

Temporal boundaries in the Mexican Vernacular House

Gerardo Torres, PhD, IPN Mexico, CIAV-ICOMOS Member

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Abstract

Geographical expressions of Vernacular house in Mexico are diverse due to the vast territory (almost 2 million km²) where they take place. Cultural roots of Mexican vernacular architecture (1150 B. C.) are numerous as well: Olmeca, Teotihuacan, Maya and Tolteca Culture are just a few examples of the several cultures that developed there.

Territorial boundaries were nevertheless cultural ones and vernacular house in Mexico exemplifies this: a cultural outcome with pre-Hispanic and Spanish influences as well, that after 500 years of colonial times, and 200 years of a nation with independent life, still survive. This cultural diversity is reflected in the more than 12 Million indigenous population, which represent 10% of the total, distributed in approximately 85 groups with own traditions and languages.

Mexican vernacular house can be seen then not just as a *product* that express local building resources limited by physical borders, but also as a *process* in which several cultures go through, leaving a trace of the several historical times. What are the traces that represent these “temporal layers”, and how to define the limits of them are the questions that motivated this work.

Taking as an example a Mexican region with indigenous Nauha influence, twenty municipalities from Valle de Toluca, Mexico were researched. From these, pre-Hispanic features of forty cases were documented and analyzed. For this, an analytical framework was developed, that is based on building aspects and symbolical and non material expressions too.

As in many parts of the World, vernacular heritage in Mexico faces the risk of destruction as a consequence of external influences which weakness gradually local cultures and traditions. However, the research allow us to conclude that, in spite of modifications and destruction, pre-Hispanic elements in the vernacular house have not disappeared but do still remain. Several symbols and rituals still shape the spatial configuration of the house and represent the existence of an intangible heritage that underlies the architecture of the Mexican vernacular house; a unique example where territorial and temporary boundaries become one.



Examples of vernacular house with Nahua influence, Estado de Mexico, México.

The Nahuatl world vision and the pre-Hispanic concept of space

Understanding the Nahuatl world vision is crucial to understand the Culture of the pre-Hispanic space. After that, is easier to establish the links between the architectonical space and the Nahuatl vision. Undoubtedly, the most important work to reach this goal is the work developed by Miguel Leon Portilla.

According to Portilla, *everything* has its origin in the concept of *place* and the “God of duality” or God of the twofold division: *Ometeotl*. This God lives in the “place of the duality” (Omeyocan). According to this duality, in the night Ometeotl makes the stars bright (Citlalinicue) and during the day takes the form of a star that gives life to the things and makes them bright (Citlalatónac).

According to Portilla, and following the Nahua literature, Ometeotl “lies on the navel of the earth”. That means, that the World lies on him. He lives at the center of the World, at the crossing point of the four directions that represent the other Gods created by Ometeotl: Ometeotl is the father and mother of the cosmic forces that were four, according to the ancient document *The History of the Mexicans by their paintings*.

These four divine elements represent the major forces that make possible the creation of the World. Each one of these forces is represented by a different color: red, black, white and blue. At the same time each one of these forces will have influence on particular natural elements, directions and periods of time. This way, “the four children of Ometeotl” will bring together time and space, but not to define a geographical space, as a simple coordinate system, but as dynamic factors that are interrelated and determine the cosmic History.

This way Portilla makes clear, how a principle of duality explains and makes possible the creation of the Universe; a place where everything has a temporal and spatial location. Space is generated from the center and the four directions of the universe. This spatial order, as well as the importance of the number four is represented in almost all the Nahuatl everyday life as will be shown below.

Nahuatl Century consisted of 52 years. Each of the four directions had influence in a period of 13 years and every Nahuatl year consisted of five weeks with 13 days each one with the symbols of the corresponding direction.

This way, the influence of the four directions was present in each period of time. This way, the interaction between space and time made possible the harmony of the Gods (the four forces), creating life (*ollin*), symbolized by the heart (*y-òllo-tl*) and explained by the movement (*y-olli*).

