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The Power of Symbols By David B. Brown

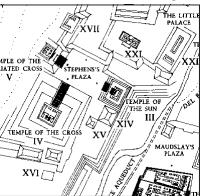
To help future generations understand their language, history and perspective the Maya left us a puzzle to solve in their hieroglyphs; discover the meanings associated with their symbolism and you will decode their language, philosophy and the concepts that they held sacred. In the world of codes, the encryption of messages locked in the language of symbolism utilizes a device that holds the key to unlocking the code. This key code or legend is known as a cipher. Anyone who has watched the National Treasure movies is well-aware of the importance of ciphers in unlocking hidden secrets. It appears that our ancient brothers and sisters were consistent in providing us the keys to understanding who they are, what they considered most important and what they held sacred. The clues to finding this key is provided in a temple of initiation at Palenque.

The site of Palenque is designed so that the temples of sacred teaching are located in the higher elevations of the site. These are only accessible from one direction and requires a person to cross a river of water alluding to the belief that this sacred teaching is for one who has crossed the waters of baptism.

Once across the aqueduct the path leads south to a small set of stairs in the shape of a backward "S" which is a Mayan symbol for a desire to undo an action—perhaps due to a need to change a life direction; we call it repentance. Therefore, after climbing the stairway of re-

pentance the path levels out onto a plaza that is better known as the Cross-Complex because it consists of three pyramid temples that each display a form of a "cross" on the large central tablets located within the covered chamber at the top. The first temple encountered is to the immediate left of where the pathway empties into the plaza. It is the Temple of the Sun. Here the initiate is

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DNA and the Book of Mormon

By Chris Scott Fifth and Last Article in a Series

Connections: this series of articles has centered on genetic connections, specifically, mtDNA and Y-chromosome connections from ancient times to the present. In a very broad sense we are all connected to each other and to our ancestors in one way or another. DNA studies are just one way of interpreting what has occurred from the past to the present. What conclusions we draw from the data that has been gathered through DNA testing is what is in question.

Because the science of DNA is a hard science, perhaps too much hope has been attached to finding evidence that support or deny links between Middle Eastern genes to the genes in the Americas. Insights can be drawn by the DNA evidence that is present in the Americas, but great care needs to be exercised in the interpretation of what has been found. This article will try to address the limitations of the current studies available and how it relates to the Book of Mormon.

In order to draw inferences concerning the Book of Mormon story using DNA science we are dependent on the use of a minimum of three scientific methods. These include the use of (1) coalescent times as times of origin, (2) the

current use of haplogroups employed to demonstrate population genetics and gene flow, and (3) statistical analysis as it relates to this subject. There are difficulties present in the use of each one of these disciplines, thus causing any interpretation of the results to be questionable.

The first of several

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The Power of Symbols continued

introduced to the concepts of the sacred Maya story. The presence of the two standing personages indicates a world of opposing forces, especially as the theme illustrated in the center is comprised of spears, masks, and shields. The initial impression from this image implies a world of struggles and battles. Because this is a presentation of sacred concepts, can we utilize a known sacred text to function as a legend or key for interpreting the symbols used?

Because the two human figures both face the center our eyes are drawn to focus on the central theme of the sun shield

and the weapons. These items sit on a bar that provides a foundation. This bar is then supported by two individuals sitting in a cross-legged crouching position. The cross-legged crouching figure on the left wears a leopard skin denoting Mayan royalty. The cross-legged figure on the right is not a mirror of the one on the left, but instead demonstrates something that is functioning in the same capacity yet has a unique presence. The right figure seems slightly larger with noticeably larger biceps and forearms denoting greater strength.

Each of these figures appear to be holding a separate Mayan codex linked by a binding element with the

appearance of a cross on the face and covered with the jaguar skin symbol of Mayan royalty. From this combined two-book bar issues a speech scroll indicting that this binding element speaks toward the sun shield. Each end of the two-book bar is adorned with speech scrolls, but even more apparent is the gaping mouth that is in a position to receive something from the priest-like figures on each end. Do we have anything in our sacred writings that might be similar to this that will give us a clue as to the meanings of the symbols here presented?

The presence of two books is interesting and makes me think of a passage of scripture found in Ezekiel the 37th chapter.

Ezekiel 37:16 "Moreover, thou son of man, take thee one stick and write upon

it, for Judah, and for the children of Israel his companions; then take another stick, and write upon it, for Joseph, the stick of Ephraim, and for all the house of Israel his companions;

17 And join them one to another into one stick; and they shall become one in thine hand.

18 And when the children of thy people shall speak unto thee, saying, Wilt thou not show us what thou meanest by these?
19 Say unto them, Thus saith the Lord God: Behold. I will take the stick of Jo-

God; Behold, I will take the stick of Joseph, which is in the hand of Ephraim, and the tribes of Israel his fellows, and

The Tablet of the Sun as presented in the Temple of the Sun located on the west end of the Cross Complex at the ancient Mayan site of Palenque.

will put them with him, even with the stick of Judah, and make them one stick, and they shall be one in mine hand.

20 And the sticks whereon thou writest

20 And the sticks whereon thou writest shall be in thine hand before their eyes."

This scripture can certainly fit the two-book bar object in that the Holy Bible provided to us by Judah and the Book of Mormon provided to us from Joseph are bound together in their testimony of the Christ as "King of Kings," illustrated by the jaguar skin pelt acting as the symbol for royalty. The symbol of the cross makes it apparent that this testimony is for a resurrected Christ. The gaping mouth at the end of each book allude to the priests depositing their sacred word into the books, which word will combine and speak with one voice concerning the weapons as the unified bar provides the

foundation upon which the weapons are set; one spear from each book. Does this concept follow through in other ways?

Again, I go back to the two figures holding the books. If the two books are one from Judah and one from Joseph, are these figures that provide the support for the books a representation of Judah and Joseph? Is there a scripture that alludes to this? What about the foundational blessings that these two received from their father Jacob?

