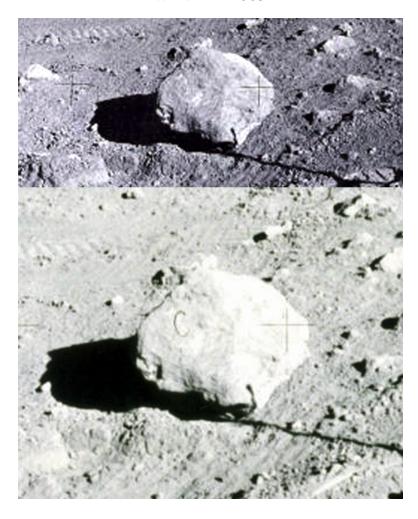
VOLUME 13 NUMBER 103

THE BIBLICAL ASTRONOMER

WINTER 2003



(Publications list continued from the back cover.)

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 and historical look at the topic of geocentricity and offers evidence for it. 32 pp. \$3.50

Vital Questions by Philip Stott. Tackles just how flimsy the evidence is for such well-established ideas as the Big Bang, Relativity, and evolution. 124 pp. \$13

Evidence for the Flood by Philip Stott. VHS video	\$20
Problems in Astronomy by Philip Stott. VHS video	\$20
Where in the Universe Are We? by Philip Stott. VHS video	\$20
Any three videos for	\$50

Geocentricity: the Scriptural Cosmology narrated by Dr. Bouw explains the seasons, retrograde motion and other phenomena using the Norwalt Tychonic Orrery. \$15

Subscriptions to the *Biblical Astronomer* are \$15 per year (\$20 outside the USA). Membership is \$20 per year, (\$25 outside the USA) and members are allowed a 15% discount on all materials published by the Biblical Astronomer. Offerings to make possible additional publishing and research projects are gratefully accepted. Foreign orders please send either cash or cheques drawn on a United States bank. Credit cards are accepted only on the Internet through PayPal's secure payment service. The product list, including items not listed in this issue, is at http://www.geocentricity.com/geoshop/pp_pubs.htm.

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Cover: The top picture of the infamous C-rock is from an archival photographic negative AS17-107-17446-J8C, one of three made from the original Apollo-16 negative, none of which shows the C. The lower photo, which shows the C, was not made from the original photo. See Readers' Forum.

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EDITORIAL

Errata

Prof. James Hanson discovered several errors in the article entitled "Cassini: His Ovals and Geocentricity" which appeared in issue No. 96. Many of these errors are due to the non-wysiwyg (what-you-see-is-what-you-get) character of Microsoft Word's Times New Roman Symbols font. These corrections are:

Pg. 38 line 13. Change "through" to "thorough."

Pg. 41 line 2. Change "sun" to "sum."

Pg. 41 line 2 from the bottom. Change "K/x" and "K/y" to "dK/dx" and "dK/dy."

Pg. 45, line 5 on down to "from which..." should read as follows:

$$K = \prod_{i} d_{i}^{2} = \prod_{i} [(x-a_{i})^{2} + (y-b_{i})^{2}]$$

$$= \prod_{i} [x^{2} + y^{2} - 2(a_{i}x + b_{i}y) + a_{i}^{2} + b_{i}^{2}]$$

$$= (x^{2} + y^{2})^{n} \prod_{i} [1 - 2(a_{i}x + b_{i}y)/(x^{2} + y^{2}) + (a_{i}^{2} + b_{i}^{2})/(x^{2} + y^{2})].$$

For large K the points (a_i, b_i) appear as a cluster each of which is about distance d from (x, y), i.e., $d_i \approx d$ and $K = {d_1}^2 {d_2}^2 ... {d_n}^2 \approx d^{2n}$. Then neglecting small terms: $d_i \approx d$

$$K \approx d^{2n} \approx (x^2 + y^2)^n \left(1 - 2\sum_i r_i r \cos \frac{2}{i} / d^2\right)$$
$$K^{1/n} \approx (x^2 + y^2) \left(1 - 2\sum_i r_i r \cos \frac{2}{i} / d^2\right)^{1/n} \approx (x^2 + y^2) \left(1 - (2/n)\sum_i r_i r \cos \frac{2}{i} / d^2\right)$$

A renewed interest in Le Sage

Long-time readers of the *Biblical Astronomer* and *the Bulletin of the Tychonian Society* before that will recall the significance of Le Sage's theory of gravity. Whereas the modern theory of action-at-a-distance has no physical cause for gravity, Le Sage's model does. Action-at-a-distance is a mystical thing where a pull between two bodies is transmitted through a vacuum with no "elastic" or anything like that to transmit the pull. Using the rolling ball on a rubber membrane

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model, modern physics concludes that gravity is a curvature of space. But what causes the curvature. In the case of the rubber membrane, it is the earth's gravity that deforms the sheet by the ball's weight, but what deforms space by a body's mass? Is it gravity? If so, then gravity cannot be caused by the curvature of space, because the curvature would be caused by gravity. This kind of circular definition is metaphysical, a kind of magic which is invalid and unsound. To be blunt, it is sheer sophistry. It sounds good but it's shot full of holes.

Le Sage's model, on the other hand, does have a physical basis. In it, the universe is filled with *ultramundane corpuscles* (also called *corpuscules*) and when a body, such as the earth, is near us, then it absorbs some of the corpuscules. When that happens, we encounter more corpuscules from above the earth than from below, so the flux pushes us toward the earth, and we call that gravity.

Over the last three decades, Prof. Jim Hanson has developed the mathematics describing Le Sagean gravity, and he has been so successful with it that he can account for all the anomalies typically observed in experiments measuring the strength of gravity. These anomalies have led to a renewed interest in Le Sage's model.

With that in mind, our lead two articles talk about the effect that such shielding would have on the moon's orbit about the earth, and how it affects eclipses. The first paper is a translation of a 1912 German paper, never before presented in English. The second is a summary of a set of papers on that topic, all presented in the first decades of the twentieth century.

Did ICR present evidence for geocentricity?

In December's issue of *Impact*, the Institute for Creation Research printed an article that noted the special position the earth has in the solar system. When we examined the article, we found some sleight of hand performed to make the earth's place special. When the sleight of hand is removed, the article did *not* provide evidence for a special position of the earth in the solar system, but we did find something else special. Read the article to see what that is.

¹ For a treatment of that model, see Hanson, J. N., 1996. "Gravitational Analog of A Rolling Ball on an Elastic Membrane," *ABA Technical Paper No. 1*.

EXPLANATION OF THE EMPIRICAL TERMS OF THE MOTION OF THE MOON BY ASSUMING GRAVITA-TIONAL EXTINCTION IN THE EARTH'S INTERIOR

Curt Felix Bottlinger²

In his tract "On the application of the fundamental natural laws of the universe," Geheimrat von Seeliger says in his critique of the Newtonian Law of Universal Gravitation: "The placement of a third body between two others in question may affect the mutual attraction between the latter, and thus may cause deviations from the Newtonian formula, which can perhaps be described as 'absorption' of gravitation. Such deviations appear reasonably plausible and thus to have a good change of discovery. They would be, in the final analysis, observable in the movement of the moon; and probably only there."

It was on this initiative that I undertook this investigation. Below I present its main points and results. The basic study, including the documentary material and more detailed interpretation will be published soon.

In every lunar eclipse, the earth enters the space between the moon and the sun. On their way to the moon, the "gravitation rays" from the sun must pass through the earth. It was here assumed that the expected extinction [of gravitation] would be proportional to the penetrated mass (of the earth). The effect would manifest itself as a repulsive force aligned along the earth-sun line, essentially along the radius vector of the moon's orbit. Furthermore, if we assume that the integral over time of the repulsive force can be represented as an impulse, then the mean period should show the effect (which is the only effect considered here), and that can be easily be detected by the method of varia-

² This article, originally published under the title "Die Erklärung der empirischen Glieder der Mondbewegung durch die Annahme einer Extinktion der Gravitation im Erdinnern," appeared in the *Astronomische Nachrichten*, **191**, No. 4568, Cols. 147-150, 1912. The translation was done by Gunther Wolf.

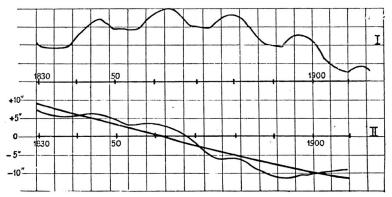
³ von Seeliger, G., 1909. "Über die Anwendung der Naturgesetze auf das Universum," Sitzungsberichte der Kgl. Bayr. Akademie der Wissenschaften, p. 12.

