

GLYPH

Notes

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The Bethlehem Star and The Book of Mormon

By Neil Steede and David Brown

The Bethlehem Star is a recorded Biblical event associated with the birth of Christ and considered by many to be more legend than fact because so little of this event is verifiable. Research of ancient star charts indicate that no new stars came into existence during the time of Christ. So what caused this claim of a new star that guided wise men to Bethlehem? Perhaps the best study ever conducted on this celestial phenomenon called the Bethlehem Star was done by astronomer David Hughes (Hughes 1979:176). In his research Hughes not only considers all the theories that have been put forward over the centuries such as comets, conjunctions, novae, asteroids, and meteor showers, and the like, but he also consulted all of the recorded historical data from that time period as well. Babylonian, Ancient Chinese, and Roman/Jewish records all provide insights into the timing of this event, as well as the recorded observances of celestial phenomenon.

In his conclusions, Hughes considers the triple-conjunction of Jupiter and Saturn in 7 BC to be the most likely candidate (Hughes 1979: p. 176). By explanation, the triple-conjunction to which Hughes refers is not a conjunction of three planets, but rather a linear time event where two planets come into conjunction three times over a relatively short period of time; in essence blending two separate lights into the appearance of a single light on three different occasions. That celestial phenomenon seems to fit the criteria for the Bethlehem Star better than any other. However, from the limited information given in the Biblical record, Hughes could not definitively state his case as fact because there were several celestial events that might have loosely fit his criteria.

Today we have two tools to help further Hughes' assertion; one tool he did not use and the other was not available when he conducted the study. The most important tool we have employed that Hughes did not consider was The Book of Mormon account of Christ's birth and the celestial event accompanying it. The Book of Mormon reported event took place somewhere in the Americas and it is described thus:

And it came to pass that there was no darkness in all that night, but it was as light as though it was midday (3 Nephi 1:21 [1:19 LDS]; see also vv. 17, 22-24 [15, 19-21 LDS]).

This becomes the single most important clue to finding the celestial phenomenon for which we are searching. The second important tool we employed that Hughes could not have used in the 1970s when his research took place is a celestial positioning computer program. The program we used is CyberSky 4.0 which allowed us to choose any place on earth at any time period to observe all celestial positions as they appeared in the sky.

Of the several suggestions for the Bethlehem Star that Hughes explored, we examined each one from the Mesoamerican viewpoint using the CyberSky program. From the many celestial phenomena suggested and the thousands of possible nights over the 20-year span

Continued on Page 2

What caused this claim of a new star that guided wise men to Bethlehem?

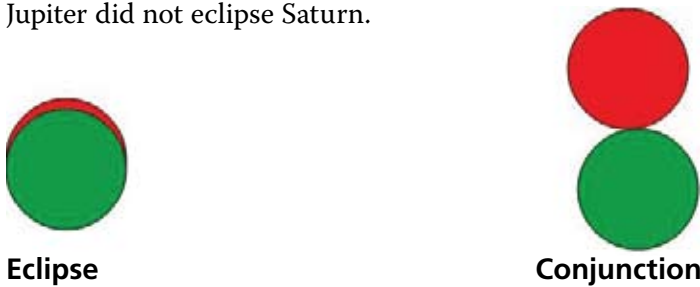
The Bethlehem Star (Continued from page 1)

that Hughes researched, there was only one night that fit The Book of Mormon description: September 8, 7 BC. The celestial phenomenon found in the CyberSky program is the very one that Hughes had suggested as the best candidate for the Star of Bethlehem, namely the 7 BC triple-conjunction of Jupiter and Saturn.

Because Hughes did not utilize The Book of Mormon record in his research, he did not have a clue concerning a “bright night” occurrence in the Americas. Though he had consulted Babylonian and Ancient Chinese almanacs from the time period and all of them did note the triple-conjunction of the two planets, no reference was found to an all-night bright sky event as The Book of Mormon describes. Why is this recorded in the Americas and not in the Old World almanacs?