Genesis 49:8 "Judah, thou art he whom thy brethren shall praise; thy hand shall be in the neck of thine enemies; thy

father's children shall bow down before thee.

9 Judah is a lion's whelp; from the prey, my son, thou art gone up; he stooped down, he couched as a lion, and as an old lion, who shall rouse him up?

10 The sceptre shall not depart from Judah, nor a lawgiver from between his feet, until Shiloh come; and unto him shall the gathering of the people be.

11 Binding his foal unto the vine, and his ass's colt unto the choice vine; he washed his garments in wine, and his clothes in the blood of grapes;"

Genesis 49:22 "Joseph is a fruitful bough, even a fruitful bough by a well;

whose branches run over the wall;

23 The archers have sorely grieved him, and shot at him, and hated him,

24 But his bow abode in strength, and the arms of his hands were made strong by the hands of the mighty God of Jacob; (from thence is the shepherd, the stone of Israel;)

25 Even by the God of thy father, who shall help thee; and by the Almighty, who shall bless thee with blessings of heaven above, blessings of the deep that lieth under, blessings of the breasts, and of the womb;

26 The blessings of thy father have prevailed above the blessings of my progenitors unto the utmost bound of the everlasting hills; they shall be on the head of Joseph, and on the crown of the head of him that was separate from his

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The Power of Symbols continued

brethren."

From the original blessing we see that Judah is compared to a lion who will carry the scepter and throne that will never leave him until "Shiloh" (Christ) comes. Hence, this figure holding the book on the left bears the coat of royalty and is the candidate for representing Judah. Joseph is told that his *arm* is made strong and his blessing larger, both of which are clear distinctions of the crosslegged figure on the right as compared to the one on the left. The larger arm and frame certainly illustrates a "greater portion" as the blessing for Joseph indicates.

The concepts of using known sacred writings to provide keys for unlocking the symbols is working, but we have only touched upon two of the four key elements on this tablet. If the two supporting figures are Judah and Joseph, and the two books are the Holy Bible and the Book of Mormon, what then is being represented by the two figures on either side and by the shield and spears in the center? Will the theory of using current sacred writings continue to bear fruit and provide a key for understanding the intended communication?

It can be reasoned that the figures presented so far are generic in nature with their bodily position and adornment displaying symbols that assign characteristics for us to understand. By contrast, they do not represent attributes of a real person or a specific person, but rather they indicate characteristics that are generally true of certain groups or concepts. To continue in that same research process we will now begin to seek for an understanding of the outer figures. Because the two erect outer figures appear in priestly clothing can they be representing men of priesthood? These two are dressed very differently and their frames are of different size. Is there anything that can help us understand what they represent and why they are different?

Numbers 25:10 "And the Lord spake unto Moses, saying,

- 11 Phinehas, the son of Eleazar, the son of Aaron the priest, hath turned my wrath away from the children of Israel, while he was zealous for my sake among them, that I consumed not the children of Israel in my jealousy.
- 12 Wherefore say, **Behold, I give unto** him my covenant of peace;
- 13 And he shall have it, and his seed after him, even the covenant of an ever-

lasting priesthood; because he was zealous for his God, and made an atonement for the children of Israel."

From this passage we understand that Aaron's seed was appointed to have a priesthood that is everlasting and whose role is to proclaim, teach and entreat peaceable living. This is the priesthood traditionally associated with the Hebrews whose modern-day rabbinical teachings are to promote *shalom*. If this is representative of the standing figure on the left, what is the type of priesthood represented on the right?

Hebrews 7:9 "And as I may so say, Levi also, who receiveth tithes, paid tithes in Abraham.

- 10 For he was yet in the loins of his father, when Melchizedek met him.
- 11 If therefore perfection were by the Levitical priesthood, (for under it the people received the law,) what further need was there that another priest should rise after the order of Melchizedek, and not be called after the order of Aaron?
- 12 For the priesthood being changed, there is made of necessity a change also of the law.
- 13 For he of whom these things are spoken pertaineth to another tribe, of which no man gave attendance at the altar.
- 14 For it is evident that our Lord sprang out of Juda; of which tribe Moses spake nothing concerning priesthood.
- 15 And it is yet far more evident; for that after the similitude of Melchizedek there ariseth another priest.
- 16 Who is made, not after the law of a carnal commandment, but after the power of an endless life.
- 17 For he testifieth, Thou art a priest forever after the order of Melchizedek."

In this passage it seems apparent that there is a distinction between priesthood forms where one is based within temporal or carnal law and behaviors of physical living, this being the Aaronic priesthood. Here we are instructed of a greater priesthood that abides by the higher laws which the Hebrews apparently did not receive because of their rebellion in the wilderness. While on their exodus from captivity the children of Israel returned to the worshipping of idols just as God was ready to reveal the greater law. From the explanation provided in the book of Hebrews we understand that the greater priesthood is born out of the higher spiritual laws of eternal life and is directly associated with the Christ ministry referring to the "mysteries of the kingdom."

Applying this to the images on the Tablet of the Sun it appears that the standing figure on the left is the Aaronic priesthood associated with the tribe of Judah as this was the priesthood present in Jerusalem. Here it is illustrated as the smaller framed figure covered in layers of adornment indicating a concern for the physical aspects of life. By contrast, the figure on the right has a larger frame indicating a "greater" prominence in its purpose, and apparently it is being brought forth out of the tribe of Joseph who did receive the greater blessings. Here is an interesting note; the only clothing worn by the standing figure on the right is the apron apparently indicating through the lack of cover that it is nearly naked, more transparent, and not overly concerned with the material world. The apron also resembles a pharaoh crown in an upside-down position. Does this indicate that the Melchizedek priesthood is related in some way to the Egyptian influence on the Hebrew nation?

