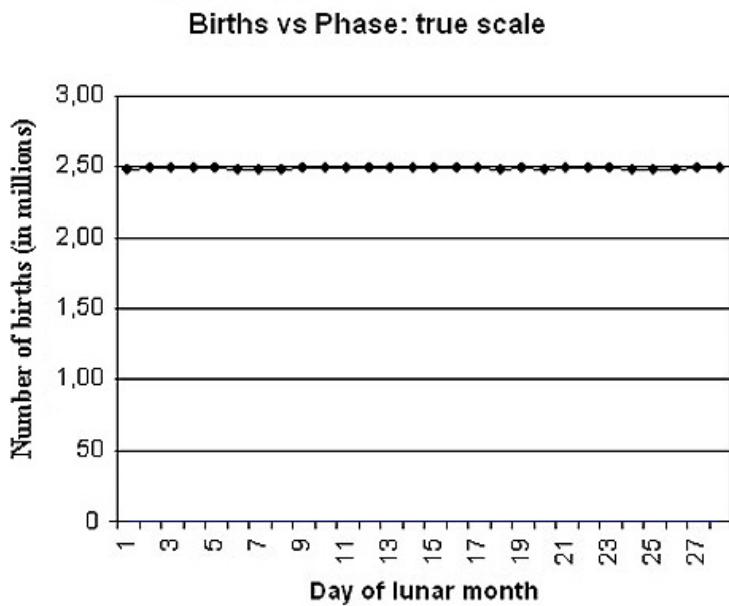


Figure 5: Births vs. Lunar Phase. The same data as Figure 4 in real scale.

However, there are times where a narrow range of values is appropriate. Most life is restricted to a narrow range of temperatures so our thermometers use scales, *e.g.* Celsius, which has a zero point at the melting point of water, 273 degrees above absolute zero. In cases like that, relative scales are appropriate for proper understanding.

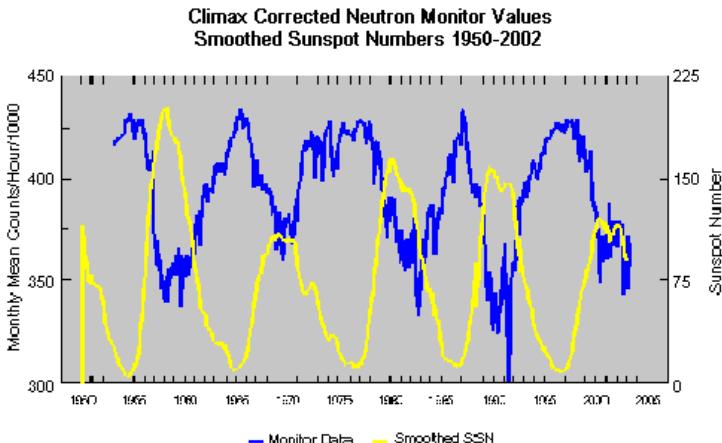


Figure 6: Smoothed Sunspot Numbers and Neutron Counts. The Inverse Correlation of Sunspot Counts (lower, yellow) and Cosmic Rays Counts (blue).

Figure 6 is an example of an inverse correlation. In an inverse correlation, one number goes up when the other goes down and vice versa. When the sunspot numbers go up, the cosmic ray count goes down, and when the sunspot numbers go down the cosmic ray count goes up. This relationship is not surprising because when the sunspot count is high, magnetic storms on the sun are also more numerous and more intense. Since most cosmic rays are electrically charged, their paths are altered by magnetic fields. In particular, the magnetic fields of the sun and earth act like mirrors, sending the cosmic rays back, away from the earth. Thus when the sunspot number goes up, fewer cosmic rays reach the earth.

The classic apparatus to detect cosmic rays is called a cloud chamber. A cloud chamber looks like a glass box with supersaturated water vapor inside it. As a cosmic ray passes through the chamber, it ionizes the water molecules it passes by which, in turn, form a water vapor trail. It turns out that cosmic rays do something similar when passing through the earth's atmosphere. Can cosmic ray showers hitting the earth's atmosphere produce clouds?

Cosmic Ray Showers and Clouds

In 1995 Henrik Svensmark discovered an unexpected correlation between the cosmic ray flux from outer space and cloud cover in the earth's atmosphere within the first two miles above sea level.³ Svensmark discovered that cosmic ray abundance and cloud cover were directly related (Figure 7).

