TITLES AVAILABLE FROM THE A.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. Prices are US postpaid. All orders for books outside the USA please add $11 for the first book and $6 for each additional book for postage. For DVDs add only $5 per item for postage.

BOOKS

Geocentricity: Christianity in the Woodshed by Dr. Bouw $35.50
The Bible and Geocentricity, by Prof. James Hanson. $13.00
The Book of Bible Problems by Dr. Bouw. $20.00
Gravitational Analog of a Rolling Ball on Elastic Membrane, by Prof. James Hanson. $12.00
Copernican Revolution: Fable for Educated Men, Dr. Bouw. $12.50
Both of the above technical papers $20.00
What Happened to Our English Bible? by J. T. Unruh $10.50
He Maketh His Sun to Rise, by Dr. Thos. Strouse. $13.00
The Fixed Idea of Astronomical Theory, by August Tischner. $15.00
Thou Shalt Keep Them, ed. by Kent Brandenburg. $24.95
Why Cumbereth it the Ground? by Kenneth Brooks $19.95
The Law by Fredric Bastiat $5.50

DVDS

Geocentricity Public Lecture with Martin Selbrede $20.00
Where in the Universe Are We? with Philip Stott. $30.00
Geocentricity, the Scriptural Cosmology with Dr. Bouw $20.00
Geocentricity: Astronomy of the Bible 2007 with Dr. Bouw $20.00
Geocentricity: Testimony & Science 2010 with Dr. Bouw $20.00
Dedication of the First Geocentric Orrery Nowalt & Bouw $20.00
The Bible and Science with Dr. Bouw $20.00
“Problems” in the Authorized Version with Dr. Bouw $20.00
Three Questions and Critiques of the NKJV with G. Riplinger $20.00

(Product list continued on the inside front cover.)
PRODUCT LIST
(Continued from back cover.)

MP3 CDS

*Debate Between Duane Gish and Madalyn Murray O’Hair* $10.00
*How to Organize an Underground Church* $10.00
*Geocentricity: the Disposable Doctrine* — Bouw $10.00

Subscriptions to the *Biblical Astronomer* are $25 per year ($30 outside the USA). Membership is $35 per year, ($40 outside the USA). Members receive Technical Papers as they are created. 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 acceptable only on the Internet through PayPal’s secure payment service. The product list, including items not listed in this issue, is at geocentricity.com/geoshop/index.html.

**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. 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 Credo, please consider becoming a member. Membership dues are $35 per year.

*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

---

**Front Cover:** Blood Falls: in the remote McMurdo Dry Valleys in Eastern Antarctica, a slow ooze of vivid crimson seeps from a fissure in the Taylor Glacier and onto the frozen surface of Lake Bonney.
THE
BIBLICAL ASTRONOMER

Volume 23, Number 145
SUMMER 2014

TABLE OF CONTENTS

Editorial 55

Blood Falls
Gerardus D. Bouw, Ph.D. 57

Sticky Moon Dust
Gerardus D. Bouw, Ph.D. 61

Panorama 64
EDITORIAL

Another issue done! Each new one seems like a miracle. I get tired but most of that is due to Bell's Palsy, of which I had a recurrence about a month ago. Other than that, my health is fine. I was having trouble remembering what I was doing, and I still have some problems there, but ever since I cut down my sugar consumption and no longer consume Cleveland's fluoride-laced water (which is occasionally shocked by chlorine in the summer so that it smells like a swimming pool coming out of the faucet.), my mind is a lot clearer. I now draw water from an artesian well in upstate New York. My goal is to consume the food the way God made it.

I've always had a broad range of interests. Those have been limited as time went on so that now they're down to a handful of interests. Besides astronomy, my chief interests these days are economics and alternative medicine. I've been researching alternative medicine now for well nigh twenty years and have compiled quite a collection of published articles on health topics. I'm at the point now that when I receive a glossy advertisement for some new alternative wonder cure, I can usually tell from the teaser what the vendor is pitching. When I retired in 2007, I thought about starting an alternative medicine newsletter. I still think about that from time to time because I'm too old for most other lines of work.

