Figure 12. Upper section of Pillar 3: Personage with attributes of Tezcatlipoca. Photograph: Humberto Illera.
Ancient Tollan

The sacred precinct

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Tula, along with Teotihuacan and Tenochtitlan, was one of the most important cities in Mexico's Central Highlands. During Tula's apogee between A.D. 900–1150, the city covered nearly 16 square kilometers. Its area of influence extended over much of Central Mexico along with other regions of Mesoamerica, including areas of the Bajío, the Huasteca, the Gulf Coast, the Yucatan peninsula, and such distant places as the Soconusco, on the Pacific Coast of Chiapas and Guatemala, and El Salvador. From a cultural and ethnic perspective, Tula constituted a synthesis of principally two different traditions: the preceding urban culture from Teotihuacan in the Basin of Mexico, and another tradition from the northern Mesoamerican periphery, especially the Bajío and the Zacatecas-Jalisco border area (Mastache and Cobean 1989; Hers and Braniff 1998).

In Mesoamerican cities, as in urban sites of many other cultures, the monumental precinct was the heart of the city, constituting its religious, political, and administrative center, the seat of divinity and of the government, the place where the order and the spatial configuration of the cosmos was materialized and reproduced. At Tula, the importance of the monumental precinct as the symbolic axis and architectonic center of the city is manifested by its central position. The principal plaza is located essentially at the physical center of the city, at the midpoint of Tula's hypothetical north–south axis, which is approximately six kilometers long (fig. 1). The precinct's hierarchical position is given also by its elevation in being placed at the highest and most prominent part of the city, thus physically dominating the urban space. Building this vast architectural complex constituted an enormous public works project, which entailed the modification of the original mesa surface with artificial terracing systems, using man-made fills of up to seven to eight meters deep to level the area for the plaza and to construct platforms that functioned as bases for buildings.

It is evident that at Tula the placement of the monumental center is strategic, not only because it occupies an easily defended place but also because of its central setting at a dominant point that had great visual impact, being visible to inhabitants in every part of the city and within view of many rural sites. Lefebvre observes that a city's habitational zone is made on a human scale, whereas the monumental zone has a superhuman scale, which goes beyond human beings—overwhelming them, dazzling them. The monumental buildings' scale is the scale of divinity, of a divine ruler, of abstract institutions that dominate human society (Lefebvre 1982:84).

The volume of the two pyramids of the precinct is not very large if compared to that of the Pyramids of the Sun and Moon at Teotihuacan or to that of the principal pyramid at Cholula, but the location of the precinct compensates for this, because Tula's monumental center constitutes in its totality a huge pyramidal structure, with the original elevation of the hill increased by the extensive system of terraces and platforms on which the plaza was built. Therefore, the apparent dimensions of the pyramids were increased by the great architectonic complex on which they were built, with the whole complex forming a great pyramidal structure crowned by the two pyramids (fig. 2). This situation is different from that of Teotihuacan or Tenochtitlan, where all of the ancient city including the monumental center was distributed over a uniform elevation.

We know that Tula experienced several changes and transformations during its long life, but it is evident that the city's conception and urban structure were defined according to a master plan when the monumental precinct was built. At the place where the sacred precinct was constructed, there very probably was a Coyotlatelco center corresponding to the city's initial development stage, that is, an occupation coeval with Tula Chico (the city's first ceremonial center), over which the Tollan phase monumental center was built (Mastache and Crespo 1982, Diehl 1983, Cobean 1994). This last center is the topic of this paper.

We thank the Instituto Nacional de Antropología e Historia for allowing us to reproduce illustrations from the reports of Jorge R. Acosta and Elizabeth Jiménez. "Reproducción Autorizada por el Instituto Nacional de Antropología e Historia—Conaculta—INAH—México. We thank Arq. Jesús Acevedo of the INAH for sharing his computer programming knowledge.
As is common in Mesoamerican cities, the pyramidal structures and other buildings in Tula's monumental precinct contain various construction stages and enlargements. In his excavations, Acosta found several substructures and additions in the majority of the buildings. The monumental precinct and its buildings generally have between three and four construction stages corresponding to the Tollan phase (A.D. 900–1150) that was Tula's apogee (Acosta 1942–1944, 1945, 1956; Cobean 1994; Getino and Figueroa n.d.).