The “bright night” event was caused by the alignment of the Jupiter/Saturn conjunction plus a unique bright full moon estimated by the computer program to be at 99.8% of its maximum magnitude. Because of the relatively quick movement of the moon across the sky, this alignment only lasted for about 10-to-12 hours during which it was visible only from the Western Hemisphere. The lunar alignment had passed by the time the Earth rotated the Old World to the night sky. This is why only the people of the Americas observed and recorded the “bright night” phenomenon. It was not recorded by either the Babylonians or Ancient Chinese because the Old World astronomers were unable to see this event.

To fully understand the impact of this discovery, the terms *conjunction*, *eclipse*, and *retrograde motion* must be explained. The terms *conjunction* and *eclipse* are similar, but the distinction between the two is a matter of position and degree. A conjunction is the close positioning of two lights in the sky (in this case planets), but the nearest planet never obstructs the light from the far planet. And, when the conjunction of the two planets is less than one degree apart, the two lights usually blend into the appearance of one accentuated point of light. By contrast, an eclipse is where one near object *blocks* the light of the far object, thereby greatly reducing its luminosity. In the Jupiter/Saturn triple-conjunction, Jupiter did not eclipse Saturn.



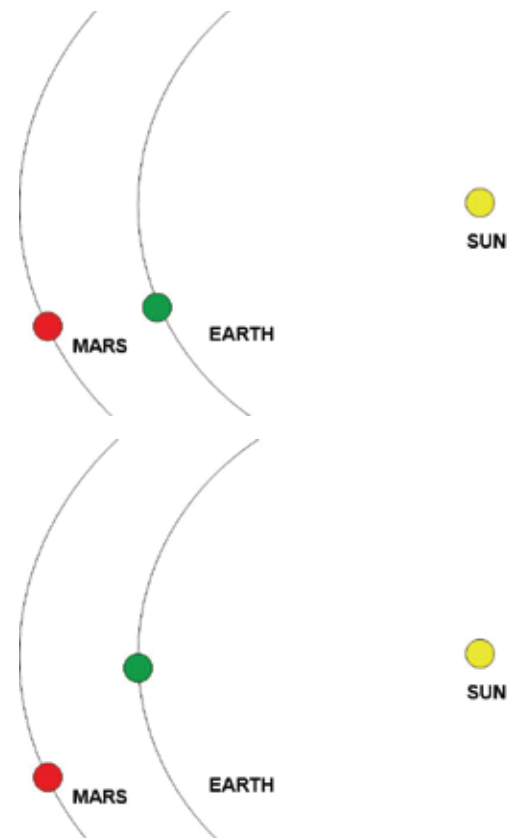
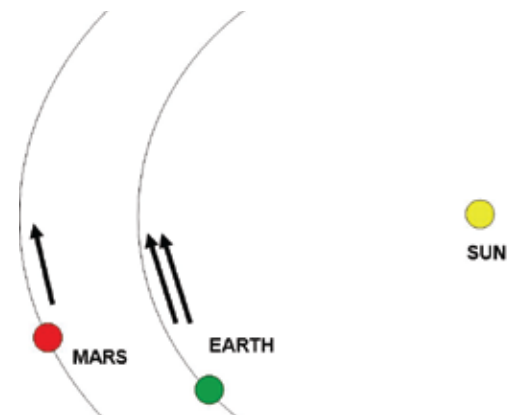
On three different occasions Jupiter and Saturn were less than one degree apart, but Jupiter did not block the light from Saturn. The proximity of less than one degree brought these planets close enough to appear to the naked eye as if the light was emanating from a single source. And, in the case of this particular conjunction