That was not the first time I thought of publishing something that might make some money. Back in 1973 I was living in Pacific Grove, California, just uphill from Cannery Row. I noticed that the shops there advertised many services. Indeed, a significant fraction of those involved astrological readings. For a brief moment I thought about doing astrological charts as an astronomy Pd.D. I could correct the entire chart system (the signs are one month in error now, so that when astrologers say that the sun is in Aries, it is actually in Pisces). I nixed the idea: I wanted to earn honest money. Unfortunately, the world pays tons of money for lies, but not dime for truth.

Well; enough of that. In this issue I again take up the cause of extremophiles. When God created us he knew that man would make a mess of his environment: so he created bacteria and viruses that would clean up those messes. The bacteria that clean up toxic substances are called extremophiles. I report on a particular type of extremophile that causes the Blood Falls in Antarctica. Heralded as an example of the type of life that maybe could survive on the moons of Jupiter and Saturn, we find, after all, that they are common bacteria in the oceans of earth.

Next, we report on the latest in the lunar dust controversy. Before the lunar landings evolutionary lunar astronomers believed that the dust on the moon might be as much as 30 feet deep. That figure came from
rocket soundings at the top of earth’s atmosphere. When the lunar landings revealed no more than an inch of dust on the moon—an amount indicative of a few thousand years instead of billions—the previous soundings and other dating methods had to be revised drastically downward so that only an inch or two of dust could be deposited over 4.5 billion years.

Well, the data tapes on which NASA recorded the landing data are approaching the end of their archival life times (50 years). Surviving members who worked on the NASA lunar landing program have been recovering the tapes and starting to analyze the data recorded on them. And wouldn’t you know it? The dust still piles up too fast to satisfy the superstitions of evolution.

In “Panorama,” we report that smog is caused by gasohol, that Al Gore is the greatest environmental con man yet with his global warming hoax. And finally, it seems that there are too few galaxy clusters to satisfy the inflationary universe theory.

Finally, two technical papers will shortly be available. The first deals with the rotation of galaxy clusters. The second is a detailed derivation of the Lagrange points. Two derivations are given. A transformation of coordinates is in the works will complete the paper.
In 1911 Australian explorer Griffith Taylor was exploring the remote McMurdo Dry Valleys in Eastern Antarctica when he discovered a strange falls: a slow ooze of vivid crimson seeping from a fissure and falling 50 feet down the Taylor Glacier and landing onto the frozen surface of Lake Bonney. The earth seems to “bleed” out onto a landscape of pure white ice below, forming in a stunning contrast (see front cover of this issue).

Figure 1: Blood Falls

Originally, it was thought that the color was the product of a bright red algae in the water, but further studies revealed a far more intriguing cause for the phenomenon.

Now, I am a strong believer that God created the earth to be inhabited. In particular, when I read in Isaiah 48:18:

For thus saith the LORD that created the heavens; God himself that formed the earth and made it; he hath established it, he created it not in vain, he formed it to be inhabited: I am the LORD; and there is none else.
I am forced to conclude that the awesome Lord Jesus created the earth knowing full well our penchant for polluting the earth and the heavens.

Even as a child I was taught by my earthly father that the earth, that is to say the ground and the waters, cleanse themselves, usually within about 48 hours. Just how he knew that, I never learned, but I was left with the impression that his statement had generations of experience behind it. Nevertheless, being not the brightest crayon in a box of 64, evolutionists were successful for a while to rope me in with their superstitious nonsense. Thus I was deceived into doubting my father’s wisdom.

After having my mind cleansed by the word of God, I started to look for evidence that God truly created the earth to be inhabited. Thus I discovered extremophiles, bacteria and viruses that can live in extreme environments. I first wrote about them back in 2007.\(^1\) It turns out that the falls is colored by a certain type of extremophile.

Deep under the Taylor Glacier is a saltwater lake that is so cold, dark, and oxygen-deprived that everyone originally thought it was a dead zone. A 2009 study by the National Science Foundation discovered that the extreme environment supports a specific population of microbes, extremophiles, that are able to survive by converting iron and sulfur into energy. As the iron-rich water seeps out of a crack in the glacier, it rusts and stains the ice red.