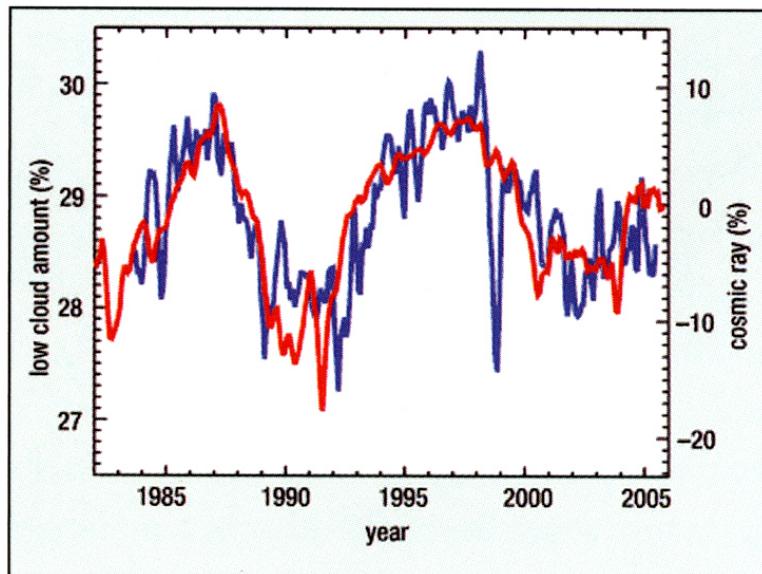


Figure 7: Global Cloud Coverage and Cosmic Ray Variance. The blue line represents the percentage of cloud coverage over the face of the earth and the red line plots the departure from average of cosmic rays hitting the cosmic ray detector at Climax, Colorado. The sudden, unexplained drop in cloud cover in late 1998 made that the hottest year since 1932.

Figure 7 shows the relationship between cosmic rays (red) and percentage of cloud cover (blue). The zero on the right scale is the average cosmic ray flux. The scale marks percentages above and below that flux. A decrease in the number of cosmic rays hitting the earth's atmosphere is accompanied by a decrease in cloud cover. Svensmark proposed that the global warming we have observed over the past 150 years is due to increased solar activity. A change in cloud

³ Svensmark, H., & E. Friis-Christensen, 1997. "Variations of cosmic ray flux and global cloud coverage: A missing link in solar climate relations," *J. of Atmos. Solar Terr. Phys.*, **59**, 1225-1232.

cover of only three to four percent can account for the observed global temperatures.

Initially, Svensmark's theory encountered many objections. Most of those have now been accounted for by his complete theory. Svensmark calls his theory, *Cosmoclimatology*. The theory starts with cosmic rays emitted by exploding stars. Cosmic rays can be amplified by colliding with hydrogen clouds in space. As they approach earth, many are deflected from hitting the earth by the van Allen belts as well as by the electromagnetic activity of the sun. When the sun is active, the wind from the sun (solar wind) sweeps the particles around the earth instead of allowing them to hit the atmosphere straight on. When the sun is inactive, more of the cosmic rays hit the atmosphere.

Upon reaching the lower atmosphere, cosmic rays encounter sulfur dioxide (the stuff that is produced by rotten eggs and is also found in well water, not to mention its primary producer, volcanoes), water vapor, and ozone. The cosmic rays ionize the air, releasing electrons (just as they do in a cloud chamber) that help form cloud condensation nuclei (CCN) which produce more and denser clouds. The increase in low-level clouds (under 10,000 feet) reflects the heat from the sun back into space, thus cooling the earth. Changes in the sun's electromagnetic activities, such as sun spots, solar flares, and solar wind, and the consequent variations in cosmic ray activity that reaches the atmosphere, result in the warming and cooling periods of the earth.

Global warming alarmists blame the warming on man-made carbon dioxide. But the prime producer of carbon dioxide is not man but the oceans of the earth. As the ocean warms, it releases CO₂ just like a soda does when warmed. It takes a while for the release to start since it takes time to warm the water, so the increase of CO₂ follows some time after the warming occurs. This lag is observed. When the atmosphere cools, the ocean reabsorbs the CO₂. As the atmospheres of Mars and Venus show, as a greenhouse gas, CO₂ is grossly overrated. Both of these planets have significantly more CO₂ than does earth. The atmospheres of both Venus and Mars are 98% carbon dioxide. Yet on Mars, the temperature rarely gets above zero degrees Fahrenheit. On Venus under the most optimistic, even unrealistic greenhouse gas theory, the CO₂ can only bring the Venerian temperature up to about 210 degrees Fahrenheit, about the boiling point of water.⁴

Svensmark's theory of Cosmoclimatology neatly explains all the global temperature patterns observed. Man's carbon emissions are negligible compared to what is released by natural means. President Obama's insistence on combating global warming will end in disaster.

