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or Serpent Wall, consisting of a line of serpents sculpted from stone, was erected on a platform around three sides of the base of the pyramid. North and south of the pyramid are small adoratorio altars, as well as a depiction of a *xiuhcoatl* (fire serpent), its head crested with points indicating a relation to the cult of the sun, the renewal ensuing from the New Fire Ceremony, and the periodic cycle of fifty-two years.

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SEE ALSO

Aztec Culture and History

Tenochtitlán: Ceremonial Center

At the heart of Tenochtitlán stood one of the most prominent ritual spaces in all Mesoamerican history, the center *par excellence* for divine propitiation and the quintessence of the Nahua worldview. The ceremonial center of Tenochtitlán was, in a religious sense, the architectonic image of the cosmic order. It was also the divine model in the world of humans, because at that place high, medium, and low elevations intersected with the four directions of the universe, which were represented by the city's four principal causeways. In the economic and political sense, the ceremonial center was the materialization of centralized power. Around it revolved, like satellites, the multi-ethnic populations of the city itself, of the surrounding productive centers, and of the tributary regions of the periphery that periodically sent raw materials and manufactured goods to Tenochtitlán.

The history of the ceremonial center of Tenochtitlán begins with the foundation of the city on an island in Lake Texcoco. According to several myths, this event took place in the year 2 House (A.D. 1325), when a divine vision—of an eagle perched on a nopal cactus, or of a

miraculous spring of red and blue waters—revealed to the Mexica the location where they should settle and end their wanderings. The Mexica raised their temple in that spot, which represented the threshold of the opening that communicated between the world of humans and the world where gods dwelt. This portal was represented by either an anthill, a sabine tree (*Juniperus mexicana*), a double cave, or a double spring. These binary elements, along with the colors red and blue, would later determine the principal characteristics of the main pyramid dedicated to Huitzilopochtli (god of war, a solar deity) and to Tlaloc (god of rain, an earth-related deity), two gods who played opposite but complementary roles.

Thirteen years later, around A.D. 1337, a group of discontented Mexica broke away from the rest and founded a new city on a nearby island known as Tlatelolco. So situated, the two Mexica settlements formed one dual entity of complementary symbolic character. The Tenochca, the southern of the two communities, used the celestial figure of an eagle with one of the toponomic glyphs, holding a sacred bundle with the sticks used to make fire. The Tlatelolcans, on the other hand, used the terrestrial figure of the jaguar with a toponomic glyph and a sacred bundle that enclosed a green stone, an aquatic symbol. In a manner similar to that of the Tenochca, the Tlatelolcans built their ceremonial center in the location marked by the miraculous appearance of a whirlwind that connected earth with heaven. From then on, the antagonism and competitiveness that prevailed between the twin cities of Mexico—Tenochtitlán and Tlatelolco—would be clearly reflected in the growth of their respective ceremonial centers. It can be said that the construction, continuous remodeling, and final destruction of these two architectural complexes occurred in parallel.

After the Spanish conquest in August 1521, Cortés made the historic decision to level the two cities in order to build the first houses for the conquerors, using the materials obtained from the demolished temples. Mexico City, the capital of New Spain and, since 1821, of the Mexican Republic, was erected over the ruins of Tenochtitlán and Tlatelolco. Obviously, the Colonial and modern buildings represent a huge obstacle for the archaeologists. Until recently, it had been possible to unearth only very small sections of the ancient cities, and always under exceptional circumstances and in specific areas.

For centuries, the only reliable sources of knowledge about the ceremonial centers of Tenochtitlán and Tlatelolco were the accounts written by the conquerors