The final aspect to consider is the presentation of the weapons placed upon the foundation of the two-book bar supported by the cross-legged crouching figures. Is there scriptural reference to this imagery?

Ephesians 6:10 "Finally, my brethren, be strong in the Lord, and in the power of his might.

- 11 Put on the whole armor of God, that ye may be able to stand against the wiles of the devil.
- 12 For we wrestle not against flesh and blood, but against principalities, against powers, against the rulers of the darkness of this world, against spiritual wickedness in high places.
- 13 Wherefore take unto you the whole armor of God, that ye may be able to withstand in the evil day, and having done all to stand.
- 14 Stand therefore, having your loins girt about with truth, and having on the breastplate of righteousness;
- 15 And your feet shod with the preparation of the gospel of peace;
- 16 Above all, taking the shield of faith, wherewith ye shall be able to quench all the fiery darts of the wicked.
- 17 And take the helmet of salvation, and the sword of the Spirit, which is the word of God;
- 18 Praying always with all prayer and supplication in the Spirit, and watching

DNA and the Book of Mormon Continued

methods used by anthropological geneticists is the use of coalescent times to demonstrate how the Americas were populated. The use of coalescent times was discussed briefly in the first article of this series and the method used traces our genes back to a single common ancestor or most recent common ancestor (MRCA).

The hope for tracing a gene backward in time is to find the point of origin when that gene first became present in the geographical area. An ideal study would reveal what genes were present in the ancient population, but in order to find what was in the past we are somewhat dependent on what information is available in the present. Tracing a gene backward in time only shows the history of that particular gene, but does not take into account the genes that have been lost from the historic population over time. In other words, the gene distribution in the current population might be quite different from the genes in the historic population.

There are several examples in history that might cause us to believe that there was a large loss of genetic diversity from the past population to the present. Book of Mormon believers are familiar with The Words of Mormon chapter 1, verse 1 "And now I, Mormon, being about to deliver up the record which I have been making, into the hands of my son Moroni, behold, I have witnessed almost all of the destruction of my people, the Nephites." Michael D. Coe describes the Mayans as, "obsessed with war" (p.197).1 According to Arthur Demarest, an archaeologist of Mayan ruins, this constant warfare was a major factor in eventually bringing on the decline of the Mayan state (Coe p.152).

Another example is the huge loss of indigenous population that occurs when the Spaniards colonized Central America. In 1518, the Aztec Empire numbered approximately 30 million people. By 1568, the estimates are that only 3 million people remained. In 1519, Hernan Cortes landed in Mexico. One of his soldiers was infected with smallpox, and the Aztecs contracted it from this soldier causing one person to report, "they died in heaps...it was impossible to bury the great number of dead." Because of a lack of immunity among the indigenous population, disease devastated them. War

and disease are just a few examples that need to be taken into account when discussing gene coalescence.

According to Peter N. Jones in a paper published in the AnthroGlobe Journal there are three assumptions that are used in tracing coalescence.³

- 1. Gene coalescence is a regular process of mutation that can be timed like a regularly ticking clock with an acceptable range of error.
- 2. American Indian populations were isolated from each other after they originated or migrated to the Americas.
- 3. The history of particular gene systems is the history of the specific populations in which they are found.

These three assumptions come into question because of several facts that have been demonstrated by archaeological records and oral tradition.

Before the beginning of Indian reservations, American Indian groups were not isolated into individual groups, but were highly mobile. There were many connections, including inter-group marriage and spousal exchanges between the groups. These exchanges have been demonstrated to have taken place many miles from the original group in order to solidify trade arrangements or political alliances. There was also the added mixture of genes from European trappers, fur traders, and explorers.

Further complications regarding the use of gene coalescent times occur anytime random mating is not practiced. Because the accuracy of this method assumes that random mating is taking place, the practice of inbreeding, assortative mating, or population stratification complicates the interpretation of genetic data. Inbreeding is sharing a common ancestor. Assortative mating is the mating of individuals that have the same phenotypes, or in other words look alike and the dominate genes would more likely be carried than recessive traits in assortative mating. Population stratification is the presence of a systematic difference in frequencies between populations within a population. This could be caused by a physical separation from one population to another or possibly due to different ancestry. For example, all the different sub-populations or ethnic groups contained within the melting pot of modern day America. Lehi's family could be an example of population

stratification; a physical separation from one population into another involving different ancestries. All of these types of mating practices are non-random types of mating and would complicate the use of coalescent times.

Other complications arising from the use of coalescent times is the possibility of historic and prehistoric backmigration. Due to the fact that back migrations begin to involve similar haplotypes in the genetic pool, the age of a given population as a time of origin might not be accurate. This calls into question the theory that gene coalescence is like a regularly ticking clock.

Branch points introduce yet further complications into the tracing of genes backward in time. Branch points are mutations in genes. If a gene is traced backward and a branch point occurred then that is as far back as it can be traced. The point of origin of that gene would not represent when the historic population first appeared in the land. Branch points complicate the picture because if the gene changed it might not match the genes of the population from where it originated.

The ability to trace a gene backward in time is a viable method. If used in its proper situation it can show the history of that particular gene, but because of the potential loss of genes and branch points, the genetic diversity of a historic population is not complete. The use of gene coalescence can lead to questionable conclusions about the genetic make-up and diversity of a historic population.

Our second discussion relates to the current use of haplogroups. A haplogroup is a genetic designation for a mutation that occurred on a molecular level within the DNA of the gene (see article 2 of this series for more information). The haplogroups found in the Americas are A, B, C, D and X. A haplogroup represents a very small amount of genetic material compared to what could be available. Any science in its infancy always has the potential to develop new methods of testing that could lead to more haplogroups being discovered. By only testing for genetic haplogroups that are known at this time there is always the possibility of leaving unknown haplogroups out. Five haplogroups seems possibly too small a number for continents as large and as populated as the Americas. There is the potential that the history of the American

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DNA and the Book of Mormon Continued

Indians is much more complex than that.