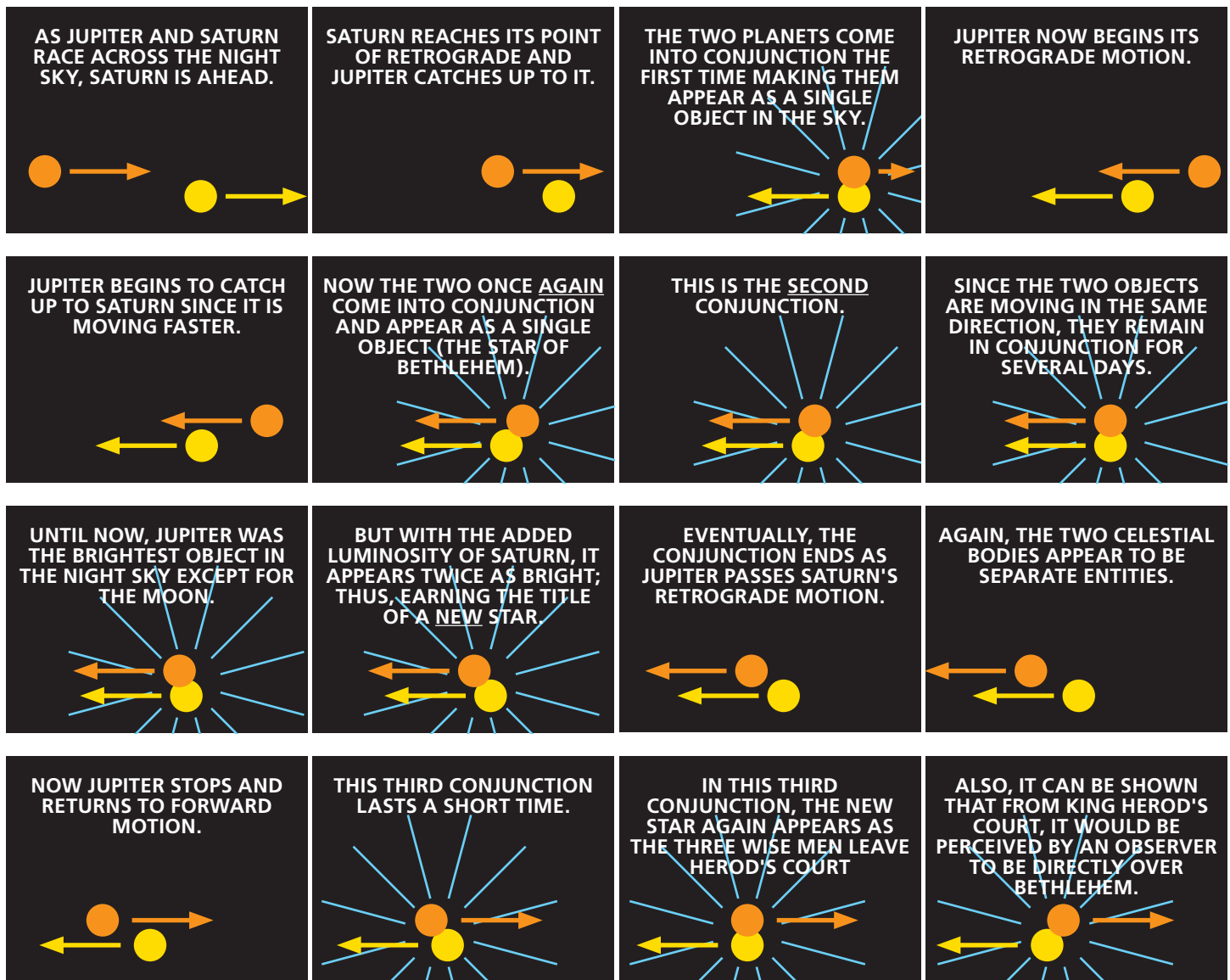
event, the closeness of these two large planets and the maximum reflective angle of Saturn’s rings made this celestial phenomenon appear to be twice as bright as either Jupiter or Saturn alone.

The second definition that is important to understand is *retrograde motion*. A full comprehension of this term will make the triple-conjunction of Jupiter and Saturn more meaningful.

