

The Tilma of Guadalupe

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Abstract

It is discussed how the apparitions of the Virgin of Guadalupe in 1531 to St Juan Diego, played a key role in the evangelization of the Aztecs or mexicas, without her intervention, it had been impossible that both cultures became united as one, It is also studied how the signs observed at the image of Guadalupe printed on the Tilma of ST Juan Diego convinced the Aztecs beyond any doubt that this miraculous image was indeed divine, to the point that they immediately became converted to Christianity. In the same way, some test carried out to the Tilma are mentioned here and the door is left open for new experiments to be done in the future in order to try to explain the origin of the image.

Keywords: Tilma, Guadalupe, signs, tests.

1. INTRODUCTION

When Christopher Columbus sailed in 1492 to what today is known as America, his goal was not to discover a new continent as he did, but to look for a new route to India sailing to the west instead of sailing to the east as Marco Polo did before, so going around the world he could reach India. When he finally arrived to the Caribbean islands he thought he had arrived to India so he wrongly called the natives Indians. He later became aware of this.

Later, Hernán Cortés, a soldier of Columbus' crew, sailed from Cuba to what is today México, he arrived to the coast of Mexico in 1519 and once at land he decided to burn his ships so no one could return. Then, he and his army moved toward the interior of the new lands to the capital of the Aztec (Mexica) Empire called Tenochtitlan, to what is today Mexico city. The Spanish soldiers after several attempts conquered Tenochtitlan using fire weapons and riding on horses (remind this animal was unknown in America at that time), and were helped by some Aztec's enemies tribes as well. Many Aztecs were killed and many more were held prisoners, made them slaves and were obligated to hard works by slaughter them in case they didn't obey. All what Spanish people wanted was the Aztec's gold and silver so they treated them in such a very hard way without mercy.

By the time the first twelve Franciscans missionaries arrived to the New Spain (Mexico) in 1524, they soon became aware of the hard situation the Aztecs were living, so their first action was to protect them against the harassment and bad treatment they received from the Spanish people by giving them shelter.

In 1527, Fray Juan de Zumarraga became the first bishop of Mexico. He was a humble and holy man that loved the Aztecs "as a father love his kids", he founded schools,

hospitals and organized the agriculture. The Aztecs loved him so much seeing in him a protector.

In 1528 the first Audience of Mexico was founded leaded by Nuño de Guzman, its aim was to recollect taxes from the Aztecs in favour of the King of Spain Charles I, but the bishop Zumarraga opposed firmly to this decision.

Nuño de Guzman, an evil man disliked the bishop's position and became angry against he and the missionaries as well, forbidding the Aztecs to meet the bishop.

One day, when some Aztecs were running away from the Spanish soldiers they entered into a church looking for shelter at its interior, but Nuño and his soldiers got into the temple making prophanation of it and the Aztecs were held prisoners.

The bishop protested hardly against this, and he decided to write a letter to king of Spain Charles I, in this letter, the bishop Zumarraga denounced the violation of the temple and the bad behaviour showed by the Spanish people toward the Aztecs and to the missionaries as well (in fact, Nuño de Guzman wanted to kill the Bishop).

There existed such a bad extreme situation at the new Spain, to the point that the Bishop Zumarraga had considered the possibility to close all the churches, end the mission and return to Spain, "unless a miracle occurs". In his letter to the king, he wrote "if God does not provide with a remedy, the whole land is about to lose completely" [1].

This was the situation in 1530.

2. THE APPARITIONS

According to the traditions, in 1531 a "Lady from heaven" appeared to a humble Aztec at the hill of Tepeyac his name was Juan Diego now saint, his former Aztec name was Coatltilatoatzin which means "the one who

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speak like an eagle” a prophetic name because of the events he was about to live. He was converted to Christianity in 1525.

The blessed Mary appeared five times from December the 9th to December the 12th of 1531. The narrations of the apparitions were collected at the Nican Mopohua a text written in nahuatl, (the Aztec’s language) by Antonio de Valeriano, few years after the apparitions.

The first apparition took place when Juan Diego was on his way to Tlatelolco to attend the mass celebration, when suddenly he heard a voice calling him. When he approached he saw a Lady, her garments where shining like the sun, she identified herself as the ever **Virgin Holy Mary, mother of the true God for whom we live, of the creator of all things, lord of heaven and the earth.** And asked him to go to the bishop and tell him **“my great desire, that here on this plain a temple be built to me”**.