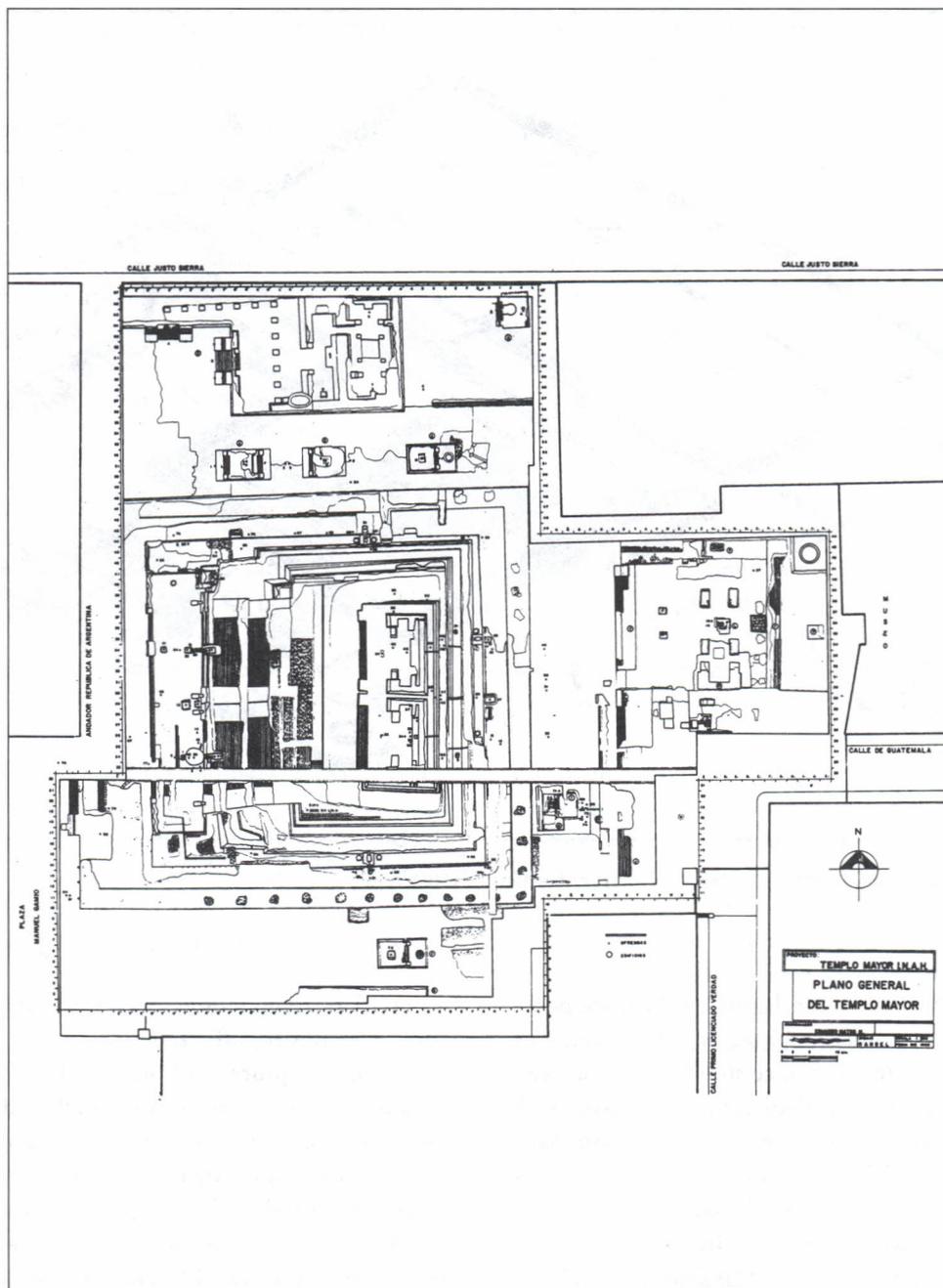


Illustration of the ceremonial center of Tenochtitlán. Artist: Victor Rangel.

themselves, who actually saw them still functioning (Hernán Cortés, Bernal Díaz del Castillo, Andrés de Tapia), and the detailed narratives of the natives compiled by the Spanish friars Bernardino de Sahagún, Diego Durán, Motolinía, and others. In these sources, the name Huey Teocalli or Templo Mayor (Great Temple) is applied indiscriminately to the large precinct and to the main

pyramid that was inside this sacred space, causing numerous misunderstandings. There are also a few sixteenth-century drawings that show the ceremonial center of Tenochtitlán, such as plate 269r from Sahagún's *Primeros Memoriales* and the 1524 map, ascribed to Cortés, that was included in the Latin translation of his *Second Letter to King Charles V*.