The current use of haplogroups is the favorite argument used by many to scientifically substantiate that the Book of Mormon claim for Hebrew ancestry is false. It seems apparent that groups A, C, and D migrated across the Bering Straight, and B came across the Pacific, thus leaving out the potential of a migration from the Middle East.

This argument against the Book of Mormon being historical fits very nicely with the current anthropological theories that American populations are solely the result of eastward Asian migrations across the Bering Straight Bridge. Book of Mormon supporters argue that a lack of evidence does not prove the book false, but that there is simply not enough information available at this time.

Haplogroup X is a marker that is found in Europe, the Near East, Central Asia, North Africa and North America. It has been found in approximately three percent of the American Indian population. This haplogroup is associated in Europe with the Ashkenazi Jew.⁴ This new information seems compelling evidence in favor of the Book of Mormon. It seems to infer that a small amount of genetic material from Lehi's family mixed with a larger indigenous population that was already present in the Americas. Again, though a compelling argument, it is not proof of the historicity of the Book of Mormon. At this time there is not enough information to connect the dots as to which direction the gene traveled from Europe, Asia, or the Near East.

Statistics and sampling size also play a role in the interpretation of the data present. Because of the possibility of bottlenecks, founder principle, and genetic drift, sample size in a statistical study of population genetics is essential for sound results. Sample sizes have been small and biased in studies that applied to this subject (see article four of this series for further explanation).

A quote from the conclusion of Dr. Jones' paper sums up the argument: "Although mtDNA and Y-chromosome studies can provide insights on American Indian origins and prehistoric relationships, they should be used with caution. Mitochondrial DNA and Y chromosome studies are in their infancy. Because of the various limitations listed above, as

well as a lack of correlation between anthropological genetic data, archaeological data, ethnographic data, and oral tradition, these studies should be viewed as inchoate (just begun or in the early stages) and requiring further investigation and support from the other fields of anthropology."⁵

Another method of making connections to support arguments of one form or another is by the use of forensic evidence. Forensic science is a discipline developed over time to aid the legal system in the solving of crimes. Even though we are not dealing with crimes to either prove or disprove the historicity of the Book of Mormon, some of the same principles apply. In forensics the scene of the crime contains evidence and the object of the investigator is to match that evidence to the perpetrator of the crime. We have all watched TV mysteries and read books that describe direct evidence compared with circumstantial evidence. An example of direct evidence is a witness who sees the commission of a crime. An example of direct evidence using DNA is actual samples from the crime scene that can be tested and genetically matched leaving very little question as to the perpetrator of the crime. Wikipedia defines circumstantial evidence as "evidence in which an inference is required to connect it to a conclusion of fact. On its own, it is the nature of circumstantial evidence for more than one explanation to still be possible. Circumstantial evidence usually accumulates into a collection, so then the pieces become corroborating evidence. Together, they may more strongly support one inference over another.'

At present, there is no way known for obtaining a control sample of the DNA genetic code of Lehi's family, the Mulekites, or the Jaredites; therefore, all arguments on both sides of the controversy must be built on assumptions and circumstantial evidence. Only speculation and inferences from what has been found along with other supporting soft sciences can be used to draw conclusions. What was hoped for, as far as finding hard evidence in the Book of Mormon controversy is still open to interpretation.

In summary, there are three scientific methods being applied to proving or disproving the historicity of the Book of Mormon. Each of these methods has limitations, which are as follows:

- 1. The use of coalescent times is limited by the fact that it is difficult to establish the time of origin that a genetic marker or haplogroup existed in the geographic area in question.
- 2. The current use of haplogroups has limitations as some important information could be omitted from this discussion. A broader diversity of genes could be discovered when new methods of science are applied.
- 3. The current use of statistics is limited due to the fact that using convenience samples lead to incomplete and unintentionally biased interpretations.

These three reasons bring into question the ability to ascertain the true genetic make-up and times of origin in the historic population of the Americas.

Forensic science is not being applied to the study of the historicity of the Book of Mormon. The discussion here is to show that direct evidence is not available to prove the historicity of the Book of Mormon. Only a case of circumstantial evidence can be applied if enough corroborating evidence becomes available at some future date.

The connections between the past and the present are available in some form or another, but finding them and interpreting them correctly is the complicated part. To make simple conclusions to fit ones' predetermined viewpoint excludes a vast amount a knowledge that could be gained by patiently waiting for more information to come forth. At this time The Book of Mormon remains a book of faith, as it was intended to be.

References:

¹Coe, Michael D. <u>The Maya</u>. New York: Thames and Hudson, 1999.

²George Mason, <u>Smallpox</u>, George Mason University, Course Study;

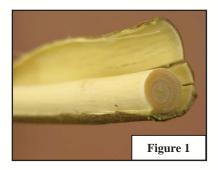
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Jones, Peter N., American Indian Demographic History and Cultural Affiliation: A Discussion of Certain Limitations on the Use of mtDNA and Y Chromosome testing., Bolder Co., Anthroglobe Journal, September 2002.

⁴Rupe, Richard, <u>The Book of Mormon An Inconvenient Truth</u>, Lamar, Mo., Little Eagle Publishing, 2009, p.72.

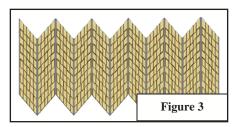
⁵Jones, Peter N., <u>American Indian Demographic History and Cultural Affiliation: A Discussion of Certain Limitations on the Use of mtDNA and Y Chromosome testing.</u>, Bolder Co., Anthroglobe Journal, September 2002.

