

Chapter 10

Kabbalah Map of Motolinía's Angelopolis ©

Folio 86v of the Voynich Codex (sometimes referred to as The Rosette or the Fertilization/Seed Page) could be a key to decipherment and understanding of the manuscript because there are so many figures accompanied by text. The large diagram is a composite composed of six pages pasted together (Fig. 1A). It includes 8 circles connected to each other by pathways surrounding a large central circle which is directly connected to four of them. There are also three small circles including one on top that is completely disconnected from the others. In addition there are two sun images, one in the northwest corner and one in the southeast corner. If the diagram is oriented 135° to the right so that suns are in an East-West position and the small circle disconnected to the others is in the North position, the reoriented diagram (Fig. 1B) has a striking resemblance to the *sefiroth* (emanations) of the Tree of Life (Fig. 1C) a critical symbol that enters the world of Kabbalah (“tradition”) in late medieval times (Encyclopedia Judaica, 1971). The direction of the written text associated with each circle suggests a cyclical arrangement as shown in Fig. 1D. To simplify the discussion, the circles in folio 86v are labeled with numbers or letters as suggested by Thomas Ryba, theologian at Purdue University. Note that there are a total of 12 circles; 11 of which are connected: 1, small circle at the bottom; 2 to 9, eight medium sized circles in a ring around A, a large central circle; B, a small circle connected to the bottom of circle 6 which resembles a volcanic cauldron. A disconnected small circle C hovers above circle 6.

The Kabbalah Sephirothic Tree of Life

Kabbalah is an ancient Jewish mystic discipline. It was codified in Spain in the 13th century in a text known as the Zohar (“Splendor”) written by Moses de Leon (1250–1306) a Spanish rabbi. The Sephirothic Tree, a visual descriptive symbol of Kabbalah consists of a series of 10 interrelated *sephiroth* (spheres or regions) that are considered to be divine emanations of God. The Tree of Life is usually diagrammatically represented as 10 sephiroth arranged in three columns as shown in Fig. 1C and traditionally numbered and named in Hebrew as follows: 1=*Kether* (Crown), 2=*Chokmah* (Wisdom), 3=*Binah* (Intelligence). 4=*Chesed* (Love), 5=*Geburah* (Fear), 6=*Tiphareth*, (beauty), 7=*Netzach*, (Triumph), 8=*Hod* (Glory), 9=*Yesod* (Foundation) and 10=Malkuith (Kingdom or Earth). Often an 11th circle called *Ein Sof* (‘without end’ or the infinite, understood as the Godhead) hovers disconnected above the 10 *sphoeth* which connected by mystical pathways and their relationship have been a source of spiritual and occult interest up to the present.

In the 15th to 17th century Kabbalah was incorporated and harmonized in Christian theosophy probably by Jewish converts (conversos) and referred to as *Cabala* (Blau, 1944; Dedopulos, 2012) as well as with philosophic ideas (Fig. 2). The Franciscan, Francesco Giogio of Venice, (1460–1541) was the author of two large volumes on kabbalah that were read extensively at their time, *De Harmonia Mundi* (1525) and *Problemata* (1536). Before the Expulsion of Jews from Spain in 1492, the Iberian Peninsula was home to most major kabbalists. Kabbalah was introduced in New Spain by Franciscan friars, many probably of converso background, in the

early 1500s. However, in the 16th century all forms of Kabbalah were banned by the Spanish Inquisition in Spain along with other occult sciences, and King Philip II signed royal degrees on August 16, 1564 and January 25, 1569, which created the Tribunal of the Inquisition in the New World. However, inquisitions in New Spain existed as early as 1522. During the first period (1522–62), inquisitions were conducted by local officials. With the arrival of the first bishops to New Spain, the second period (1536-69) witnessed a rise in inquisitions in which early bishops and archbishops served as inquisitors. The third period (1571-1820) saw the establishment of an official Tribunal of the Inquisition (Chuchiak, 2012; Don, 2010; Perry and Cruz, 1991; Villa-Flores, 2006).

Folio 86v as the Sephirothic Tree of Life

There is a good fit between the Sephirothic tree and Voynich diagram (Table 1). Thus the highest circle (C) which has no direct connection to the other circles in the diagram represents *Ain Soph* (God) as shown in Fig. 1C. Evidence that this is the case comes from a symbol in circle C with the form of a right angle (\sphericalangle) (Fig. 3A) that has mystified interpreters of this folio. Since the Hebrew alphabet may be written with ball-and-stick elements this symbol can be interpreted to represent the letter *dalet* (ד) in Hebrew (D in the Latin alphabet) which is associated with the number 4 and has long been a symbol for the Tetragrammaton, the divine name of God (YHWH pronounce Yaweh in Hebrew and Jehovah in English).

Similarly the small bottom circle (circle 1) in folio 86v (Fig. 3A) would be Malkuth (Kingdom or Earth). This is supported by the T-O symbol (\oplus) of circle 1. The T-O symbol consisting of a circle with three subsections based on a diameter and a single radius at right angles to the diameter is referred to as a Beatine or Beatus map attributed to a Spanish monk Baetus of Liebana, a marca of Cantabria. The T-O map represents the physical world first described by the 7th century scholar (Saint) Isador of Seville in his *Etyomologiae* (chapter 14) (Barney et al. 2006). In many medieval maps the symbol related to three continents: Asia (large section), Europe, and Africa (Fig. 3B), and sometimes to the trinity. The T-O maps is found in the Florentine Codex of Sahugan describing the four winds (Fig. 3C). The voynichese words in circle 1 are $\alpha\lambda\alpha$ (*ānocâ*), $\alpha\lambda\alpha$ (*ātlāe*), and $\alpha\lambda\alpha$ (*āhuaai*) or $\alpha\lambda\alpha$ (*pai*).

The large central circle A considered to be *Tiphareth* or Beauty is only directly connected to circle 3,5,7,9. Furthermore the small circle B resembles a volcanic caldron and we believe this is not a sephiroth but a location marker and indeed there are also volcanos in circle 2 and 4. In conclusion, without B, the diagram of 86v consists of 10 connected circles and one disconnected circle which makes it identical in form to the Sephirothic Tree of Life shown in **Fig 1C**. We conclude that the sephirothic tree of the kabbalah influenced the artist's folio 86v diagram but there is no evidence that this is its main purpose.