⁴ Many know that the rate of change in position (derivative) is called velocity, and that a change in velocity is called acceleration. The corresponding change in acceleration is called "Impulse."

tion of orbital elements. The impulse is a function of the magnitude of the eclipse, which depends then only on the density distribution of the earth's interior. I took the distribution of Prof. Wiechert, its rendering being the most convenient for computation, where for simplification, the sun and moon are assumed point masses. The perturbation to be observed is then obtained as the sum of the perturbations of all preceding eclipses.

In this way, I computed the history of the perturbation for all eclipses, both partial and total, from 1830 until 1913.

In his article published in the *Monthly Notices of the Royal Astro-nomical Society*, 69, entitled "Unexplained Fluctuations in the Mean Motion of the Moon," S. Newcomb reported on an extensive investigation into the empirical terms in the moon's orbital motion. I compared my computations to his empirical results.



The above figure shows the deviations of the observed mean lunar nodal longitude from the computed ones. Curve \mathbf{I} follows my computation, which assumes absorption of gravity, and curve \mathbf{II} , follows Newcomb. Note that there is an almost complete match of all minima and maxima from 1830 to 1895. One is thus immediately led to the conclusion that the true cause has been found, at least for these short-period fluctuations. Nevertheless, the absence of my computed maximum [centered on 1895–Ed.] in Newcomb's curve remains unexplained. This can hardly be invoked as an argument against the theory since in the calculations, various effects (especially the density distribution of the earth's interior) are uncertain, and, therefore, the shading function also.

If one then assumes the absorption as the cause of Newcomb's terms, one derives a value for the attenuation of a ray of gravity (passing through the center of the earth). That value is 1/60,000. By com-

parison, the absorption coefficient in the cgs-system for an earth made entirely of water is $\lambda = 3 \times 10^{-15}$.

Å foremost check of this hypothesis could be effected by confirmation of this result by another researcher in the field and/or through, perhaps, somewhat different assumptions. Also, the Martian moon Phobos might be suitable for such an investigation since the latter also experiences lunar-type eclipses. According to my estimates, the respective perturbation may amount to perhaps 10° to 20° of apsidal longitude.

Also, the component of the absorption-induced perturbation perpendicular to the orbital plane might exhibit this attenuation of gravitation. But this must await the availability of more sensitive instrumentation (as I noted in *Astronomische Nachrichten* 4550). Using the absorption coefficient just determined, these fluctuations would amount to:

$$I = 0$$
".001 sin 2z $II = 0$ ".0004 sin z.

For a more detailed justification of these expressions, I must refer to the exhaustive study to be published later.

-C. F. Bottlinger

LESAGEAN GRAVITY ATTENUATION AND LUNAR ECLIPSES

Prof. James N. Hanson

During a lunar eclipse the earth blocks (or shadows) the light of the sun upon the moon; however, it is held that the earth does not, likewise, shadow or attenuate the sun's gravity upon the moon. I am of the opinion that it does and that observation of the moon's motion, especially the direction of the line of nodes, bears this out. Specifically, I have examined the long-neglected works of Newcomb, De Sitter, and Bottlinger published in the years 1909 to 1914. 5, 6, 7, 8, 9

These references attempt to account for all the gravitational influences on the moon's motion in accordance with non-attenuated "action-at-a-distance" gravity and then to analyze the remaining residual effects. Newcomb¹ and De Sitter², ³ found unexplained effects but chose to ascribe them to unexplained gravitational effects. They chose not to accept the possibility of LeSagean gravity (i.e. gravitational attenuation or shadowing). Bottlinger, ⁴, ⁵ on the other hand, computed the effect of short intermittent reductions of gravity during lunar eclipses from the years 1830 to 1910. These reductions lasted for a few minutes and occurred about every year. Since the sun and moon are nearly lined up with the earth's center, these reductions produce an outward radial lunar perturbation.

I supply a very brief analysis, though crude, indicating the nature of Bottlinger's thorough examination. In the figure below, the moon's orbit is projected onto the celestial sphere centered at the earth's center, P_o . This orbit is indicated by arc NQM where N is the moon's ascending node and Q is the moon's current position. Point A is the lunar perigee (closest point to the earth). Arc XNY indicates the projection of the earth's equator onto the celestial sphere. We are concerned with

⁵ Newcomb, Simon, 1909. "Fluctuations in the Moon's Mean Motion," *Monthly Notices of the Royal Astronomical Society*, **69**, part 1, pp. 164-169.

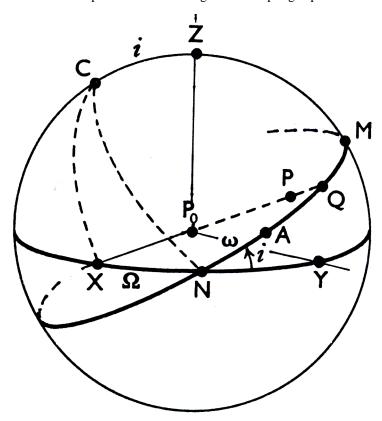
⁶ De Sitter, W., 1913. "The Secular Variations of the Elements of the Four Inner Planets," *Observatory*, **36**:296-303.

⁷ De Sitter, W. 1913. "On the Absorption of Gravitation and the Moon's Longitude," *Proc. of the Koningklijke Ned. Akad. Wet. Scr.*, **15**:808-839.

⁸ Bottlinger, Curt, 1912. "Die Erklärung der empirischen Glieder der Mondbewegung durch die Annahme einer Extinktion der Gravitation im Erdinnern," appeared in the *Astronomische Nachrichten*, **191**, No. 4568, Cols. 147-150. An English translation of this paper appears in this issue of the *Biblical Astronomer* on page 5.

⁹ Bottlinger, Curt, 1914. "Zur Frage der Absorption der Gravitation," *Sitzungsberichte–Bayerische Akademie der Wissenschaften Math.–Naturwissenschaft. Klasse*, pp. 223-229. The title translates to "On questions about the absorption of gravity."

 $\omega' = \Omega + \omega$, where Ω is the angle from the fixed reference direction P_oX to node N measured along the equator and ω is measured in the moon's orbital plane from ascending node N to perigee position.



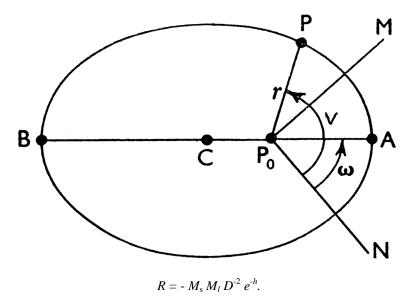
Let R be the radial perturbation due to the earth's attenuation of the sun's gravity. Then we write: 10

$$d\omega'/dt = -(1-e^2)^{1/2} (nae)^{-1} R \cos v$$

where e is the lunar eccentricity, a the semi-major axis, n the mean angular motion, and v is the moon's angular position (true anomaly).

Assume one eclipse (usually partial) per year for j years. If M_s and M_l are the sun's and moon's mass, D the earth-moon distance, and h the earth's gravitational attenuation, then:

¹⁰ Moulton, F. R., 1914. An Introduction to Celestial Mechanics, 2nd edition, MacMillan Co., p. 406.



Let Δt be the eclipse duration and note that the average value of $\cos v$ is

$$\operatorname{avg}(\cos v) = (1/\pi) \int_0^{\pi} \cos v \, dv = 2/\pi$$

Then we may compute $\Delta\omega'$ from

$$\Delta\omega' = -(2/\pi) (nae)^{-1} R j \Delta t.$$

We have that $M_{\rm s}=2.0\,{\rm x}\,10^{33}\,{\rm gm},\,M_l=7.4\,{\rm x}\,10^{25}\,{\rm gm},\,D=1.5\,{\rm x}\,10^{13}\,{\rm cm},\,a=3.84\,{\rm x}\,10^{10}\,{\rm cm},\,e=0.055,\,n=82\,{\rm rad/yr},$ and from the data of references 1-5, $\Delta\omega'/j=6.3\,{\rm x}\,10^{-5}\,{\rm rad/yr}.$ Hence we may solve for h thus giving $e^{-h}=4.2\,{\rm x}\,10^{-21}.$ $\Delta\omega'$ was obtained from De Sitter's cycle of 20" with a period of 150 days.

Relating the earth's attenuation to the general attenuation of matter, K,

$$h = K d_{e} (2R_{e})$$

where d_e is the earth's density of 5.5 gm/cm³ and $R_e = 6.38 \times 10^8$ cm is the earth's radius. This gives $K = 6 \times 10^{-9}$ cgs.