⁴ For a detailed look at the Venerian greenhouse theories see G. Bouw, 2001. "The Morning Stars," *B.A.*, **11**(97):69.

PANORAMA

Unnecessary Apologetic Baggage

It has been some time since we covered the heresy of Hugh Ross, the astronomer who reads evolution back into the Bible and calls it “apologetics.” It was apologists like Ross who converted me to atheism as an undergraduate student at the University of Rochester. After all, Copernicus and Darwin proclaimed something “scientific” that was immediately opposed by Christianity. But thirty or so years later the Christian apologists would conform to the “scientific” argument and claim that the Bible knew it all along, that it was their interpretation that was at fault. Given such a history of behavior, what reasonable man would have any regard at all for such apologists?

Thus it is with Dr. Hugh Ross and his organization, Reason to Believe. Consider the contents of an article written by Ross associate Jeff Zweerink.¹

By carefully studying the words of the Bible and the record of nature, I was able to put away an unnecessary piece of apologetics baggage. Perhaps it is helpful to recall past examples of unneeded arguments that hindered the church’s witness:

1. The Bible says that the sun revolves around the Earth.
2. The Bible says that Earth is at the center of the universe.
3. The Bible says that the characteristics of species never change.
4. The Bible says that the Earth and the universe must be no more than 10,000 years old.

An apologist builds a body of evidence to support his position. However, any position is much easier to support if it carries no unnecessary weight.

So there you have it, carefully study the words of the Bible and the record of nature. The words of the Bible and record of nature are equal. And an apologist builds “evidence to support *his* position,” not the Bible’s position. Note that Zweerink does not say he studied the Bible, just the *words* of the Bible. That means he probably studied the latest dictionary definitions written by men who rely on other men for knowledge and that Zweerink probably did not take the time to search out how the Scripture uses the words he was studying. It probably never even crossed his mind. Furthermore, he is likely ignorant that all

¹ J. Zweerink, www.reasons.org/trnrtb/2008/12/24/unnecessary-apologetic-baggage-2/

Bible dictionaries were rewritten two hundred fifty years ago by Jesuit “scholars” devoted to the destruction of the word and words of God.

Finally, consider Zweerink’s four hindrances to the “church’s witness.” Atheistic evolutionists clearly see that Scripture teaches Zeerink’s four “unneeded arguments.” Thus, no mater how clever Zweerink’s apology, he will still look like a fool in their eyes. Furthermore, it seems not to occur to Mr. Zweerink that misrepresenting God’s “words” to conform to the world’s expectations is not doing God any favors. God knew what he wrote when he wrote it. God knows what he is doing. To second-guess him is a grave error. The ultimate in unnecessary apologetic baggage is an attempt to make the Bible acceptable to a world hell-bent on eradicating the Bible.

The More We Learn, the Less We Know About Gravity

Long-time readers know of the mysterious phenomenon that the two Pioneer spacecraft, as well as their Viking cousins, encountered heading out of the solar system at speeds too high to be explained by the standard theory of gravity. At last word, the phenomenon was attributed to a propellant leak that sped up the vehicles in their forward directions. Now there is a new fly in the ointment.

Analysis of five different spacecraft that flew past the earth several years ago shows that the vehicles gained more speed than can be accounted for by Einstein’s theory of gravitation. The unaccountable speed is small, amounting to between one tenth and half an inch per second (1.8 and 13.5 mm/sec), about one part in a million of each craft’s total speed; but with radar tracking sensitive enough to track changes in speed of the order of 0.1 mm/sec ($1/260^{\text{th}}$ of an inch/sec), that excess warrants further investigation.

The largest increase in speed was imparted to NASA’s Near Earth Asteroid Rendezvous craft. The report appeared in the 7 March 2008 *Physical Review Letters*. The senior author was John D. Anderson, a member of NASA’s Jet Propulsion Laboratory team in Pasadena, California. Anderson proposed that the relative rotation of the earth and the spacecraft are somehow imparting an extra kick to the craft. The kick might be similar to, but much larger than, effects predicted by relativity’s contention that spinning bodies warp the surrounding space dragging objects with them.

