

Cumorah Messenger

Dating Anomalies

By David B. Brown © 2016

One of the more problematic aspects with drawing parallels between Mesoamerican history and Book of Mormon events is the issue of assigned dating. Many Book of Mormon scholars are tempted to draw the parallels between the Maya and the Nephites, but as soon as they begin to dig into the Mesoamerican time line, they become exasperated and abandon that hope altogether. Why? Because there is an assigned dating gap of at least 500 years between the two cultures and this just makes it too difficult to logically proceed.

In tackling this problem, HCETI has adopted the argument Neil Steede provides that the dating system used by the archaeological community is flawed. Therefore, when

we draw parallels between the Book of Mormon events and the Mayan culture without considering the assigned dating system, it is uncanny how ALL of the major events, cities and people become identifiable in this parallel study.

So, what is our argument that allows us to logically ignore the assigned dates? Again, we follow the lead of Neil Steede and present the following points for our position.

First, the present dating system that correlates Mesoamerican calendar with our Christian (Gregorian) Calendar is called the Goodman-Martinez-Thompson Correlation or more often referred to as the GMT. This system was developed in the 1950s when there were over 50 correlation dating scales being offered. The

field was definitely confusing and the scholars of the day were looking to use science to settle the contention between these conflicting scales.

In the early 1960s a study was done by two prominent universities (Harvard & Yale) at two different sites, but both of them utilizing Carbon 14 dating in an attempt to provide a definitive settlement to the arguments over calendar correlations. Eventually, the two university-funded groups came up with two different answers; one tended to lend credence to the Spinden scale, while the other leaned toward the GMT. This was not a good result as there is almost 270 years between these two scales. Harvard eventually prevailed and the GMT calendar correla-

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Mayan Music

By Terry Scott © 2016

As time passes, we learn more and more about the Mayan culture. The figures and glyphs we see on stelae, stone reliefs, murals and frescos tell us more each year and help us make sense of how they lived.

Musical instruments

were once thought to be used only for special ceremonies and occasions. We are now learning that music and dance were very common and the Maya celebrated often and for many reasons.

It was once thought that the rattles they found

(Figure 1-2) were made just for children, but we see them depicted frequently as part of ceremonies on vases and in the murals such as in Room One at Bonam Pak.

Whistles (Figure 2) are another good example. Many whistles and ocarinas (a small egg-shaped wind instrument) were

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tion became the adopted standard for Mesoamerica. The problem with this is that the GMT is now regarded as settled science based on a study that did NOT provide definitive proof, and it was done with a science method that was in its infancy over 50 years ago. Certainly, this study could be revisited and validated with a series of different dating methods such as thermoluminescence among others that take into account geological agreements.

The problem with the adoption of the GMT as the standard for all Mesoamerican sites is that there is not a solid consistency of dating within the region. Once the GMT correlation was set and dating for the Mayan Calendar was established, the Mayan Calendar date was applied to all of the ancient Maya sites where date glyphs were found. This placed the Classical Mayan period between 600 and 900 AD. Book of Mormon scholars believe that the Golden Age of the Book of Mormon (50 AD to 300 AD) should be considered their Classical period and because of the 500 year discrepancy, the Mayan culture is removed from serious consideration as a Book of Mormon culture. We believe the crux of the problem is the assumption that the GMT correlation dating is scientific and definitive when it is actually not—it is a “ballpark” figure and tenuous at best.

Secondly, many prominent Mayan sites have C-14 dating that place occupation of their classical cultural centers much earlier than the 600 AD period, and to further cloud the issue, it varies from city to city even though glyph dating indicates these cities were contemporaries. This is part of the reason why confusion remains about how the culture was politically structured and what societal changes led to its demise.

For these reasons, we feel it is logical to believe that the GMT correlation is not accurate. We believe that it was a good system when it was established, and that it provided a firm timeframe upon which archaeologists could pin historical events and thereby develop a coherent chronology. But, we also believe that there are still unknown circumstances that impact accurate C-14

dating in this region and it is time to readjust this chronological system to a more accurate dating scale. But, how do we do this without arbitrarily placing it on the scale where we “want” it to fit?

