

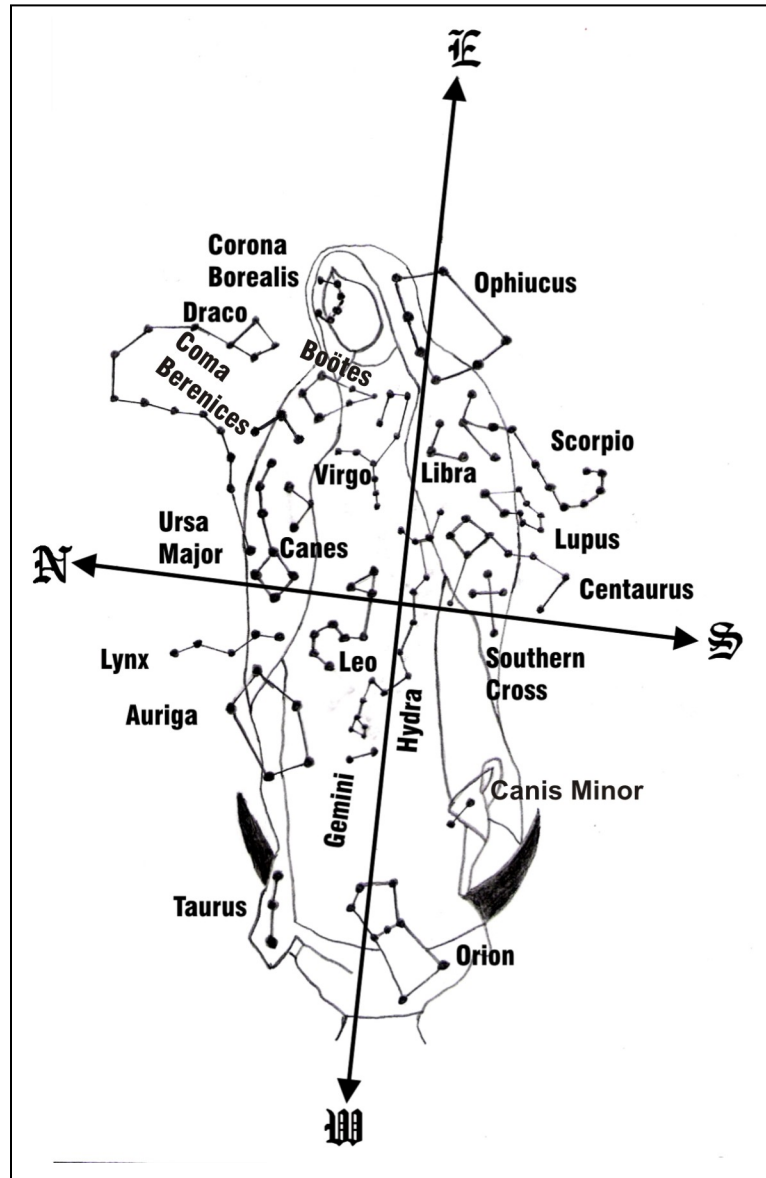
New Discoveries of the Constellations on the Tilma of Our Lady of Guadalupe

In my research for the second volume of my book *Galileo Was Wrong: The Church Was Right*, I found a fascinating correlation between the cosmology of Blessed Hildegard von Bingen and the Tilma of Our Lady of Guadalupe. For those of you who have read the second volume of *Galileo Was Wrong* you already know that Hildegard's 12th century visions show in fine detail the geocentric universe taught in consensus by the Fathers and made official by the magisterium under Popes Paul V in 1616, Urban VIII in 1633 and Alexander VII in 1664. In one of her visions, Hildegard explains that the North-South axis of the universe runs horizontally, not vertically, and that the universe turns like a wheel on an axle. I discovered the same model of the universe appears on the Tilma of Our Lady of Guadalupe as seen in the image of the stars given to Juan Diego in Mexico on December 12, 1531 A.D. I also discovered some fascinating astronomical and symbolic details to the Tilma that have not been documented previously. First there is the image of the tilma, seen here.