Laws of motion dictate that the outer planets take more time to orbit the Sun than the inner planets; and, it is understandable that during the course of their orbits the inner planets pass the outer planets because the distance traveled by the inner planets is shorter. For example, Jupiter takes more than 19 Earth years to orbit the Sun while Saturn takes more than 29 Earth years to orbit the Sun. Thus, the Earth passes Jupiter 19 times during its single solar orbit and the Earth passes Saturn 29 times during its respective solar orbit. When one inner planet “laps” another, the outer planet has the appearance of moving backwards in the sky.

We will use the planets of Earth and Mars to help illustrate this phenomenon. From Earth’s viewpoint, Mars has the appearance of standing still and then moving backwards as Earth passes Mars. This optical illusion is called *retrograde motion*. In 7 BC the Earth passed Jupiter and Saturn at the same time, and from Earth’s viewpoint both of the gas giants were in conjunction. Because Saturn’s orbit is much further out it began its backward





or retrograde motion before Jupiter. This visual illusion is what caused the triple-conjunction from the Earth's perspective and that sequence is illustrated above.

Here is another pertinent fact to consider in this search for the Bethlehem Star. The full moon that came into conjunction with Jupiter and Saturn on September 8, 7 BC was not typical. The 99.8% of its maximum magnitude was enhanced by an Earth orbit that was closer than its mean (average) orbit in its distance from the Sun which also increased the lunar reflective light.

The scriptural reference to the night having the same brightness as midday seems difficult to comprehend. What was the observer trying to convey with the use of that simile? Could a moon at a magnitude of -12.5 literally be doubled in brilliance to equal the -26.5 magnitude of the midday Sun by the conjunction with two much smaller bodies of light? This seems very unlikely even with the enhancement of the conjunction against the full moon. But, perhaps our observer was not trying to indicate the absolute flood of light we experience in midday skies. The light from the moon typically does little more than to

activate the rod receptors of the eye to provide contrast in shades of gray so that objects are clearly distinguishable in black and white. But, the bending of light around the gravitational field of the moon to create a focused beam of light shining toward the Earth could create enough of an enhancement in brilliance to activate the cone receptors of the eye which then provide distinctions of color that are usually only experienced in the light of day. Was this the phenomenon our Book of Mormon writer was trying to convey by stating that it was as bright as midday? Was it bright enough to actually discern and identify colors during what were usually the darkest portions of the night? How would you describe it if you witnessed this event? And, what if this highest intensity of light lasted only a few hours in the middle of the night? Would you still find yourself telling others about the night that was like a day—almost like the Sun never set?

All of the above information is exceptionally relevant to The Book of Mormon believer. However, there are two more concepts to present at this point that will

Continued on Page 4



The Bethlehem Star (Continued from page 3)


help in comprehending the sequence of events that most researchers have taken into account when looking for the Bethlehem Star.

First, Matthew's account of this story (Matthew 3:1-7 IV [2:1-7 KJV]) implies that the star guiding the wise men to the infant Jesus had disappeared. Therefore, they went to King Herod to ask about the child they were seeking. Herod sent them out in search of the child and told them to return when they had found the young child. Here is where a very curious statement is made by Matthew; he states that as the wise men left Herod's court they looked up and *again* saw their star.

And he sent them to Bethlehem, and said, Go and search diligently for the young child; and when ye have found the child, bring me word again, that I may come and worship him also. When they had heard the king, they departed; and lo, the star which they saw in the east, went before them, until it came and stood over where the young child was. When they saw the star, they rejoiced with exceeding great joy. And when they were come into the house, they saw the young child, with Mary his mother, fell down and worshiped him. And when they had opened their treasures, they presented unto him gifts; gold, and frankincense, and myrrh. And being warned of God in a dream that they should not return to Herod, they departed into their own country another way (Matthew 3:8-12 IV [2:8-12 KJ]).

That statement strongly implies that the Bethlehem Star could turn on and off in the same manner as the Jupiter/Saturn conjunction of 7 BC. According to Hughes, the third and final conjunction occurred on December 3, 7 BC and lasted only for a short time, at the most two or three nights. Therefore, it seems reasonable that this Jupiter/Saturn conjunction is the celestial event mentioned in the book of Matthew.