It is evident that the concept of the four sons of Ometeotl is present in the register and counting of time. The temporal cycle of 52 years, “the new fire”, is

the product of multiplying 13 x 4 years. Number thirteen¹ was, after number four, the most used number. Space and time were measured then by means of this numbers based on the *four*, *five* and *thirteen*.

Martínez synthesizes the idea of Portilla, and argues that the concept of the Tolteca theology lies in a principle of duality. This duality consists of a creation principle, a male and female being named Ometeotl, who created the Gods, the World and the human beings. This God of duality or supreme creator lives in the “thirteenth sky” and takes different forms when he acts in the universe². For example:

- 1) *Ometecuhtli, Omecíhuatl: The Lords of the Duality* (feminine and masculine).
- 2) *Tonacatecuhtli, Tonacacíhuatl: The Lords of the support* (male and female).
- 3) *In teteu inan, in teteu ita, Huehuetéotl: The mother and father of the Lords, the old Lord.*
- 4) *in Xiuhtecuhtli* is at the same time the *Lord of fire* and lives in “the navel of the fire”: *tle-xic-co*.
- 5) *Tezcatlanextia, Tezcatlipoca: is the mirror of the day and the night.*
- 6) *Citlallatónac, Citlalinique: is the star that makes the things bright.*
- 7) *Tláloc, is the Lord of the water, Chalchihuatónac, Chalchihutlicue, The Lord of the solar bright of Jade and that of the jade skirt.*
- 8) *In Tonan, In Tot: it is our mother, our father.*
- 9) In a word, he is Ometéotl, who lives in the place of duality (Omeyocan). Ometéotl has besides, the following attributes, related to its existence:
 - 1) He is *Yohualli-ehécatl*, that Sahagún translates as invisible” and “not perceived by the touch”.

¹ According to the numerology, just the cero and the numbers from 1 to 9 exist. With this, every quantity is reduced always to these basic numbers. In the pre-Hispanic world, the number 13, numerological, is equal to number 4, which results from the sum 1+3.

² Martínez José Luis. NETZAHUALCOYOTL. VIDA Y OBRA. Fondo de Cultura Económica, México 1990. P. 80- 81.

- 2) He is *Tloque in Nahaque*, “The owner of the fence and beyond” (according to Portilla), or “the being of everything, the being that gives life and preserves everything” (according to Fray Alonso de Molina, in *Vocabulario en lengua castellana y mexicana*, f 148 r), or “the one, that has everything in itself” (Francisco Javier Clavijero, in *Historia Antigua de México*, lib. VI, Cap 1), or “the one, who is on the side of everything, and the one, to whom everything is on the side” (Garyvay, in *Historia de la literatura náhuatl*, t. III, p. 408).
- 3) It is *Ipalnemohuani*, “the one for whom it is lived” (Clavijero, *ibidem*), or “the one who gives life”, as translated by Garivay in his version of the *cantares nahuas* or Nahua songs.
- 4) He is *Totecuio in ilhuicahua in tlalticpacque in mictlane*, “Our Lord, the owner of the sky, the owner of the earth and the owner of the region of the dead” (according to Portilla).
- 5) He is *Moyocoyani*, “the one who invent himself” (*ibidem*).

Portilla further describes some liturgical aspects about the role of Ometeotl and its free will. When someone was born, it was reported to the Magician -or the Soothsayer- the time of the birth. The Magician then looked at this books (*Tonalámatl*) to know the astrological sign and the corresponding character. After that, the Magician said the day the newborn must be baptized.

For the Pre-Hispanic Cultures, cosmic space was so important, that it must be expressed in the Architecture too, not just in the religious buildings, but also in the house. To document this, Pre-Hispanic codices represent a very important source of first hand information about formal and liturgical elements that shaped the architectonical concept of the Náhuatl World.