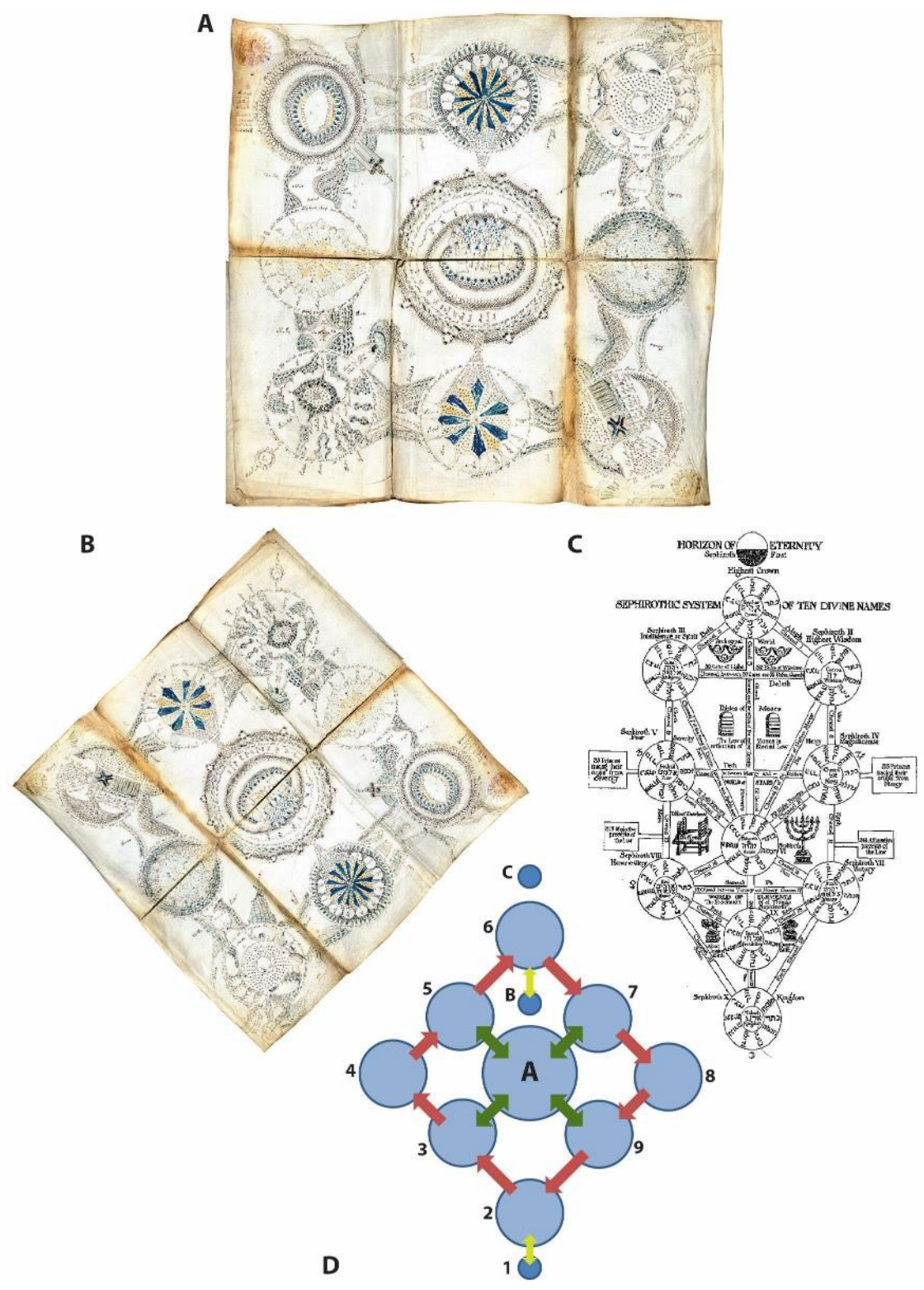


Fig. 1. The Voynich rosette: (A) folio 86v as found in the Voynich codex; (B) folio 86v reoriented with the sun in East-West position, and disconnected circle North; (C) kabbalah sephirothic Tree of Life published in the 17th century by the Jesuit priest Athanasius Kircher,

Oedipus Aegyptiacus 1652–1654;(D) schematic diagram of folio 86v with labeling of circles and direction of text.

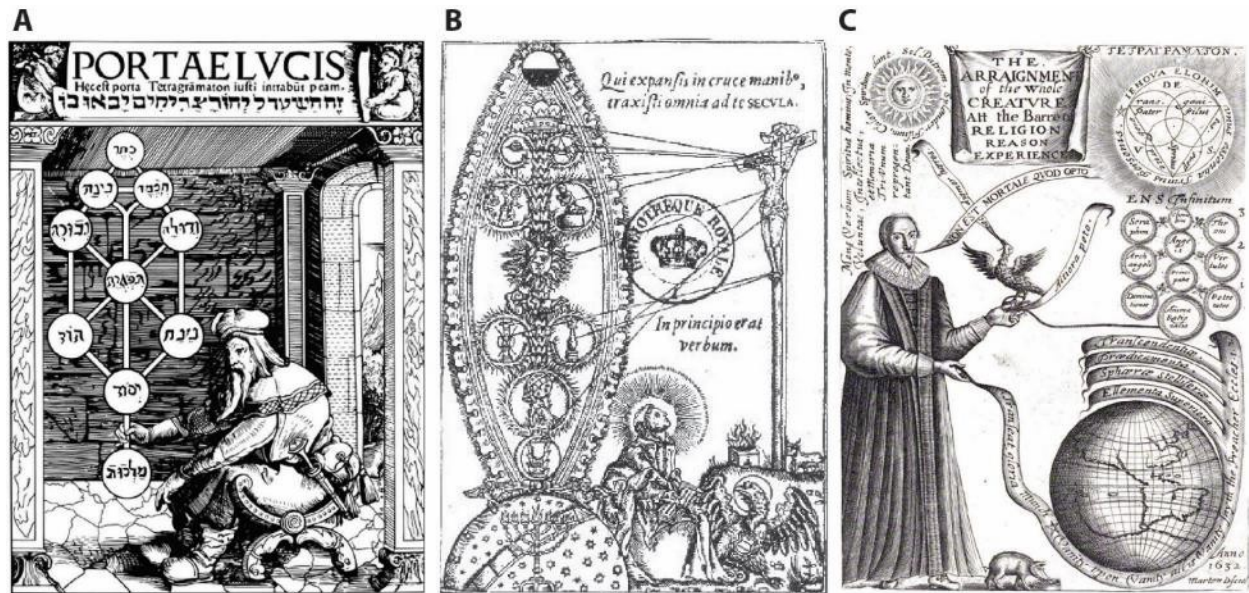


Fig. 2. Christian and philosophic kabbalah: (A) diagram of Tree of Life in *Portae Lucis*, (Portal of Light) a Latin work of 1516 by the Jewish convert Paolo Ricci; (B) Christian appropriation of kabbalah; (C) portrait of Alexander Henderson by Martin Droeshout, 1632, showing philosophic influence of Kabbalah.

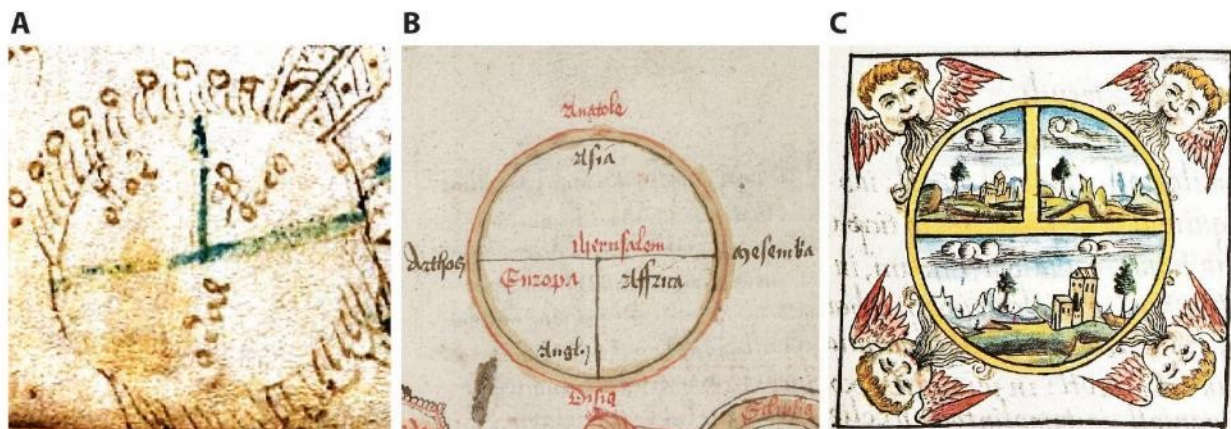


Fig. 3. T-O maps: (A) Circle 1 of folio 86v; (B) medieval T-O map showing Asia, Europe, and Africa; (Digital Scriptorium Huntington Catalog Database, San Marino, Huntington Library, HM 64 (C) T-O map the Florentine Codex of Sahugan, Book VII (Anderson and Dibble, 1953).

Table 1. Numbers and names of circles in Sephiroth in Kabbalah Tree of Life, and Voynich circles in folio 86v.