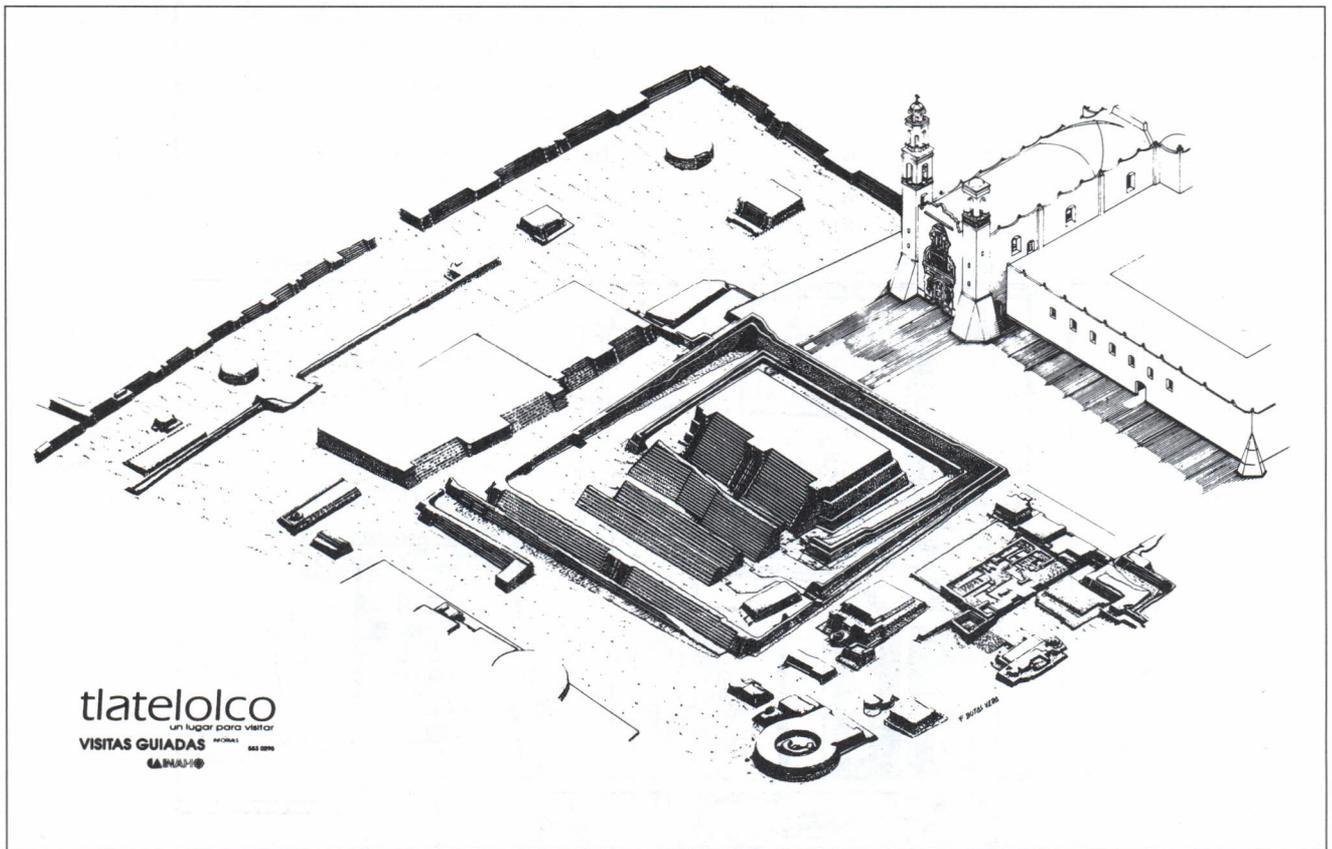


Illustration of the ceremonial center of Tlatelolco. Artist: Fernando Botas Vera.