Before we get too excited, we are warned, other errors such as errors in the tracking software need to be explored.

Galaxy Cluster Data Implies Dark Energy Is Constant²

Comparing X-ray observations of clusters of galaxies at different distances, astronomers are reaching the conclusion that dark energy, the repulsive force that is thought to accelerate the expansion of the universe, is constant over time. In other words, it is not increasing the rate of expansion.

Dark energy and dark matter can both be related to the firmament. The firmament is the most massive thing God created. It is so massive that 10^{39} universes would have to be packed into the volume of a small sugar cube to reach the density of the firmament.

The theory states that in the past, clusters would be packed closer together and their gravity would be stronger relative to more recent, more expanded galaxy clusters. The researchers expect that there would be more galaxy clusters further away from the earth than closer to it (yes, such considerations have geocentric significance). They did find more clusters further out. One commentator claims that clusters of galaxies are the most massive objects in the universe but that is an error. There are clusters of clusters of galaxies, called *superclusters* that are obviously more massive. We are located near the equator of such a supercluster called the Supercluster.

The bottom line for the theory of geocentricity is that the energy density of the firmament (dark energy) is constant. Energy is conserved, in other words.

Half-life Nightmare Begins³

Creationists have long argued that the half-life of radioactive materials used to date the age of the earth is based on a bad assumption, that today's half-lives have always been the same. Some, like Barry Setterfield, have proposed that the speed of light was much higher during the creation week and that radioactive material would have aged more rapidly. It has been argued that a higher speed of light would also age stars much more rapidly than the millions to billions of years assumed by modern theory. Heretofore the evidence for a higher speed of light in the past has been shouted down, but now new evidence may resurrect the question.

² Cowen, Ron, 2009. "Data from Galaxy Clusters Suggest Dark Energy is Constant Over Time." *Science News*, 3 Jan., p. 9.

³ Jenkins, J. H., et al., 2008. "Evidence for Correlations Between Nuclear Decay Rates and Earth-Sun Distance," arXiv:0808.3282v1, and J. H. Jenkins, & E. Fishbach, 2008. "Perturbation of Nuclear Decay Rtes During the Solar Flare of 13 December 2006," arXiv:0808.3156v1.

A group of physicists at Purdue University and Wabash College, both in Indiana, published two papers last year reporting that the distance to the sun appears to influence the half-lives of ^{32}Si , ^{226}Ra , and ^{54}Mn . The abstract of the first paper reads as follows:

Unexplained periodic fluctuations in the decay rates of ^{32}Si and ^{226}Ra have been reported by groups at Brookhaven National Laboratory (^{32}Si), and at the Physikalisch-Technische-Bundesanstalt in Germany (^{226}Ra). We show from an analysis of the raw data in these experiments that the observed fluctuations are strongly correlated in time, not only with each other, but also with the distance between the Earth and the Sun. Some implications of these results are also discussed, including the suggestion that discrepancies in published half-life determinations for these and other nuclides may be attributable in part to differences in solar activity during the course of the various experiments, or to seasonal variations in fundamental constants.

The above paper reported on two multi-year experiments that detected a yearly rate of change in the half-lives of silicon and radon. The peak and valley of the phenomenon matches the closest and most distant approach of the sun to the earth. Thus the researchers concluded that the phenomenon was related to the earth-sun distance.

The abstract of the second paper needs a bit further explanation, but it says:

Recently, Jenkins, et al. have reported the detection of correlations between fluctuations in nuclear decay rates and Earth-Sun distance, which suggest that nuclear decay rates can be affected by solar activity. In this paper, we report the detection of a significant decrease in the decay of ^{54}Mn during the solar flare of 13 December 2006, whose x-rays were first recorded at 02:37 UT (21:37 EST on 12 December). Our detector was a 1 μCi sample of ^{54}Mn , whose decay rate exhibited a dip coincident in time with spikes in both the x-ray and proton fluxes recorded by the GOES-10 and 11 satellites. A secondary peak in the x-ray and proton fluxes on 17 December at 12:40 EST was also accompanied by a coincident dip in the ^{54}Mn decay rate. These observations support the claim by Jenkins, et al. that nuclear decay rates vary with Earth-Sun distance.