---
What’s more fascinating than the color of the falls are the microbes themselves, which are able to survive under conditions that almost no other life form on earth can. Of course, evolutionists, when confronted with something totally alien to them immediately assume that these “alien” bacteria—so far only found on earth—may also exist on the icy moons of Jupiter, or on Mars, or maybe in Saturn’s moons and that in any case, the subglacial lake is as close to an “alien” environment as possible on earth, and that the microbes provide a great basis for study of how life could adapt in outer space.

Figure 3: Giant Tube Worms

But just how do these tiny-but-tough organisms survive where nothing else does? Over a six-year period, geomicrobiologist Jill Mikucki collected and tested water samples and discovered 17 types of microorganisms that seemed to be able to “breathe” on ferric iron. Genetic analysis suggested that the microbes are similar to those found in the open ocean. And yet, the Dry Valleys (aside from Taylor Glacier) are much like a desert environment.

One of the creatures that thrive on sulfur is the giant tube worm (Figure 3). The explorer Bob Ballard, discoverer of the Titanic, helped with the discovery of the 6-foot (2 meters) tall tube worms. Tube worms are mollusks that live a mile underwater. Since there is no sunlight there to provide energy, tube worms have to survive on a red bacteria that oxidizes hydrogen sulfide using dissolved oxygen from the surrounding seawater. The bacteria have “human-like blood” (contain-
ing hemoglobin) similar to ours but also able to bind oxygen in the presence of sulfur (which can be the tube worm’s bacterial partner’s food), something that would kill most of the rest of the hemoglobin-using world.

So here we see that the so-called “hope of life elsewhere in the solar system” depends on a common variety of seawater bacteria God placed these so they can clean up the oceans from too much iron and sulfur. Mikucki has to put in as many plugs as possible for evolution (or she won’t get published) and so she claims that “The microbe population was probably trapped in the subglacial lake when the floor of the Valleys rose—more than 1.5 million years ago!” Of course, I have a teensy-weensy problem with that, for we have ancient maps of the dry land of Antarctica complete with now-buried mountain ranges which then showed encroaching glaciers. Just how 2500-year old maps could map the land buried under ice 1.5 million years ago I leave to you to figure out. To me, the evidence points to God having created environment-cleaning machines called extremophiles and this is simply one more example of God’s provisions for life in earh.
When Irish Mafioso,¹ John F. Kennedy challenged the U.S. to land a man on the moon in 1962, one of the great questions that had to be answered was: “How much dust is there on the moon?” Early data collected from dust-gathering projects implied that the dust on the moon could be anywhere from a foot deep to 30 feet deep. It was even proposed that there might be rivers of dust flowing on the moon.

After the first robotic landers, however, the billions of years’ worth of dust expected by evolutionists proved unfounded. Of course, the superstitious evolutionists cannot exist with a young cosmos and so the quest was on to accommodate the myth of evolution to fit the evidence.

The push by evolutionists was so effective that even the creationists were taken in by it. I, on the other hand, insisted that evolutionists’ feet be held to the fire. Here is why I did so, as I wrote in 1994:²

In the October 22, 1993 issue of Science, there was a report that researchers Stanley G. Love and Donald E. Brownlee found 761 small impact craters on a surface of the Long Duration Exposure Facility satellite. The satellite orbited earth for five and three-quarter years. The impacts implied that 40,000 metric tons of micro-meteors fall to earth every year. “This exceeds the values of other researchers—who used less direct means of estimating the quantity of dust—but it is comparable to rates crudely calculated from the long-term accumulation of the rare element iridium in sea sediment and Antarctic ice.”

The adjusted evolutionary data that reduced the 4.5-billion-year 30-foot accumulation to an inch of dust are based on indirect measurements. For the record, the 30-foot figure was based primarily on rocket soundings that returned samples of the edge of space to earth. That was a direct measurement, as was the Long Duration Exposure Facility data.

Now a recent report in Science News adds some additional information to the rate of lunar dust deposition.³ We quote from the report:

“Powdery particles resting on the moon’s surface could form a

---

¹ What else can I conclude? JFK appointed his brother, Robert, as Attorney General and together they used their powers against the Italian Mafia,. They left Chicago’s Irish Daley mob alone.
layer up to 1 millimeter (1/25th of an inch) every thousand years. The estimate relies on data dug up from the Apollo missions of the 1960s and 1970s.