One of the most descriptive chapters of the Book of Mormon is the catastrophic event often referred to as the Great Destruction. This is recorded as coinciding with the death of Jesus Christ and subsequently, it became the initiation of the Golden Age. While we instinctively want to place this event at 33 AD, we must remember that the Bethlehem Star event recorded by the Wise Men in the Book of Matthew actually took place in 7 BC, thereby shifting the time scale for Christ’s death to 26 or 27 AD. So, somewhere just under 2,000 years ago, some form of catastrophic event took place in Mesoamerica. This event had cities catching on fire, waters erupting from the deep, some cities were covered with landslides, and other cities fell into the ocean. With there being such a large catastrophic event, can we identify this type of destruction in Mesoamerican history?

Here enters our research from contacts we made on our last expedition. We encountered a volcanologist in Tuxtla Gutierrez, Chiapas who is an English speaker and who specializes in volcanic anomalies. In a brief conversation the HCETI team conveyed our intuitive concept concerning dating problems in the ancient cultures of the Yucatan and Peten. We asked if he had any knowledge of a catastrophic event in that time period. He stated that certainly there was a very large event from El Chichon—the same volcano that erupted in 1982, darkening the sky, causing flooding and producing up to a 3 foot layer of ash in some places. He suggested that we would find all of the most up-to-date information on this in a recently published book on the active volcanoes of Chiapas. Since our meeting last summer, we have purchased and read this academic book and find that indeed, there are many aspects of this ancient El Chichon eruption that support the account given in the Book of Mormon.

According to scientific dating of the volcanic material, this eruption took place about 2,000 before present, plus or minus 125 years. This is exactly within the timeline we were hoping to find. The following are a list of aspects of this El Chichon event that are important to note:

1. It was an explosive event as most of the eruptions at El Chichon tend to be due to the mechanics involved.
2. The flows from this eruption are to the east and to the south which could account for the fires occurring in Zarahemla (Yaxchilan).
3. This eruption is described as a hydro-magmatic event meaning that it contained a high concentration of water. This implies that either a lake was positioned in the exploding caldera, or that the eruptive magma came in contact with an underground aquifer. If it was an aquifer, then the mechanics of the mixture of the magma in contact with the water would eject waterborne magmatic materials into the atmosphere. This high water content is conducive to the atomization of water particles that “hang” in the atmosphere and block the sunlight as described in the Book of Mormon as well as creating a high humidity condition so that no fires can be lit.
4. There are two known aquifers underneath the El Chichon volcano.
5. El Chichon is located on a seismic fault line.
6. It is known that faults with high water content seem to experience more subdued activity because the water tends to absorb seismic waves and to better distribute pressure and tension. Faults with less water content tend to have more pronounced seismic events. If by chance water in the aquifer came into contact with a large amount of magma and was ejected from the ground, then the removal of pressures holding the plates in place would result in a release of kinetic energy thereby resulting in seismic activity. In other words, an earthquake.

It is not known if the materials ejected from this eruption were radioactive, but it is known that

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Dating Anomalies *continued*

radioactive materials ejected from volcanoes can skew the C-14 dating scale and make materials that are known to be older test at a younger date. For example, carbon-based materials that were set in place in 100 AD might actually C-14 test at 600 AD. This is an aspect of the volcano we will pursue in the near future.

Dates in the Mesoamerican region are puzzling. The dates for the Olmec culture are consistent with what we find in Book of Mormon Jaredite history. The earliest proto-Olmec artifacts are dated to about 2,200 BC. This fits well with the Jaredite culture. And, there is dating in the Pre-Classical Mayan cultures that are accurate in that Peten sites have been dated as early as 300 BC with the earliest known writing appearing in San Bartolo at 100 BC. But, there seems to be a lack of traceable dating from this time period until about 450 AD. Where did this Pre-Classic group go? How was this burgeoning Mayan culture kept static for 500 years and then remarkably

explode into the highly developed Classical culture? We believe this apparent absence of activity is not a cultural stagnation, but instead it is an anomaly in the science of dating. Something that happened during the Great Destruction changed the nature of living materials. And, it changed it so profoundly that our testing of C-14 materials are not accurate because our assumptions for “normality” and “stasis” are not accurate. Therefore, our testing is skewed.