Since 1790, this invaluable historic information has been enriched with frequent archaeological discoveries of buildings and monoliths that once stood inside the ceremonial centers. Major archaeological projects started with the arrival of the twentieth century, aimed at a systematic search for the most important buildings of the two pre-Hispanic cities. In the center of Tenochtitlán the most notable were excavations undertaken by Leopoldo Batres (1900), Manuel Gamio (1913), Jordi Gussinyer (1968–1970), and Constanza Vega (1975–1976). The most important projects in Tlatelolco were those coordinated by Pablo Martínez del Río, Antonieta Espejo and Robert H. Barlow (1944–1948), Francisco González Rul, Alberto Ruz and Eduardo Contreras (1960–1968), and Eduardo Matos (1987–1993).

The most ambitious exploration yet has been the Templo Mayor Project, coordinated by Eduardo Matos (1978–1989), and by Matos and Leonardo López Luján (1991–1997). Among the most remarkable discoveries made by this project in five field seasons are the main

pyramid of Tenochtitlán and fourteen adjacent buildings, 136 buried offerings, thousands of artifacts, and numerous sculptures and mural paintings. The extensive excavation covered an area of 1.29 hectares behind the Metropolitan Cathedral. This amounts to only 10 percent of the area occupied by the ceremonial center of Tenochtitlán (estimated at 12.96 hectares), and approximately 0.1 percent of the total extent of the two cities (estimated by several authors as 13.5 square kilometers).

After two centuries of historic and archaeological studies, our knowledge of the ceremonial centers of Tenochtitlán and Tlatelolco has improved substantially. Nevertheless, the various hypothetical recreations of the ceremonial center of Tenochtitlán—all of them derived from the pioneer work of Ignacio Marquina—still offer an idealized image of the reality, particularly regarding its dimensions and symmetry.

Nowadays there is no doubt that the ceremonial centers of Tenochtitlán and Tlatelolco were constructed and remodeled following the same archetypal pattern. Both

sacred precincts were similar in form and dimensions. It is very probable that the precinct of Tlatelolco measured 303 meters from north to south, and that of Tenochtitlán around 360 meters in the same orientation. In both cases, the sacred space was demarcated by a wide platform. Its façades were characterized by a series of vertical walls, balustrades, and staircases. It has been estimated that the limits of the *tenochca* ceremonial center were the present-day streets of San Ildefonso and González Obregón to the north; the National Palace courtyards to the south; the streets of Licenciado Verdad to the east, and Monte de Piedad and Brasil, to the west. The platform had three or four openings or gates that gave access to the ceremonial center.

Likewise, several of the buildings known from Tenochtitlán and Tlatelolco have almost identical form and dimensions; they maintained the same spatial distribution inside their precincts, and they were dedicated to the same deities. For instance, a distinctly Teotihuacán-style temple is situated to the southeast of the main pyramid in Tenochtitlán as well as in Tlatelolco. The same is true of the principal temples of the two cities: both are at the heads of their respective ceremonial centers; they are stepped pyramids with two flights of stairs oriented toward the west, leading to double temples on top dedicated to the cult of Huitzilopochtli (southern half) and Tlaloc (northern half).

Each pyramid underwent seven total enlargements or stages. Moreover, the second enlargements (Stage II) of the pyramids of Tenochtitlán, Tlatelolco, and Tenayuca all have the same dimensions. This fact suggests that the pyramids of the island cities were built at the same time as the one in Tenayuca, and therefore the dates of their construction are much older than those recorded in the official history of the Mexica.

There is much discussion regarding the number, characteristics, and location of the other buildings inside the ceremonial center of Tenochtitlán. The map presumably drawn by Cortés shows eight buildings, a bordering wall, and four entrances, while Sahagún's map shows nine buildings, the bordering wall, and three entrances. This reduced number of buildings contradicts Sahagún's own text, since he mentions seventy-eight buildings inside the sacred precinct. Among them were the Coatepec or Great Temple (Huitzilopochtli-Tlaloc), the temples dedicated to Chicomecoatl, Mixcoatl, Xiuhtecuhtli, Xipe Totec, and Cinteotl, several *calmecac* (temple schools for the nobility), ball game courts, *tzompantlis* (wooden racks where the skulls of the sacrificial victims were displayed), the

Coacalco (a temple used to keep the divine images of the conquered towns), the Teutlalpan (an enclosure which contained a re-creation of arid land), and the sacred springs called Tezcaapan and Tozpalatl. Durán also mentions the temple of Quetzalcoatl, of circular plan, and the temple of Tezcatlipoca, with spacious chambers at its base.