From the second paper, one may conclude that solar flares may be sufficient to explain the phenomenon, but that is not true. The detector

was located at Purdue University in West Lafayette, Indiana, where the sun had set, so the X-rays were hitting the atmosphere on the other side of the earth. The solar wind, which disrupted electromagnetic devices worldwide, was still hours away from earth. So the obvious byproducts of the solar flare could not be the cause of the change in decay rate.

Neutrinos, the smallest nuclear particles known, can travel through the earth with little chance of hitting anything. It may be possible that neutrinos caused the change, albeit by an unknown mechanism, but evidence suggests that is not the case.

The Cassini spacecraft now orbiting Saturn passed close to the sun on its journey to the ringed planet. If neutrinos were the cause of the decay rate change then Cassini's plutonium-powered nuclear power plant should show evidence of such change. Peter Coper of the Fermi Lab in Batavia, Illinois, did just that and found no change in the decay rate. Likewise, Eric Norman of Lawrence Berkeley National Laboratory in California examined data from experiments on radioactive americium, silver, tin, titanium, and barium and found no seasonal changes.

Still, such negative results do not necessarily mean that the Purdue researchers are mistaken. Different radioactive nuclei require different energies to excite them. Thus the research continues.

So far, no one seems to have thought of high-frequency gravitational waves which would change the distance between the particles in the nucleus and thus cause a decay among those oriented properly to the direction of the wave. Your editor thinks this is the most likely explanation.

Does the Future Leak Back Into the Present?

God is omnipresent. We tend to think of omnipresence as God's presence throughout space, however, some recent results in physics can best be explained if God is omnipresent in time, too. God's omnipresence in time would also explain his foreknowledge without requiring God's "intervention" in the flow of time as we experience it.

There are some things about quantum mechanics that bother people, particularly Christians. Einstein phrased it as, "God does not play dice." But experiments keep reinforcing quantum ideas. Quantum theorists have to admit that a particle can be in two places at once. They have to admit that two particles can be so "entangled" that measuring one affects the other even if it is light years away. A couple of years ago, a conference at Oxford University examined the implications of the idea that every time a subatomic system reaches a decision point, such as whether or not a radioactive nucleus should decay or not, it

chooses both outcomes. In one universe the particle decays and in another universe it does not (yet) decay. That school of thought is called “the Copenhagen School.” Some physicists prefer the “many universes” view because to them the alternative is “unthinkable.” The alternative school has a “decider” that decides which outcome will happen and which will not. Most physicists of that school are most comfortable with the observer (or detector, if a machine) as the “decider.” In that case, the observer or detector does not make a conscious decision, but the act of detection fixes the outcome by casting in stone, as it were, whichever part of the probability was dominant. (The probabilities are pictured as waves with peaks and troughs.) If the observation was made during the peak side’s time, one outcome is observed, if on the trough side’s time, the other outcome is observed. Both schools of thought refuse to consider that God may be the decider.

Newer studies now appear to indicate that it is possible to measure some things without affecting it. For instance, suppose you have a roast in the oven and want to measure its temperature. Of course, you stick a thermometer in the roast. But you do not know what the temperature “really” is (i.e., accurately), because heat is transferred from the roast to the sleeve of the thermometer. This notion is called the uncertainty principle.

To get around the uncertainty principle, Israeli physicist Yakir Aharonov came up with the idea of making “weak measurements.” This is akin to waving the thermometer over the roast to take its temperature. It’s not very impressive for taking the temperature of the roast, but it appears to work for quantum mechanics. The idea is that if you make enough weak measurements, the average comes very close to the actual value. “Weak measurements let you lift the veil of secrecy imposed by the uncertainty principle,” said cosmologist Paul Davies of Arizona State University. Weak measurements thus seem to work because they are less obtrusive than blasting a particle with other particles or photons.

Consider Figure 1. In the figure, a laser emits light towards two slits. Some of the light passes through one slit, and some through the other slit. The slits spread the light on the other side of the screen with the two slits. Thus a band of alternating dark and bright bands fall on the detector screen beyond the one with the slits. The strip of alternating light and dark bands is called the interference pattern.