The second observation is the length of time of the Jupiter/Saturn triple-conjunction. Matthew does

not say exactly how long the celestial event lasted. Jupiter and Saturn both enter into the constellation of Pisces in February of 7 BC; they move closer together and begin their heliacal rising about March 15. The first conjunction takes place on May 25 through May 29. They remain close together in Pisces and come into conjunction again on September 25 through October 5, a 10-day conjunction creating the appearance of a new star after the bright night event in the same sequence recorded in 3 Nephi 1:24 of The Book of Mormon. Then the last conjunction takes place from December 3 through 5, perhaps in time for the wise men to exit Herod's court and see the star anew, giving cause for rejoicing and finding the Christ child. So, from the heliacal rising of the planets in Pisces which would have been the trigger event for an astrologer watching the stars, until the third conjunction when it is theorized that the wise men finally reached the Christ child, this was an event that took between eight and nine months to complete and could account for the description in Third Nephi. The Bible, The Book of Mormon, and science have now merged to reconstruct an event that is rapidly moving from the category of legend into the realm of verifiable history. 


References Cited

Hughes, David
1979 *The Bethlehem Star Mystery*. Dent Publishing, London.

The Bible, The Book of Mormon, and science have now merged to reconstruct an event that is rapidly moving from the category of legend into the realm of verifiable history.

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Unless otherwise noted, all references are from: The Book of Mormon 1908 ed.; The Holy Scriptures, Inspired Version (IV).

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Converted by The Book of Mormon

By Mirl A. Edwards

I grew up in Independence, Missouri, the Center Place. Our home was about ten blocks west of the Auditorium. I can remember seeing the dome of the Auditorium when it was still bright copper, and as the sun came up in the East, shining on the dome, it would appear as a fiery ball.

Most of our neighbors were RLDS, and we sensed the love these people had for us and for each other. I grew up in a wonderful family. My mother, father, sister, and I went to the Presbyterian Church, and even though most of my school friends were RLDS, I felt that I could not accept some of their beliefs. After all, they had a strange book called the “The Book of Mormon.” I wasn’t sure what it contained, but I thought it was a book of rules of some kind. I believed only in the Bible!

In my early adulthood, one of my RLDS friends brought me a Book of Mormon to read. I had never had one in my hands before, nor did I know what it was. She explained that it was a record of ancient people, who had been directed by God to cross the ocean to the American continent. I was fascinated by this. She also gave me a book by Roy Weldon called *Other Sheep*. I read it before I read The Book of Mormon. I was thrilled and excited by this book! I soon started having cottage meetings, and my husband, Chuck, and I made our covenant with the Lord on Palm Sunday in 1962.

I loved The Book of Mormon! It was much like the Bible, but it contained passages not contained in the Bible, in which the Lord spoke to my mind—passages that, to me, were the most exalted and highly spiritual words that I had ever read. They carried with them the Spirit of the Lord, and I KNEW that The Book of Mormon was the word of God, and that it has come forth to restore the covenant relationship of God with His people. I believed that it is the second witness that Jesus is the Christ, the Eternal God.

After Chuck and I were baptized into the church, I was afflicted with cancer.

Often, while lying on the table for my treatments, I would say some of my favorite scriptures over and over. I would realize again just how much God loved us; that He was willing to come, and suffer a horrible death on the cross, to save all of us from being separated from Him for all eternity. I would think on the words of God to the brother of Jared in Ether 1:101-108.

I knew that Jesus Christ had come to save me. What could I ever give Him that would be a great enough sacrifice? I could only be willing to give my life as He did for me, to die to self, and obey His commandments that He has given us.

I realized that I must submit to Him, even if it meant leaving my earthly home and family. I was then granted great peace and comfort—even in the midst of my trials. I testify that the Lord is good and does not leave His children. He also granted my desire that I might see my five daughters grow up.