Several authors speculate that Sahagún included not only the religious buildings of the ceremonial center but also those scattered throughout the city. However, Sahagún's list does not seem so large if we consider that more than thirty buildings, including large temples, small shrines, and platforms, have been exhumed to date. Among the excavated buildings, the most remarkable is the main pyramid or Great Temple. Its last-stage platform, decorated with serpent heads (*coatepantli*), measures 84 meters from east to west and 77.2 meters from north to south. The pyramid had between 100 and 130 steps, which would give it a height of 30 meters. If we add the two sanctuaries that were on the top, the Great Temple would have risen to a total height of 45 meters.

Another very interesting structure is the House of Eagles, with beautiful polychromed benches that decorate the rooms inside the building. These benches, which depict processions of armed warriors, are a magnificent example of the Mexicas' habit of imitating the artistic styles of past civilizations. In this case, we can see a revival of the Palacio Quemado, one of the many buildings that the Mexica excavated among the ruins of Tula. Other archaizing structures recently excavated are four small shrines known as the Red Temples, which combine features from the Mexica and the Teotihuacán styles in perfect harmony.

When the Spanish arrived at Tenochtitlán, this city was the most powerful capital of Mesoamerica. This is evident not only in the high quality of the last enlargements of the Great Temple but also in the richness of its offerings. About 80 percent of the objects that were offered in the pyramid of Huitzilopochtli and Tlaloc were imported brought from the various tributary provinces of the Triple Alliance (Tenochtitlán, Texcoco, and Tlacopan). The most abundant offering items found are animal remains; researchers have identified more than two hundred species from the temperate ecosystems of the Central Plateau, as well as from tropical rainforests, coral reefs, salt marshes, and coastal lagoons. In contrast, there are very few minerals and plant remains: minerals include sea sand, fragments of jet, turquoise, and various kinds of greenstone; among plants, *maguay*, copal, conifer wood, and rubber remains were identified.

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Human remains are also represented among the offering items. Some of these are bones that belonged to high-ranking individuals who were ritually buried after their bodies were cremated, but the great majority belonged to sacrificial victims who were decapitated. Notable among the recovered artifacts are the imported goods that came to Tenochtitlán either as tribute paid by conquered regions, through commerce, or as gifts, or even pillaged by the Mexica themselves: obsidian artifacts from Sierra de las Navajas, Mixtec-style sculptures, urn vessels from Veracruz, ceramic and stone objects from the Puebla-Tlaxcala region, and a great number of copper bells and greenstone ornaments of yet undetermined origin.

There are also several artworks from ancient cultures that were looted from their tombs and offering caches during the fifteenth century: a stone mask and several fragments of Olmec sculptures, hundreds of stone masks and figurines from the Mezcala culture, dozens of stone and ceramic artifacts from Teotihuacán, and a Plumbate ceramic vessel from southern Mesoamerica. Surprisingly, Mexica manufactures were the least abundant of all the recovered offerings.

In a religious sense, all the objects that constituted an offering followed a purposeful order. The gifts were placed according to clear patterns of spatial composition. As in verbal language, each gift functioned as a sign or a symbol, transmitting information only when it was combined with other gifts. A considerable number of the offerings recovered by the Templo Mayor Project were tiny scale models of a section or of the whole universe, as it was conceived by the Nahuatl. Following a strict liturgy, the Mexica priests carefully re-created with artifacts, animals, and plants the surface of the earth and, sometimes, even the heavens and the levels of the underworld. Thus, it can be said that during the ritual ceremonies they made cosmograms, repeating the primordial actions of the gods.