Sephiroth number	Sephiroth name	Voynich circles	Suggested Aztec city	Associated volcano
-	Ein Sof	C		
1	Kether	6	Tecamachalco, (Tepeaca?)	Pico de Orizaba (Citlaltepétl)
2	Chokhmah	7		
3	Binah	5		
4	Chesed	8	-	
5	Geburah	4	Tlaxcala	La Malinche (Matlalcuéyetl)
6	Tiphareth	A	Puebla de las Angeles' (Celestial City of Jerusalem)	
7	Netzach	9		
8	Hod	3		
9	Yesod	2	Huejotzingo	Popocatepetl
10	Malkuth	1		
		B		[Pico de Orizaba (Citlaltepétl)]

THE FOLIO 86v CIRCLES AS CITIES

There is another explanation of folio 86v that is not mutually exclusive with a kabbalah interpretation. Folio 86v can be considered a map superimposed on a Sephirothic tree that represents clusters of cities connected by a network of roads or pathways and volcanic landmarks (Fig. 4). We interpret folio 86v as a map of the cities surrounding Puebla des los Angeles (Circle A) to include Huejotzingo (Circle 2), Tlaxcala (Circle 4); Tecamachalco/Tepeaca (Circle 6), and Vera Cruz/Zampoala (circle 8). The circles are described in more detail below.



Fig. 4. Cities and volcanos in Nueva España combined with circles of folio 86v.

Evidence that 86v represents a series of cities comes from the history of Nueva España in the 16th century. The Franciscan missionary Toribio of Benavente O.F.M. (1482–1568) known as Motolinía, from the Nahuatl meaning “he is poor” (Fig. 5A&B), was one of the “twelve apostles” who arrived shortly after Cortés and attempted to help convert the Indians. He arrived in the Valley of Mexico (Anahuac) in 1524 and resided in 1530 at the convent of at Huejotzingo near Tlaxcala and Texcoco. The Franciscans attempted to establish a New Jerusalem or City of the Angels (Puebla de Los Angeles, or Angelopolis) in 1530 (Lara, 2004, 2008). The location of this city is described as follows:

“The site which the city of Los Angeles occupies is very good and the region is the best in all New Spain. Five leagues to the north lies the city of **Tlaxcallan** and five leagues to the west is **Huexotzinco**. To the east, five leagues, is Tepellacac (Tepeyacac) [**Tepeaca**]. To the south lies the hot region. Here, seven leagues away, are Itzocan and Cuauhquechollan; Cholollan (Cholula) and Totomiahuacan are two leagues and Calpa is five leagues distant. All these towns are large. To the east, forty leagues away, is the harbor of **Vera Cruz**, and the distance to Mexico is twenty leagues. The highway from the harbor of **Vera Cruz** to **Mexico** passed through the **City of Los Angeles**” (Motolinía, 1951).

It is intriguing that some of these cities have been configured into a cross in one publication (Sambhu, 2013) as described by Motolinía, a concept not dissimilar to the kabbalah diagram. Puebla de los Angeles can also be found in a 1733 map (Fig. 5C).

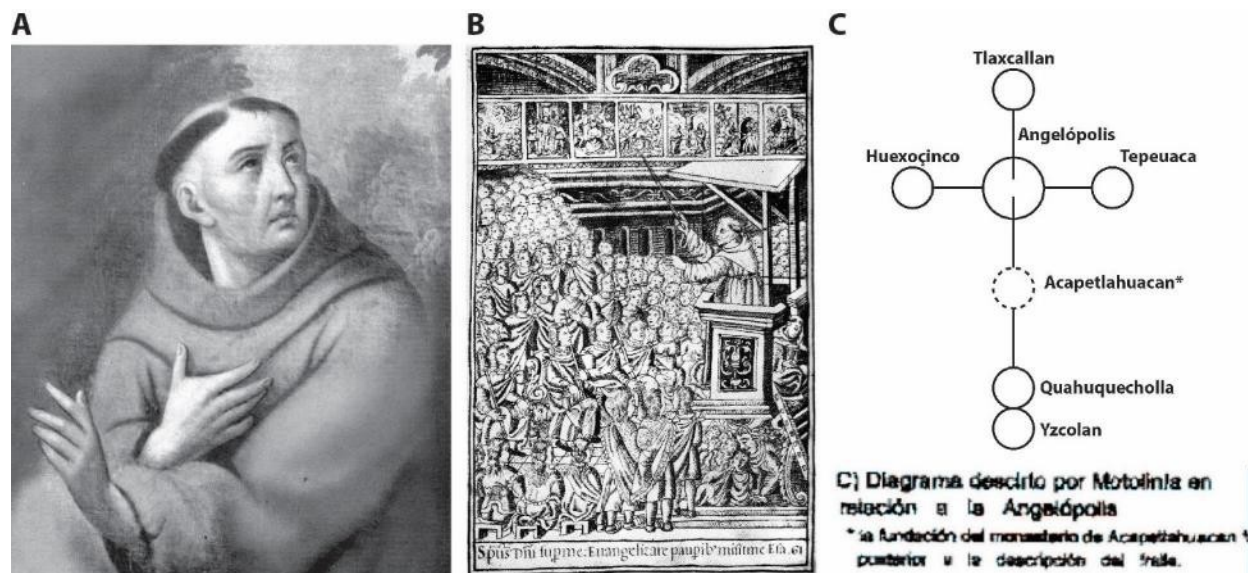


Fig. 5. (A) Franciscan friar, Toribio of Benavente (1482–1568) known as Motolinia. (B) Friar’s method of teaching Indians using Spanish, Italian and Flemish pictures (Motolinia, 1951; Reyes Valerio, 1964; Azpeitia, 1972; Carmelo Arredondo; Gurría Lacroix; and Niedermeier, 2002). (C) Angelopolis, or Puebla de los Angeles, configured into a cross based on Motolinia.

Circle 2 (Fig 6)

The most detailed circle has a number of elements which suggests that it represents the city of Huejotzingo, a small city in Puebla in central Mexico that still exists (Fig. 7A). There are alternate spellings on maps and documents of the 16th century as Huexucinco, Huexutcinco, and Huexotzinco and, found in a map from 1691, the spelling of Guazocingo (Fig. 7B). Prominent in circle 2 is a fortified structure with crenelated battlements that resemble the fortified monastery of San Miguel Arcangel at Huejotzingo that was constructed as early as 1530 (Motolinia, 1951) but re-constructed as the “Queen of the Missions” from 1544 to 1570 (Gracia Granados and Mac Gregor, 1934) (Fig. 8).



Fig. 6. Circle 2 (Huejotzingo) connected to circle 1.

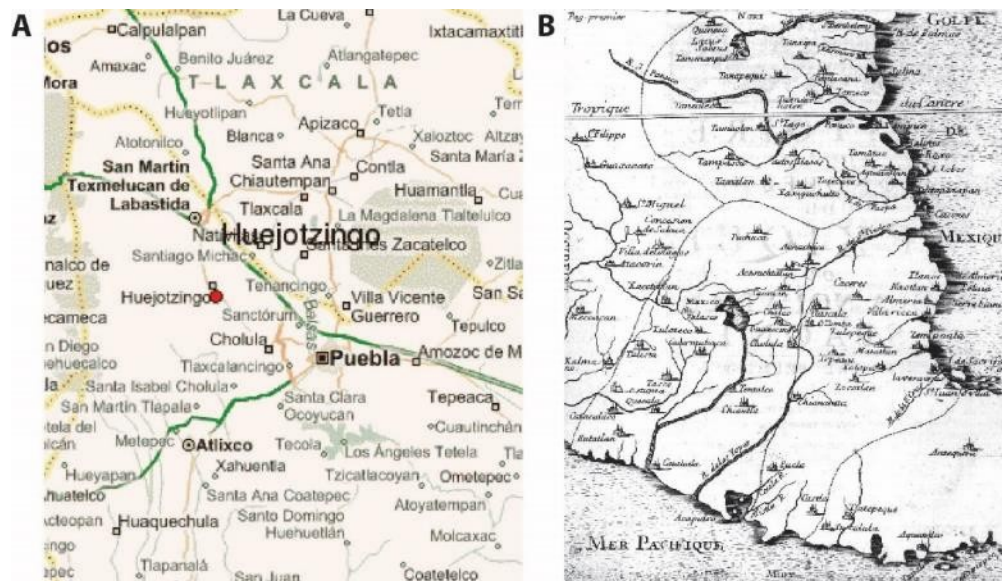


Fig. 7. Huejotzingo: (A) contemporary map of central Mexico, (B) Map of 1691 with spelling of Guazocingo (Copper-plate engraving from Jan Karel Donatus Van Biecq, 1638–1722).