Ancient writing materials around the world were made from animal skins and plant fibers. The animal skins were scraped until the hair was removed and then dried to make a surface easy to paint or write on. Plant fibers were torn into strips and then beaten or woven into sheets. The Mayans made their paper-like writing material using fig tree bark. Sometimes the writing material was made longer by adding several sheets together that were rolled into scrolls or folded accordion style into uniform pages to make a compact book. A Mayan codex is a folded paper book. The Mayans coated their woven paper with a plaster-like material forming a smooth white background surface on which to write or paint. Archeologist Paul Tolstoy believes the Mayans had paper as early as 1000 BC.¹ The majority of writing was done on bark fiber paper, but the Mayans also used animal skins and cloth for their writing materials.

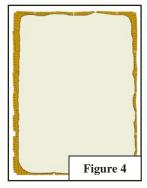


Mayan paper took many steps to create. First they stripped bark from the branches of wild fig trees (Ficus padifolia or Ficus cotinifilia; see Figure 1). These strips measured about 1 inch wide by 5 feet long. Next the outer bark was separated from the inner bark [bast] fibers with a sharp flint scraping tool. These bast fibers were soaked in a nearby river so the latex could coagulate and be scraped away more easily. These latex free fibers were then boiled and stirred in an alkaline water solution of lime made from baked limestone or lye made from wood ash to control the binding or nixtamalization. These softened fibers were then rinsed until the alkali was removed and then placed in a gourd. The nixtamal*ized* fibers were cut to conform to the dimensions of a flat, wooden drying-board and laid on it in a grid formation, with the first fibers laid lengthwise and the next fiber layer as laid at a right angle; exactly as in the preparation of papyrus in Egypt (See Figure 2). Then, with the goal of felting the loose fibers together, the whole is pounded with a striated beater; today this instrument is made from wood, but in pre-Columbian times beaters were made of stone held in wooden hafts" (Coe 143-144).²

The long sheet of paper was left to dry in the sun after which it was turned over and beaten smooth again, possibly with a heated stone (Coe).² After trimming to straighten the edges, this long sheet of paper was then folded into sheets or pages (See Figure 3).



Next each page was coated with a mixture of chalk and sap or animal fat (See Figure 4). Tests of the remaining codices have shown this substance to be a mixture of calcium sulphate (gesso), calcium carbonate, and animal glue (Coe 144).²



A fragment of the Grolier codex (See Figure 5) shows woven bast fibers as well as the plaster like coating. Note how the artwork shows up much better on the

light coating than it would directly on the darker bast fibers.

Mayan drawings of codices show some type of cover at each end, possibly made of heavier paper, animal skin or tree bark. After this production process was complete the Mayan Scribe now had a blank book ready to be filled.

"Even in their present somewhat fragmentary states, the surviving books [codices] are of impressive length when spread out flat. The Dresden is now 20.5 cm. [8.6 in.] high and 3.56 m. [11 ft. 8.9] in.] long; since both sides of each leaf had been prepared, the scribe, or scribal team, was faced with 74 pages totaling at least 2,268 inches of unpainted, white surface. But this is nothing compared with the Madrid: 23 cm. [9.6 in.] high, it measures no less than 6.82 m. [22 ft. 6 in.] in length, offering its scribe 112 pages covering slightly under 5,000 inches of available surface. The dimensions of the double-sided leaves-and hence the individual pages—resulting from the creasing process vary somewhat from screenfold to screenfold. (They also vary from leaf to leaf, to a greater or lesser extent, because of wear). Although it is demonstrably extremely late pre-Conquest in date, based on its content, the Dresden Codex probably most closely resembles the books of the Classic period; its pages are only 9 cm. wide" (Coe $171).^{2}$

The Mayan scribe filled these pages using a pen and paint brush. "No specimens of writing implements survive, but based on the evidence we have from the four extant codices, we can derive the sorts of instruments used to create the thick and thin lines in them. In each of the four codices, we can see thick lines of red and black, and in some cases, the lines are not uniform in thickness and contain in places wisps of ink that trail

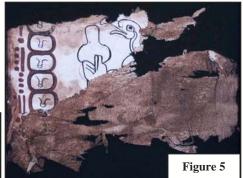
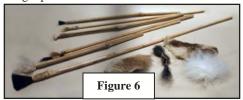


Figure 2

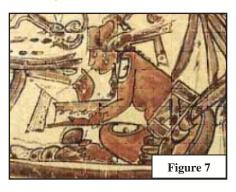
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Making a Mayan Codex continued

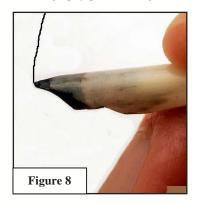
off from the main line, strongly suggesting a pliable-hair brush of some kind."³



In the majority of cases, the tip of the Maya instrument [paint brush] seems to have been bound and then inserted and glued inside the handle (See Figure 6). Clearly, the artist/scribe had different sizes at his disposal, depending on the nature of the task: for very fine work, particularly in codices (see scribe holding pen in Figure 7), the tips would have been very slender...(Coe 146-147).²

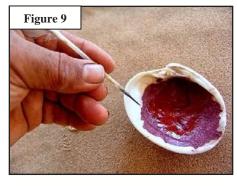


For fine work such as creating the glyphs, they probably used quill pens made from feathers. The tip of the quill was cut to a point and the hollow quill held ink, much like our modern fountain pen or Calligraphy pen (See Figure 8).