There is evidence that the principal buildings on the ceremonial precinct were intentionally burned at the end of the Tollan phase (circa A.D. 1150) and that some structures were looted and partially reoccupied during the Late Postclassic (A.D. 1200–1520). The reoccupations during this period are evident principally in the so-called Palacio Quemado, Building K, the central altar, and Ballcourt 2 among other buildings (Acosta 1942–1944, 1945, 1956, 1956–1957,1961a; Cobean 1994) (fig. 4).

The monumental precinct is a huge quadrangle, which is open on its northwest and southeast corners. It is composed of two complexes that have the form of two opposing right angles or of two capital Ls that are not completely joined, leaving the corners open in diagonals. These open corners were the principal entrances to the plaza (figs. 3–4). The largest right angle measuring approximately 140 meters on a side is formed by Pyramids C and B and by adjacent structures with columned halls. The lesser right angle (of about 120 meters on a side) is constituted by Building K and Ballcourt 2.

In a sense, we can say that the sacred precinct is divided in two zones of distinct hierarchy and differing character. The northeast complex is the most important, because of its greater dimensions and, above all else, because of the nature of the buildings that comprise it—especially the two pyramids, which together with the adjacent buildings are without doubt the most important architectural elements in the entire precinct. Thus this section can be considered the most essentially sacred part of the monumental center. The lesser symbolic and architectonic hierarchy of the southwest section is expressed in its smaller volume and dimensions, and in a different level of internal articulation. While Pyramids B and C are articulated with other structures (vestibules and columned halls), Building K and Ballcourt 2 can be considered separate units, which are integrated only in the sense that they were built on the same platform. Thus the plaza was surrounded by several types of buildings, the functions of which still have not been well defined in all cases.

A noteworthy aspect in the planning of the monumental center is the placement of both pyramids in relation to the structure of the total precinct. The pyramids appear to be displaced to one side instead of being in a central position, especially if they are observed from a point inside the plaza. Nevertheless, if the general plan of the precinct is analyzed, taking into account its external limits, it is clear that Pyramid C is the fundamental architectural element, not only because it is the largest structure in the city, but also because of its location and relationship with other buildings in the plaza. When the entire monumental compound is considered in its totality as an architectonic unit, the impression of asymmetry and displacement of the two pyramids in the precinct disappears, and it is evident that Pyramid C is clearly the principal structure, the probable axis mundi, the predominant element on the basis of which all the plaza and possibly the rest of the city was planned. Pyramid B, on the other hand, has a secondary position because of its smaller size and less prominent setting within the precinct.

Figure 1. Tula: city limits during its apogee (A.D. 900–1150) showing the location of the monumental center. Drawing: Fernando Getino.
Both pyramids are placed adjacent to each other, forming a 90 degree angle, with their main facades facing the plaza: Pyramid C toward the west and Pyramid B toward the south. There are notable similarities with the Pyramids of the Sun and Moon at Teotihuacan, not only because of the existence of two pyramids, with one larger than the other, but because in Teotihuacan as in Tula, the largest pyramid faces west and the smallest faces south, and above all because they possess the same spatial setting with regard to each other (as can be seen in figure 5).

In contrast to Tula, at Teotihuacan the two pyramids are not on the same plaza, but the pyramids at both sites are placed in similar positions in relation to each other. Another important aspect that coincides is the general orientation of the precincts: like Teotihuacan, Tula's monumental center is aligned approximately 17 degrees east of astronomical north (Acosta 1942–1944:147; Gali in Acosta 1942–1944). It is obvious that these similarities are not casual and do not merely refer to a formal aspect of urban planning, but instead indicate a continuity of cosmovision and fundamental ideological concepts that were shared by both cultures and also are evident in iconography and other elements to be discussed later.