The stars are positioned on the right and left flaps of the tilma and a crescent moon is at the feet of Our Lady. If the constellations represented on

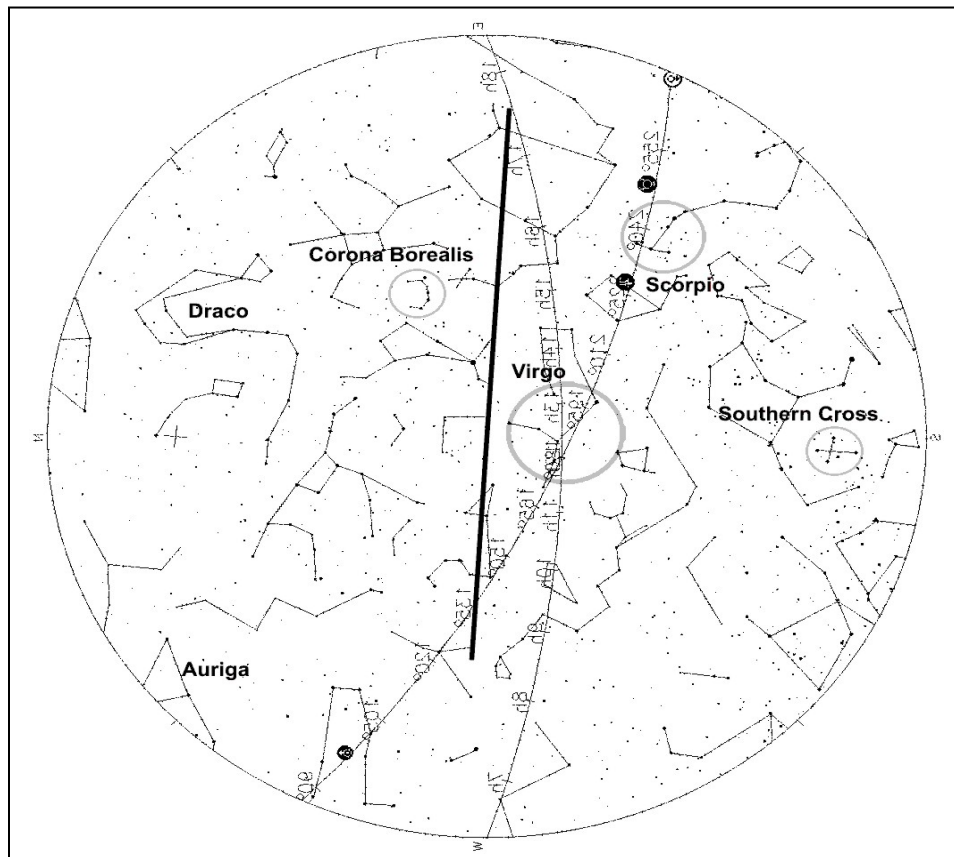
the tilma are drawn out, including those only partially represented on the tilma, it will resemble the diagram below:



As you can see in the image, corresponding the Earth's meridian with the actual positions of the constellations in the sky, the tilma falls on the four compass points in such a way that the North-South axis cuts across Our Lady's abdomen from her right side to her left, and the East-West axis cuts across her abdomen from her head to her feet. The stars on her mantle are positioned as they would appear on this axis in the sky on