So, what could have happened during the Great Destruction? A huge fault-line earthquake along the Motague Fault where the North American Plate and the Caribbean Plate move in opposite directions? This action can account for the Nephite cities along the Caribbean coast sinking with landslides that cover entire cities. This same huge earthquake could have disturbed the static tensions of magma and water beneath El Chichon and triggered the hydromagmatic eruption—spewing materials into the atmosphere to block the sun. Or, perhaps it

was a compression of the Cocos Plate against the North American Plate, folding the surface rock, again triggering the volcanic eruption and forcing the Yucatan/Peten land mass on the Caribbean side to drop below the water level, while also raising the western and northern portion of the Yucatan slab. Either of these events could have ejected materials into the atmosphere which then skew the dating. These are considerations of events on mammoth proportions, but we feel there is something here that must be investigated.

We look forward to working with our volcanologist who specializes in anomalies—he is a literal Godsend. Of all of the volcanologists that are in Mexico, what are the odds that we would end up in his office as our first contact in the region? We feel certain that we are onto something here and that before this project is completed, the foundation will be laid to reset the calendar correlation for the Mayan culture.

Mayan Music *continued*

formed in the shapes of animals, elaborate human shapes or mythical creatures, leading experts to assume they were just children’s toys. (Figure 3-4)

Using clay to form these whistles, ocarinas and flutes gave the Maya, unlimited ways to shape them for different sounds. Interestingly the figurines shaped like men have lower tones than those shaped like women.

Whistles and all wind instruments



create sound by air flowing through a tube or chamber and encountering a restriction of some kind. The change in air flow creates a sound. Wind rushing through a narrow part of a cave can also create a whistling sound. Different size chambers create different sounds. Larger organ pipes make deeper sounds and smaller chamber and pipes make higher pitched sounds.

“Much more than toys, the whistles were genuine musical instruments... these clay whistles, ocarinas and flutes of the ancient Americas...are surprisingly advanced in their construction and tonal qualities...these objects are now seen as ancient American wind instruments that were vital to the life of the Inca and Maya peoples, including the ruling elite.”^[1]

“In the last few years, a small army of physicists, archeologists, anthropologists, musicians, ethnomusicologists,



and craftsmen have probed these ancient wind instruments with tools, X-rays, stethoscopes, stroboscopes, tape recorders, frequency meters and spectrum analyzers. In one case, a tiny ocarina, which is generally more complex than a whistle and wider than a flute, generated much interest because it had an impressive ability to produce 17 notes. X-rays showed it to have three hidden chambers that gave it unusual versatility.”^[1]

““Because the remains of musical instruments have been found sporadically, and rarely in concentration, they’ve been written off as another small artifact,” said Norman Hammond, a professor of archeology at Rutgers University who specializes in Maya music.”^[1] New discoveries, however, are raising their status. At a Maya burial site at Pacbitun in Belize, Central



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Mayan Music *Continued*

America, Paul F. Healy and a team of archeologists from Trent University in Ontario recently unearthed a rich lode of more than a dozen flutes and ocarinas buried beside Maya rulers.^[1]

“Samuel Martí, a Mexican anthropologist stated, ‘There can be no doubt that pre-Columbian music reached a level of development comparable, perhaps superior, to the contemporary cultures of European and Asiatic origin.’”^[1]

Dr. Hammond of Rutgers University found that one Maya ocarina (500-600.BC.) “is advanced enough to play the first five notes of the tonic scale, that is, do, re, me, fa, so. Five-note ocarinas are scarce...and something that matches an Old World scheme is very unusual.”^[1]

“To date, thousands of acoustically distinct clay instruments have been found in Mexico, Belize, Guatemala, Honduras, Columbia, Ecuador and Peru. The earliest pre-Columbian clay instruments, found on the coast of present day Ecuador, date from thousands of years



top left:Horns
right: Rain maker FIGURE 5 Bonam Pak room

B.C.”^[1]