“‘It’s pretty remarkable that we’re still getting results out of 40-year-old data,’ said physicist James Gaier of NASA’s Glenn Research Center in Cleveland. ‘Other researchers have used computers to simulate lunar dust,’” he says, “‘but we haven’t really had any data.’” [Emphasis added.]

“Apollo 11 gave astronauts and scientists their first taste of moon dust. When the spacecraft descended the lander’s engines kicked up dust clouds that made a clear moon landing tricky. And when the astronauts ventured outside, dust slicked the ladders, stuck to their suits, and fouled experiments.”

The gritty substance filled in bolt holes, made vacuum seals leak and dulled shiny surfaces intended to protect instruments from overheating by reflected sunlight.

“The moon dust returned by the Apollo astronauts is finer than flour but sharp, says study coauthor Brian O’Brien of the University of Western Australia in Crawley. ‘Think of shards of a broken bottle,’ he said. In 1966, O’Brien invented the first device to measure moon dust. His matchbox-sized gadget housed solar cells and thermometers, and traveled to the moon with Apollo 11 in 1969.

“In sunlight, the solar cells generated an electrical current and beamed voltage data to earth. The device could detect dust because particles sticking to the cells’ surfaces blocked incoming sunlight, making the voltage drop. Subsequent Apollo missions carried more dust detectors to the moon, and for six years, the detectors sent data back to earth every 54 seconds. NASA copied the information onto 7-track computer tapes but later lost them.”

“‘Back then, nobody cared about dust,’ said Lawrence Taylor, a geochemist at the University of Tennessee at Knoxville who worked on the Apollo missions. NASA had so much other data coming in that the detector data fell by the wayside.”

When NASA announced in 2006 that it had misplaced the tapes, O’Brien scrambled to recover the lost data. His personal files held some of the information and he tracked down other researchers to complete the dataset. In the analysis of the recovered tapes, O’Brien and his University of Western Australia colleague Monique Hollick wanted to measure the moon dust’s natural accumulation rate, so they analyzed only measurements collected hundreds of hours after astronauts left the moon. That to avoid measuring the dust kicked up by the lunar lander on departing as “new” dust falling on the moon.

To estimate just how much dust had caused the solar cell’s volt-

---

4 This was totally unexpected and is consistent with having actually landed on the moon instead of the landings being a hoax.

5 These tapes, if properly stored, can hold their data for 50 years.
age drop, the researchers used results from previous experiments with fake moon dust. Scientists had sprinkled dust on solar cells and measured changes in output. The high rate of dust accumulation that Hollick and O’Brien reported in their 19 November 2013’s *Space Weather* article stirred up widely different opinions among other scientists.

“It’s just too much dust,” Taylor says. “Nobody will believe it.” He says the estimate is flawed because the simulated dust doesn’t really mimic moon dust.

To that I answer: clearly, the earth dust is not sticky as the moon dust, so the dust should accumulate and stick more to the solar cells left on the moon than earth dust did on earth. So we actually should expect more rapid deposition on the moon, meaning that the dust deposit rate on the moon should be higher than what is observed on earth.

What’s more, other aspects of lunar weather could have disturbed the solar cells, causing similar voltage drops, added planetary scientist David Williams of the NASA Goddard Space Flight Center in Greenbelt, Maryland.

Though the estimate is larger [too large to satisfy evolutionists — Ed.] than previous calculations, the rate of dust accumulation is small relative to that on earth.

Gaier thinks the findings could give researchers clues about dust transport over the lunar surface, a topic that’s been controversial.

Some think electrostatic forces gently sputter dust over the moon; others believe dust swirls around in seeping storms. The new result suggests that dust isn’t moving all that much. But, he adds, “The jury is still way out on this.”

Gaier refers to dust storms that appear to accompany the change from daylight to night and from night to daylight on the moon. Although evidence is consistent with this happening all over the moon, the band is so narrow and the amount of dust is so close to a vacuum that the amount picked up is probably the same amount as is left behind after the storm.⁶

Here’s the sense of this article. At one millimeter per millennium, the dust fall takes 25,000 years to deposit an inch of dust. On the other hand, to deposit one inch of dust in 5.5 billion years requires a deposition rate of $5 \times 10^{-7}$ (5 ten-millionths) of one mm per thousand years. Clearly, the scriptural age of the earth of 6,000 years fits the evidence a lot closer than does the mythical “theory” of evolution.