House was used as a time unit in form of a *glyph*. Of great importance is also the graphical representation of the architectonical space in the codices, like the floor plans of houses and religious buildings. Such drawings offer a very clear picture of the spatial architectonical concepts as shown in the following.



Picture 1. Image 1 of Mendocino Codex³

Codex Mendoza or Mendocino shows the mythical founding of Mexico (see Picture 1). In this picture, four neighborhoods or barrios, called *calpullis*, are divided by canals. At the center an eagle stands on the cactus. *Number four* was crucial in the pre-Hispanic life⁴. The meaning derives probably from the Nahuatl world vision, by which it is established, that Ometeotl had four sons, that act as the basement of the universe. Space is represented then in a square or rectangular form and it is delimited by the squares of ceremonial places.

In the same way, in the courtyards (*patios*), the square expresses the four directions of the universe because they locate the most important elements at the center. An example of this is Teotihuacán, where the altar or sacred places locate at the center.

The concept of the four neighborhoods or *calpullis*, with the eagle at the center, is an analogy to the four directions of the universe. The intersection of this axis, that has the form of a cross, appears in all the known codices and represents the sacred.

³ Picture taken from Matos Moctezuma E./Zabé Michel/Leon Martha. LA CASA PREHISPÁNICA. INFONAVIT México, 1999. P. 82.

⁴ The counting of time derives from the number four, the cycles of the "new fire" every 52 years, are the result of multiplying 13 four times. It seems to be that Aztec life was ordered by number thirteen. (For more information, see EL NÚMERO 13 EN LA VIDA DE LOS AZTECAS (Number 13 in the life of the Aztecs) from Raúl López, Angel, Costa ACIC Editores, México, 1984. In this work rituals are described as well as the proportion of the buildings, calendar and celebrations. In all these elements the numerical base of four, five and thirteen are emphasized in the way of cycles of such elements.

The idea of the four directions of the universe, and the center as the most important place, -the location of Omēteotl- is represented by the Aztecs very clear in the name of their city: Mexico, that means “in the navel of the moon”, that is to say, “in the center of the universe”. Symbolically, Aztecs placed themselves at the center of the World and the other four directions of the universe are generated from the center of the city, where all the directions cross each other. At the same time, they make an analogy with the concept of the sacred place, which is created from the center of their city.

The word “calli” embraces the concept of space: from the sacred space to the profane one, from the neighborhood to the house, from the urban to the backyard. In most of the pictorial representations of the house it is observed that the entranceway was located at the center. The entranceway was emphasized by pillars and lintels of a different material or different color. These buildings were placed over platforms with a height of two or three steps. In the case of the temples (*Teocalli*, or *sacred house*), the platform has a pyramidal form.

The graphic representations of floor and façades of the rooms in the codices vary. But the rectangular form is common, with a length twice larger than the width. The entranceway is shown at the center and sometimes the pillars (jambas) are drawn. No windows appear.

In some codices the temples have a square form. Rituals and cosmological acts are always related to the four squares of the room and the center of the same. The rituals and the spaces where they took place were very important. In these spaces the concept of space and time was always present and it was derived from the Nahuatl vision.

With the name of “El ciclo de los 52 años” (The cycle of the 52 years”) a fragment of the Bourbon Codex is shown below (see Picture 2), and because of its symbolical use of space, is cited as follows: “En el adoratorio de oro, donde brota un manantial de agua, están sentados en sus tronos los ancianos, los sabios, los Cargadores de los Bules de Tabaco. La abuela Oxomoco, que pronostica la suerte, arroja granos de maíz de una jícara. El abuelo Zipactonal “el del primer día”, que determina las actividades de los sacerdotes, hace ofrendas con el incensario, el punzón de hueso para el auto sacrificio y la bolsa de copal. Ellos son los patronos de la primera mitad del siglo, de los primeros 26 años, desde el año uno conejo, hasta el año 13 caña”⁵.