The Maya also used trumpets, drums and rain makers (Figure 5) in their music. A rainmaker is a long hollow stick with sand or beads inside that sound like rain as they flow from the top to the bottom of the tube. Trumpets, called *hom-tahs*, were made of wood, clay, or gourds and were shaped like the modern didgeridoo with large bells on the end. The bodies of clay trumpets were occasionally curved and were often shorter than those of wood and clay trumpets.^[2]

“Trumpets were also constructed from conch shells. Conch trumpets are blown through a hole cut at the apex of the spire. Maya conch trumpets have three small holes which produce three

consecutive notes. The shells were often incised with decorative bands.”^[2]

Drums were usually made from hollowed logs or large ceramic pots with deer hide stretched over the top and struck with part of a deer antler. When the deer hide is struck, it vibrates making sound.

The larger the chamber under the hide, the deeper the sound. (Figure 2: large drum, Figure 6: small drum) They also used empty turtle shells (Figure 7) for a

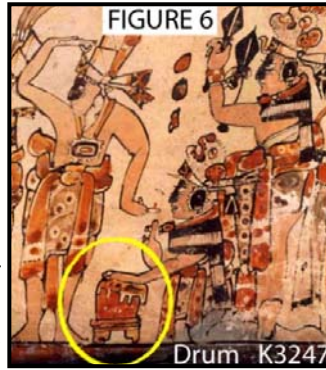


FIGURE 6

Drum K3247

higher percussion sound.

Any discussion on Mayan music would not be complete without talking about dancing. We have discovered that dance was very common part of Mayan life, although it was not always thought so.

“In 1966, Michael Coe and Elizabeth Benson suddenly realized that the innumerable depictions of important lords standing with one heel raised and toes pointing down symbolized dancing.”^[3] (Figure 8)

The dance glyph was found in a carving of Bird Jaguar of Yaxchilan, dancing while holding a snake.

Many dancing figures were to be found close to stairways, platforms or plazas.^[4]

“Even so, most of the examples were either dismissed or not fully understood. It was not until the spring of 1990, when Nikolai Grube finally deciphered the Maya glyph *ak’ot* as “dance” (Figure 9) that everything clicked into place. With the pose and/or the glyph seen just about everywhere, it was now clear that dance was one of the public actions most often depicted by Maya artists. The

<p>Key: MFR 1235</p> <p>Actual Location: Frissell Museum, Mitla, Mexico.</p> <p>Collection: Howard Leigh (1953)</p> <p>Registration: 1235 / INAH 3203</p> <p>Provenance: San Pedro Mártir, Oaxaca.</p> <p>Measurements: 44.5 x 20 cm.</p> <p>Color: Grey clay painted in red, brown and white.</p> <p>Chronology: Xoo 600 - 800 AD</p> <p>Comments: The figure is holding a turtle-shell drum in his hands. The piece was slightly restored, with wax. A big portion of the back urn is missing.</p>	
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FIGURE 7



FIGURE 8

K2942

many paintings show Maya kings and their courts as public performers and that dancing was an integral part of all their social, religious, and political rituals. Everybody danced; kings, nobles, priests and commoners alike.”^[3]

Many dance scenes are found in murals such as painted at Bonam Pak and on ceramic jars and vases. Thanks to the exhaustive work of Justin Kerr who photographed and cataloged a huge number of Mayan pottery, many of these scenes have been preserved. Every