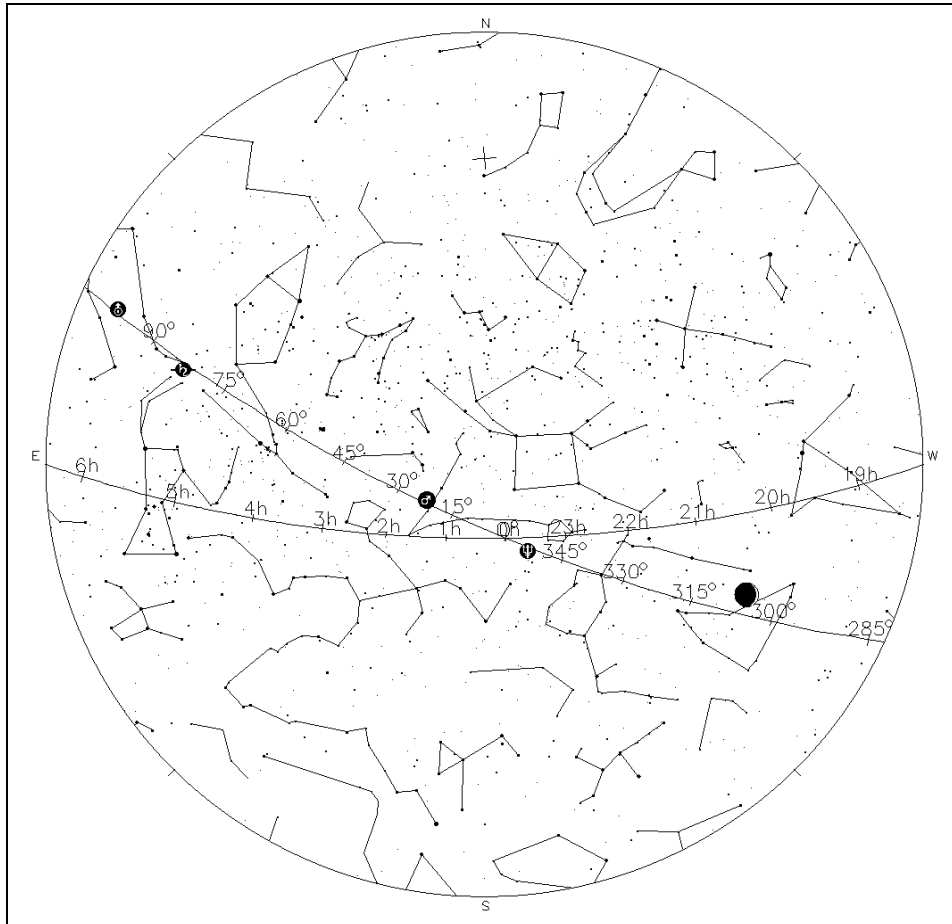
December 12, 1531 in Mexico at dawn, with the eastern sky above her head and the northern sky to her right. The compass points that we superimpose on the body of Our Lady of Guadalupe would be of no special significance except for the fact that we assume her body is perpendicular to the Earth's equator (i.e., straight up and down) and serves as the foundation for universal direction. This requires the North position to switch from the top to the right, and the East position to switch from the left to the top, as if someone turned the compass counter-clockwise 90 degrees (as seen from our observation point on Earth).

Also, at this point in time (1531 A.D.) the North region is slightly higher than the South, which may be due to the rotation of the North-South axis at six-month intervals as noted in Hildegard's cosmology. Below is an actual star map of December 12, 1531, dawn with viewpoint in Mexico City. We have moved East to the top and North to the right (from Our Lady's viewpoint) to match the compass points represented on the tilma. The image also had to be inverted, which indicates that it is probably a mirror image.



The star map on the tilma is also significant for another reason. As seen from where the apparition took place, the star pattern on the tilma is one of the most dramatic assemblages of constellations that have ever occurred at one time and captured in a photo-like image. These are the only star images that could appear in these precise locations on the day of December 12, 1531 at dawn, in addition to being the very stars that would be observed from the precise angle to the sky created from a Guadalupe, Mexico viewing point. Obviously, no wide-angle lens was being used but all the constellations of that portion of the sky are fitted on the tilma. Moreover, it seems that the placement of the star patterns was deliberate, since on Our Lady's left side the tilma is doubled-over and hangs on her left arm, yet it contains, from the observer's viewpoint, the same constellations in their proper portions as would appear in the sky. In other words, it is as if the stars were placed on the tilma after Our Lady raised her arms to pray. In comparison, the tilma on her right arm is not doubled-over yet it also contains the same pattern of stars that would appear in the sky. All of this speaks of a designer who superimposed the constellations after he took into consideration that the folds and drapery of the tilma would be permanently captured in an image. Additionally, deliberate designing is demonstrated by the width of the clothing between the right and left sides of the front of the tilma. The space is just wide enough to place the other constellations of the sky in their proper proportions that would normally appear in the sky on that particular day.