⁵ ANDERS, JANSEN, REYES. EL LIBRO DEL CICUACATL. *Homenaje para el año del fuego nuevo. Libro explicativo del llamado código Borbónico (Tribute for the year of the new fire. Explicative book from the so called Bourbon Codex).* Fondo de Cultura Económica, México-Austria, 1991. P. 181.

In this description the symbolic use of space is highlighted. The main room (or *aposenito*) becomes a golden shrine, so that within that space the first pair created by the gods can be a sacred celebration.



Picture 2. Floor plan representation of the “golden adoratory”. Inside, Zipactonal and Oxomoco⁶. Bourbon Codex⁷.

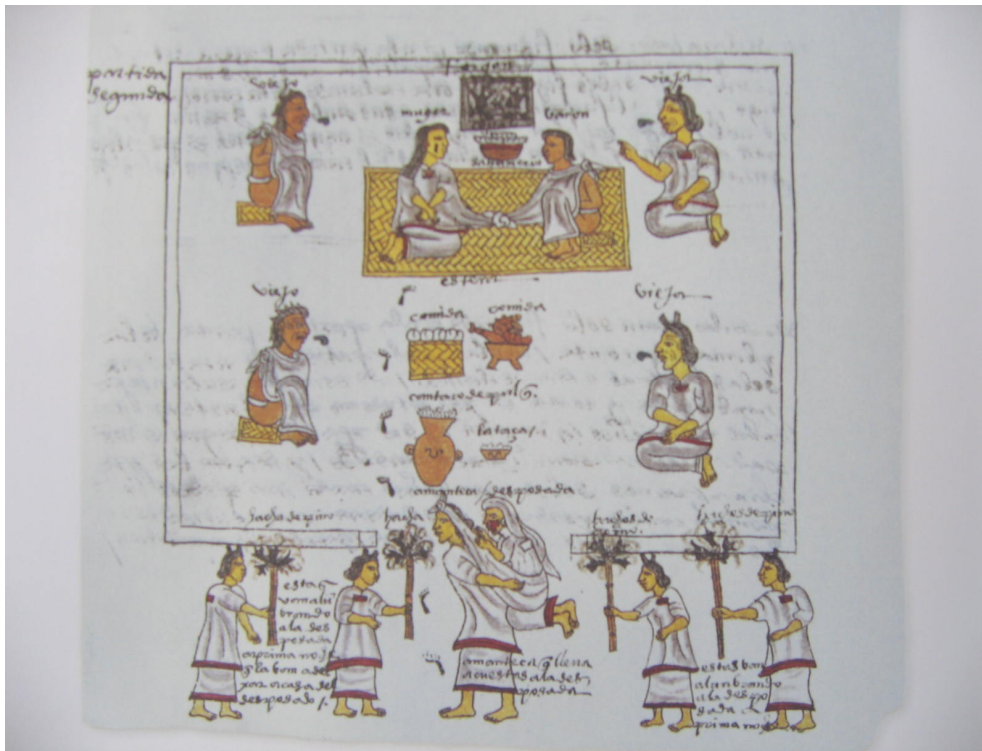
In the case of this picture, the walls are adorned with gold circles due to the importance of the ritual. It is noted that the access is at the center and there are no windows. The center of the space is the scenario of the ritual. Protagonists

⁶ Oxomoco y Zipactonal, masters of the astrology, the first couple created by the gods from whom the common people were born. They represent the wise men, the great mother. Oxomoco throws corn grains as an oracle. ANDERS, JANSEN, REYES. *EL LIBRO DEL CICUACATL. Homenaje para el año del fuego nuevo. Libro explicativo del llamado código Borbónico*. Fondo de Cultura Económica, México-Austria, 1991. P. 181-183.

⁷ Bourbon Codex, Facsimile reproduction. *Academische Druck und Verlagsanstalt Neufeldweg*, Graz, Australia. 1991.

locate in both sides and at the center maize grains are thrown by *Oxomoco*; the thurible and the punch are presented by *Zipactonal*.