	<p>ak’/AK’OT (<i>ak’/ak’ot</i>) (T516) 1> phonetic sign 2>n. "dance" 3> tr. v. "to dance."</p> <p>(CH) 1> AK’ (<i>a[h]k’</i>) <i>ahk’-</i> ~ t. v. "give" root of the verb 2> AK’ (<i>ak’</i>) <i>ak’-</i> ~ logogram used to spell the verbal root <i>a[h]k’-</i> "to dance" as AK’-ta.</p>
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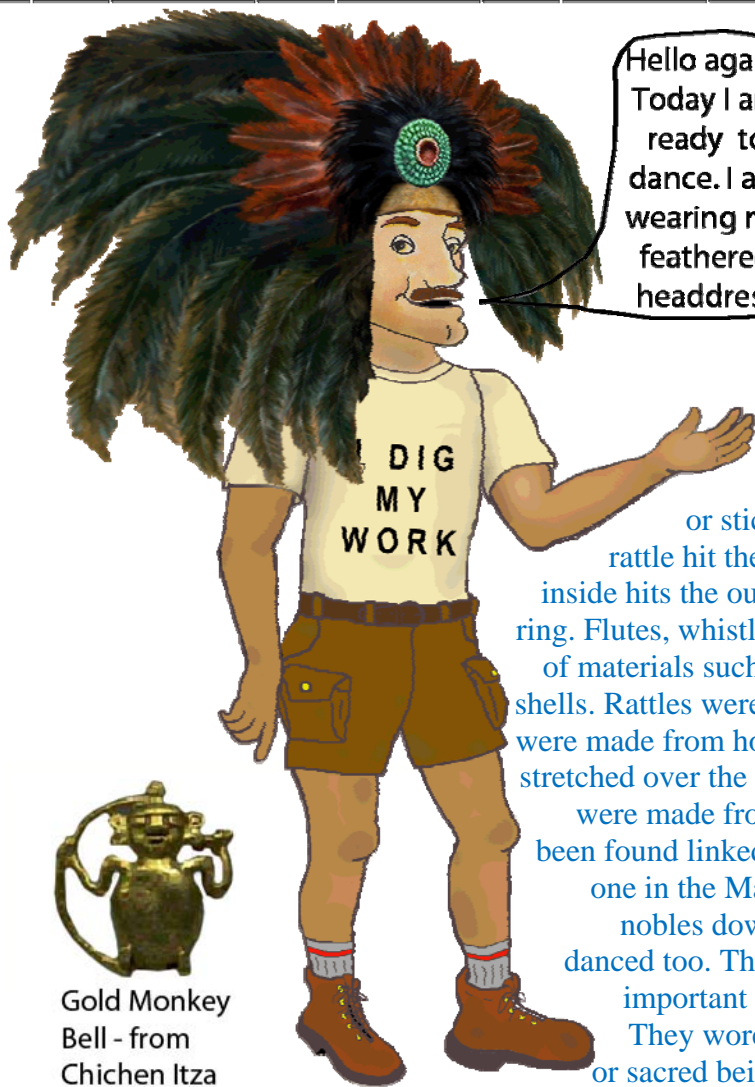
FIGURE 9

Continued on Page 7

Mayan Music and Dance

The Maya enjoyed both dancing and music. They played a variety of musical instruments. These included wind and percussion instruments.

Hello again. Today I am ready to dance. I am wearing my feathered headdress



Wind instruments make a sound when you blow into them like whistles, flutes, and horns. Percussion instruments make a sound by contact, such as striking a drum with your hand or stick, or a rattle when the seeds inside the rattle hit the outside of the bell causing it to vibrate or ring. Flutes, whistles and horns were made from a variety of materials such as wood, bone, clay, gourds, or conch shells. Rattles were made from clay or gourds too. Drums were made from hollowed out logs, clay pots with leather stretched over the top, or hollowed out turtle shells. Bells were made from gold or clay. Copper bells have also been found linked to the late Mayan civilization. Everyone in the Mayan culture danced, from the king and nobles down to the farmers. Women and children danced too. The Maya danced in festivals to celebrate important occasions and in preparation for battle. They wore elaborate costumes depicting animals or sacred beings. They painted their faces, and their costumes were made up of feathers and leather animal skins.