Then, he went to visit the bishop Zumarraga and told him what he had seen and the message from the blessed virgin, but the bishop appeared incredible.

Sadly, Juan Diego returned to the Lady and told her that the bishop did not believe it, but the Holy virgin told Juan Diego to return the next day and tell him again her message, so he went again to see the bishop, he saddened and cried as he expounded the mandate of the holy virgin, and the wish of the immaculate to erect a temple, but again the bishop did not give credence of his words.

Nevertheless he asked Juan Diego to tell the Lady that a sign was very necessary, so that he could believe that he was sent by the true Lady from heaven.

When Juan Diego told her about the bishop’s answer the Holy Virgin told him to return the next day so she could give him the sign the bishop had requested.

The next day Juan Diego failed to return because his uncle Bernardino was very ill and about to die so he decided to look for a priest, and he surrounded the hill so the blessed virgin could not see him, but the Holy virgin appeared to him and asked where he was going, Juan Diego was grieved, ashamed, but the holy virgin gave him a beautiful answer: *“Hear me and understand well, my son the least, that nothing should frighten or grieve you. Let not your heart be disturbed. Do not fear that sickness nor any sickness or anguish. Am I not here who is your mother? Are you not under my protection? Am I not your health? Are you not happily within my fold? What else do you wish?”*

When Juan Diego heard these words he was greatly consoled, he was happy, and then he climbed the hill to look for the sign the bishop had requested, as he reach the summit, he was amazed that so many varieties of exquisite roses de Castilla were blooming, because it was winter out of season, they were fragrant and covered with dewdrops which resembled pearls, he gathered them all and placed them in his tilma and went down hill and brought the different roses which he had cutted to the lady of heaven, as she saw them, took them with her hand and again placed them back in the tilma saying *“son, this*

diversity of roses is the proof and the sign which you will take to the bishop, you will tell him in my name that he will see in them my wish. Rigorously I command you that only before the presence of the bishop will you unfold your mantle and disclose what you are carrying, so you can induce him to give his support with the aim that a temple be built and erected as I have asked”.

As Juan Diego entered the bishop palace, he knelt before him, as he was accustom to do, and told the bishop “she condescended to your request and graciously granted your request, some sign and proof to complement your wish.”

When he unfolded his white tilma, where he had the flowers, and when they scattered on the floor, suddenly there appeared the drawing of the precious image of the ever virgin Holy Mother of God in the manner as she is today kept in the temple of Tepeyac, which is name Guadalupe.

When the bishop saw the image, he and all who were present fell to their knees, the bishop with sorrowful tears, prayed and begged forgiveness for not having attended her wish and request, then, he took the Tilma and placed in his chapel.

The next day he asked Juan Diego where the blessed Mary wanted the chapel to be erected.

When all the Aztecs looked upon the image printed on the Tilma, they immediately get converted to Christianity because they saw in the image a sign from heaven, the image of Guadalupe talked to them in a very clear way because they were very familiar to write with signs and images printed on feather sheets which they called codex, and the Tilma of Guadalupe was indeed a codex by itself. From then on, many Aztecs accepted the Christian religion as the true one, and thousand of them received baptism, the number of converted was so high that the missionaries hardly had time to rest and on their own words they said “we were so tired that we could no longer hold our arms lifted in the air to baptize them all”.

From this moment on, the situation between the Aztecs and the Spanish people became different and changed dramatically, and the situation relaxed to the point that they could get along fine to each other and friendly relations between them emerged making possible that both cultures considered former enemies now could live together creating a new mixed culture.

This is why it is often said that the tilma of Guadalupe is the certificate of birth of Mexico as a nation.

3. THE SIGNS WRITTEN ON THE TILMA

The signs observed on the Tilma spoke to the Aztecs in a very clear way, because when looking at them, they realized immediately it came indeed from heaven, so let us study the symbolic meaning of these signs [2].

The lose hair (see Fig. 1) represent a virgin maid, so different from the married women which used to use their hair tighten.

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Figure 1. The loose hair means unmarried woman

There is a four petals flower called Nahui Ollin, the Aztecs related it with the sun and it was the greatest religious conception in Aztecs believes.

It is located at her womb, meaning that Guadalupe is the mother of the baby sun which the Aztecs interpreted as Jesus Christ (see Fig. 2).