Mendocino codex presents the picture of a wedding celebration inside a house (see Picture 3). This codex corresponds to the period immediately after the conquest, -so it is considered colonial, it has pre-Hispanic characteristics. For this research is of particular interest that, first, the perimeter of the house is quite clear. The form of the house is rectangular; the access is at the center in which the limits of the jambs are marked. There are no windows.



Picture 3. Wedding celebration. Mendocino Codex.⁸

With respect to the use of the space, in this wedding celebration it is noted that four old men, two men and two women are located at the four corners. The old men are shown talking to the couple, giving their words of wisdom and experience, -probably their advises-, as described by Fernandino de Sahagún⁹.

⁸ Picture taken from Matos Moctezuma E/ Zabé Michel/ Leon Martha LA CASA PREHISPANICA. INFONAVIT, México 1999. P. 56.

⁹ According to Sahagún, after the fourth day from haven chosen a woman, the old men went to ask for the answer of the woman. The author describes all the pre-Hispanic celebration by which the several wise men of both families gave moral advises to the just married. Source: DE SAHAGÚN Fray Bernardino.

At the center, the couple is located; they seat on a carpet and have been tied with their robes as a symbol of unity. At the center, next to the wall, opposite to the entrance, is located the fire and the altar. Following Sahagún, when the couple came to the house of him, a carpet was put and the mother in law tied the blouse of the Bride to the robe of her son; after this, the mother offered them four bites, first to her and then to him and left them “tamales” and “mole” (maize cake and chicken with chocolate sauce). As shown in the illustration, these foods were left at the center of the space. While outside in the courtyard it is celebrated with a procession with the relatives of the couple. The celebration ends when the couple is left alone into the room all night and the court continues outside the celebration. The next day the couple came out to shake the carpet where they slept, as part of the ceremony.

It should be noted how the room and the courtyard of the house had an important role during the mentioned celebration. These spaces where the place where all the rituals were made and the symbolic objects, -with a specific arrangement, were placed.

The room, either used for the “common people” (House or *Calli*, in Nahuatl language) or for the Lords, (Temple, or *Teocalli*, in Nahuatl language) acquires a symbolic meaning, being represented in the different rituals. The characteristics that have been observed in various archaeological works were similar to those represented in the codices of the sixteenth century and the pre-Hispanic ones. Here it has been outlined how some elements of the Nahuatl world view are somehow explaining the existence of the rituals and therefore the use of architectural space.

The vernacular house of the central area of Mexico

Vernacular house in Mexico is diverse, due to the territorial extension where it expands and the diverse existing indigenous groups. The house that was analyzed corresponds to the central area, that was dominated by the Aztec culture (see Picture 4). Today, the house of this region is characterized by a series of spaces with a residential or a complementary use. Thus the most important space is the space to sleep, because it has a symbolic sense, as shown below. From a field survey it was determined that 100% of the visited houses display this architectonic space.

Kitchen represents the second most important space for the inhabitants. It appears generally separated from the space for sleep. Hundred percent of the

groups of the visited houses had this space. These two spaces constitute properly the house. There are also other spaces that complement the traditional rural house.

The first complementary space of a group of houses is the barn that is named *zincolote*, in Nahuatl language. This element was found in 85% of the groups of the houses. Another space is the *machero*, and is used to keep animals, bovine, horses or mules, and 37.5% of the groups of houses had one of this space.