Over the last 25 years or so I have examined much experimental data concerning planetary motion, pendulums, falling object experi-

ments, gyros, etc., and have always found evidence of gravitational attenuation and shadowing and that gravity acts instantaneously. Therefore, I was pleased to find current renewed interest in LeSage's concepts.⁷

QUOTES

What you do with the Bible will determine what God does to you.

- Coombs

Descended from the apes? Let us hope that it is not true. But if it is, let us pray that it may not become generally known.

- F. A. Montague.

The secret of creativity is knowing how to hide your sources.

Albert Einstein

He that is giddy thinks the world turns round.

- Kate, in Shakespeare's *The Taming of the Shrew*, Act 5. Scene 2.

ON THE MICHELSON-MORLEY EXPERIMENT

But this implies that the earth was somehow a preferred object; only with respect to the earth would the speed of light be as predicted by Maxwell's equations. This was tantamount to assuming that the earth is the central body of the universe.

– D. C. Giancoli, *Physics Principles with Applications*

⁷ Edwards, Matthew, 2002. *Pushing Gravity, New Perspectives on LeSage's Theory of Gravitation*, C. Roy Keys Inc., Montreal Canada. http://redshift.vif.com.

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READERS' FORUM

Dr. Ross answers questions on the creation

The following letter was sent on June 16, 2000 to Dr. Hugh Ross. The author of the letter is by Frank Gauna of Santa Clarita, California.

Dear Dr. Ross,

Could you be so kind as to briefly elaborate your views with respect to the following four questions? I've attached a self-addressed stamped envelope for your convenience in sending a reply. I understand that your answers reflect your views based on your personal research and the work of the scientific/theological community at large.

- Q. What is the estimated age of the universe?
- A. 14.5 billion years.
- Q. How do you apportion the seven individual days of Genesis throughout this period of time? Perhaps you could indicate below where you conceive the divisions might be drawn chronologically (e.g., 4000M= 4 billion years ago; 40K= 40,000 years ago, etc.):

- Q. What is the estimated time of Adam's creation?
- A. Best biblical date: 10,000-60,000 years ago. Best scientific date: 20,000-50,000 years ago.
- Q. According to the fossil record, what is the earliest time that proto men (Neanderthal, Cro-Magnon, etc.) appear in earth history?
- A. [Cro-Magnon] no longer used, Cro-Magnon are humans. Neanderthal: 150,000-30,000 years ago; Homo Habilis & Homo Erectus: 1.1 million-0.6 million; Australopithicene: 4.4 million-2.9 million; nothing previous to Australopithicenes. See *The Genesis Question* for details.

According to a representative of Reasons to Believe, Dr. Hugh Ross believes the following about Genesis 1:1-2:

GENESIS 1:1 covers the entire period from the Big Bang up until the creation of the earth. The time span would be from $\sim 14.5^{12}$ billion years to ~ 4.5 billion years ago. The fact that the earth is mentioned in verse one does not mean that the First Day of Creation commences there. "In The Beginning" does not mean that the heaven and the earth were created at the same time.

GENESIS 1:2 is the official beginning of the First Day of Creation, when God begins to fashion the earth.

More on the lunar landing hoax theory

The matter of whether or not men actually went to the moon surfaces in correspondence from time to time. It has served to show that Christians can be every bit as gullible as unbelievers. (One will argue which set of Christians is the gullible set, of course.) So here's a brief exchange with Mr. S., starting with my reply to his asking me for my opinion.

I've been following the moon hoax since Fidel Castro first claimed the lunar landing was a hoax in 1969. I've read the claims by Percy and Renee, et al., and find myself in a position able to determine the validity of their claims because I started developing and printing my own black and white photos in 1959, color slides in 1963, and color prints in 1964. Furthermore, I worked in a portrait studio from 1965-1966 where I learned about "burning in" overexposed areas and "dodging" underexposed areas, both to bring out details. Furthermore, I know the basic algorithms used to enhance photos by computer and have done it myself for nigh onto 15 years now, restoring old photos, both black and white and color.

Having said that, I can unreservedly state that when it comes to picture contrast, lighting, and quality, there is not a single "error" claimed by Renee, Percy, and others that is not the result of any of the techniques I mentioned in the previous paragraph. They are the result of experienced photographic printers (people) who know how to get the highest quality prints and, being conscientious of the historic nature of the prints, use the techniques to advantage. Had they not used the techniques to produce the best quality prints, it would be a shame and a sham.

I have video of every one of the Apollo landings, and have examined each, sometimes frame by frame, for evidence both that they were filmed in an atmosphere instead of a vacuum and that they were filmed

¹² The symbol ~ means "approximately" and is usually read as "about."

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under terrestrial gravitational conditions instead of lunar (1/6 earth gravity). The evidence is entirely consistent with the conditions expected in a vacuum under 1/6 g. Note that Renee et al. have not come up with a single claim on these two most major counts.

As for the remaining claims, most deal with topography and are of dubious significance. I have not found a single claim of any substance. I have found that the hoax advocated do not do their homework, however, such as the "C" rock (said to be a stage prop mark). The C is not present on prints made from the original negative except one, which was widely circulated by NASA and is even on their web site. Looking closely, the C is either a hair or a piece of lint; it even casts a shadow.



I've attached the highest-resolution photo I've obtained. Note, too, that the C is a different color (brown) than the rock. (Receives of the electronic version can see it.)

As you found out, [by their rejection of geocentricity in the same off-handed way as ICR has done—*Ed.*] the hoax advocates are not at all interested in promoting truth; all they care about is their cash cow, for these two men have become millionaires selling their own hoax, and they know that theirs is the hoax, not NASA's.

To this, Mr. S. replied with these words:

Although I can see that the moon hoax people are adamant about their issue, that it is, as you called it, their "cash cow," in their defense I must say a lot of puzzling photos exist. And for all of them, how does the film they use escape the heat, cold, and radiation effects?

As for the 1/6th gravity, how is it that no astronaut ever showed us how high that would allow them to jump? Even the dust flying off the wheels of the Lunar Rover flies no higher up than a dune buggy in the sand here on Earth.

I guess it seems to me the Apollo hoaxers make some very plausible, good points.

Thank you for conversing with me about this.

And my reply:

About the protection of the film: The camera was stored in a shielded box en route. Are you saying that one can't take pictures at the south pole because it's too cold for the film? The film in the camera does not need to be shielded from the heat because only the very edges of the film would heat up at all. We used to bake film for several hours at 200 deg. F. to sensitize it for astronomical use, and you couldn't tell that it had been heated.

As for radiation effects, you would need to look at the original negatives with a microscope to find that evidence. It's not like on earth where cosmic rays cause showers with particles hitting other particles, which hit other air atoms until many particles hit the ground. There is no air on the moon, so no cosmic ray showers.

About the 1/6th gravity: On the moon, the astronauts seem to jump about three feet, at most. If you were in one of those bulky space suits, with limited flexibility, doesn't it seem reasonable that the highest you could jump is six inches? How many of us could jump two or three feet with little more than the spring in our legs?

The sand of the "dune buggy" kicks up to two or three times the diameter of the wheel at times. How high does a dune buggy speeding along at 12 to 15 miles per hour kick up sand here on earth? And waterladen terrestrial soil is much heavier than the lunar soil.

Now here's one for you: when you drive down a dirt road, how long does it take the dust to fall to the ground? The dust in the films falls immediately; in the same amount of time it takes the sand to fall.

About the very plausible, good points: Hey, they couldn't con people if that weren't true.

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Hello Prof. Bouw,

I am struggling with how we get day and night every 24 hours if the earth is fixed and the sun is 93 million miles out moving with the universe. The 24 hour day is what I have trouble visualizing. Could you please explain this in detail?

> Seriously confused, Doug

Dear Doug,

Imagine a basketball on the center post of a carousel. Paint a white spot on it somewhere on the equator of the ball. Imagine that the post does not rotate with the merry-go-round but is fixed to the ground, so that the basketball will not rotate relative to the ground.

Now stand among the horses of the merry-go-round and shine a flashlight (representing the sun) on the ball (the earth). Start the carousel. You'll see that half the time the flashlight will shine on the white spot (corresponding to day time), and the other half of the time it will shine on the backside of the ball but not on the spot, which means it's now night at the spot. The platform of the merry-go-round represents the universe, which carries the sun with it. The ground, on which the merry-go-round is based, represents the third heaven, and the ball will not rotate relative to it, but the platform, horses, and flashlight all rotate around the central axis where the ball is fixed.

Dear Dr. Bouw.