Gold Monkey Bell - from Chichen Itza



Top: Conch shell horn
Middle: Multi-chamber whistle
Bottom: Bone flute



Ceramic rattle



Feathered Dancer



Log drum



Turtle Drum

WORD SEARCH

Find and circle the
Mayan Music and Dance
words from the story:

E N Z S G W R P F Y L Z Q E F M
L F G O O E G E Y S R L P L P U
T D I L P O A R Q E Z E E F X A
S A B P L T U C Z A Q G T H B U
I N O D H N K U M H D M W T S P
H C T E D Z Z S L M Y F H P O O
W E R U X Y R S L K F T H T Y P
S S M E R W P I E D A D H Q X N
X Q V H C T B O B R B Y N X T Q
N L O D F L L N D U S T R I K E
Q T U L G G A E O M B N C P W U
M U U N K D U Y O Q J Z K L W X
Y T C I S U M M W J X N E E U E
E N I Y Z R E H T A E L B O N E
K Y R K O Q P X N K N R O H I X
F O M W G Z W T V V X O Z X I I

- | | | |
|---------|------------|---------|
| Bell | Blow | Bone |
| Clay | Copper | Dance |
| Drum | Feathers | Flute |
| Gold | Horn | Leather |
| Music | Percussion | Pottery |
| Shell | Strike | Turtle |
| Whistle | Wind | Wood |

Identify the words below from the story by filling in the blank space next to them with either 'Wind' for wind instrument or a 'Percussion' for percussion instrument. Write 'P' and 'W' if they can be used for both.

Turtle _____

Gourd _____

Bone _____

Gold _____

Log _____

Whistle _____

Horn _____

Horn _____

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http://research.history.org/Archaeological_Research/KidsPage.cfm

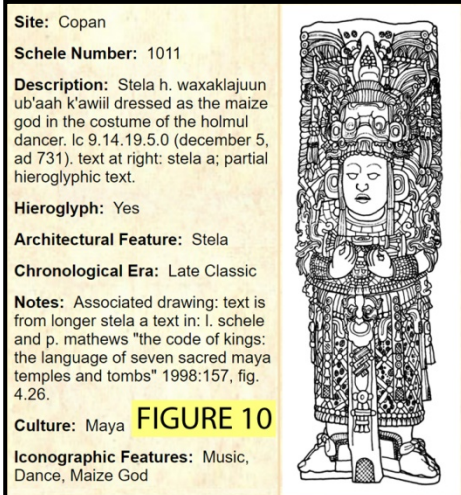
<http://ngm.nationalgeographic.com/2007/08/maya-rise-fall/map-interactive>

<http://www.digonsite.com/drdig/mesoamerica/15.html> <http://www.smm.org/sln/ma/index.html>

<http://archaeology.la.asu.edu/teo/>

For questions e-mail me at tscott75@sbcglobal.net

Mayan Music *Continued*



picture found on the internet and referenced in books about the Maya that has a 'K' in front of a number, is from his collection. (Figures 2,6,8)

Dancers are often shown wearing a *Holmul* costume. One such famous depiction is at Copan. (Figure 10) A typical Mayan dancer is depicted by

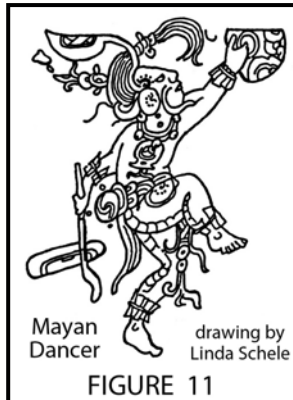
Linda Schele in Figure 11.

Theatrical events, dance, ritual, and, to a lesser extent, even warfare would have been unthinkable without musical support.

^[4] Therefore, the musical director in Yucatán, the *holpop*, was held in high esteem.

According to Diego López de Cogolludo (1613-1665) the *holpop* was not only "the principal singer who sets the key and teaches what is necessary to sing," but also the keeper of the musical instruments,^[5]

"These objects [instruments] are a good way to probe the past, revealing the ancient civilizations of the Ameri-



cas to be surprisingly advanced in ways not previously appreciated. 'Music is a measure of cultural complexity, said Dr. Olsen of the Florida State University. 'It adds the other layer of knowledge about their social intricacies and achievements.'"^[1]

Footnotes:

1. <http://www.nytimes.com/1988/03/29/science/complex-whistles-found-to-play-key-roles-in-inca-and-maya-life.html>
2. <http://www.mexicolore.co.uk/maya/teachers/ancient-maya-music>
3. <http://www.chapala.com/chapala/magnificentmexico/dancinggods/dancinggods.html>
4. Looper, Matthew G. (2009) *To Be Like Gods: Dance in Ancient Maya Civilization*. U. of Texas Press, Austin.
5. Tozzer, Alfred M. (1941) *Landa's Relación de las cosas de Yucatán. A Translation*. Peabody Museum, Cambridge MA 1941.