Also significant in the image of the tilma is the moon. Our Lady is standing on a crescent moon. The concave side of the moon is facing east, since both it and Our Lady are pointing upward in the image. Not coincidentally, on December 12, 1531 there was a crescent moon in the sky whose concave side faced to the east. A star map of this day at 6pm, as viewed from Mexico, shows this to be the case. (See facsimile of star chart below. The large black spot with a slight white crescent (barely visible) is on the lower right of the chart. The four smaller black spots to the moon's left are the positions of the planets).

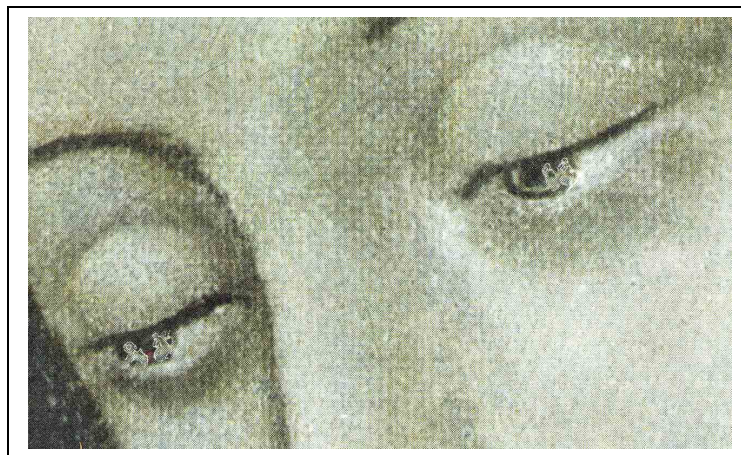


Of course, some skeptic might argue that the stars on the tilma seem to be evenly spaced and thus represent no particular pattern of constellations in the sky. The fact remains, however, that if the star pattern and the precise number of stars on the tilma are matched to the constellations in the sky, the only way this specific count of stars can be represented is by the twenty-two stars on her right and the twenty-four stars on her left, which is a total of forty-six. Any other constellation pattern in the sky would have significantly more or less than forty-six stars.

As the number and placement of the stars on the tilma can be the product of none other than a divine hand, the materials employed to make the image are literally out of this world. In May 1979, a biophysicist, Dr. Philip C. Callahan, examined the tilma and concluded the following:

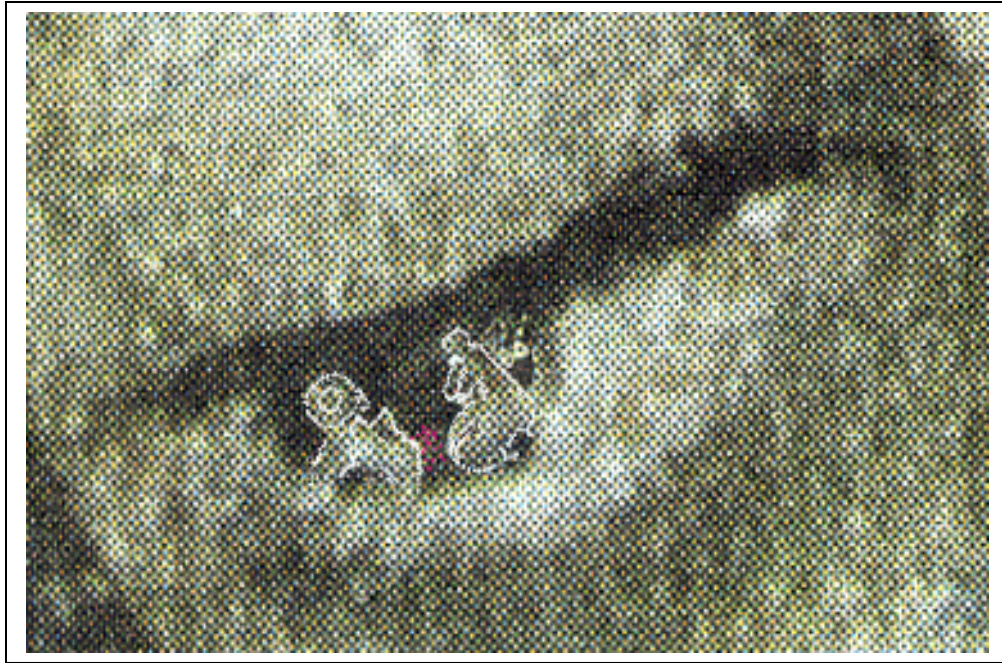
The original figure including the rose robe, blue mantle, hands and face...is inexplicable. In terms of this infrared study, there is no way to explain either the kind of color pigments utilized, nor the maintenance of color luminosity and brightness of pigments over the centuries. Furthermore, when consideration is given to the fact that there is no under-drawing, sizing or over-varnish, and that the weave of the fabric is itself utilized to give the portrait depth, no explanation of the portrait is possible by infrared techniques. It is remarkable that in over four centuries there is no fading or cracking of the original figure on any portion of the ayate tilma, which being unsized, should have deteriorated centuries ago.¹