---

⁶ The phenomenon was noted by astronauts in orbit around the moon, as well as data garnered by detectors designed to detect dust kicked up by meteor impacts on the lunar surface. See: Panorama, 2007. “A Perpetual Dust Storm On the Moon,” *B.A.* 17(122):107
PANORAMA

Smog’s Comeback

The crown of environmentalists’ new, cleaner, automobile fuel is ethanol. The Federal government claims that ethanol is so key to a cleaner environment that, for each gallon of gasoline sold—with or without ethanol—the price is hiked by four and a half cents to give to the corn growers to encourage them to grow more food for cars and a corresponding acreage less to grow food for people. The U.S. is the only country in the world whose population is foolish enough to reserve a large fraction of their food acreage for feeding automobiles instead of people and livestock.

As if that was not foolish enough, scientists in Brazil “have made a surprising discovery about ethanol: The more it was used by drivers in Sao Paulo, Brazil, the more ozone they measured in the local environment. The finding, reported this week in Nature Geoscience, is contrary to other studies predicting that increased use of ethanol would cut levels of ground-level ozone, or smog. The study is the first large-scale effort to measure how switching between ethanol and gasoline affects air pollution.”

Rest assured, dear reader, that none of the other environmentally clean expenses passed on to you have been tested in the real world, either.

Al Gore: The Greatest Environmentalist Con Man Of All Time

If global warming is man made, what caused the ice age to melt before there were any “evil” oil companies? Is this not final proof we’re not causing global warming? The whole of the earth heated up in medieval times without human CO₂ emissions, says a study.

Evidence found in a rare mineral that records global temperatures demonstrates that the warming was global and not just limited to Europe. This discovery casts doubt on the orthodoxies surrounding the “global warming” mythology.

In his state of the union speech this year, Obama claimed that global warming is a “done deal, get over it!” Of course, the president did not say that it is an accepted fact, because global warming ceased some 15 years ago. Now the pending disaster has been re-christened

---

1 2014. “Ethanol use hikes ozone, study shows,” The Cleveland Plain Dealer, A9, 2 May.
2 Thornhill, Ted, 2012. “Is this finally proof we’re NOT causing global warming? The whole of the Earth heated up in medieval times without human CO₂ emissions, says new study?” www.dailymail.co.uk, referenced 26 March 2012. The research was published online at Earth And Planetary Science Letters and will appeared in print on April 1, 2012.
“climate change.” We used to call that, “weather.” In the balance hang trillions of dollars and billions of lives.

Since the coronation speech, the media calls anyone who opposes Al Gore’s con game to suck trillions of dollars from gullible marks a “denier,” as if that were a dirty word. It is those who believe that man-caused CO$_2$ is responsible for all of earth’s weather ills that are the deniers—they deny reality. We’ve noted before that while the earth was warming, so were Mercury, Mars, Saturn’s moon Titan, and Pluto. Clearly, in the minds of Gore’s minions, it must follow that this is all due to human pollution! They actually have to believe that your SUV contributes to the heating of Pluto 3.67 billion miles (5.91 billion km.) away through a vacuum! Who is the denier?

Current theories of the causes and impact of global warming have been thrown into question by a new study which shows that during medieval times the whole of the planet heated up. It then cooled down naturally and there was even a mini ice age. A team of scientists led by geochemist Zunli Lu from Syracuse University in New York State, found that contrary to the “consensus,” the Medieval Warm Period approximately 500 to 1,000 years ago wasn’t just confined to Europe. In fact, it extended all the way down to Antarctica, which means that the earth has already experience global warming without the aid of human CO$_2$ emissions.

Antarctica actually warmed up during medieval times, contrary to what climate scientists believe. At present the UN’s Intergovernmental Panel on Climate Change (IPCC) argues that the Medieval Warm Period was confined to Europe; therefore that the warming we’re experiencing now is a man-made phenomenon.

The researchers, now dismissed as “deniers,” disproved several other myths advocated by Gore’s confederates. For instance, humans, not climate change, killed off Australia’s giant kangaroos, say the researchers.