Figure 2. Four petals flower (Nahui Ollin)

The black ribbon over her womb is also announcing her maternity, see Fig. 3. Once the native women were pregnant they used to wear a ribbon over her womb.



Figure 3. The black ribbon announcing her maternity

There is also an eight petal flower which represented the conjunction of Venus and the sun, and this only happened

every 104 years, so this flower represented to them the rise of a new era, see Fig. 4.



Figure 4. The eight petal flower means a new era

Her sixteen year face represents the mixture of both culture Spanish, and Indian, her lips are formed by the folds of the cloth not by any drawing line, see Fig. 5.



Figure 5. the lips are made by folds of the cloth not by lines

The moon at her feet told them that Guadalupe is protecting Mexico, because the meaning of the word México in the Aztec's language was "in the belly of the moon" "ME=moon, Xi-ctli=belly, CO=in (see Fig. 6).

The rays behind her, means she is giving birth to the sun, that is Jesus Christ, see Fig. 7.



Figure 6 The meaning of the word Mexico.



Figure 7. The sun in her womb meaning the sun's birth.

Their hands are united in attitude of praying, the right hand is brighter than the left one which is brownish, meaning the mixture of both cultures the Spanish(white) the and the Aztecs (brown) see Fig. 8.

This sign represents a hill, Tepetl, and it was used very often in the Aztec codex, meaning that a universal message is given to the mankind from the hill of TEPEYAC, that is the hill of the divine word or the divine chant (see Fig. 9).

The tunic in beautiful green bluish colours that change as the butterfly when observed at different intensities of light represents the sky crowned with 46 stars as they were at the time of apparitions, see Fig. 10.



Figure 8. Hands in attitude of prayer: the union of two cultures.

The cloak is pink colour representing the earth which has nine types of flowers meaning the 9 tribes that arrived to Tenochtitlan from a place known as Aztlan, where the Aztecs once belong [3].

The flowers have their roots at the tunic, with water flowing out from them as shown in Fig. 11, which means that from the sky or heaven water is flowing down to earth, fertilizing the fields and producing food and life, this sign represented the Aztec past, and a new nation guided by Mary had arisen.

The clouds surrounding the image were associated with the highness.



Figure 9. The hill of Tepeyac where an universal message is given.



Figure 10. Fortysix stars as they appeared on December the 12th 1531.



Figure 11. The flowers have their roots at the tunic.

The angel (see Fig. 12) is an Aztec and represents an Aztec eagle warrior, and it is associated to Juan Diego since his former Aztec's name was COATLTOATOATZIN which in nahuatl means "the one that speak like an eagle" he is holding with his right hand the tunic (heaven) and with his right hand the Virgin's dress (the Earth), meaning that Juan Diego is joining heaven and earth.



Figure 12. The union of heaven and earth.

4. THE TILMA OR AYATE

The tilma or ayate, is made of ixtle or agave extracted from the Mexican plant called maguey its scientific name is agave popotule, it measures 1.68 m. \times 1.05m. The tilma was used by the Aztecs to recollect the seeds and the fruits from the fields. The Juan Diego's tilma are in fact two cloths united by a single thread, these kinds of cloths are very rough and hard, but in the case of the Guadalupe's tilma unexplained it feels very soft when touching it. Hardly a painter had chosen some material like this to paint on it. These cloths spoils within 20 or 30 years, but miraculously the tilma and the image are still in very good shape remaining intact no matter the span of time with its bright colours still in a good state of conservation. To test how this kind of cloths behave along the time, in the 17th century, some cloths similar to the Juan Diego's tilma were painted and left them for a span of time in an environment similar to the original was, in order to see what happened to them as time went on. As time passed by (10 years after), the cloths had suffered deterioration to a great extent.

For more than hundred years the tilma was exposed without any protection at all, there were not any crystal to protect it, it was exposed at the altar, it was touched and kissed by millions of pilgrims that came to visit the Virgin of Guadalupe, thousands of candles burned before the tilma but the smoke didn't damage it.

An unexplained fact is that the tilma repels all kinds of insects and dust.

Nowadays for a classic paint to be conserved at the museums, it is recommended a 60% of humidity, 60° Fahrenheit and a small room to avoid contamination. And also is recommended to avoid excessive exposure of light.