In the latest Biblical Astronomer (summer 2002), Dr. Bolton Davidheiser discusses the work of Dr. Hugh Ross. On p. 114, he summarizes what H. D. B. Kettlewell wrote about his experiments, with some thoughtful responses to the significance of that research. This summer, science writer Judith Hooper published *Of Moths and Men*, a book on Kettlewell and his work, which points out serious problems with the work (finally criticized by scientists) and puts it perspective.

A good brief summary by Paul Raeburn is in the August 25, 2002 *New York Times*, section 7, column 3, page 12. Or go to http://www.nytimes.com and search under "Of Moths and Men" or "Paul Raeburn."

Keep up the good work!

Many Blessings! Christian The following is from a 4-way email exchange. My replies to individual questions are in bold face.

Dr Bouw.

Is it true that Tycho believed, as did Copernicus, that Earth is a planet — is one of the "heavenly bodies"?

No.

... Final question: Would you call a cosmological "system" a "model"? I'm not sure if there's a difference. It has been claimed that the [heliocentric] H-model can predict the exact locations & movements of the planets.

Since we can't go out in space to test cosmological models, they're all models. To talk of a cosmological "system" is to talk epistemologically, as far as I can see.

It has also been claimed that there is no such thing as a [geocentric] G-model which can achieve such results.

Wrong. Geocentricity and the Machian model can both achieve the movement of the planets, and all other observed effects.

I'm not sure where I'd look to find either an H-model or a G-model, but perhaps the allegation is that astronomers can make those loci predictions by using laws of physics accepted only by heliocentrists.

At www.geocentricity.com there is a list of references, each of which demonstrates how the G-model can satisfy the observations without violating the laws of physics.

Do you know if geocentrists reject some of the laws of physics accepted by heliocentrists?

I don't know of any geocentrists which reject the laws of physics.

If both groups accept the same laws, then it would seem that both groups could make the same claim -- that their "model" can make those loci predictions/calculations with the same degree of accuracy, since both would be using the identical math.

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True, and I sometimes do so to make a point that if one is "proven," then the other is, too.

In Christ, P. E.

From Jack A. we have the following contribution in response to the first question in the above exchange:

The question of Brahe's theory is not so simply rejected as purely heliocentric. See the discussion below from

http://es.rice.edu/ES/humsoc/Galileo/People/tycho_brahe.html.

If Tycho destroyed the dichotomy between the corrupt and ever changing sublunary world and the perfect and immutable heavens, then the new universe was clearly more hospitable for the heliocentric planetary arrangement proposed by Nicholas Copernicus in 1543. Was Tycho therefore a follower of Copernicus? He was not.

Tycho gave various reasons for not accepting the heliocentric theory, but it appears that he could not abandon Aristotelian physics which is predicated on an absolute notion of place. Heavy bodies fall to their natural place, the Earth, which is the center of the universe. If the Earth were not the center of the universe, physics, as it was then known, was utterly undermined.

On the other hand, the Copernican system had a number of advantages, some technical (such as a better lunar theory and smaller epicycles), ¹³ and others more based on harmony (an obvious explanation of retrograde planetary motion, a strict demonstration of the order and heliocentric distances of the planets). Tycho developed a system that combined the best of both worlds. He kept the Earth in the center of the universe, so that he could retain Aristotelian physics (the only physics available). The Moon and Sun revolved about the Earth, and the shell of the fixed stars was centered on the Earth. But Mercury, Venus, Mars, Jupiter, and Saturn revolved about the Sun. He put the (circular) path of the comet of 1577 between Venus and Mars. This Tychonic world system became popular early in the seventeenth century among those who felt forced to reject the Ptolemaic arrangement of the planets (in which the Earth was the center of all motions) but who, for various reasons, could not accept the Copernican alternative.

Jack

¹³ This is challenged by Philip Stott in the *Biblical Astronomer Technical Paper No.* 2. The book is available for \$7.00 postpaid in N. America, \$12 elsewhere.

A fourth party, David L., responded to a fifth party with this:

Brahe was geocentric as the outline above supports. Interesting discussion, though.

Einstein maintained that there cannot be a determination between Ptolemy or Copernicus as to whom is correct (Ptolemy tying into the Bible); and it just depends how you wish to arrange your coordinate system. It can be as easily centered on the earth as on the sun, and that is what relativity is all about.

It is surprising that this is not taught in the classrooms, as it shows the Bible has not been disproven in its geocentric astronomy, even as it has not been disproven on the age of the earth being less than 6,000 years, or that man was created rather than evolved. In each case there were no historical observations made to counter the Biblical account, as no man was there.

There is an interesting book entitled *Omphalos* by Philip H. Gosse, (omphalos means in Greek the belly button), asking the question as to whether Adam had a belly button.

He writes on page 124: "But the whole organisation of the creature thus newly called into existence, looks back to the course of an endless circle in the past. Its whole structure displays a series of developments, which as distinctly witness to former conditions as do those which are presented in the cow, the butterfly, and the fern, of the present day. But what former conditions? The conditions thus witnessed unto, as being necessarily implied in the present organization, were nonexistent; the history was a perfect blank till the moment of creation. The past conditions or stages of existence in question (such as the circles in the trunk of a tree indicating its age, editor), can indeed be as triumphantly inferred by legitimate deduction from the present, as can those of our cow or butterfly; they rest on the very same evidences; they are identically the same in every respect, except in this one, that they were unreal. They exist only in their results; they are effects which never had causes (in a natural sense, it being acknowledged that God created the earth and everything in it that way in six days, as the first cause, editor)."

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A mysterious large change in earth's gravity field recorded14

Satellite data collected since 1998 from the U.S./French oceanobserving satellite Topex/Poseidon, indicate the bulge in earth's gravity field at the equator is growing, and scientists think that the ocean may hold the answer to the mystery of how the changes in the trend of earth's gravity are occurring.

Before 1998, earth's equatorial bulge in the gravity field was getting smaller because of post-glacial rebound that occurred because of the melting of the ice sheets after the last Ice Age [all the ice ages happened between roughly 2300-1700 B.C. ¹⁵ –*Ed.*]. When the ice sheets melted, land that was underneath the ice started rising. As the land rebounds, the profile of the earth's gravity field changes.

The observations of the earth's gravity field show that something is counteracting the gravitational effects of post-glacial rebound. The rebound had been decreasing the bulge in the earth's gravity field at the equator, as expected, but recent observations show that the bulge is increasing. The usual explanation is that such changes are caused by movements of mass from the high latitudes to the equator. Such large changes may be caused by climate change, but could also be part of normal long-period climatic variation. Three factors that can trigger large changes in the earth's gravitational field are oceans, polar and glacial ice, and the atmosphere.

The atmosphere has been ruled out as the cause. That leaves ice and water moving from high latitude regions to the equator, but the estimates of glacier and polar ice melting are too small to explain the recent changes in the gravity field. If melting ice were the cause of the recent changes in the gravitational field, it would require melting a block of ice 6.2 miles (10 km.) square by 3.1 miles (5 km.) high every year since 1997, and pouring it into the oceans. As the ice is already floating, the recent reports of large icebergs calving in Antarctica can't be the cause. Further, radar altimeter observations of the average sea level rise provided by Topex/Poseidon show no corresponding change in the rate of the global sea level increase.

¹⁴ Buis, A., R.J. Gutro, and D.E. Steitz, 2002. "Satellites reveal mystery of large change in earth's gravity field," JPL Press release no. 2002-156, Aug. 5. Also see the Aug. 2 issue of *Science*.

¹⁵ Oard, M.J., 1990. "The evidence for only one ice age," *Proc. 2nd Intl. Conf. on Creationism*, (CSF, Inc.:Pittsburgh) 2:191-200. Also, C.W. Mitchell, 1995. "A short ice age: why not?" *Proc. 6th Europ. Creationist Conf.*, (Evangelische Hogeschool: Amersfoort, Netherlands), p. 40-45.

That means the mass must have been redistributed within the oceans. Ocean currents can redistribute mass quickly enough to match the changes observed in the last five years. The Topex/Poseidon observations of sea level height do show an increase in the equatorial bulge of the oceans corresponding to the observed gravity changes, but the data are still inconclusive. One critical factor is the temperature of the world's oceans, and its salinity, for which detailed data are not yet available.

There is another possibility, which apparently had not yet occurred to the evolutionary-minded scientists. Assume for a moment that the ice age is as recent as Oard and company believe. The rebound, which was three feet per century (measured roughly from 1850-1950) in the town of Churchill on Hudson Bay in Canada, may have hit its maximum and may now be rebounding downwards. Some of our more skeptical readers may want to know how the three-foot rise was measured. Churchill is a harbor town. The posts and docks in the water became land-locked as the land rose. And how did I know of it? It was part of the eighth grade curriculum in Canada during the 1950s; in other words, I learned it in school.