Professor Lu’s evidence against the CO$_2$ terrorists lies with a rare mineral called ikaite, which forms in cold waters.

“Ikaite is an icy version of limestone,” said Lu. “The crystals are only stable under cold conditions and actually melt at room temperature.” It turns out the water that holds the crystal structure together—called the hydration water—traps information about temperatures present when the crystals formed. This finding by Lu’s research team establishes, for the first time, ikaite as a reliable way to study past climate conditions.

Evidence that the earth heated up over a 1,000 years ago was found in the ikaite. The scientists studied ikaite crystals from sediment cores drilled off the coast of Antarctica. The sediment layers were deposited over the course of 2,000 years. Scientists were particularly interested in crystals found in layers deposited during the Little Ice Age
approximately 300 to 500 years ago, and during the Medieval Warm Period before it. Both climate events have been documented in Northern Europe, but studies have been inconclusive as to whether the conditions in Northern Europe extended to Antarctica. Lu’s team found that in fact, they did.

Lu’s team was able to deduce this by studying the amount of heavy oxygen isotopes found in the crystals. During cool periods there are lots, during warm periods there aren’t.

“We showed that the Northern European climate events influenced climate conditions in Antarctica,” Lu says. “More importantly, we are extremely happy to figure out how to get a climate signal out of this peculiar mineral. A new proxy is always welcome when studying past climate changes.”

This is just one more piece of evidence against the largest environmental scam in man’s history.

All Is Not Quite Right In The Science of Cosmology

Last year, the Planck mission team released its first 15.5 months of temperature observations of the cosmic microwave background (CMB), the supposed leftover radiation from the Big Bang. But the Planck data don’t entirely tie the universe up in a nice tidy bow. Some oddities arose. One of the lingering mysteries has to do with the number of galaxy clusters.

![Figure 1: The most distant light in the universe](image)

Figure 1 purports to map the “oldest light in our universe.” Specifically, what that means is the most distant light we’ve been able to detect so far. The cosmic microwave background (CMB) suffuses the cosmos. This map created from all nine frequency bands of the Planck
spacecraft shows the CMB’s details at a precision never before ac-
quired. The lumpiness revealed by the CMB’s patterns should match up
with the lumpiness of today’s universe. But cosmologists are having
trouble reconciling the two.

Galaxy clusters are big clumps in the distribution of matter in the
universe. They are assumed to be relatively recent developments in the
cosmos. Nevertheless, if the big bang model is correct, the lumpiness
they exhibit should correspond to matter’s lumpiness in the early
universe. The minute temperature fluctuations in the CMB should
reveal this primordial lumpiness so, with the right theoretical model,
astronomers should be able to match up the two sets of observations,
namely in the CMB and in the observed masses of the local galaxy
clusters.

But, as researchers reported at the winter 2014 American
Astronomical Society meeting, it’s not proving that easy. James
Bartlett (JPL and APC Université Paris Diderot-Paris 7, France)
presented a map of 189 galaxy clusters based on Planck observations of
what’s called the Sunyaev-Zeldovich (SZ) effect. The SZ effect
happens when CMB photons absorb energy from hot gasses as they
pass through them. This effect means that galaxy clusters (which are
full of hot gas) leave “shadows” in the CMB. By looking for clusters’
fingerprints in microwave observations, astronomers can locate distant
galaxy clusters and count how many existed at different times.

The number of galaxy clusters found using the SZ effect’s
shadows match those tallied using X-ray and optical surveys, but it
doesn’t match what researchers predict based on the clumpiness in the
CMB. In fact, as Brad Benson (Fermilab/University of Chicago)
explained in a subsequent talk, the CMB as seen by Planck suggests
that the universe should have 250% more galaxy clusters than
astronomers actually observe. The problem isn’t going away, either:
his team’s preliminary analysis of about 300 clusters, using the
clusters’ SZ fingerprints in data from the South Pole Telescope, also
show conflict with Planck’s CMB-based cosmology.

There are several potential explanations. One, the tension might
not actually be there. Astronomers can calculate a cluster’s mass by
extrapolating from X-ray observations, or by detecting its weak
gravitational lensing effect when the cluster’s gravity slightly bends
light that is passing by it en route to us. The assumptions that go into
relating a cluster’s X-ray luminosity and its mass might be off. If all
cluster masses are low by a factor of about 1.4, that could resolve the
problem.