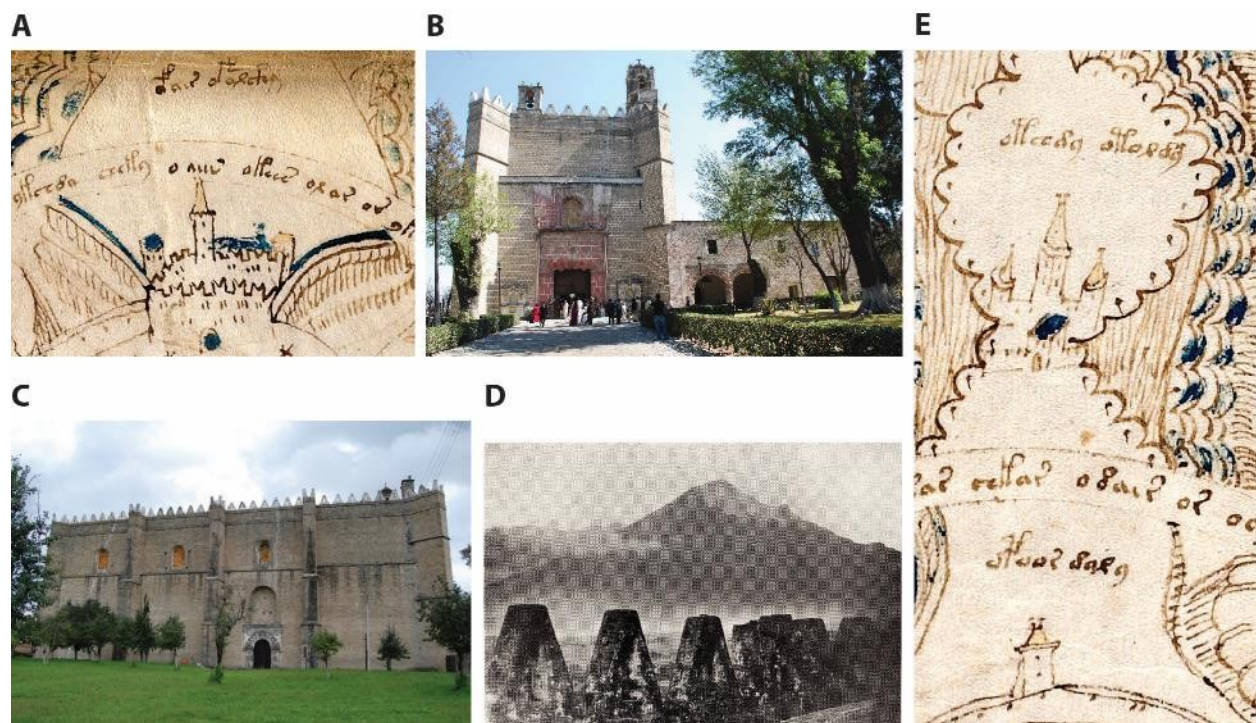


Fig. 8. Landmarks in circle 2: (A) Illustration fortified monastery in circle 2 of fol. 86v with merlons (also called [Ghibelline](#) battlements or priest caps); (B) contemporary picture of the front view of San Miguel Arcangel in Huejotzingo showing attached aqueduct; (C) contemporary views of the San Miguel Arcangel in Huejotzingo showing triangular pierced merlons along the walls as well as swallow-tail battlements on the stepped buttresses; (D) view of Popocatepetl from the roof of the monastery (Garcia Granados and Mac Gregor, 1934); (E) three towers and a single tower with names in Circle 2.

This monastery has a unique architecture that is a mix of medieval and Renaissance styles, with Plateresque and Moorish elements. It was designed in 1544 by Fray Juan de Alameda, heavily based on Italian models: “Native encomienda laborers built the convento that Alameda designed based on his familiarity with European Monastic compounds. The friar also relied on European architectural treatises including Leon Battista Alberti’s *De re aedificatoria* (1485), Vitruvius’s *De architectura* (1486), Sebastino Serlio’s *Regole generali di architettura* (1537, Spanish edition 1565), and *Dieto de Sagredo’s Medidas del romano* (1526). The variety of structural and formal solutions displayed at Huejotzingo and New Spain’s other monastic compounds suggest, however, that treatises and European models were not the architect’s only sources of inspiration. Constructing monuments for this new Christian *república de indios* meant deploying an array of forms to create an ideal mission setting.” (Donahue-Wallace, 2008).

The structure was not completed until 1570 when presumably the triangular pierced merlons were added. The merlons in the drawing of circle 2 of 86v are considered M-shaped swallowtail (pyramidal). However the merlons on the stepped buttresses of the resemble swallow tail merlons (Perry, 1992, and may have been used by the Voynich artist to sketch the uncompleted

fortress. The Voynich arts also used swallow tail merlons in a sketch found in the passageway to circle 6. (see Fig. 11).

Its attached aqueduct was fed by runoff from slopes of Popocatepetl via the Xopanac River. The smoking volcano, most obviously Popocatepetl, can be seen in the rim of the circle with the following words emanating: $\text{o}\delta\text{a}\text{z}\text{z}\text{a}\text{nd}$ (*a ch o tz ya/ha o n o l*). Connected to the fortress are a long wall with towers, one of which contains the name $\text{f}\text{f}\text{o}\text{o}\text{r}\text{z}\text{a}\text{x}\text{g}$ (*āhuāāe chocâi*). In the center of the inner circle are four towers with Moorish domes. In addition there are 118 six pointed stars evenly distributed and in their midst in a spiral of words. In the passage way to circle 9 a number of structures are indicated, and in the passageway to circle 3 there are three towers with the name $\text{f}\text{f}\text{c}\text{c}\text{z}\text{g}\text{f}\text{f}\text{o}\text{z}\text{z}\text{g}$ (*ātlaachi ātlācâchi*) above. *Atlacachi* refers to spear throwers or fishermen in Nahuatl: “Settlers of the islands and shores were called Atlacachi-chimeca, which probably means “los chichimeca con atlatl” [chichimeca with spear throwers] or “los del cordelo/linaje de perro hombres del agua” [those of the cordage/water dog men lineage] (Molina 1977:8, 78, 95), and their tools consisted of the net, the atlatl (spear-throwers), and the harpoon.” (Staedtler and Hernández, 2003).

The entire circle is ringed by words. Elements in circle 2 representing fire air, water, and earth suggest Kabbalah/Aristotelian allusions of the Universe. Fire and dust is alluded to by the smoking Popocatepetl; five strange finger-like clouds might represent wind or air, and alternating blue and yellow stripes suggest water.

The association of the fortified building as the monastery in Huejotzingo is more than a conjecture. Firstly, very few of the monasteries in New Spain had crenelated battlements which is found in the present structure at Huejotzingo (Perry, 1993), but none other had swallow-tail merlons. In addition, a convincing case can be made that the fortified structure in circle 2 is the monastery San Miguel Arcangel in Huejotzingo since its name in Voynichese is written above the structure. This translation is based on the decipherment of some of the Nahuatl plant names in the Voynich document by Tucker and Talbert (2013). The letters $\text{f}\text{f}\text{a}\text{z}\text{z}\text{f}\text{f}\text{a}\text{z}\text{z}\text{f}\text{f}\text{z}\text{g}$ above can be transliterated as *hu/gu–o-sh/x-e-ā-tl-o-câ-p-i*. *Huexotl* is the Classical Nahuatl stem for willow, while *capi* is a 16th century Spanish word meaning a capital city in Latin America. Thus *Huoxeatlcapi* would literally be “willow capital,” against the Classical Nahuatl derivation of Huejotzingo (Huexucinco/Huexutcinco/Huexotzinco), which literally translates as “where the willows grow.” We suggest that this decipherment may be a smoking gun which does two things: (1) it confirms the decipherment of the plant names, and (2) it verifies circle 2 as the city Huejotzingo. It also confirms that most of the words found in circle 2 are *not* Classical Nahuatl but must be based on a similar extinct dialect or language.