My greatest goal is to be a testimony to others who are fighting cancer, and to bear my testimony to the truth of The Book of Mormon.

I pray that I may always be found doing His work, and spreading the good news of the Bible and The Book of Mormon. Remember the covenant we have made with our Lord. We must die to self, and “Come Unto Him!” May we always live for the Lord, and put Him first. Only then will Zion be a reality.

Note: Mirl Ann Edwards went home to be with her Lord on February 18, 2008. She was steadfast in her belief in the truthfulness of The Book of Mormon until the day she passed from this life. ☹️

GLYPH *Quotes* Ask in Faith Believing—Matt. 21:20

By Clyde Noren

Earnest prayer to the Heavenly Father coupled with a deep faith, believing in an answer, is a spiritual encounter needed by many believers today.

An extraordinary result of prayer is recorded in the book of Ether when the brother of Jared asked the Lord to touch the 16 stones he had prepared to provide light in the totally enclosed barges during their voyage across the sea. They were just 16 lifeless stones. The result of this request is described in Ether 1:8-69;

When the brother of Jared had said these words, behold the Lord stretched forth his hand and touched the stones, one-by-one,

with His finger. The veil was taken from the eyes of the brother of Jared, and he saw the finger of the Lord; and it was as the finger of a man, like flesh and blood; and the brother of Jared fell down before the Lord, for he was struck with fear.

The Lord answered the brother of Jared’s prayer in an all-encompassing way. He could not be kept from seeing the Lord himself because of his great faith. Prayer can, also, be intercessory in purpose. When Jesus prayed for others as recorded in Third Nephi 8:19;


And no one can conceive the joy which filled

our souls at the time we heard him pray for us to the Father.

Jesus' abiding faith reinforces our conviction that He has accepted us as his sons and daughters as described in Ether 1:78.

We all have the ability to be recipients of these kinds of blessings if we have faith. In the lives of our missionaries and patriarchs the Lord reached down and blessed their efforts to minister for Him. They put complete trust and faith in the Lord's word and His Saints were cared for. He cares for us the same and is aware of our needs. We pray for others and know He hears our prayers and is as concerned about our brethren as are we. As an example, my wife and I have been attending a special worship center provided by our branch prior to the Wednesday evening prayer service. This thirty minutes is for special and personal meditation. During this time we petitioned

the Lord in prayer to help a sister recover the deteriorating sight in her left eye. The problem was complicated by the high glucose content in her blood and the body's inability to respond to medication. Our sincere prayers for a blessing appeared when her glucose level dramatically dropped to a very low level. When her surgeon was made aware of these readings, he advised her to prepare for a cataract operation in two weeks. This miracle of divine intervention has again convinced the saints of our branch and my wife and I that God hears our prayers in faith believing.

The final tenet of this promise is given in Moroni 7:26, "Whatsoever thing ye shall ask the Father in my name, which is good, in faith believing that ye shall receive, behold, it shall be done to you." What blessed assurance is such a promise! 



From left to right: Sergio Gómez, Don Beebe, Julie Gazzola. The three are standing in front of the Citadel at the location where a sink hole emerged in late 2003 revealing the existence of the tunnel. Sergio and Julie are credited with discovering the tunnel. The Temple of the Feathered Serpent is immediately behind the Citadel.

GLYPH Clips

Entrance to new Tunnel at Teotihuacan Located

National Institute of Anthropology and History (INAH), Mexico, Press release 3 August 2010
<http://www.palmbeachpost.com/accent/travel/mexico-finds-tunnel-possible-tombs-under-ruins-839771.html>

Archaeologist Sergio Gómez Chávez, director of the Tlalocan Project: Underground Road, stated that the tunnel entrance passes under the Temple of the Feathered Serpent and leads to a series of rooms. "I think the tunnel was the central element, the main element around which the rest of the ceremonial center was built. This was the most sacred place. There is a high possibility that in this place, in the central chamber, we can find the remains of those who ruled Teotihuacan," Gómez added. It is known that rulers were buried in the holiest places.