The tilma remained without any mark at all surrounding it, until the 17th century, when a golden mark was sent by the queen of Spain as a gift to protect it, but as the image was bigger, it didn't fit at all in the new golden mark because it was smaller than the tilma, unfortunately it was decided to cut the upper part of the tilma in order to fit the

new mark. Where does this portion of the tilma remained? Nobody knows the answer.

In the 17th century it was spilled by accident with nitric acid when cleaning it, unexplainable the tilma or ayate didn't suffer any damage at all. After the accident, many people were witnessing of the mark left by the acid at the upper right corner. At the beginning it was observed in great extent, but as time goes by, it has become less and less visible, see Fig. 13.

In 1921, when the Mexican church was persecuted by an anticlerical government, a powerful bomb was hidden under a flower arrangement, putted just in front of the altar and placed it directly before the image, the bomb exploded during the mass celebration causing damage in great extent to the floor made of ivory, it broke the large windows, the altar was devastated, a nearby cross of hard iron was folded, but the image didn't suffer any damage at all, not even the crystal that cover it broke, fortunately nobody became hurt.



Figure 13. The acid mark is still visible

Richard Khun, the 1939 winner of the Nobel prize in chemistry, carried out some test on two fibbers of the Tilma (one red and one yellow) at the Kaiser Wilhelm Institute in German, and concluded that "there are no colors of any kind in the fibbers" and "not of animal, vegetable or mineral dyes".

Some pictures using UV and IR has been taken to the image, but there exist the great necessity to perform in the near future spectrometric analyses in the UV, IR region, and Raman spectra as well, that could give us some clues of what the image is made of, and also how the image could have been formed.

In the same way, the pollen left by the roses of Castilla collected by Juan Diego on his tilma in 1531 could be searched at the Tilma in order to look if there is still exists on it. It is believed that the roses played a key role in the formation of the image of Guadalupe.

3-D studies would also be carried out to the image to see if there exists any 3D pattern on it.

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Studies performed on both eyes of the image of Guadalupe by Dr Aste Tomsmann [4] showed the silhouettes of 11 people (including a whole family at the pupils) observed on both eyes when the pictures were scanned, enhanced and digitalized, see Fig. 14. These silhouettes are the people that were present at the moment of the Virgin's apparitions, which were reflected as in natural eyes by an effect known as the Purkin-Sampson's images [5], see Fig. 15, and they appear as to be printed on the Tilma.

The images are observed on both eyes with a slight rotation of some degrees due to the different angle the light arrived to the eyes, just like it occurs in living bodies.

5. CONCLUSION

It is true that the image on the Tilma of Guadalupe is today addressed as an acheiropoietos image, because according to the vast majority of researchers that have studied it with a rigorous scientific method, its origin goes beyond the natural explanation and until now, no satisfactory explanation has been formulated.

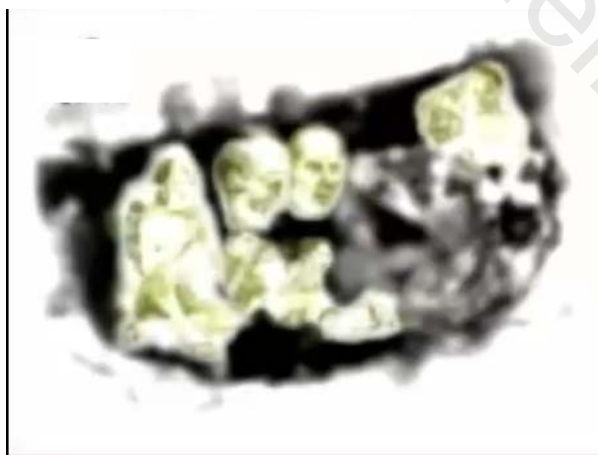


Figure 14. Eleven silhouettes are observed at the eyes.

Now, we are aware that several studies have been conducted to the cloth and the image, but they have been not conclusive, so the necessity of performing more experiments on the fabric will lead us know a little more of how this image was made. However, as in the case of the Shroud, these experiments need the authorization of the people in charge of them.



Figure 15. Example of Purkin-Sampson image in a human eye.

Something similar to what Giulio Fanti et al. [6] did with the Shroud, that is recompiling those tests with a scientific rigor could be done to the Tilma as well in order to list them and differentiate from those "facts" that lacks the scientific rigor.

Finally, I would like to mention that the cities of Turin and Mexico City, because both of them has cloths with acheiropoietos images (the Shroud and the Tilma of Guadalupe) will be united as sister dioceses in the near future.

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