On the other hand, many other aspects of planning and urbanism in the two cities are different. The planning of Teotihuacan's monumental center has fundamental differences with that of Tula, the most evident being that it is not structured around a central plaza, but instead along the great axis of the Street of the Dead, where the Pyramids of the Sun and the Moon are located even though they are not adjacent to each other. The Pyramid of the Moon, the smallest, is nevertheless hierarchically emphasized by its placement as the central point where the Street of the Dead begins. The Street of the Dead is the city's symbolic and architectonic axis articulating the various plazas and precincts of different sizes and importance that constitute the monumental zone.

Obviously there also is a great difference in scale between the pyramids of Teotihuacan and those of Tula, but the difference in proportion between the two structures is similar at both sites, that is, the difference in
volume between the larger and smaller pyramid. It is worth noting that in terms of scale and dimensions, Pyramid C and especially Pyramid B are more similar to the Temple of Quetzalcoatl at Teotihuacan than to the much larger Pyramids of the Sun and Moon.

Pyramid C

Pyramid C is a building formed by five vertically superimposed talud platforms. On its principal (west) facade supporting the stairway is a lateral platform that Acosta (1956:55) called cuerp0 adosado in the central part of the facade. This element constitutes another important similarity between Tula and Teotihuacan: as Acosta (1956) stated, the cuerpo adosado of Pyramid C is similar “with those of the two great pyramids of San Juan Teotihuacan.” Actually, if one studies maps of these buildings, the major similarity is between Pyramid C and the Pyramid of the Moon, because the general plans of both structures are very much alike. A probable similarity between Pyramid C and the Pyramid of the Sun is that both probably are constructed with five taluds, although a debate still exists concerning whether the Pyramid of the Sun originally had five taluds before it was restored.

Pyramid C is one of the most badly damaged buildings on Tula’s precinct. Acosta’s (1942–1944, 1945, 1956) investigations in the 1940s found great destruction apparently caused by pre-Hispanic looting. A large trench had destroyed much of the stairway and other sections of the west facade, and there were looting pits also at the summit and the east side of the pyramid. The north side was more intact than the south. Acosta (1945) identified four different construction phases for Pyramid C, including remains of three interior substructures. Pyramid C very probably was covered with relief panels and other sculptured elements like those of Pyramid B, but most of this sculptural program was dismantled and looted in pre-Hispanic times; thus what we know concerning this pyramid’s appearance during its last construction stage is very incomplete. The only relief panel found in situ was on the west facade at the base of the south balustrade; Acosta (1956:49) interpreted the decoration as a cross-section of a conch shell, a symbol of Venus and the god Quetzalcoatl, to whom Acosta proposed the pyramid was dedicated (fig. 6).

In the hallway at the north edge of Pyramid C, Acosta (1956:49) found a headless Chac Mool and a small incomplete Atlante sculpture. Another Chac Mool fragment was recovered nearby. Acosta (ibid.) proposed that these sculptures originally were on Pyramid C. Previously, he had stated that the various fragments (mainly feet and legs of giant Atlante sculptures at Tula and the National Museum of Anthropology), which were similar to the Atlantes of Pyramid B but of greater dimensions, probably originally were looted from Pyramid C (Acosta 1942–1944:146). Of course, it is also possible that these unprovenienced Atlante fragments correspond to an earlier construction phase of Pyramid B.

Pyramid B

Pyramid B faces south and also has five taluds and a square ground plan. Acosta (1956:89) emphasized the difficulty he had interpreting what appear to have been three principal construction stages for this building; in some cases, there are partial, superimposed platforms,
which were built only on one or two sides of the pyramid during different periods. Acosta clearly identified two interior substructures, the first of which was covered by unsculptured stone panels painted white. The second and third (last?) stages of the pyramid were covered with relief panels having the same sculptural elements: processions of canines and felines, depictions of eagles or vultures and a composite creature having human, reptile, and avian attributes, which Acosta (ibid.) and Moedano (1946) consider to be a representation of Tlahuizcalpantecuhtli, the god Quetzalcoatl in his embodiment as the planet Venus, the evening star (figs. 7–8).