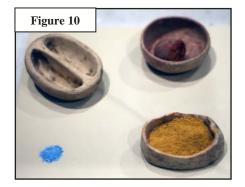
"Most scholars agree that the black ink used in Maya codices is a combination of water and fire-soot scraped from the bottoms of cooking pots. This carbonblack is one of the most permanent and durable inks possible, and has stood up to environmental conditions extremely well over time. Likewise, the recipe for colored pigments is combinations of minerals and water. In their codices, the Maya used red and black heavily and other colors more sparingly, as evinced by the four surviving codices."³

"The Aztecs knew of the Maya lowlands as the "Land of the Black and the Red," i.e. the land of the codices and it is true that both black and red pigments were employed to write the hieroglyphic texts in the manuscripts. I can say from personal examination that the red used in the Dresden, Madrid, and Grolier codices is hematite. Hematite is an iron oxide pigment that is far superior to red ochre." (Coe 151)²



"Maya scribes... sometimes held a writing implement in one hand and in the other an ink or paint container consisting of a conch shell cut in half lengthwise (See Figure 9). The shell would have made an ideal inkpot" (Coe 150).²

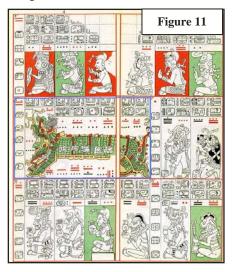
"Primarily, colors were obtained from natural minerals which were mixed together in cactus juice, water or other natural liquids. Colors ranged from browns, reds, oranges, greens, blues, turquoises, purples, yellows, black and white (See figure 10). Variation of pigments was achieved through dilution rather than the mixing of pigments.



Darker hues were obtained by coating layers of the pigment on top of each other."⁴

"It is thought that it took several days to write each codex. Each of the figures was delineated with black ink made of a coal base. The initial drawing was done with an instrument made from the thorns of the maguey cactus or from bone splinters of small animals-mainly birds. Later, the details on the inside of the square were filled in with a thicker paintbrush made with animal hair" (Marti). Note that Marti, unlike Coe, thinks the black color came from coal and a quill pen was not used for the fine work. It is possible that both archaeologists are correct and that techniques differed from area to area or over time.

"The best examples of codex art are laid out with red grid lines to separate units of text and illustrations, and the glyphs and figures fit neatly within the space provided (See Figure 11 - recreation of p. 4-5 of Dresden codex). The first step in creating a pleasing and skillful page layout was to create grid lines, much as a present-day newspaper compositor decides where to put columns of text and images."



"Most commonly, two adjacent pages will have linking lines; thus, the scribe/artist usually had the codex open to just two pages at a time (See figure 11 – note drawing outlined in blue covers two pages)...it is apparent (1) that these lines were produced with a quill or reed pen and a straight-edge, and (2) that the *ah ts'ib* [scribe] knew exactly what he was

Making a Mayan Codex continued

going to write, and where he was going to place the relevant illustrations to his text. He took great care to leave a special box for almost every glyph... nothing was left to chance. For such a methodology to work, he must have had another codex at his side to guide him in this task. When we look at a codex like the Dresden, we can be confident that we are looking at a compendium based on older sources, some of them perhaps harking back to the period before the Classic Collapse" (Coe 172).²

"Nearly every page in the extant codices contains at least one illustration of the text on the same page... It is reasonable to think that the scribes who drew the glyphs were also responsible for the illustration of their texts, especially if working from an exemplar. A final characteristic of Maya illustration is that important

figures are almost always named with blocks of glyphs in single or double columns."

The Mayan scribes spent a great deal of time creating each Codex record. Making the paper was very time consuming. They had to make their pens, paint brushes, ink and paint too, all from scratch. There was no store to pick up more supplies when they ran out, they had to be made. The remaining Codices are master works of creativity and art. Only after realizing what they went through to create a codex and seeing page after page of finely drawn figures and glyphs do we begin to appreciate the skill and effort that went into each one (See last issue - The Mayan Codex). It almost makes you want to cry to think that the Spanish burned these codices by the thousands.

References:

¹Sandstrom, Alan R. & Pamela E. Sandstrom. (1986). <u>Traditional Papermaking and Paper Cult Figures of Mexico.</u> Norman, OK: Univ. of Oklahoma Press.

²Coe, Michael D. <u>The Art of the Maya Scribe.</u> New York: Harry N. Abrams, 1997.

³http://www.mathcs.duq.edu/~tobin/maya/

⁴Copeland, Jessica Lin. "A Qualitative Analysis of Pigment Mixers used by the Maya." Maya Art. 1998.

⁵Martí, Beatriz. "Maya Codices." Mundo

⁶Von Hagen, Victor Wolfgang. <u>The Aztec and Maya Papermakers</u>. New York: J. J. Augustin, 1944.

⁷Van der Meeren, Marie. "El papel amate: origen y supervivencia." Arqueología Mexicana 4.23 (1997): 70-73.

The Power of Symbols continued

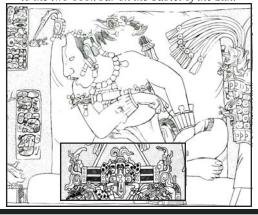
thereunto with all perseverance and supplication for all saints;"

This final aspect is far too accurate to be coincidence. Each of the concepts presented in this scripture are represented in the Tablet of the Sun. Melchizedek has his loins wrapped with an apron (truth is issued forth as offspring) and his feet shod (peaceful walk); the breast plate of righteousness is an allusion to the breastplate bar that is worn by the Corn God (Christ) in the south panel throne illustration from Temple XIX (see illustration); the shield of faith is the centrally positioned sun shield, and the helmet of salvation is incorporated into the image presented on the sun shield—perhaps because faith and salvation are inseparable for one will not happen without the other; and finally the sword of the Spirit as the word of God is represented here as the spearheads to which each priest is presenting a God-K mannequin that seems to indicate a presence of the Holy Spirit, hence the "spear" of the Spirit comes forth out of the Word of God to pierce our human understanding and bring us forth to new life in spiritual liv-

From the main figures in this tablet we can make a very strong case that its theme is based upon key theological components that are in full harmony with our sacred scripture and it identifies the ancient Mayan culture as solid brothers and sisters in Christ who claim a heritage to the children of Israel. They hold sacred the prophecy that Judah and Joseph will unify in their testimony of Christ, that both priesthoods will be active in carrying the Holy Spirit to those believers who are ready to don the armor of God so they can protect themselves against the darker forces of this temporal world, proclaim his message to others, and lay claim to eternal life through Jesus Christ.