Evolution says: Man is older than his ancestors¹⁶

A newly found fossil skull in Chad has confounded the proponents of the theory of evolution. Darwinist scientists confess that this fossil has rocked the very foundations of the theory of evolution. The fairy tale of "an evolutionary chain stretching from ape to man" has once again collapsed. This new ape fossil found in Chad turned all evolutionary theses upside down.

The new fossil skull found in the central African country of Chad has dealt a heavy blow to the evolutionary claims regarding the origin of man. Given considerable space in world-renowned scientific journals and newspapers, this new fossil has shattered the claim that "man evolved from ape-like creatures" so doggedly maintained by Darwinists for the last 150 years. Discovered by the French scientist Michel Brunet, the fossil was given the name *Sahelanthropus tchadensis*.

The fossil has set the cat among the pigeons in the world of Darwinism. In its article giving news of the discovery, the world-renowned journal *Nature* admitted that the "New-found skull could sink

¹⁶ Yahya, Harun, 2002. "New Fossil Discovery Sinks Evolutionary Theories," e-mail communication from a group of Turkish creationists. Though evolutionary ages are quoted in the paper without comment, neither Dr. Yahya nor the Biblical Astronomer believe the ages. Except for words in brackets, the article is completely printed here.

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journal *Nature* admitted that the "New-found skull could sink our current ideas about human evolution." ¹⁷

Daniel Lieberman of Harvard University said that "This [discovery] will have the impact of a small nuclear bomb." 18

The reason for this is that although the fossil in question is 7 million years old, it has a more "human-like" structure (according to the criteria evolutionists have hitherto used) than the 5 million-year-old Australopithecus ape species that is alleged to be "mankind's oldest ancestor."

Ever since the 1920s, evolutionists have claimed that some characteristics of the Australopithecus genus resembled those of human beings, for which reason they have portrayed these extinct creatures as "man's most primitive ancestor." A great deal of evidence disproving that thesis has emerged. For instance, research in the 1990s revealed that Australopithecus did not walk upright, as had been claimed, but walked with a stooped posture just like other apes. The newly-discovered *Sahelanthropus tchadensis* fossil, another ape species that lived 2 million years before Australopithecus, is actually more "human-like" according to evolutionary criteria. In other words, it demolishes the "evolutionary scheme."

The essence of the matter is this: there are a large number of very different ape species that once lived in the past and are now extinct. The skull or skeletal structures of some of these show similarities to those of man. Yet those similarities do not mean that these creatures have any relationship to man. Evolutionists line up the skulls from these extinct species in a manner required by their theory and try to come up with "a ladder from ape to man." Yet the deeper research into the subject goes, the more it is realized that there is no such ladder, simply different species of ape lived at different times in the past.

Moreover, it emerges that man came about all of a sudden, with no evolutionary process behind him: In other words, that he was created.

John Whitfield, in his article "Oldest Member of Human Family Found" published in I on July 11, 2002, confirms this view quoting from Bernard Wood, an evolutionist anthropologist from George Washington University in Washington:

"When I went to medical school in 1963, human evolution looked like a ladder." he [Bernard Wood] says. The ladder stepped from monkey to man through a progression of intermediates, each slightly less ape-like than the last. Now human evolution looks like a bush. We have a menagerie of fossil hominids... How they

Whitfield, John, 2002. "Oldest member of human family found," *Nature*, 11 July 2002

¹⁸ Parsell, D.L., 2002. "Skull Fossil from Chad Forces Rethinking of Human Origins," National Geographic News, July 10, 2002.

are related to each other and which, if any of them, are human forebears is still debated.¹⁹

The comments of Henry Gee, the senior editor of Nature and a leading paleo-anthropologist, about the newly discovered ape fossil are very noteworthy. In his article published in *The Guardian*, Gee refers to the debate about the fossil and writes:

Whatever the outcome, the skull shows, once and for all, that the old idea of a "missing link" is bunk... It should now be quite plain that the very idea of the missing link, always shaky, is now completely untenable. "The very idea of the missing link, always shaky, is now completely untenable." Henry Gee, editor of *Nature*.²⁰

In brief, the drawings of the "evolutionary ladder that stretches from ape to man" that we so frequently encounter in newspapers and magazines have no scientific value at all. They are merely propaganda from certain circles that are blindly devoted to the theory of evolution. At the same time as this propaganda is carried out, evidence that conflicts with the theory of evolution is kept hidden away.

In his book *Icons of Evolution: Science or Myth, Why Much of What We Teach About Evolution is Wrong*, which caused a great stir in America when it was published in 2000, the U.S. biologist Jonathan Wells summed up that propaganda mechanism in these terms:

The general public is rarely informed of the deep-seated uncertainty about human origins that is reflected in these statements by scientific experts. Instead, we are simply fed the latest version of somebody's theory, without being told that paleo-anthropologists themselves cannot agree over it. And typically, the theory is illustrated with fanciful drawings of cave men, or human actors wearing heavy makeup.²¹

The Darwinist myth is now finally about to collapse. The mistaken nature of Darwinism, itself merely a 19th century superstition, is becoming ever clearer as science advances. The world of science is arriving at the most important truth of all: it was God who created the universe we live in, and everything, living or inanimate, within it.

²⁰ The Guardian, 11 July 2002.

¹⁹ Whitfield, 2002. Loc. cit.

²¹ Wells, Jonathan, 2000. *Icons of Evolution: Science or Myth, Why Much of What We Teach about Evolution is Wrong*, (Washington, DC: Regnery Publishing), p. 225.

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The above is the complete text written by the Turkish creationist, Harun Yahya. He is totally correct about the nature of the evidence, but he is too optimistic about his fellow man. As a Moslem, he works from an assumption inherent in every religion in the world except scriptural Judaism and Christianity, and that is that man is basically good. Scripture says man is inherently evil, indeed, desperately wicked (Jer. 17:9), not at all inclined to seek after God (Rom. 3:11). The natural man seeks to establish his own righteousness, which means he must reject God's righteousness. For that reason I must take issue with Yahya's conclusion in his last paragraph. Man will not accept the truth of creation, not as long as there's another "if" or "suppose" left in his mind. Fiction still outsells non-fiction, and books promoting sin outsell Bibles. The second law of thermodynamics still says that men will not believe the truth; so how then will natural men come to accept the evidence of the truth?

The Georgia tektites

In 1968, NASA published a list of 578 phenomena observed on the lunar surface from 1540 through 1967.²² These are usually dismissed as errors or nonsense. But in February 2002, NASA announced evidence that the Moon has an active, molten core, justifying the brave observers who reported their observations in the face of professional hostility.

The NASA announcement stirred a near-dormant interest in what many used to think were lunar volcanic ejecta, namely, *tektites*. For a long time geologists thought that these volcanic glass rocks may have come from the moon and crashed to earth after violent lunar events. Most are found near active volcanic regions on earth such as regions of Asia and Australia near the sweep of undersea and surface volcanoes between the northern shore of Australia and south of the Indonesian Islands. Evolutionists think these tektites, amounting to thousands of tons of volcanic glass, reached earth from the moon "within the past million years." What makes it hard to believe is that they are so close to the surface that one would suspect that they are only thousands of years old, not hundreds of thousands.

In the United States, there are two tektite fields, both near formerly-active volcanic fields. One is in Texas, and the other is in Georgia. The Georgia tektites are extremely rare and are said to be 34.5

²² Middlehurst, B. M., J. M. Burley, P. Moore, and B. L. Weither, 1968. *Chronological Catalog of Reported Lunar Events*, NASA Technical Report no. R-277. Xeroxed copies can be obtained from: The Sourcebook Project, P.O. Box 107 Glen Arm, MD 21057.

million years old. Since 1970, Harold Povenmire, a Florida Institute of Technology astronomer and former NASA Project Apollo engineer, has been mapping the Georgia field. His work has expanded the Georgia tektite zone from 500 square miles to over 7,000 square miles. The number of Georgia tektites he discovered increased from 200 to over 1300.

The current theory rejects the lunar origin for tektites and instead holds that tektites were formed when asteroids or comets hit the earth and melted its rocks. But tektites are a dry homogeneous natural glass and do not resemble wet inhomogeneous impact glass found around many meteor craters. A terrestrial origin for the tektites is rejected because of the presence of certain elements not usually found in terrestrial volcanic glasses, but believed to be more common in asteroids and meteors. Still, one needs to keep in mind that tektites appear to have a very violent origin.