The tilma is also known for its miraculous images contained in the eyes. Examinations of the eyes reveal reflected images of Juan Diego and two other people that as of yet have not been positively identified but could be Juan Gonzalez and Bishop Zumarraga who were in the room when Juan Diego presented the tilma to them. Dr. Charles J. Wahlig, a nuclear physicist, has suggested that Our Lady must have been in the room at the time of the presentation of the tilma to the bishop, perhaps invisibly, and the tilma served as a type of photographic plate to capture the scene. In fact, the images are slightly curved in accordance with how the human cornea would reflect the light.²



¹ Christopher Rengers, OFM Cap., *Mary of the Americas*, New York, St. Pauls, Alba House, 1989, p. 92f. Dr. Callahan adds: "I would consider it impossible that any human painter could select a tilma with imperfections of weave positioned so as to accentuate the shadows and highlights in order to impart such realism. The possibility of coincidence is even more unlikely!" (p. 93).

² *Ibid.*, p. 86: "Mary, invisibly present, 'had her picture taken,' the tilma acting as the photographic plate, capturing her exact image and instantaneously making it a positive print. This theory explains how the images of three or more men could have been captured."



The Tilma's Constellations and the Christian Gospel

These scientific facts are all the more significant when we consider the breadth of the Christian symbolism represented in the constellations on the tilma. The constellations are not only accurate from an astronomical viewpoint, they also happen to employ the most precise spiritual number in divine revelation, the number seven. There are a total of twenty-one constellations that can be positioned on both the drapery of the tilma and Our Lady's dress between the two flaps of the tilma and these constellations can be viewed in several ways due to the overlap. One way is to divide the twenty-one constellations into seven on her left side,³ seven on her right,⁴ and seven on the dress between the tilma's

³ Ophiucus, Libra, Scorpio, Lupus, Centaurus, Southern Cross, Canis Minor.

⁴ Draco, Coma Berenices, Canes, Ursa Major, Lynx, Auriga, Taurus.

two flaps.⁵ Twenty-one is 7×3 . In Christian symbolism, seven is the number of perfection and three is the number of the Trinity. From another perspective the constellations might also be divided with five in the middle and eight on each of the tilma's flaps. In Scripture, five is symbolic of salvation, and the constellations in this group are the very ones that are symbolically tied to salvation and its recipient, mankind.⁶ The remaining sixteen constellations on the flaps are a combination of 4×4 , which, by the number 4, represents the universal reach of the Gospel, both for salvation and judgment (2 Cor. 2:15-16).

Taken together, the twenty-one constellations also explain the components of the Gospel in its full flower like no other set of symbolic pictures. At the top is the **Corona Borealis** (the Borean Crown), which would appear on the head of Our Lady, appropriately signifying her royalty as the queen of heaven (Ap 12:1). Below the crown is **Virgo**, near Our Lady's heart, showing her purity and virginity (Lk 1:35). **Leo** the lion, identifying with Christ as the Lion of the tribe of Judah (Ap 5:5), is near her abdomen, representing her virgin conception of the Christ child. Our Lady is wearing a black band, which is the symbol of pregnancy in Indian culture. **Regulus**, meaning royalty, is Leo's brightest star and symbolizes Christ's kingship (Ap 12:5). **Coma Berenices** is the tuft of Leo's tail. Near the bottom is **Gemini**, the twins, placed near her two legs and symbolize the birth of Christ (Gn 49:10).