Circle A (Fig. 9). The central largest circle is surrounded by 8 others of which circles 3, 5, 7, 9, cosmological in nature, are directly connected. Circle A is composed of three rings: the outer ring contains 12 sets of six raised pipes evenly distributed (an unseen spike may be in the crease); a thin middle ring with cell-like structures, and an inner ring contains a three dimensional image of a mantle covered with five or six pointed stars supported by six domes (qubba) or ciboria. There

are five words written between the domes [atlchācho-āahi (atlchācho-āahi), āhi (nāts/tz? -n oeo), ātlacholl-ātlachi (ātlacholl-ātlachi), itlachoeo-i (itlachoeo-i), āhum-choll (āhum-choll)]. Some of these words have Nahuatl cognates:

atl = water

chacho = sprinkled

choll = may be related to Chollula/Cholula, a pre-Columbian Aztec city.

itla = something

Thus, *atlchacho* (*atl* = water; *chaco* = sprinkled) -*aahi* suggests “holy” or “blessed” -*aahi* (last incomplete term unknown). In the Church of San Francisco at Puebla there is a chapel with the “incorrupt” remains of Blessed Sebastian di Aparicio y del Pardo (1502–1600). Similarly the words *atlacholli-atlachi*, might refer to fisherman of Cholula.

This image in circle A, the central large circle in folio 86v, is obviously theological in nature. The starry mantle may allude to the mantle of Elijah or Elisha and is suggestive of the starry mantle of Our Lady of Guadalupe shown in a painting now located in the Basilica of Mexico City that dates to 1531. We are convinced that this circle represents the Celestial City of Jerusalem called Puebla de Los Angeles (Angelopolis) now known as Puebla. According to Motolinía the city was found in 1530 with the hope of it being “settled by people who instead of all waiting to have Indians assigned to them, would devote themselves to tilling the field and cultivating the land in the Spanish way.” A 1733 map of Mexico shows the location of Puebla de Los Angeles (Fig. 9).

A strikingly similar representation of Jerusalem is a Psalter-fragment (The Hague, KB, 76 F 5) from 1200 (Fig. 10). This is one of eleven copies of an abbreviated map of Jerusalem, all broadly alike in the street plan and buildings of the city with *qubba* and crucifix to mark each holy site (Harvey, 2012).

This circular arrangement of six *qubba* around a central holy area also bears an uncanny resemblance to the map of Cholula (De chollola) from the *Relación Geográfica* of 1581 (Mundy, 2000) (Fig. 11). This shows a central Franciscan monastic complex (“Ciudad S.Gabriel. Ancta yglesia, Cabila”) with Cholula’s largest pre-Hispanic pyramid, the *tlachihuatl tepetl*, pictured at upper right and named “Tollan Cholulā.” Then, arranged round this complex, six *convento*, each with a crucifix and a *qubba*-like mound to the rear (probably representing previous pagan temples), are (clockwise from upper right):

- (1) “Sanct. Andres Cabezeras,” possibly Ex *Convento* de *San Andrés* Calpan, Puebla or Ex *Convento* San Diego, *San Andrés*, Cholula;
- (2) “Sanct. Pablo Cabezera,” possibly Ex *Convento* de San Pablo de los Frailes, Puebla de los Ángeles;
- (3) “Sanct. Maria Cabezera,” possibly Ex *Convento* de *Santa María*, Tepapayeca or Santa Maria de la Concepción, Atlihuetzía, Tlaxcala;

- (4) “Sanct. Juan Cabezera,” possibly Ex-Convento de San Juan Bautista, Cuauhtinchán, Puebla;
- (5) “Sanctjago. [Santiago] Cabezera,” possibly Ex Convento de Santiago Apóstol, Cuilapam, Oaxaca;
- (6) “Sanct. Miguel Tecpan Cabezera,” possibly **San Miguel Tecpan**, Jilotzingo.

A



B



Fig. 9. Circle A as Puebla de los Angeles (left); 1812 map (Spanish Dominions in North America) of central Mexico indicating the location of Puebla de los Angeles (right).



Fig. 10. Abbreviated map of Jerusalem from 1200 (Koninklijke Bibliotheek © National Library of the Netherlands).

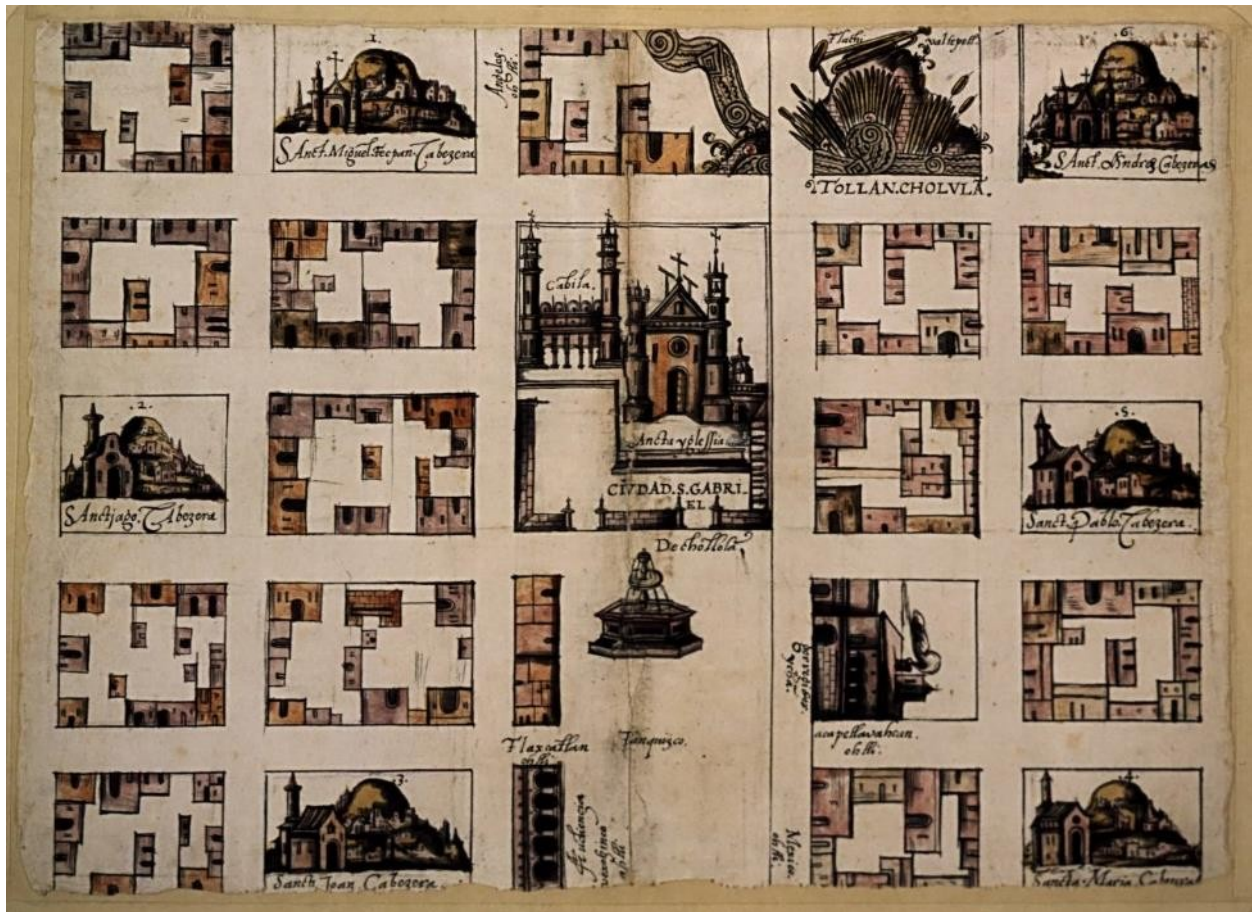


Fig. 11. Cholula (De chollola) from the Relación Geográfica of 1581 (Mundy, 2000).