Countering the asteroid theory of the origin of tektites, Povenmire notes that the slow way tektite glass formed, and the volcanic features some researchers have observed within chunky, layered tektites, can't be explained by the widely accepted terrestrial-impact theory. Ablation (the dissipation of heat due to atmospheric friction) studies also prove that the velocities of tektites reached 3.5 miles per second (6 km per second) or greater. This is viewed as an unlikely speed for terrestrial ejecta to attain from a volcanic explosion, though no one really knows how fast some rocks from Krakatoa may have been ejected. Furthermore, cosmic-ray traces inside tektites show they didn't spend a long time in space, not nearly long enough to be of asteroidal impact origin. This doesn't preclude the possibility that they were ejected as liquid drops by impact of the asteroid on earth.

Even though astronauts on Apollo 12 and 14 returned several lunar highland and presumed subcrustal rocks with tektite-like chemistry, it does not follow that tektites are of lunar origin. The lunar origin theory of tektites has been around since a European geologist first suggested it in 1900. In the waning decades of the twentieth century, the problems with that theory forced scientists to consider the asteroidal impact theory. Now the Georgia tektites, at least, provide some serious evidence against that new theory. The new evidence, however, does not offer support for the lunar origin theory, for there are still serious dynamic problems with that theory. In essence, the fields are too localized to come from the moon. One would expect them to be distributed in long bands, not in oval fields. Then, too, there remains the problem that tektite fields are located in active or formerly active tectonic or volcanic regions. If they started out as molten rock, they may have been ejected fast enough, and with enough spin, to have torn the hydro-

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gen atoms from the oxygen of its water molecules, ²³ and so dried themselves and even layered themselves in much the same way as Jupiter's cloud bands are formed.

Meteor crater discovered in the North Sea²⁴

British explorers have discovered a well-preserved (read "young") meteor crater in the floor of the North Sea, some 80 miles (130 km) from the mouth of the Humber River midway along the east coast of England. Oil exploration during the 1990s had hinted at the presence of a meteor fall somewhere in the North Sea, but only recently has seismological technology been able to reveal the crater.

The crater, named Silverpit, is about 1.8 miles (3 km) in diameter, and lies under a layer of sediment varying between 1000 and 4500 feet (300 to 1500 meters) in thickness. The crater is filled with a chalk and clay deposit. Its hilly rim raises as much as 150 feet (50 m.) above its floor, suggesting that the crater was rapidly buried, thus preventing the erosion characterizing most of the roughly 160 impact craters surviving to this day. Although evolutionists give it an "age" of 60-65 million years, we know from the persistence of oil pressure in the region that its true age is considerably less than 10,000 years.

Increasingly, data from GSFC shows global warming is bunk²⁵

While recent studies have shown that on the whole Arctic sea ice has decreased since the late 1970s, satellite records of sea ice around Antarctica reveal an overall increase in the southern hemisphere ice over the same period. Continued decreases or increases could have substantial impacts on polar climates, because sea ice spreads over a vast area, reflects solar radiation away from the Earth's surface, and insulates the oceans from the atmosphere.

In a study published in the *Annals of Glaciology*, Claire Parkinson of NASA's Goddard Space Flight Center analyzed the length of the sea ice season throughout the Southern Ocean to obtain trends in sea ice coverage. Parkinson examined 21 years (1979-1999) of Antarctic sea ice satellite records and discovered that, on average, the area where southern sea ice seasons have lengthened by at least one day per year is roughly twice as large as the area where sea ice seasons have shortened

²³ The dissociation of water into hydrogen and oxygen is a common problem in turbines

²⁴ Anon., 2002. "Krater van meteoriet ontdekt in Noordzee," *The Windmill Herald*, **44**(956):16, 23 Aug.

²⁵ Ramanujan, K., 2002. "Satellites show overall increase in Antarctic sea ice cover," NASA Press Release No. 02-128, Aug. 22.

by at least one day per year. One day per year equals three weeks over the 21-year period.

"You can see with this dataset that what is happening in the Antarctic is not what would be expected from a straightforward global warming scenario, but a much more complicated set of events," Parkinson said.

The length of the sea ice season in any particular region or area refers to the number of days per year when at least 15 percent of that area is covered by sea ice. Some areas close to the Antarctic continent have sea ice all year long, but a much larger region of the Southern Ocean has sea ice for a smaller portion of the year, and in those regions the length of the sea ice season can vary significantly from one year to another. To calculate the lengths of the sea ice seasons, Parkinson used satellite data gridded to 25 by 25 kilometer grid cells for the Southern Ocean region. For each grid cell, the satellite data were used to determine the concentration, or percent area, of the sea ice cover. Whenever the percentage was at least 15 percent, the grid cell was considered to have ice. Using this method, Parkinson went through the entire data set and for each grid cell had a computer count how many days of each year had ice, then calculated trends over the 21-year record.

Overall, the area of the Antarctic with trends indicating a lengthening of the sea ice season by at least one day per year was 5.6 million square kilometers (2.16 million square miles), about 60 percent the size of the United States. At the same time, the area with sea ice seasons shortening by at least one day per year was 3 million square kilometers (1.16 million square miles). Regionally, the Ross Sea, on average, had its sea ice seasons getting longer, while most of the Amundsen Sea and almost the entire Bellingshausen Sea had their sea ice seasons getting shorter.

"The Antarctic sea ice changes match up well with regional temperature changes," Parkinson said. "The one region in the Antarctic where the temperature records have shown prominent warming over this period is the Antarctic Peninsula, and indeed it's immediately to the west and east of the Antarctic Peninsula, in the Bellingshausen/Amundsen and western Weddell seas, respectively, that the sea ice seasons have been shortening rather than lengthening."

The Arctic also shows a mixed pattern of sea ice trends over the 1979-1999 period, but in contrast to the Antarctic, the area with shortening seasons in the Arctic is far greater than the area with lengthening seasons. The Arctic patterns suggest some connections with major oscillations in large-scale atmospheric pressures, called the Arctic Oscillation and the North Atlantic Oscillation, and it is possible the ice covers of both hemispheres could be influenced by oscillations that are still not fully identified, Parkinson said.

ICR SKIRTS GEOCENTRICITY AGAIN

December's issue of *Impact* from the Institute for Creation Research was devoted to an article by Fred Wilson on the mathematical patterns found in nature.²⁶ In particular, the article describes a mathematical sequence called a *Fibonacci Series*. The series is created by taking the numbers one and two and then forming the next number in the sequence by adding the previous two together. The series runs:

When the larger of an adjacent pair of numbers is divided, the larger by the smaller, the ratio is usually close to 1.618. This ratio is called the *Golden Ratio*. It turns out that rectangles, whose sides satisfy this ratio, are pleasing to the eye. The ratio of these pages is about 1.55. The Greeks used the *golden rectangle* in the design of their temples. The ark of the covenant was 2.5 cubits long and 1.5 cubits wide, which is a ratio of 1.6767. The altar for sacrifices was 3 cubits high, by 5 long and wide. The list of ratios for the above list is:

2, 1.5, 1.667, 1.6, 1.625, 1.615, 1.619, 1.618, 1.618, 1.618, 1.618, 1.618

More difficult to see is the pattern in flowers. A flower like the sunflower will have two sets of spirals spiraling in opposite directions. (Each spiral is made of tiny flowers which yield the sunflower seeds.) Counting in each direction, one finds that the number of tiny flowers or seeds, depending upon the size of the flower, will number a follows: if the flower is small, 34 and 55, if medium 55 and 89, and if large 89 and 144. These form what is called a *golden spiral*.

Mr. Wilson does a very nice job of showing the broad scope under which the golden spiral, rectangle, and ratio occur. The reader is encouraged to get a copy or check for it at ICR's web site.

The most interesting part of the article from our perspective is the Fibonacci sequences for the planetary periods. Wilson's table could be clearer by using years in stead of days and by showing more intermediate values, but his table served the purposes of his article just fine. The following table includes intermediate values, including one for the asteroids. We selected the largest asteroid, Ceres, for the period of an asteroid. Wilson's 1550 days gives a period of 4.24 years and actually

²⁶ Wilson, F., 2002. "Shapes, Numbers, Patterns, and the Divine Proportion in God's Creation," *Impact*, no. 354, December.

does not match the ratios as well as the Ceres period, which is representative of the largest asteroids.