Figure 1 pictures what we observe when we take a laser pointer and shine it on two slits, but what do we see if we use weak measurements? What if the laser were to emit one photon at a time instead of a stream of photons, with each photon passing through one slit or the other? The answer is, we see two spots on the screen, with no interfer-

ence pattern. However, if each photon goes through both slits we get our original interference pattern. Likewise, if a device watches the slits, we get the spots, not the interference pattern. Somehow, the act of monitoring the slits inhibits the formation of the interference pattern. All this is standard knowledge.

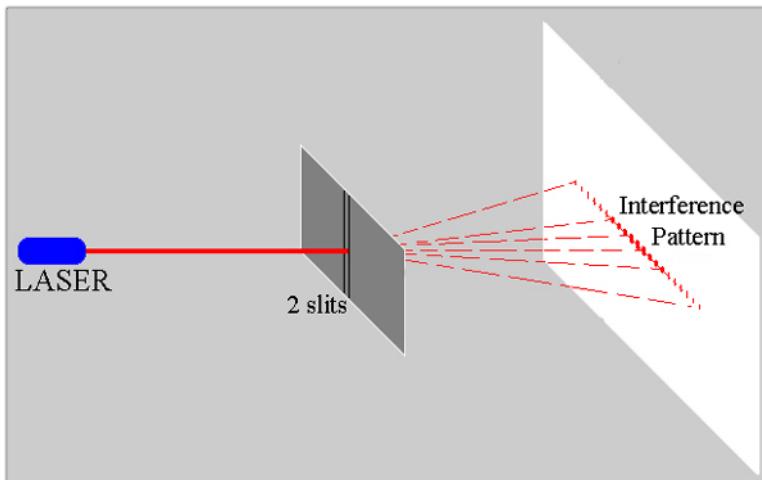


Figure 1: Two-slit Interference Pattern.

Now imagine that the white sheet in Figure 1 is a set of Venetian blinds and that behind the blinds there is a detector watching the slits. When the blinds are closed so that the detector cannot see the slits, the standard interference pattern forms on the blinds, which is to say that photons fly through both slits. If the blinds are open, the detector sees the two spots as if each photon went through one slit or the other. But here's the unexpected. If the blinds open *after* the photons have gone through the slits but before they reach the blinds, the interference pattern fails to form even though the photons have apparently done what was needed to form the interference pattern, namely to fly through the slits unobserved. The act of observing changes what the photons did earlier! All this has a certain Alice in Wonderland quality.

The weak measurements may show that “something that happens now is affected by something that happens in the future,” to quote George Tollaksen of George Mason University. “Maybe physicists should replace Alice with a new muse: Trafalmadorians, who in Kurt Vonnegut’s *Slaughterhouse Five* saw past, present, and future all at once like a landscape, each moment ever present.” And that, my dear readers, is omnipresence; omnipresence in time. I prefer to think of it

as *foreknowledge*. It looks like God's omnipresence and omniscience are inescapable—not only in space but also in time—when it comes to the frontiers of cosmology, even the sustenance of his creation from start to finish (Hebrews 1:3⁴).

Cause for Concern!

A Washington, DC airport ticket agent offers some examples of why our country is in trouble!

- I got a call from a lawmaker's wife who asked, "Is it possible to see England from Canada?" I said, "No." She said, "But they look so close on the map."
- An aide for a cabinet member once called and asked if he could rent a car in Dallas. When I pulled up the reservation, I noticed he had only a 1-hour layover in Dallas. When I asked him why he wanted to rent a car, he said, "I heard Dallas was a big airport, and we will need a car to drive between gates to save time."
- An Illinois Congresswoman called last week. She needed to know how it was possible that her flight from Detroit left at 8:30 am and got to Chicago at 8:33 am. I explained that Michigan was an hour ahead of Illinois, but she couldn't understand the concept of time zones. Finally, I told her the plane went fast, and she bought that.
- A New York lawmaker called and asked, "Do airlines put your physical description on your bag so they know whose luggage belongs to whom?" I said, "No, why do you ask?" She replied, "Well, when I checked in with the airline, they put a tag on my luggage that said "FAT," and I'm overweight. I think that's very rude!" After putting her on hold for a minute while I "looked into it," (I was laughing) I came back and explained the airport code for Fresno, CA is (FAT), and the airline was just putting a destination tag on her luggage.
- A Senator's aide called to inquire about a trip package to Hawaii. After going over all the cost info, she asked, "Would it be cheaper to fly to California, and then take the train to Hawaii?"