Circle 4 (Fig. 12A). We suggest this circle represents Tlaxcala the city entered by Cortés on his way to Tenochtitlan, whose name in Nahuatl means “the place of maize tortillas.” The population was 300,000 in the 16th century. There was a large fountain and square in the center of the colonial city which might be represented by the blue cross with a circle at its center. Next to the blue cross is a large rectangular area with rows that seems to represent the rows of a prominent marketplace (*tiend*) behind the fountain and square. This matches the plan of central Tlaxcala in the 16th century (Fig. 12B). A stone fountain in the center of plaza was erected 1548 by Fray Francisco de las Navas and Diego Ramírez, the second registered Corregidor. Water from the Zahuapan River came to this fountain by a conduit, and this was used as a supply for drinking water for miles around. *Tiendas*, or shops, were to the southwestern and southeastern sides of the plaza as early as 1549 (Gibson, 1952). There are six poles. There are two patches filled with stars. The volcano on the edge pointing to Circle A would be La Malinche (Matlalcuéytl), the largest volcano in Tlaxcala.

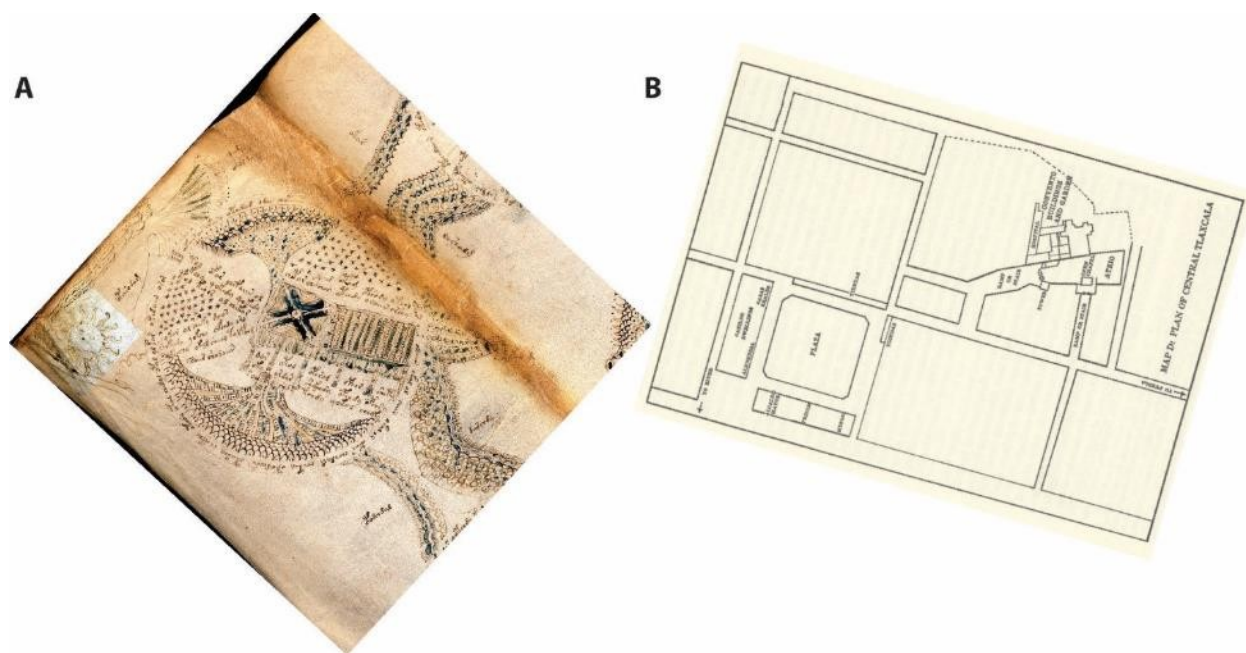


Fig. 12. (A) Circle 4 (Tlaxcala); (B) map of “Tlaxcala (Gibson, 1952).

Circle 6, B, and C (Fig. 11). We propose Circle 6 (Fig 11A) represents Tecamachalco, Puebla rather than the nearby city of Tepeaca. The Franciscans arrived in Tecamachalco in 1541. The church, Asuncion De Nuestra Senora (Fig. 12B), was dedicated in 1551 and completed by 1557. During this time Andrés de Olmos, Francisco de las Navas, and Toribios de Benavente (known as Motolinía) resided in this dusty outpost and taught the local indigenous peoples not only the rudiments of Christianity, but also the tenets of European art. At the same time, the diseases brought by the Spanish resulted in unremitting loss of life for the indigenous population. The 16th century saw three major epidemics in Tecamachalco (1520, 1542, and 1577). The authorities estimated that 90% of the native population in the area had disappeared by 1580. For their part, the Franciscans fervently believed that the evangelization of the indigenous population of the New World was essential to precipitate the second coming of Christ. Not surprisingly, Motolinía drew parallels between the epidemics and famine that were decimating the native peoples and the disastrous events described in Revelation announcing the imminent return of Christ. The Apocalypse gave meaning to this tragedy of human suffering (Acuna-Soto et al. 2002; Marr and Kirkacofe, 2000).

Asuncion De Nuestra Senora contains 27 paintings in North Renaissance style by the indigenous *ladino mestizo* artist (*tlacuilo*) christened Juan Gerson painted in the mid 16th century. The church has four ribs with a Franciscan rosette in the center (Fig. 11C) as suggested by the central ring representing the five wounds of Christ. Gerson’s paintings, on native *amatl* paper, appear to be based on woodcuts from Bibles published in Germany and France in the 15th and 16th centuries. Flemish and Italian paintings were also used as models to train Indians in the colleges set up by the Friars (Fig. 5B). The paintings of Gerson include many scenes from the Hebrew Bible and include a panel called Jerusalem and the City of God (Azpeitia, 1972; Boone and Cummins, 1998; Carmelo Arredondo et al., 1964). There are a number of strange shapes in blue and white

stripes in that circle which are unexplainable. The circle B is connected to Circle 6 in the south, without any words and probably represents the stratovolcano Pico de Orizaba (Citlaltepetl), the highest mountain in Mexico, 47 km from Tecamachalco, and dormant since 1687. We have already commented on Circle C the small disconnected circle above Circle 6 with the ball-and-stick figure.

In the large passageway associated with Circle 6 there is a long structure with swallow-tailed merlons. We suggest that this structure could very well be the aqueduct connected to the Church that is now in ruins; a number of aqueducts in colonial Nueva Espana do show merlons. A photograph of the present church Asuncion De Nuestra Senora (Fig. 11B) shows a connected aqueduct. We consider this further evidence that Circle 6 represents Tecamachalco.



Fig. 11. (A) Circle 6 (Tecamachalco); (B) Asuncion De Nuestra Senora church with connected aqueduct; (C) Interior ceiling with paintings of the *tlaquilo* Juan Gerson.

Circle 8 (Fig. 12). This circle composed of two rings can be associated with the Vera Cruz area on the East Coast of Mexico based on four elements: (1) the six large pipes emanating from the outside of the circle could represent the six chimneys in the ruins of the Temple of the Chimneys at the city of Zempoala (Cempoala) (Fig. 13), an ancient Mesoamerican archeological site north of Vera Cruz; (2) the structure in the passageway to circle 9 is interpreted to be an ancient lighthouse/monastery in Vera Cruz; (3) the large oval shape in the inner circle might represent the large fresh water lake Laguna Catemaco in Vera Cruz; (4) a Voynichese name in orange

tinted area ($\alpha\pi\epsilon\delta\alpha\lambda\alpha\lambda$) in the inner circle can be deciphered as *ātmchonon* = water seller based on Nahuatl cognates: *atl+m+aca* = water + someone and *chonon* = seller. The residents of various towns had nicknames (Furbee et al., 2010) and the names associated with Vera Cruz include *chono trago* or *aguadiente* sellers (bootleggers) which would be redolent of water sellers.

Vera Cruz was a bustling city when Cortés landed but was severely decimated by smallpox, and by 1577, only 30 households remained, and these were relocated and the town abandoned; only two inhabitants were recorded in 1600. The Temple at Zempoala was covered by forest and fell apart, only to be rediscovered in 1891 by Francisco del Paso y Troncoso, but the bulk of the work was done in the 1940s by García Payón. The Temple was important to predict the phases of the moon. The initial Franciscan conventos in Vera Cruz were wooden but were decimated by two fires in the 17th century. They also served as light houses at some point and were built on a promontory at the port above the Gulf. The latest version of the Franciscan monastery was later nationalized and is now a Holiday Inn. Approximately 35% of the fresh water in Mexico is in Vera Cruz, and Laguna Catemaco, a freshwater lake there in sight of the Gulf of Mexico (Carrasco, 1999).