FIBO	NAC	CI RA	ΓΙΟS F	OR THI	E PLAI	NETS
Planet	Period (years)	Observed Period Ratio	Expected Fibonacci Ratio	Expected Fibonacci Value	Best-fit Observed Ratio	Best-fit Observed Value
Pluto	248.43					
Neptune	164.78	1.51	3:2	1.50	3:2	1.50
Uranus	84.02	1.96	2:1	2.00	2:1	2.00
Saturn	29.46	2.85	3:1	3.00	3:1	3.00
Jupiter	11.86	2.48	5:2	2.50	5:2	2.50
Asteroids	4.60	2.58	8:3	2.67	8:3	2.67
Mars	1.88	2.45	13:5	2.60	13:5	2.60
Earth	1.00	1.88	21:8	2.63	13:8	1.63
Venus	0.62	1.61	34:13	2.62	21:13	1.63
Mercury	0.24	2.58	55:21	2.62	55:21	2.62

In the table, the first column lists the name of the planet. The second column gives its orbital period, its "year," in earth years. The third column is computed by dividing the period of the planet on the line above by the period of the planet on that line, giving the observed ratio of the periods.²⁷ For instance, the value of 1.51 for Neptune is computed by dividing the period of Pluto, 248.42 years, by Neptune's period of 164.78 years. The fourth column gives the Fibonacci ratio that is theoretically expected to give to the value in column three, only expressed as a fraction of two integers. The Fibonacci ratios start with Uranus as 2 to 1 (2:1, read as "two to one"). Neptune's Fibonacci ratio is in the opposite direction of the planets interior to Uranus. The ratio of 5:2 for Jupiter is derived by adding the 2 from Uranus and the 3 from Saturn to give the 5. The 2 is found by adding the 1 from Uranus to the 1 from Saturn. The fifth column is the ratio in column 4 divided out to two decimal places. In other words, the 2.60 for Mars is computed by the division 13/5. Columns four and five are theoretical, that is, computed, values derived from Uranus's starting value. The values in column five are to be compared with those in column three. Note that the computed values fail to match the observed ones, for earth and Venus.

²⁷ Wilson presents the inverse, but the only effect is to swap the numbers in the ratio, that is, the 3:1 for Saturn becomes 1:3. It makes no difference in the analysis or the results. It's just a personal preference, I'd rather work with numbers like 3 instead of 0.33333....

The sixth and seventh columns give the best-fit observed match to column three, given the expected sequence. Thus I have left the ratio for Mercury the same as expected (55:21) whereas Wilson changes it to 34:13. Since both ratios evaluate to 2.62, there is no way to tell which is "correct." Columns six and seven, then, express what is actually *observed*, not what is wished for, while keeping the values in columns three and four, where appropriate.

The table is not the same as appeared in the *Impact* article. In the original article, the period of Mars was changed from 1.88 years to 1.63 years, and that of Venus was changed from 0.62 year to 0.76 year. Also, Wilson's article had the planetary periods in days, but whether days or years, it makes no difference to the ratios since they are unitless. Using the adjusted periods for Mars and Venus vastly improves the results in column six, for then the ratio for both earth and Venus becomes 21:8. The ratio for Mars was kept the same by adjusting the period for the asteroids from 4.60 to 4.24 years.

We find that the earth and Venus are oddballs, neither fitting the expected Fibonacci series. Thus we should compare column three with column seven; the observed ratio of the period, to the observed ratio value.

Е	RROR AI	NALYSIS			
	0-	-C	Theory minus		
Planet	Theory	Best fit			
Pluto					
Neptune	-0.01	-0.01 -0.01			
Uranus	0.04	0.04	0.00		
Saturn	0.15	0.15 0.15			
Jupiter	0.02				
Asteroids	0.09	0.09	0.00		
Mars	0.15				
Earth	0.75	1.00			
Venus	1.00	0.00	1.00		
Mercury	0.04	0.03	0.00		

The table shows the error, that is, the difference between observed Fibonacci ratio (O), and the computed value (C). The subcolumn labeled "Theory" is the difference between columns 5 and 3 in the first table, "Best fit" is column 7 minus column 5. The last column is the Theory column less the Best fit column of this table. By far, the largest discrepancy is for the earth. At -0.26, its magnitude is 1.7 times larger than the errors for Saturn and Mars, both of

which are near "asteroid belts," meaning that their periods may not be representative of the mass distribution in that are.

All things considered, the fit for the outer planets (Pluto through Mars) is good, as is Mercury's. The only problems planets, as clearly

		DETAI	LED CO	MPARIS	DETAILED COMPARISON WITH WILSON'S ANALYSIS	H WILSO	N'S ANA	LYSIS		
			pawasqo	Wilson's	Observed Wilson's Expected Wilson's	s,uosijyy,	Our	Expected Wilson's		Our
	Observed	Wilson's	Period	Period	Fibonacci	Fibonacci Fibonacci Corrected	Corrected	Fibonacci	Fibonacci Fibonacci	Corrected
Planet	Period	Period	Ratio	Ratio	Ratio	Ratio	Ratio	Value	Value	Value
Pluto	248.43	248.43					30			
Neptune	164.78	164.78	1.51	1.51	3:2	3:2	3:2	1.50	1.50	1.50
Uranus	84.02	84.02	1.96	1.96	2:1	2:1	2:1	2.00	2.00	2.00
Saturn	29.46	29.46	2.85	2.85	3:1	3:1	3:1	3.00	3.00	3.00
Jupiter	11.86	11.86	2.48	2.48	5:2	2:5	5:2	2.50	2.50	2.50
Asteroids	4.60	4.24	2.58	2.80	6:8	6:8	8:3	2.67	2.67	2.67
Mars	1.88	1.63	2.45	2.60	13:5	13:5	13:5	2.60	2.60	2.60
Earth	1.00	1.00	1.88	1.63	21:8	21:8	13:8	2.63	2.63	1.63
Venus	0.62	0.76	1.61	1.32	34:13	21:8	21:13	2.62	2.63	1.62
Mercury	0.24	0.24	2.58	3.17	55:21	34:13	55:21	2.62	2.62	2.62

seen in the last column of this table, are earth and Venus. (Do not be alarmed that earth's value is not 1.01. This is because of rounding errors. The underlying values in the spreadsheets shown carried more than three significant digits.)

The table at left is a comparison of our results with Wilson's. The last three columns should fit the observed values in column 4.

After making his adjustments to the periods of the asteroids. Mars. and Venus. Wilson writes: "It is my opinion that this anomaly is evidence of God's showing the uniqueness of planet Earth in relationship to the whole cosmos." We can take that a step further and point out that if he is correct. then it shows that the earth is not a planet. Wilson correctly notes that this would not be expected if the solar system formed by the commonly accepted Nebular Hypothesis. The solar system had to be creto be created, for if it came about by chance, the Fibonacci series would apply to the earth, too.

But our analysis did not fudge the planetary periods to force a fit to the Fibonacci ratios. We found that without altering the periods of Mars, the asteroids, and Venus, only two objects are affected, Venus and earth. Although Wilson's fudging gives him a nice recovery of the ratios, isolating the difference to earth, the process itself is questionable. Wilson does not go into a detailed defense for his action other than to wave his hands saying that some creationists have postulated that an "unknown cosmic force" altered the solar system about or at the time of Noah's flood. But that is nothing more than a creationist version of Velikovskyism. The "unknown cosmic force" is proposed because the actions postulated cannot naturally occur. It is possible that miraculous events at the time of the flood may have moved the planets around, but as there was no need for God to do so to create the flood, and as there is no mention of such events in Scripture, it seems pointless to invent a superficial miracle to explain what may or may not be a true pattern in planetary periods.

Elsewhere (Bouw, 2001. "The Morning Stars," B. A. 11(97):69), we have noted the special place that Venus holds in the creation. Venus is the only planet identified with the Deity. In particular, Venus, the morning star, is identified with the Lord Jesus Christ in Revelation 22:16, "I Jesus have sent mine angel to testify unto you these things in the churches. I am the root and the offspring of David, and the bright and morning star." Though it may be tempting to adopt Wilson's analysis and say, "See! The earth is not a planet," there is sufficient evidence for that without this rather circumstantial datum. But if both Venus and earth hold a special place, as indicated in both analyses (in his table, Wilson highlighted both their rows in green), we should not be upset. Both earth and Venus have a special place in Scripture; earth because God created it for man, to dwell there and to enjoy God's glory and grace; and Venus as a type of the Scripture-as a light shining in darkness and heralding the morning, and as the herald of the Lord Jesus as he will return to establish a righteous and everlasting kingdom on earth. What Wilson has stumbled upon is not so much that the earth is special, but that the Scripture is special; for no other solar system objects, except the sun and moon, are singled out specially in Scripture. Earth and Venus are distinct in the Fibonacci series because they are distinct in Scripture: the earth because it is in a special state, i.e. stationary, in creation, and Venus because it is a type of the Lord Jesus, both the word of God (Mk. 7:13) and the Word of God (Rev. 19:13).

SEISS' PREFACE TO THE GOSPEL IN THE STARS²⁸

Joseph A. Seiss, D.D.