That might sound like an easy fix, but it’s not. Masses calculated
using X-ray observations and weak lensing are consistent within about
10 to 15% of each other. The chances of the measurements being off
enough to match CMB predictions are less than 1 in 300 at best.
Neutrinos might also be to blame. Neutrinos are the second most common particle in the universe, after photons, and the majority are assumed to have been created during the Big Bang. Scientists know the particles should have some tiny mass (still undetermined). If neutrinos are 4 to 5 times heavier than the lower limit calculated from experiments, these relativistic particles could be the answer.

Or perhaps scientists’ analysis of the CMB temperature map is off, and the primordial matter fluctuations aren’t as strong as the Planck team proposes. An independent analysis by Spergel’s team suggests such is the case, which would ease the apparent discrepancy.

Several issues ago I proposed that the CMB is due to a compression wave set up between the firmament and the vacuum of space. There could be some side effects that might reconcile the “problem.” And yes, the Axis of Evil is evident in the “Oldest Light” cosmic microwave background map (Figure 1).\(^3\)

---

PRODUCT LIST
(Continued from back cover.)

MP3 CDS

Debate Between Duane Gish and Madalyn Murray O’Hair $10.00
How to Organize an Underground Church $10.00
Geocentricity: the Disposable Doctrine —Bouw $10.00

Subscriptions to the Biblical Astronomer are $25 per year ($30 outside the USA). Membership is $35 per year, ($40 outside the USA). Members receive Technical Papers as they are created. 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 acceptable only on the Internet through PayPal’s secure payment service. The product list, including items not listed in this issue, is at geocentricity.com/geoshop/index.html.

Editor: Gerardus D. Bouw, Ph.D.
4527 Wetzel Avenue
Cleveland, Ohio 44109
U.S.A.
E-mail address: gbouw@geocentricity.com
http://geocentricity.com/

Front Cover: Blood Falls: in the remote McMurdo Dry Valleys in Eastern Antarctica, a slow ooze of vivid crimson seeps from a fissure in the Taylor Glacier and onto the frozen surface of Lake Bonney.

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. 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 Credo, please consider becoming a member. Membership dues are $35 per year.

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 A.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. **Prices are US postpaid.** All orders for books outside the USA please add $11 for the first book and $6 for each additional book for postage. For DVDs add only $5 per item for postage.

**BOOKS**

- **Geocentricity: Christianity in the Woodshed** by Dr. Bouw - $35.50
- **The Bible and Geocentricity**, by Prof. James Hanson - $13.00
- **The Book of Bible Problems** by Dr. Bouw - $20.00
- **Gravitational Analog of a Rolling Ball on Elastic Membrane**, by Prof. James Hanson - $12.00
- **Copernican Revolution: Fable for Educated Men**, Dr. Bouw - $12.50
- Both of the above technical papers - $20.00
- **What Happened to Our English Bible?** by J. T. Unruh - $10.50
- **He Maketh His Sun to Rise**, by Dr. Thos. Strouse - $13.00
- **The Fixed Idea of Astronomical Theory**, by August Tischner - $15.00
- **Thou Shalt Keep Them**, ed. by Kent Brandenburg - $24.95
- **Why Cumbereth it the Ground?** by Kenneth Brooks - $19.95
- **The Law** by Fredric Bastiat - $5.50

**DVDS**

- **Geocentricity Public Lecture** with Martin Selbrede - $20.00
- **Where in the Universe Are We?** with Philip Stott - $30.00
- **Geocentricity, the Scriptural Cosmology** with Dr. Bouw - $20.00
- **Geocentricity: Astronomy of the Bible 2007** with Dr. Bouw - $20.00
- **Geocentricity: Testimony & Science 2010** with Dr. Bouw - $20.00
- **Dedication of the First Geocentric Orrery** Nowalt & Bouw - $20.00
- **The Bible and Science** with Dr. Bouw - $20.00
- **“Problems” in the Authorized Version** with Dr. Bouw - $20.00
- **Three Questions and Critiques of the NKJV** with G. Riplinger - $20.00

(Product list continued on the inside front cover.)