The Tablet of the Sun presentation

The central figure Corn God (Christ) from Temple XIX who wears a form of breastplate similar to the two-book bar on the Tablet of the Sun.



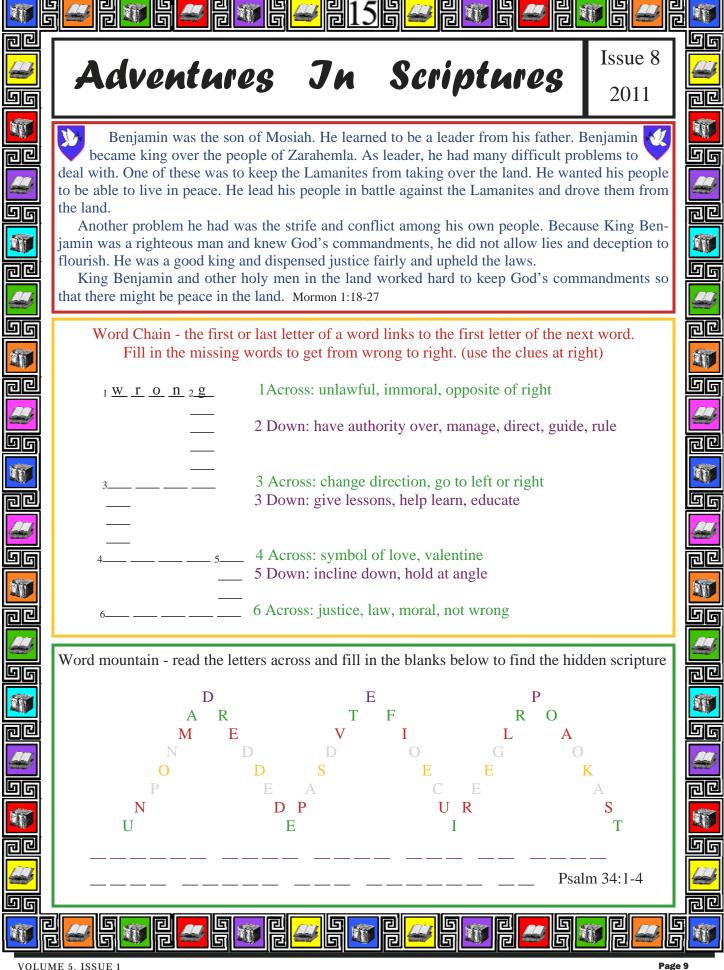
of symbols and their arrangements to indicate their proportions and relationships are in direct harmony with our sacred writings—both historically and theologically. Where the Bible is silent concerning Melchizedek we are apparently being given a clue as to its origin and certainly its purpose to bring us from smaller Aaronic temporal existence on the left to larger Melchizedek spiritual life on the right.

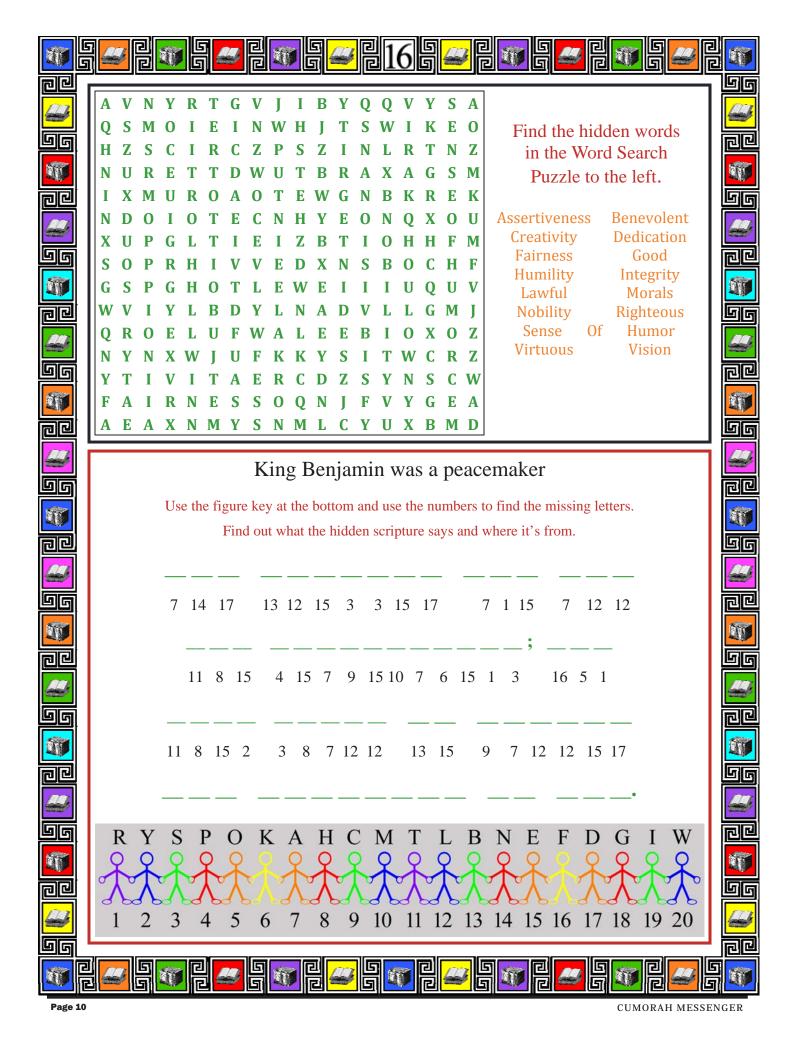
This being the case, the cipher for sacred Mayan symbols seems to be a code that we can break for we have the legend or key within our hands; it is the holy light of the Christian faith, the Word of God in the Holy Bible. Specific to our Maya brothers and sisters is their story that further unlocks the understanding of their struggles; it is the Book of Mormon, without which this article could never have taken place. By utilizing the sacred word of the ancients and combining it with the sweat of modern archaeologists we are beginning to unlock the powerful symbolic codes of the Maya.