It may seem adventurous to propose to read the Gospel of Christ from what Herschel calls "those uncouth figures and outlines of men and monsters usually scribbled over celestial globes and maps." So it once would have seemed to the writer. But a just estimate of the case cannot be formed without a close survey of what these figures are, what relations they near to each other, whence they originated, and what meaning was attached to them by the most ancient peoples from whom they have been transmitted to us. Such a survey the author of this volume has endeavoured to make. From an extended induction he has also reached conclusions which lead him to think he may do good service by giving publicity to the results of his examinations.

The current explanations of the origin and meaning of the constellations certainly are not such as should satisfy those in search of positive truth. Herschel characterizes them as "puerile and absurd." They are nowhere to be found outside of Greece and Rome and modern works which have thence derived them. They are part of the staple in the theories and arguments of infidelity. The more ancient and more knowing peoples never so explained these celestial signs, but uniformly regarded them as divine in source and sacred in significance. Even Greece and Rome never could separate them from their worship, their gods, and their hopes of futurity, whilst some of their best authors devoutly referred to them as divine. The theory that they have come from natural observations of the seasons and man's occupations in different parts of the year is but a rationalistic conjecture, unsupported by facts or analogy. It is the mere guess of men pressed by the presence of a great and masterly system marked on the heavens for which they knew not how to account—a guess which will not stand the test of its own assumptions or common sense, much less the light now in the world's possession respecting the remoter antiquities of man. That some Greek and Roman authors, who never understood any of these things, ²⁹ should indulge in such unfounded suppositions is not remarkable; but that

²⁸ Seiss, J. A., 1882. *The Gospel in the Stars; or, Primeval Astronomy*, (Philadelphia: E. Claxton & Company), reprinted under the title *The Gospel in the Stars* by Kregel Publications, Grand Rapids, Michigan), p. 5, 1972.

²⁹ See Grote's *History of Greece*, vol. i. pp. 394-444.

people of learning and science, jealous of building on anything but solid grounds, should still entertain and reiterate them for ascertained verities, is very surprising. And if men are constrained thus to accept and repeat them from sheer inability otherwise to solve the problem, it should convince them that they have not yet risen to the true character and dignity of these ancient records, and dispose them to a fresh and searching re-examination of the whole subject, to which this book is meant to furnish some humble aid.

The first suspicion that the original constellations may perhaps have come from a divine prophetic source was impressed upon the writer's mind in connection with his studies of the marvelous wisdom embodied in the Great Pyramid of Gizeh. But it came only in the shape of an inference, which needed to be tested on its own independent grounds before it could be reasonably accepted. That inference, however, was so worthy of being investigated, that a course of special study was instituted to ascertain, apart from all pyramid-theories, whether the facts and probabilities in the case would warrant a conclusion of so much moment.

A new field of inquiry thus opened, for the exploration of which but few helps beyond the ordinary books on astronomy could be found. Something, however, had been done by Bailly in his History of Astronomy, Dupuis in his L'Origines des Cultus, Volney in Les Ruines, and some other writers of the same class. To throw contempt on Christianity as a mere accommodation of certain old mythic ideas common to all primitive peoples, these men adduced a large amount of traditional and astronomic lore, proving the great antiquity of the constellations, and showing a striking correspondence between them and the subsequent scriptural story of Christ and salvation. Able theologians like Roberts and Faber, in making replies to these French skeptics, were obliged to admit the strong array of facts alleged, and could only surmise a variety of explanations to do away with the intended conclusion as a non sequitur. The arguments of these infidels is indeed fatally defective, especially in assuming that the old astronomy throughout, and all the myths and worships associated with it, have come solely from the natural observation and imagination of man, apart from all supernatural light, revelation, or inspiration. With this starting point unproven and incapable of verification, and with the positive assertions of all the primeval world and all the indications to the contrary, the whole argument necessarily breaks down. Like all the efforts of unbelief, it signally fails. But though the argument, as such, is false and worthless, it does not follow that he materials collected to build it are the same. For the most

part, they are solid enough in themselves, and the gathering of them was a valuable contribution to a better cause. The showings made of the close likeness between the old constellations and the Gospel are well founded, and can now be illustrated to a much greater and more minute extent. But, instead of proving Christianity a mere revival of old mythologies, they give powerful impulse toward the conclusion that the constellations and their associated myths and traditions are themselves, in their original, from the very same prophetic Spirit whence the Sacred Scriptures have come, and that they are of a piece with the biblical records in the system of God's universal enunciations of the Christ.

Gale, in his *Court of the Gentiles*, Farber, *On Pagan Idolatry*, Roberts, in his *Letters to Volney*, Haslam, on *The Cross and the Serpent*, and the author of *Primeval Man Unveiled*, have slightly touched upon the subject, and furnish some materials in the direction of the same conclusions.

Sir William Drummond, in his *Origines*, C. Piazzi Smyth, in his *Life and Work*, and J. T. Goodsir, *On Ethnic Inspiration*, also present some important facts and considerations relating to the general inquiry.

A more valuable aid to the study of the subject as treated in this volume is Frances Rolleston's *Mazzaroth; or, The Constellations*—a book from an authoress of great linguistic and general literary attainments, whom Providence rarely favored for the collection of important facts and materials, particularly as respects the ancient stellar nomenclature. The tables drawn up by Ulugh Beigh, the Tartar prince and astronomer, about A.D. 1420, giving Arabian astronomy as it had come down to his time, with the ancient Coptic and Egyptian names, likewise the much earlier presentations, made about A.D. 850 by Albumazer, the great Arab astronomer of the Caliphs of Grenada, and Aben Ezra's commentaries on the same, are, to a considerable extent, reproduced in her book. Fac-similes of the Dendera and Esne Zodiacs are also given in the last edition (1875) of her work. And from her tables and references the writer of these Lectures was helped to some of his best information, without which this book could hardly have become what it is.

If any others have treated directly, or even incidentally, of what is sought to be shown in this volume, its author had not discovered their records or their names.

With but little therefore, but the star-maps and descriptions as given by astronomers, and such notices of the constellations as are to be found in the remains of antiquity and general literature, he had to make his way as best he could. With what success he has done his work, and in how far his conclusions are entitled to credit or respect, he now submits to the decision of a candid and intelligent public.

WWW.BIBLICALASTRONOMER.ORG THE COMPLETE WEB SITE

As of January 2003, the biblicalastronomer.org web site exists no more. For the prior year and a half it had been re-vectored to the current geocentricity.com web site, and money being short, it was decided that the biblicalastronomer.org domain name not be renewed.

Few people know it, but for a time the biblicalastronomer.org web site was used to coordinate the development of both the video, now in preliminary form in *Geocentricity: the Scriptural Cosmology*, and the construction of Pastor Paul Norwalt's geocentric orrery. Because the biblicalastronomer.org's host only afforded five megabytes, what could physically be stored there was limited, but other web sites, particularly the Biblical Astronomer's own computer which, at the time, was online, were used to hold large video and graphics files. These have all been included in the CD-ROM, which is now available from the Biblical Astronomer or from the Internet at http://www.geocentricity.com's "Geocentricity Shop."

The CD also includes an animation developed by Dr. David Calvis to show the motions of the sun, planets, and stars in the geocentric model. It requires the installation of a Mathematica notebook reader, but the reader is supplied on the CD. A web browser is needed to navigate the disk, though it can be done in Windows using Explorer. For those with IBM-type PCs, a browser (Netscape 4.7) is provided on the CD. Adobe Acrobat Reader is also included, but most people will find that they can make use of the video and text without modifying anything on their computers. The largest file, at roughly 140 megabytes, is a video clip showing the Norwalt orrery in action. It is not the same video as seen on the *Geocentricity: the Scriptural Cosmology* video.

Additional features include the complete rebuttal of Faulkner's antigeocentric article promoted by Answers in Genesis, and web versions of several articles from the *Biblical Astronomer*. There, too, one will find the outline for a planned video introduction to geocentricity.

With hundreds of megabytes of animations, video clips, graphics, text, the CD is a steal at \$8.00 postpaid in the US and Canada, and \$13 elsewhere. Credit card orders can be accepted in foreign currency on the geocentricity.com web site's Geocentricity Shop, which offers both a North American and a foreign order page.

CREDO

The Biblical Astronomer was founded in 1971 as the Tychonian 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. All 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 \$25 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

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Orders can be honored only if accompanied by payment in United States currency either by cheque drawn on a U.S. bank or cash. US orders add 15% postage. Orders outside North America please add \$5 per item (sorry, the US Postal Service quadrupled postage this year). Videotape prices are for VHS. For PAL or SECAM add \$10.

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