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Leonardo López Luján

Tenochtitlán: Imperial Ritual Landscape

As the tribute empires of Tenochtitlán, Texcoco, and Tlacopan developed during the fifteenth century, Aztec policy called for the construction of ceremonial centers. The great public religious festivals had powerful emotional and imaginative appeal, bringing different groups together through common experiences and beliefs and a shared vocabulary of visual symbols. The ceremonial centers and activities provided a vehicle for social cohesion among all segments of the heterogeneous, highly stratified, and increasingly specialized population.

Following long-standing tradition, the island capital, Tenochtitlán, was designed according to a cosmological plan. Four roadways led to the cardinal directions from the central ritual precinct. Royal palaces stood close by this central enclosure, surrounded in turn by the grid of residential districts and peripheral *chinampa* plantations. Causeways linked the capitol with the mainland on the north, west, and south; on the east was a landing place to the lake.

Within the central ritual precinct, the Main Pyramid rose as an *axis mundi*, marking the center of the city and of the Aztec world. The building was aligned with the equinoctial path of the sun, and with distant springs high on Mount Tlaloc on the eastern side of the Basin of Mexico. The South Temple was devoted to the legendary, deified tribal hero Huitzilopochtli, patron of kings and god of war. The North temple enshrined the deity Tlaloc, associated with rain, mountains, and agricultural fertility. The dual pyramid represented a conflation of two symbolic mountains: the mythic Coatepetl, or "Serpent Mountain," site of Huitzilopochtli's magical birth and victorious battle with his rival Coatlicue; and Tlaloc's rain-mountain, Tonacatepetl, the archetypal "Mountain of Sustenance." War and agriculture, the two bases of Aztec economy, were thus acknowledged by Tenochtitlán's dominant monument. Thousands of offerings recovered from the pyramid foundations feature animals and plants from near and far, including the Gulf and Pacific Ocean. The building was a representation of the Aztec universe.

The Main Pyramid and other city temples were linked by lines of sight and routes of pilgrimage to a system of shrines and sacred places on mountains, in caves, at springs and on lakes, and overlooking agricultural districts; many of these sites were used before their incorporation into Aztec sacred geography. The primary Temple of Tlaloc, on the summit of Mount Tlaloc, was visited annually by kings of the allied Aztec cities. A long, narrow processional way led to the temple quadrangle, where a house-like structure housed the effigy of the deity and other images representing neighboring mountains. In microcosm this was a symbolic landscape, and the form of the whole architectural enclosure symbolized the womb of the earth. At the height of the dry season, the kings entered to offer sacrifices to summon rain, ensuring the change from the time of death to the time of rebirth and renewal. The concluding act of this royal pilgrimage took place at Pantitlan in Lake Texcoco, where the kings reassembled in canoes at a sinkhole (or spring) to offer another sacrifice to Chalchihuitlicue, "She of the Jade Skirt," the deity of groundwater. The lake and the sea were ritually denominated *tonan huey atl*, "mother great water," in honor of their life-giving properties. Soon after the rites, rain clouds would form on the mountains, and the fruits of the earth would soon be given. The kings' long journey to the earth-and-rain temple and the lake shrine during the time of drought, the offerings, and their return to the city bringing a gift of life suggest the enactment of a mythic event in the time of creation.

Mount Huixachtlán was another key site of Aztec sacred geography, the location of an ancient cult devoted to Huehuetéotl, the "Old God" of fire. Huixachtlán rises between the central and southern sections of the Basin of Mexico. A special procession was made to this mountain shrine every fifty-two years to enact a rite ushering in the new cycle of time. As darkness descended on the last evening of the old period, a procession of fire priests and men masked as gods departed from Tenochtitlán across the southern causeway. Silence was everywhere observed, all fires were extinguished, and the three stones of domestic hearths were cast into water. All watched the Pleiades rise to the zenith transit of the celestial meridian, directly above the fire temple. At the moment of transit new fire was kindled, and a human sacrifice was made and cast into a pyre, as the assembly of gods stood in witness. Torch-bearers carrying the flame ran down to the waiting temples of towns and cities. In Tenochtitlán, the first place to receive new fire was the Temple of Huitzilopochtli,

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