⁴ [God's Son] being the brightness of his glory, and the express image of his person, and **upholding all things by the word of his power**, when he had by himself purged our sins, sat down on the right hand of the Majesty on high. [Emphasis added.]

BULLETIN BLOOPERS

The peacemaking meeting scheduled for today has been cancelled due to a conflict.

Remember in prayer the many who are sick of our community. Smile at someone who is hard to love. Say "Hell" to someone who doesn't care much about you.

Miss Charlene Mason sang "I will not pass this way again," giving obvious pleasure to the congregation.

The Rector will preach his farewell message after which the choir will sing: "Break Forth Into Joy."

Irving Benson and Jessie Carter were married on October 24 in the church. So ends a friendship that began in their school days.

At the evening service tonight, the sermon topic will be "What Is Hell?" Come early and listen to our choir practice.

Eight new choir robes are currently needed due to the addition of several new members and to the deterioration of some older ones.

Scouts are saving aluminum cans, bottles and other items to be recycled. Proceeds will be used to cripple children.

Please place your donation in the envelope along with the deceased person you want remembered.

The church will host an evening of fine dining, super entertainment, and gracious hostility.

CREDO

The Biblical Astronomer was founded in 1971 as the Tychoonian Society. It is based on the premise that the only absolutely trustworthy information about the origin and purpose of all that exists and happens is given by God, our Creator and Redeemer, in his infallible, preserved word, the Holy Bible commonly called the King James Bible. Any scientific endeavor which does not accept this revelation from on high without any reservations, literary, philosophical or whatever, we reject as already condemned in its unfounded first assumptions.

We believe that the creation was completed in six twenty-four hour days and that the world is not older than about six thousand years. We maintain that the Bible teaches us of an earth that neither rotates daily nor revolves yearly about the sun; that it is at rest with respect to the throne of him who called it into existence; and that hence it is absolutely at rest in the universe.

We affirm that no man is righteous and so all are in need of salvation, which is the free gift of God, given by the grace of God, and not to be obtained through any merit or works of our own. We affirm that salvation is available only through faith in the shed blood and finished work of our risen LORD and saviour, Jesus Christ.

Lastly, the reason why we deem a return to a geocentric astronomy a first apologetic necessity is that its rejection at the beginning of our Modern Age constitutes one very important, if not the most important, cause of the historical development of Bible criticism, now resulting in an increasingly anti-Christian world in which atheistic existentialism preaches a life that is really meaningless.

If you agree with the above, please consider becoming a member. Membership dues are \$20 per year. Members receive a 15% discount on all items offered for sale by the *Biblical Astronomer*.

To the law and to the testimony: if they speak not according to this word, it is because there is no light in them.

– Isaiah 8:20

TITLES AVAILABLE FROM THE B.A.

Orders can be honored only if accompanied by payment in United States currency either by cheque drawn on a U.S. bank or cash. All North American orders add 15% postage. Orders for books outside North America please add an additional \$11 for the first book and \$6 for each additional one; for other items add \$5 per item for postage.

NOTE PRICE INCREASES

BOOKS AND DVDs

The Bible and Geocentricity, by Prof. James N. Hanson. A collection of articles, most of which made up the “Bible and Geocentricity” column in the early 1990s. Prof. Hanson has added numerous illustrations. (145 pages, 5.5x8.5 format.) \$10

The Book of Bible Problems. The most difficult “contradictions” in the Bible are answered without compromise. “A classic,” writes Gail Riplinger. 266 pages, indexed. \$15

The Geocentric Papers, A collection of papers, most of which appeared in the *Bulletin of the Tychoonian Society*. A technical supplement to *Geocentricity*, including articles on geocentrism, creationism, and the Bible itself. (120 pages, 8.5x11 gluebound.) \$15

Geocentricity DVD. Martin Selbrede gives a first rate presentation of geocentricity. \$15

Geocentricity, Relativity and the Big Bang, A book by long-time creationist Russell T. Arndts. Although we do not support the author's endorsement of the NIV, the book is worth the price for its discussion of Relativity and geocentricity. (248 pages) \$15

The Earth: Our Home by Philip Stott. The wise men, philosophers, and scientists of the world have repeatedly changed their minds about such things as space and our position in it. This book provides a historical look at the topic of geocentrism and offers evidence for it.

For a complete list of items available, visit
<http://www.geocentricity.com>

(Product list continued on the inside front cover.)