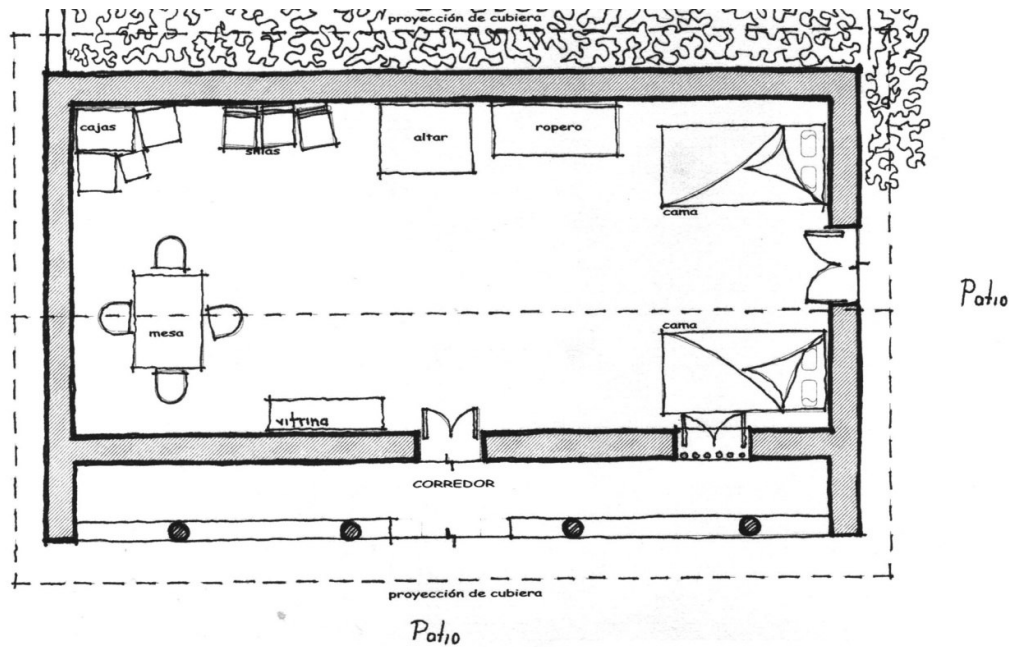
Lambs are placed in a complementary space named *corral*. This element was found in only 47.5% of the cases. Another complementary and traditional space is the hen house that was observed in 25% of the houses. The patio (courtyard) appeared in 100% of the cases and it represents the organizing space of the group of houses.

The contemporary concept of bathroom does not exist in the traditional housing. According to the residents, the space for physiological needs was just the backyard. Thus, the presence of latrines is only 37.5%. Influence of contemporary toilet (bathroom) is low and just 25% of houses had one. On the other hand, toilet was found in just 37% of the houses, but it refers just to a water case. Another important element that characterizes these groups of houses is the washing area. It contains a sink and next to the sink a small water tank. This complementary space was found in 97% of the traditional groups of houses.

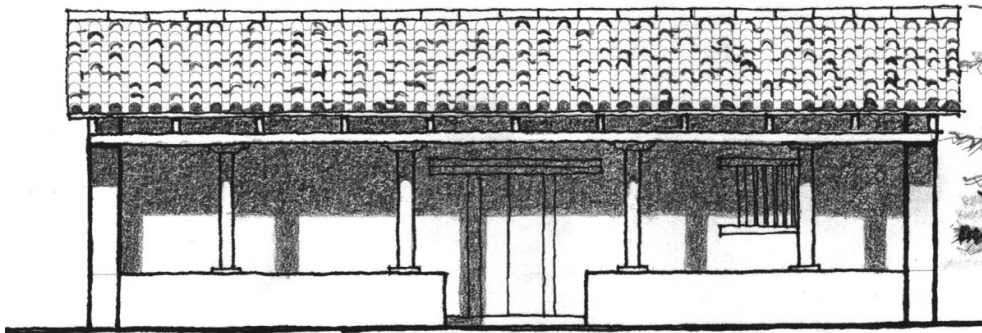
Rituals were taken into account to relate vernacular space with pre-Hispanic influences. Regarding the room or aposento, it was found that 100% of the population performs rituals at the beginning of the construction. The most significant ritual consisted of *burials*.