The rich diversity of iconographic elements associated with Pyramid B has been described in detail and analyzed by Acosta and other scholars. Among the
outstanding elements are the just-mentioned relief panels, which covered the facades along with other associated sculptural and architectonic features, such as the pillars, columns, and monumental sculptures that were integral parts of the pyramid and of the temple that very probably existed on its summit. The best-known sculptures at Tula are the so-called Atlantes or "caryatids," presently placed on top of Pyramid B, which consist of anthropomorphic columns (4.60 meters high) that apparently supported the original temple roof. Atlantes represent high-ranking Toltec warriors. Their elaborate ceremonial costumes have been analyzed in detail by Acosta (1941, 1943, 1961b). Important costume elements include the cylindrical headdress, the butterfly-shaped breast plate or pectoral, the disk (tezcatlpatlalli) divided in four sections and decorated with fire serpents (Xiuhcoatl) on the warrior’s back, and weapons such as a dart thrower (atlatl), a fending stick, and a knife. Kristan-Graham (1989) also analyzes key elements of the Atlantes’ dress.

The pillars of Pyramid B

Perhaps the most important sculptural elements associated with Pyramid B are the pillars on its summit, because of their iconographic complexity and probable historical content. The four pillars are covered with reliefs on all four sides, which apparently were originally painted. On each pillar, there are four representations of human figures, with two personages on the lower section and two personages on the upper half of each pillar, totaling sixteen figures on the original four pillars; only twelve personages have been preserved completely along with fragments of two other figures. All these personages possess attributes of warriors along with other shared aspects, such as being depicted in profile in the act of walking, but they also have specific elements that differentiate each figure. We have discussed these sculptures at length elsewhere (Mastache, Cobean, and Healan n.d.). Here we will cite only some aspects of this investigation. We propose that the anthropomorphic figures on the lower sections of the pillars may represent the kings or principal rulers of Tula, while the personages depicted on the upper sections of the pillars may correspond to rulers of secondary rank (fig. 9), perhaps equivalent to that of the Cihuacoatl among the Mexica or to a kind of great pontiff described by Kirchhoff (1955).
Our interpretation is based principally on the fact that all of the personages on the lower registers of the pillars have glyphs near their heads that identify them along with distinctive costume attributes. Only one of the figures represented in the upper sections of the pillars has some of these features. These attributes are principally: (1) a helmet with angular steps near the wearer’s temples decorated by two types of feathers and a small bird (usually in descending position) in front; and (2) leggings (roddilleras) made of a series of tied knots on the front of the lower legs. In addition, because there are differences in the directions that the four personages on each pillar walk, with two figures (one from the upper section and one from the lower section) always going toward the left and the other two toward the right, we suggest that for each pillar the personages walking in the same direction could have been coeval, one being the king and the other the secondary ruler (figs. 9–10).

The possibility that Tula had a dual government, as also proposed by Luis Reyes García (2000:5) in his recent analysis of the Historia Tolteca-Chichimeca, is of great interest:

The two principal military priests of the Toltec: Quetzalteueyac and Ixicouatl ... have many pictorial representations; in one occasion, Ixicouatl is depicted as a male with his mantle, but Quetzalteueyac appears dressed in a woman’s huipil. From this we can understand that the Toltec had a type of dual government, the (personage dressed as a)

man was in charge of masculine affairs, and the other figure (was responsible for) internal administrative affairs that were considered feminine. This refers to a situation similar to that which later is found among the Tenochca (Mexica) with their Tlacateuchilli and their Ciuccacotl.

Likewise, on this subject it is important to mention a frieze in the Temple of the Jaguar at Chichen Itza analyzed by Linnea Wren (cited by Schele and Mathews, 1998:223–224, figs. 6, 19), in which a leader is depicted with a skirt of serpents and women’s breasts.