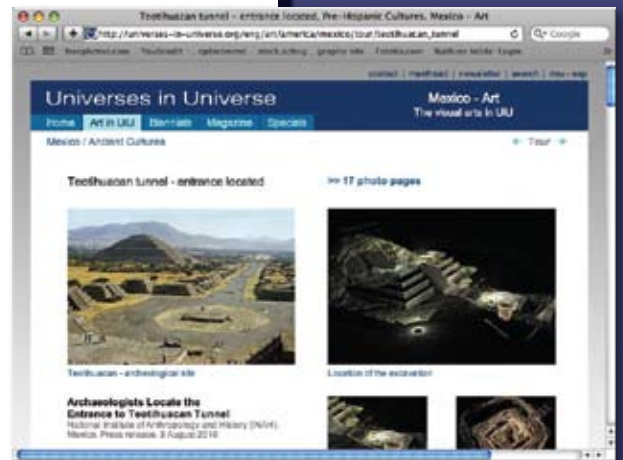
INAH specialists consider the excavation the most profound that has been done at the site, which is also called the City of Gods. "For a long time local and foreign archaeologists have attempted to locate the graves of the rulers of the ancient city, but the search has been fruitless." That is why Gomez says that "the exploration of the tunnel is of great significance for archaeological research of . . . religious thought of ancient Teotihuacan."

Archaeologist Neil Steede and Don Beebe, PSI, have been in frequent communication with Sergio Gómez and other archaeologists associated with this project since the tunnel was first discovered in 2003. The discovery of the tunnel and the potential identification of its earliest rulers indicates that the first construction at the site was prior to 100 BC—well within the time frame of The Book of Mormon.

For pictures and more details see: http://universes-in-universe.org/eng/art/america/mexico/tour/teotihuacan_tunnel



Aaron Presler



Cont. on Page 8

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*The Bethlehem Star and
The Book of Mormon*

*Converted by The Book of
Mormon*

Ask in Faith Believing

*Entrance to new Tunnel at
Teotihuacan Located*

*Update on El Zotz Tomb
Discovery*

*Annual Book of Mormon
Archaeological Tour
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Registration Form*

GLYPH *Notes* PRE-COLUMBIAN STUDIES INSTITUTE SEPTEMBER/OCTOBER 2010 VOLUME 17 NUMBER 5

GLYPH *Clips* (Continued from page 7)

Update on El Zotz Tomb Discovery

<http://news.nationalgeographic.com/news/2010/07/100721-maya-tomb-human-fingers-king-guatemala-science/>

In the last issue we reported on the discovery of a well-preserved tomb at the site of El Zotz located only 12 miles west of Tikal in Guatemala. The first online reports were published at *Softpedia* and *Science Daily* on July 17, 2010. After we went to press with the last issue, *National Geographic* also published an article on El Zotz (July 21, 2010) with more information. As mentioned in the last issue (p. 6), this tomb could verify the practice of sacrifice of children and women found documented in *The Book of Mormon* (Mormon 2:16-17, 23).

“In another bowl above the circa A.D. 350 to 400 tomb, the team found a partly burned baby. The bowls closest to the burial chamber were arranged like the Maya cosmos—the four cardinal compass points plus the center of [the] world.... Breaking through a side wall of the small tomb, excavators uncovered the remains of six children—a rarity among Maya burials.... The arrangement suggests the children, some of them infants, may have been ritually sacrificed as the king was laid to rest.... Why the children would have been killed is a mystery, said team member Andrew Scherer, a Brown University anthropologist.”

The Book of Mormon has the answer.

Additionally, Mesoweb published an online paper in July with photographs by Joel Skidmore called “Royal Tomb Discovered in the Diablo Group at El Zotz, Guatemala.” <http://www.mesoweb.com/reports/ZotzTomb.pdf>.

The publication date of July 17, 2010 for the *Softpedia* and *Science Daily* articles was not noted in the last issue. 