It was found that burials were carried out at the four corners of the room in 83% of the cases. Another ritual consists of throwing coins in the excavation made for the foundation. This event takes place in each of the four corners of what will be the aposento and this ritual was observed in 83% of the cases.

Another ritual consists of burying a palm cross at the center of the aposento, at the beginning of the construction. This was done by 75% of the population. It was observed also, that 50% of the population buried pictures of Catholic saints and throw holy water at the four corners that limited the room. There are many other rituals, but quantitatively, the most significant were described above. Each ritual may also have a different meaning, but for half of the population, the rituals are performed to ask for protection.



PLANTA APOSENTO



FACHADA FRONTAL

Picture 4. Floor plan and façade of a Mexican vernacular house.

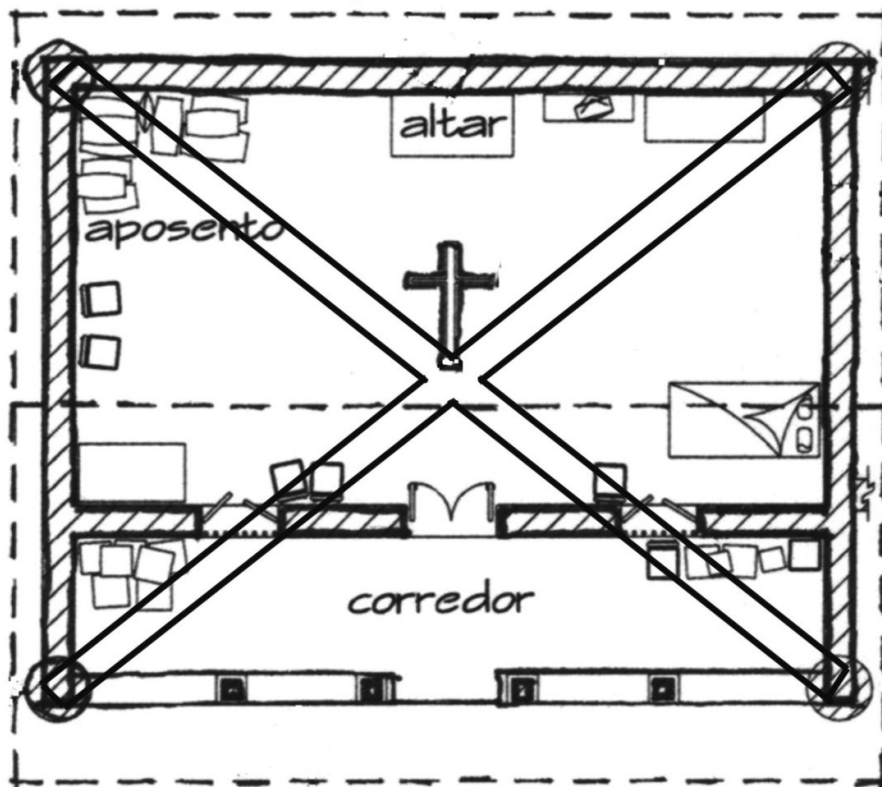
Altar gets a symbolic sense when sacred images with photos of relatives are placed on it. The most significant ritual in 100% of inhabitants is to place an offering on the day of the dead. Because of the sacred meaning of the altar, 100% of the inhabitants give it some meaning.

As shown by the numbers, there exist symbolic elements that give the space a symbolic character that is expressed in the rituals and their meaning.

The origin of these rituals goes back to the pre-Hispanic times. Based on the findings and contributions of López Morales and Rappoport, an analogy can be made with the concept of sacred space of pre-Hispanic Mexico.

According to the Nahuatl world view, it can be said that the spatial structure of the pre-Hispanic world was based on the four children of Omēteotl (following Leon Portilla), who represents the four directions of the universe, that are defined by the location of each one of the children in the corresponding quadrant of each of the solar orientations. The intersection of these four directions determines *the navel of the moon*, the center of the world.