Draco, the dragon, **Scorpius**, the stinging scorpion, and **Hydra** the serpent, are off to the north, south and west, respectively, forming a triangle, or perhaps a mock trinity, surrounding the woman from all sides except heavenward. This represents Our Lady being in a constant battle with Satan, as described in Ap 12:1-14; and perhaps coincident with the dragon, the beast and the false prophet (Ap 13:1-18). In fact, Hydra's tail, which appears fork-shaped on the image, is just below Virgo, as if it is waiting to devour the Child to whom she will give birth, which is the description John gives in Ap 12:4: "And the dragon stood before the woman who was about to bear a child, that he might devour her child when she brought it forth." As noted earlier, in accord with Ap 12:4: "And his tail swept away a third of the stars of heaven," seven constellations from the total of

⁵ Corona Borealis, Boötes, Virgo, Leo, Hydra, Gemini, Orion.

⁶ Corona Borealis, Virgo Leo Gemini, Orion.

twenty-one are missing from the tilma, the space being filled in by the serpent Hydra. It is no coincidence that Hydra is the longest constellation in the sky, taking about seven hours to rise, and is thus an appropriate symbol of Satan's pervasive power.

On Our Lady's right side, is the constellation Draco the dragon, but it is represented by only one star. But if Draco is completed by drawing it as it would appear in the sky, the head of Draco would come within a short space of Our Lady's head, symbolizing, as it were, Our Lady's face-to-face battle with the dragon (Ap 12:1-4; Gn 3:15). It is almost as if Our Lady and the dragon are staring at each other.

Other constellations in the tilma that represent various aspects of the Christian Gospel are also quite significant. **Ursa Major** (the Great Bear) represents the work of Satan through man (Dn 7:5; Ap 13:2), while **Lupus**, the wolf, represents Satan's attack on the Church (Jn 10:12). **Boötes**, the herdsman, represents the shepherds of the Gospel (Rm 10:15), while **Canes** represents the shepherd's staff and his authority over the Church (1Tm 3:1). **Libra** represents God's justice through the Gospel (Ps 37:28) and the **Southern Cross**, of course, represents the cross of Christ. **Ophiuchus**, the serpent-holder, represents the Virgin's strength and power from heaven to crush the devil (Gn 3:15). **Lynx** represents the power of spiritual vision to discern the Gospel given by the Holy Spirit (Mt 13:15-16).

Centaurus (half man, half animal) represents the wicked on Earth (Rm 1:23), while **Auriga**, the goat, represents those who have been damned (Mt 25:33). The three constellations at her feet, **Orion**, the hunter; his dog, **Canis Minor**, and **Taurus**, the bull, represent man and the animal world on Earth that is now in a life and death struggle for salvation against the Devil (Gn 1:20-31; Rm 8:19-22; 1Pt 5:8).

As noted, there are forty-six stars on the tilma, and this number also has symbolic significance. Forty-six is 2×23 . The number 2 is symbolic of the Church's witness of the Gospel (Lk 10:1), while 23 is symbolic of God's judgment on mankind (1Co 10:8). In Scripture, the stars in collapse often symbolize the end of the world and the coming of Christ (Mt 24:29-31; Dn 8:10). As noted, at present a third of the constellations are missing from the Guadalupe image (represented by the opening between the right and left flaps of the tilma), which represents the "third of the stars swept away by the dragon's tail" (Ap 12:4). There is also symbolism in the 22 stars on her right, since it is 2×11 ,

representing the witness of the Apostles, minus Judas, the betrayer (symbolic of the future apostasy);⁷ as well as the 24 stars on her left, since it is 2×24 , representing the 12 tribes of Israel and the 12 Apostles, symbolic of all believers from the Old and New Testaments.⁸

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⁷ Mt 28:16; Mk 16:14; Lk 24:9, 33; Ac 1:26.

⁸ Cf., Mt 28:16; Ac 1:26; 26:7; 1Co 15:5; Ap 21:12f.