Fig. 12. Circle 8.



Fig. 13. Remains of 5 chimneys from the ruins of the Temple of the Chimneys, Zempoala (Cempoala).

Circles 3, 5, 7, 9. (Fig. 14). These four circles appear cosmological in nature. Circle 3 is very strange with an outer circle consisting of small ball-like forms and associated with 16 protuberances or undulations. The circle form in the center containing a small inner circle at the center connected to two winglike forms. The inner area is filled with blue marks. The 16 undulations show a resemblance to the seven legendary caves of Chicomoztoc (Fig. 15) the

legendary location for the Aztecs origins (Carrasco and Sessions, 2007; Rossell, 2006). Pico de Orizaba in the State of Puebla has many small caves that were used for rituals before the Conquest and this circle 3 may refer to this area.

Circles 5, 7, and 9 are similar and appear to be wheels with spokes or ribs: 7 in Circle 5, 8 in Circle 7, and 15 in Circle 9. The spokes in each are associated with names (Table 2).

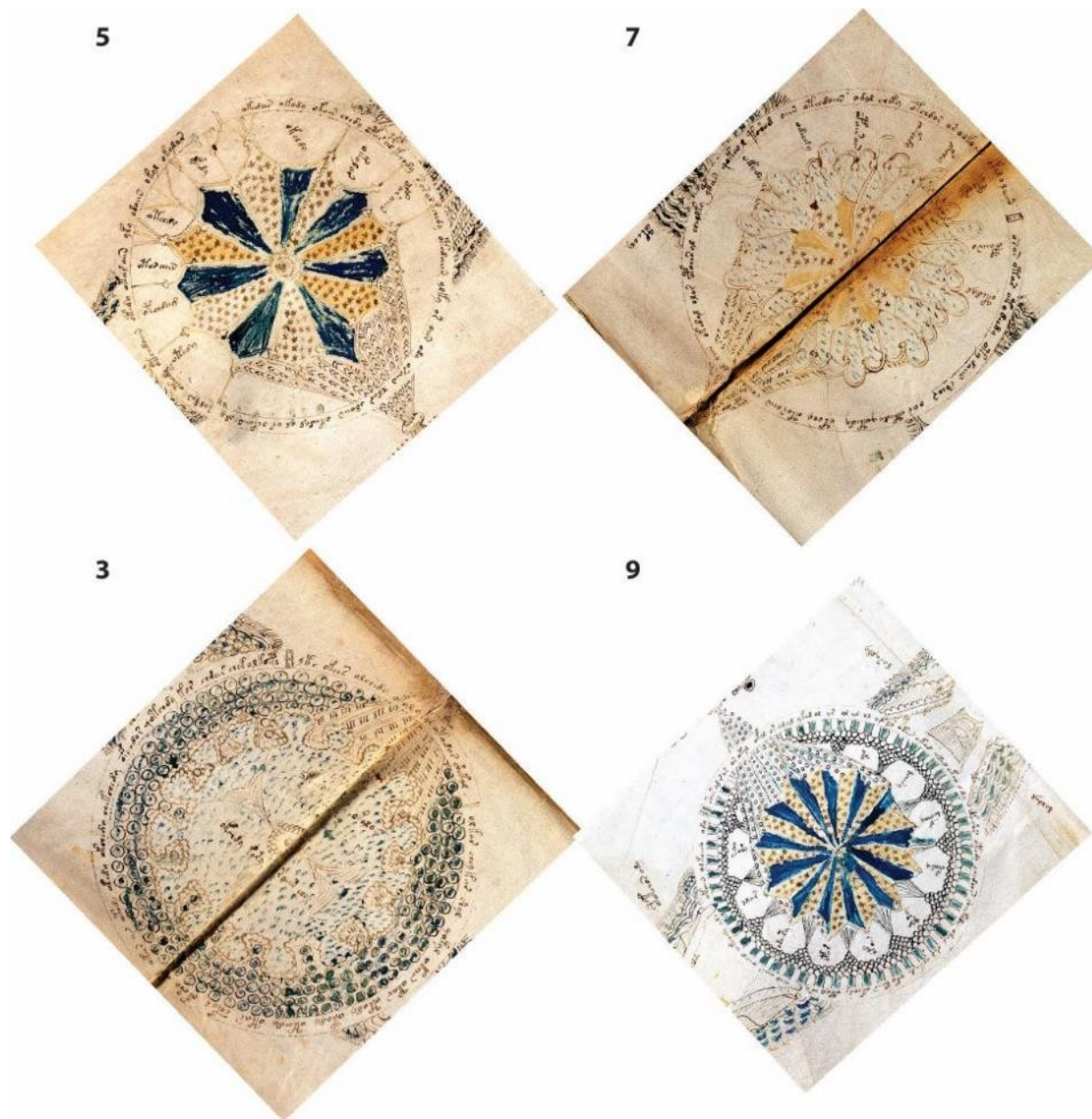


Fig 14. Circles 3, 5, 7, 9.

Table 2. Words in circle 5, 7, and 9 in Voynichese listed in alphabetical order.

Circle 5	Circle 7	Circle 9
𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹
(āhuāshnoll)	(āhuollā)	(āhuoe)
𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹
(ātlācāoe)	(ātlaachi)	(āhuol)
𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵	𐌶𐌵
(ātlachi)	(ātlahocā)	(ātlā)
𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵
(ātlānml)	(ātlmi)	(ātlāei)
𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵
(ātlmchoya)	(ātlichi)	(ātlachi)
		𐌶𐌵𐌹𐌸𐌵
		(ātlāei)
𐌶𐌵𐌹𐌸𐌵 2x	𐌶𐌵𐌹𐌸𐌵	
(ātlmchi)	(mtlaachi)	
𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵
(ātlshchi)	(ohaahi)	(chāhumi)
	𐌶𐌵𐌹𐌸𐌵	𐌶𐌵𐌹𐌸𐌵
	(ohuoshnoe)	(chālli)
		𐌶 𐌶 𐌶
		(ch?ān)
		𐌶𐌵𐌹𐌸𐌵
		(ochāshni)

Circles 5, 7, and 9 are similar and appear to be wheels with spokes or ribs: 7 in Circle 5, 8 in Circle 7, and 15 in Circle 9. The spokes in each are associated with names (Table 2).

The three circle (5, 7, and 9) resemble a wheel with 7, 8, and 13 spokes that terminate in an area with 8, 8, and 10 words, respectively (Fig. 1), that must be nouns. Since circles 2, 4, 6, and 8 are cities, the words in circles 5, 7, 9 may be related to villages or towns. The 26 words in these circles have been alphabetized and compared to cities in the area surrounding Puebla in Table 3 and some seem close. The words *Altaachi* and *Atlachi* refer to spear throwers or fishermen in Nahuatl and may be small Lake villages (Staedtler et al., 2006). Thus, the 8 circles surrounding circle A (The Celestial City of Jerusalem founded by Motolinía in 1530) makes sense as a metaphoric map surrounding Puebla. It seems probably that many of the small villages or towns referred to could have disappeared or have had their names altered.

The similarities of the words in circles 5, 7, and 9 might that the words might also be incantations involving drought since of the 26 words, 15 begin with the term ātl or ātl , a Nahuatl cognate that concerns water, and 4 words that begin with āhu or āhu might refer to something dry since *ahuoj* = dry arroyo/dry creek. Note that the word *atlachi* or *atlaachi* is found in all three circles. The repeated droughts in the 16th century (1545–1575), the worst in 500 years (Acuna-Soto et al., 2002) was one of the causes of increased human sacrifice among the Aztecs and the words could very well have been associated with incantations for rain.