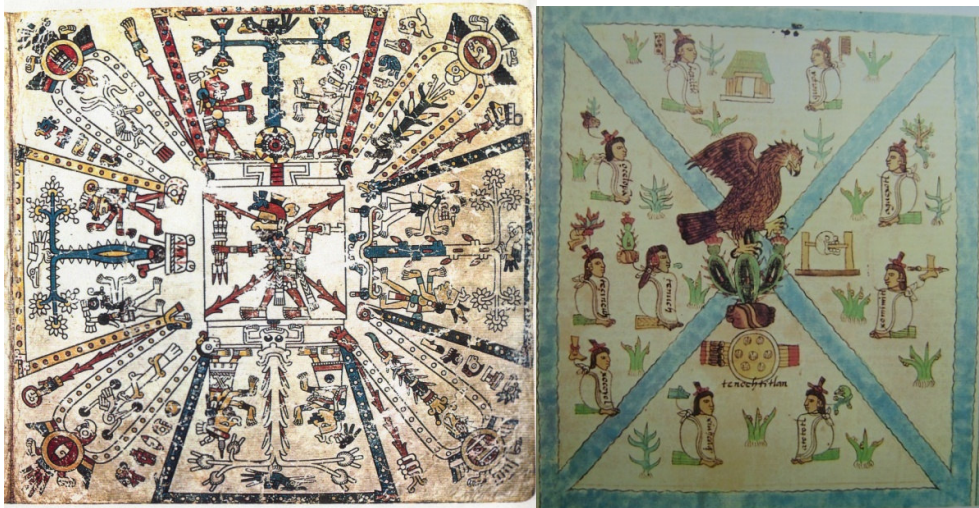
It was found that rituals are performed in the four corners of the *asposento*, as shown in the floor plan (see Picture 5). This corresponds to the cosmogonic concept and the representation of the same in the pre-Hispanic codices.



Picture 5. Floor plan of the main room of a Mexican vernacular house. At the center a palm cross is buried as part of a ritual.

The analogy with the space of vernacular house is suggestive; in the picture described above it is shown the floor plan of the *asposento* of a vernacular house and below it is shown a representation of the space in two pre-Hispanic codices (see Pictures 6 and 7). It can be easily noted that the intersection of the diagonals of the *asposento*, is similar to the image of the pre-Hispanic codex. The diagonal line corresponds to the rituals performed in the four corners and at the center is placed the palm cross, before the physical construction begins. This sacred space is then virtually defined by these rituals, and once built, the space gets the symbolic value of the sacred. According to the residents, these rituals are performed for the protection of the family. Each corner of the room

represents then the children of Ometéotl with its four corners. Syncretism is reflected in the placement of the Catholic Christian cross, at the center of the room. Finally, the placing of the altar in the front wall of the access and at the center of the same corresponds to the equity of blessings that emanate from the same place: a place of worship, a place for protection, and a place that represents God into the house.



Picture 6 and 7. Images from the pre-Hispanic codices that show the founding of Mexico Tenochtitlán (right) and the divinity Ometéotl (left).

This scheme is observed in the groups of houses again, taking into account the centralization of the courtyards. From the *aposenito*, -the space of intimacy and a symbolic sense-, one goes to the familiar and social space, which is the patio (courtyard). The important facades are oriented inward and not outward because the sacred is represented by the food, the maize given from the Mother Earth. Therefore, the *zincolote* is placed at the center of the courtyard. Into the center comes together life and festivity. With this, a rectangular courtyard is defined, which can be crossed by the diagonals. The *zincolote* is the sacred place, and therefore an important place; it is the container of food, as observed in the concept of the pre-Hispanic space represented in the codices. These two elements described above: the *aposenito* and the *patio* (courtyard), are also similar to the area of the temple and its atrium, considering the celebrations of the patron saint that are communal and correspond to a long liturgical calendar in the region.

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