Coincidence? By Mike Brown © 2016

The Hill Cumorah Expedition Team has been investigating sites in Mexico for over fifteen years. I know that there is some controversy about the location of where the stories in the Book of Mormon took place and I want to address that in this article. Some believe they took place in North America, some believe that it was around Panama, others say South America, and some around Lake Michigan and New York. We believe that the *stories* in the Book of Mormon took place in southern Mexico and Central America. We also believe that there were movements from this group that traveled to North America and into South America carrying the same language and cultures as the original group. Much of the "new world" was inhabited by these early descendants of that Joseph who was sold into slavery in Egypt.

Many of you, who have followed our research, recognize that we read the same stories, in stone glyphs or murals,

that are found in the Book of Mormon. One of the really interesting things we have learned is that, while we have the story of the Nephites in the Book of Mormon, we also find places where the stories of the Lamanites are written. They are written from different viewpoints but tell the same stories in different ways. To our surprise, we found that the Lamanites were also quite sophisticated, but they expressed their stories with a different slant. Remember that the Book of Mormon is the story of the Nephites, writing about their "relationship with God" and they saw the Lamanites as marauding bandits and killers. The Lamanites saw themselves as victims; that Nephi (Lehi's son and brother to Laman) had taken the rights and blessings that should have gone to the oldest brothers. It was a big deal and generations later, that hatred was still starting wars.

I want to share a short story of our last trip. Our last research visit in 2016

was to the southern part of Mexico in the state of Chiapas. It is here that we find the City of Nephi and Zarahemla and many other cities that are mentioned in the Book of Mormon. One objective of this last trip was to try to find someone in academia who may know something about the ancient volcanic activity in this area.

We are working on a theory that some of the volcanic activity could have been radioactive, thereby skewing Carbon-14 dating. It's a hunch that could explain a difference in the timing from the Book of Mormon dates and what archaeologists use for dating. We decided that the best place to research this possibility would be to visit the University in Tuxtla Gutierrez. There is a nearby volcano that erupted during the time of Christ. So our team traveled to the university to see who might be available to talk with us. As it seems to happen on every trip, things just fall into place. We stopped at the Univer-

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The Hill Cumorah Expedition Team, Inc is a 501(c)(3) Missouri not-for-profit corporation dedicated to the study, research and dissemination of information as it pertains to the Book of Mormon. All donations are tax deductible. Our primary focus is to research and assemble archaeological and other related information to help establish the historical feasibility of the Book of Mormon.

Coincidence? *Continued*

sity and the person we met (actually he met us in an outside corridor) was the professor of volcanology with an emphasis in anomalies (unusual volcanic activity). He invited us into his office where we made introductions and asked questions.

This professor studied in Germany, spoke perfect English, and was very intrigued and interested in our theory of the possibility of a radioactive volcano in that area. How does this happen? It is a recurring phenomenon that we experience—for inexplicable reasons we meet with people that we need to know. This was like a chance meeting on the university campus; it just happened. Since then, we have purchased the book he



Our impromptu meeting with the resident expert on volcanology at the University of Chiapas in Tuxtla Gutierrez. He greeted us with a “can I help you” and he was exactly the person we were wanting to find—God is amazing in answering our prayer request to bring His truth to light.

recommended which details the history of the volcanic events in that area. David is carefully studying it for our understanding and to prepare for our next meeting with this professor.

This may not be the final answer. It may not give us what we want or what we “think” we want, but our *modus operandi* has been to first step out in faith and allow God to direct or navigate as we go.

We are just now beginning to plan this year's expedition and we believe it will include a follow-up with our academic contact and maybe an “on-site” search around the area of the volcano with local people that know the ancient stories.