References:

The concepts in this article are based upon research done by Linda Schele, Laurette Sejourné, John L. Sorenson, Carl Johannessen, Diane Wirth and Neil Steede.

Page 8 CUMORAH MESSENGER

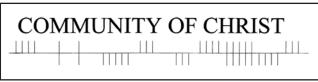




An Invitation to Research By Neil Steede © 2011

Over the years many fields of research have opened up for those interested in helping the cause of Book of Mormon and Mesoamerican archaeology. Examples abound and two of those examples will be presented here. One of the more prevalent misconceptions held by most people is that they cannot perform the type of research studies about to be suggested, and it is truly a shame that this view is held by so many. This perspective is detrimental to all because the latent gift a person possesses may be the very one that is needed to unlock an entire new perspective. I will share two examples to illustrate my point.

Ogam is a relatively easy alphabet to learn. It is made up of 15 consonants all constructed by using one to five line strokes above, below or across a stem line. Therefore, a message is written by omitting the vowels and using the appropriate stroke pattern as it applies to the consonants that are left in the text. When writing in Ogam it is necessary to utilize a stemline from which to orient the patterns of strokes that represent letters in the alphabet, but in most Ogam writing it is found to be far more common that the stemline is only implied and not drawn. Therefore, to write "Community of Christ" in Ogam you ignore the vowels and replace consonants with strokes:



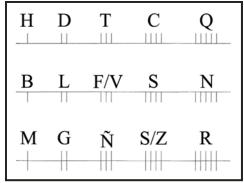
Then, eliminate the stemline:



Most ancient texts required no punctuation; no spacing between words, no periods at the end of the sentences, and so on. For the most part, Ogam is "openly hidden" within illustrations that depict the subject matter which the Ogam letters are conveying a message about. In this way the message giver is able to provide the reader with clues as to the context of the message. At this point terminology must be clarified.

When using the term "openly hidden" reference is being made to thoughts

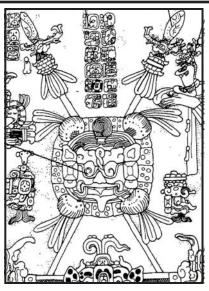
or concepts that are presented in an inconspicuous manner for those who want to see them. But, for those who do not want to see them they are "invisible" or non-existent. The reason for this becomes more obvious when the source is considered. The source of this concept is Christianity. Because most scholars have rejected the notion that Christianity existed in Mesoamerica, they cannot see the Christian symbolism that exists in writing and art. There is no harm in not finding it, but when it is recognized then meanings become more clear.



It is in this manner Ogam falls in the same class as Christianity. Because Ogam is considered by most as an exclusive Old World alphabet no one considers the possibility that it might be found in the New World. For this reason it is never consid-

ered or recognized when it is present. Examples of this in the Americas exist by the thousands. Some of the more blatant ones have been reported from the Mexican site of LaVenta, but I will use a classic example that most people have seen and few have consciously noticed; it is found in the Temple of the Sun at Palenque.

On the sun shield image centered on the Tablet of the Sun one can see that there are four fan shells, one each located at the four corners. Each fan shell has Ogam inscriptions incorporated into the artwork. The translations of those inscriptions are unknown at this time because the language of the message is not yet identified. In other words, it could be Maya, Hebrew, Arabic, or some other language not yet considered; never-theless, they are there. Thus, they should be recorded and transliterated, and anyone



can do this. The more who participate in this project the better the results will be as a variety of opinions can then be compared. Many of the complex Classical Mayan art also incorporate these same inscription forms.

The invitation is to all to assist in gathering this information from murals, bi-reliefs, and Maya art on pottery. Closeup and detailed photographs of these items can be found in almost any book on Maya iconography or art. Note that Ogam can be portrayed on or within numerous objects such as the tedious details of fingers, artistic patterns and even feathers as in the illustration already shown. A collection of such encrypted inscriptions needs to be created with the illustration of the Ogam as it presents on the art piece accompanied by the transliteration from Ogam to Latin alphabet. The point here is that they can be created by anyone who sincerely wants to be involved.

The second example of research to be done is found in the case of Maya Mudra. This art style is found throughout Maya art in the same manner as the Ogam just reported. Mudra is a series of "hand gestures" that are used today on murals and statuary in Buddhist and Hindu temples throughout Asia. These hand gestures are meaningful and significant. At this time I am not aware of any study that has been done concerning the presence of Mudra in Maya art. A collection of these gestures should be developed with the illustration where it is found and a context of the implied meaning of the gesture as it relates to the subject matter of the imagery where it is

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An Invitation to Research Continued

located. In so doing, it will provide a means for developing a "Mesoamerican" context for these hand gestures. Two classic examples of such Maya Mudra



signs are shown below.

In the illustration on the left one notes the "OK" hand gesture. The illustration on the right displays what appears at first glance to be a laying-on-of-hands ordinance being performed. However, a closer look at the hands reveals that they are reversed. That is to say, there is a right hand on a left arm and a left hand on a right arm. What could this mean?

Only by beginning to develop a corpus of Ogamic and Mudra-like symbols throughout the art of Mesoamerica will these two types of communication ever be translated. The material is readily available to anyone who desires to become involved. Also, the timing could not be better. There are several of us working on many projects. We are "snowed." We need help now. Join us.

One final thought; most believe that they are incapable of such things. That thought is bogus. Remember, Linda Schele was considered a top Mayan epigrapher and she was a retired soccer mom when she began her career. Now that she has passed, we need others. For more information on how to get started contact me or David Brown through this newsletter.