Table 3. Deciphered words in the circles 5, 7, 9 compared to towns in states of Mexico (District Federal, Hidalgo, Mexico, Puebla, Tlaxcala, Vera Cruz, Guanajuato, and Queretaro) that were obtained from Directory of Cities and towns in Mexico (Falling Rain Genomics, 2015).

Circle number	Deciphered words	Related towns (States)
5	Ahuashnoll	
9	Ahuoe	
9	Ahuol	Ahualulca, Ahualulco (Guanajuato)
7	Ahuolla	
9	Atla	Atla (Puebla)
5, 7, 9	Atlaachi	
5, 9	Atlachi	Atlaco (Hidalgo)
5	Atlacaoe	Atlatlahuaca, Atlatlahuca (Mexico)
9	Atlaei	
7	Atlahoca	Atlahuilco (Vera Cruz), Atlajco, Atlalco (Hidalgo)
5	Atlanml	Atlan (Puebla, Hidalgo)
9	Atlaei	
7	Atlichi	Atlaxco, Atlixco (Puebla), Atlicos (Vera Cruz)
7	Atlmi	
5	Atlmchoya	Atlmozoyahua (Vera Cruz)
5	Atlmni	
5	Atlshchi	
9	Chahumi	
9	Challi	Chalma (2) (Puebla)
9	Chian	Chicayan (Vera Cruz)
7	Mtlaachi	M. Avila Camache, Machanche (Queretaro)
9	Ochashni	
7	Ohaahi	
7	Ohuoshnoe	



Fig. 15. Circle 3 folio 86v showing undulations similar to the seven legendary caves of Chicomoztoc (*Códice Historia tolteca chichimeca*, fol. 16r).

CONCLUSIONS

Folio 86v of the Voynich manuscript is a complex figure that involves two concepts: (1) a kabbalistic sephirothic Tree of Life, and (2) a map associated with Puebla de los Angeles, the New Celestial City of Jerusalem established by the Franciscan Friars including Motolinía. It includes four encircling cities, Huejotzingo, Tlaxcala, Tecamachalco/Tepeaca, and Zempoala (Cempoala)/ Vera Cruz, all mentioned by Motolinía. The diagram is evidence that the artist of the Voynich manuscript was involved with Catholic mysticism linked to Jewish Kabbalah. Folio 86v might provide help in decipherment of the Voynich Codex since many of the illustrations are associated with text.

LITERATURE CITED

- Reyes Valerio, 1964; Azpeitia, 1972; Carmelo Arredondo, Gurría Lacroix, and; Niedermeier, 2002 see chapter 15
- Acuna-Soto, R., D. W. Stahle, M. K. Cleaveland, and M. D. Therell. 2002. Megadrought and megadeath in 16th century Mexico. *Emerging Infectious Diseases* 8:360–362.
- Anderson, A.J.O., and C.E. Dibble (trans.). 1953. *General history of the things of New Spain* (Fray Bernardino de Sahaguin). Book 7 – “The sun, moon, and stars, and the binding of the year years. The school of Amercian Resarch amd the University of Utah.
- Azpeitia, R. C. 1972. *Juan Gerson, Pintor indigena del siglo XVI—símbolo del mestizaje—Tecamachalco Puebla*. Fondo Editorial de la Plastica Mexicana, Mexico.

- Blau, J. L. 1944. *The Christian interpretation of the Cabala in the Renaissance*. Columbia University Press, New York.
- Barney, S.A., W.J. Lewis, J.A. Beach, O. Berghof. 2006. *Etymologies of Isidore of Seville* 1st ed. Cambridge University Press, UK.
- Boone, E. H., and T. Cummins, eds. 1998. *Native traditions in the postconquest world*. Dumbarton Oaks Research Library and Collection, Washington, DC.
- Camelo Arredondo, R., J. Gurría Lacroix, and C. Reyes Valerio. 1964. *Juan Gerson, Tlacuilo de Tecamachalco*. Departamento de Monomultos Coloniales, Instituto Nacional de Anthropología e Historia, México.
- Carrasco, D. 1999. *The Tenochca empire of ancient Mexico: The Triple Alliance of Tenochtitlan, Tetzoco, and Tlacopan*. University of Oklahoma Press, Norman.
- _____, and S. Sessions, eds. 2007. *Cave, city, and eagle's nest: In interpretive journey through the Mapa de Cuauhtinchan No. 2*. University of New Mexico Press, Albuquerque.
- Chuchiak, J. F. 2012. *The inquisition in New Spain, 1536–1820: A documentary history*. Johns Hopkins Press, Baltimore, Maryland.
- Dedopulos, K. 2012. *Kabbalah: An Introduction to the Esoteric Heart of Jewish Mysticism*. Carlton Books, London.
- Don, P. L. 2010. *Bonfires of culture: Franciscans, indigenous leaders, and Inquisition in early Mexico, 1524–1540*. University of Oklahoma Press, Norman.
- Donahue-Wallace, K. 2008. *Art and architecture of Viceregal Latin America, 1521–1821*. University of New Mexico Press, Albuquerque.
- Encyclopedia Judaica, 1971. *Kabbalah*. Keter, Israel.
- Falling Rain Genomics. 2015. *Directory of Cities, Towns, and Regions in Mexico*. <http://www.fallingrain.com/world/MX/>. Accessed September 3, 2015.
- García Granados, R. and L. Mac Gregor 1934. *Huejotzingo, la ciudad y el convento Franciscano*. Talleres Gráficos de la Nación, México.
- Furbee, N. L., R. Jiménez Jiménez, T. López Mendez, M. B. Sántiz Pérez, H. Aguilar Méndez, and J. Méndez, 2010. *Geographic Ideology: Nicknames for Chiapas towns: A Lexographic Bouquet for Bob Laughlin*. American Anthropological Association, New Orleans, Nov. 19. Abstract. http://sssat.missouri.edu/docs/B-Geographic-Ideology_Abstract-Handout AAA19Nov2010.docx. Accessed September 3, 2015.
- García Granados, R., and L. Mac Gregor 1934. *Huejotzingo, la ciudad y el convento Franciscano*. Talleres Gráficos de la Nación, México.
- Gibson, C. 1952. *Tlaxcala in the sixteenth century*. Stanford University Press, Stanford, CA.

- Harvey, P. D. A. 2012. *Medieval maps of the Holy Land*. British Library, London.
- Lara, J. 2004. *City, temple, stage: Eschatological architecture and liturgical theatrics in New Spain*. University of Notre Dame Press, Notre, Dame, IN.
- _____. 2008. *Christian texts for Aztecs: Art and liturgy in Colonial Mexico*. University of Notre Dame Press, Notre Dame, IN.
- Marr, J. S., and J. B. Kirkacofe. 2000. Was *hue cocoliztli* a hemorrhagic fever? *Medical History* 44:341–362.
- Motolinía, T. de Benevente. 1951. *Motolinia's history of the Indians of New Spain*. Transl. F. B. Steck. Academy of American Franciscan History, Washington, DC.
- Mundy, B. E. 2000. *The mapping of New Spain: Indigenous cartography and the maps of the Relaciones Giográficas*. University of Chicago Press, Chicago.
- Perry, M. E., and A. J. Cruz. 1991. *Cultural encounters: The impact of the Inquisition in Spain and the New World*. University of California Press, Berkeley.
- Perry, R. 1993. *Mexico's fortress monasteries*. Espadana Press, Santa Barbara, CA.
- Rossell, C. 2006. *Estilo y escritura en la Historia Tolteca Chichimeca*. *Desacatos* 22:65–92.
- Sambhu. 2013. *El Corazón del Corazón de América*. <https://shivashambho.files.wordpress.com/2014/10/el-corazc3b3n-del-corazc3b3n-de-amc3a9rica.pdf> Accessed September 3, 2015.
- Staedtler, M. C., and M. F. Hernández, 2006. Hydraulic elements at the Mexico-Texcoco lakes during the postclassic period. In: Lisa J. Lucero and Barbara W. Fash. *Water Management: Ideology, Ritual, and Power*. The University of Arizona Press, Tucson, p. 155-170.
- Villa-Flores, J. 2006. *Dangerous Speech. A social history of blasphemy in Colonial Mexico*. University of Arizona Press, Tucson.