Figure 8. Pyramid B at Tula: Relief panel of a being with human, reptile, and avian attributes, which Acosta (1942–1944) considered to represent Tlahuizcalpantecuhtli. From Jiménez (1998:fig. 116A). Reproduced courtesy of the Instituto Nacional de Antropología e Historia, Mexico.
Figure 9. Pillar 4 on the summit of Pyramid B at Tula. From Jiménez (1998:fig. 50). Reproduced courtesy of the Instituto Nacional de Antropología e Historia, Mexico.

Wren proposes that this personage is a prototype for the Cihuacoatl (ciuacoatl) of the Mexica. In our opinion, it also is significant that this figure is shown with attributes of a Toltec warrior, as are the three personages facing him in the frieze.

Another conclusion of our analysis of the pillars concerns the fragmentary pillar recovered in the 1980s by a conservation project directed by Roberto Gallegos in Tula’s archaeological zone. Although incomplete, this pillar is of great interest in terms of its iconography, because a relief on one side represents a personage with the physical and costume elements of the god Tezcatlipoca, while on the opposite side there is a figure with attributes of Tlaloc (figs. 11–13). The other two sides of the pillar depict spear bundles similar to those represented on the known Pyramid B pillars.

When the newly found pillar fragment was exhibited for the first time, we did not think that it formed part of the pillar group that Acosta had placed on the summit of Pyramid B, and we tentatively concluded that this fragment came from an earlier sculpture complex. This impression mainly was due to the apparent differences in sculptural style and quality of the new fragment compared to the other pillars. Nevertheless, in our analysis we concluded that this fragment is without doubt the upper section of the incomplete pillar on Pyramid B (Pillar 3 according to the system of Jiménez [1998:113–116]). The

Figure 10. Some personages on the pillars of Pyramid B at Tula, who have glyphs near their heads identifying them, along with other specific attributes mentioned. From Jiménez (1998:fig. 176). Reproduced courtesy of the Instituto Nacional de Antropología e Historia, Mexico.

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1. In the 1980s, a conservation project directed by Professor Roberto Gallegos recovered this pillar fragment in a pre-Hispanic trench on the north edge of Pyramid B. This fragment was on display for several years at the museum in Tula’s archaeological zone and also was exhibited briefly in Mexico City at the National Museum of Anthropology. It is published in the catalogue of Castillo and Dumaine (1988:222, 244, fig. 2) as sculpture number 12, and Jiménez (1998:125–132, fig. 51) describes and illustrates it, calling it “Pilastra 5 (incompleta)."
measurements of the fragment coincide with those of Pillar 3, and the sculptured elements on the four sides of Pillar 3 and the fragment correlate perfectly. The side of the fragment that displays a personage with attributes of Tlaloc lacks the personage's feet, which appear on the upper edge of the west side of Pillar 3. In addition, the missing elements on the lower section of the fragment's representation of Tezcatlipoca appear on the upper part of the east side of Pillar 3, which displays in relief the single sandal of the god's only complete foot along with parts of the circular smoke rings coming out of the smoking mirror that has replaced his other foot. Also, the upper parts of the north and south faces of Pillar 3 contain reliefs of the missing end sections of the spear bundles depicted on two sides of the fragment.

Pillar 3 is that same sculpture with a bearded figure that Acosta (1967) thought very probably represents Topiltzin Quetzalcoatl (fig. 14b), surely because this personage is bearded and has a feathered serpent glyph above his head. It is very significant that this pillar has
the first depiction of Tezcatlipoca identified in Tula and the oldest image known for this god in the Central Highlands. It is surprising that no other sculptures of Tezcatlipoca have been found at Tula, considering the importance of this deity in the chronicles concerning the history of Tollan and the legendary conflict involving his cult that took place in this city.

Likewise, it of great importance that the fragment representing Tezcatlipoca is the missing section of Pillar 3. The placement of images of Tezcatlipoca and Topiltzin Quetzalcoatl on the same column, and on one of the two most sacred monumental buildings at Tula, indicates that the narratives written in the indigenous chronicles concerning the Toltec and ancient Tollan definitely are represented in the iconography and writing of Tula, whether these accounts describe historical events or are purely legendary. The complete sculptural group of Pillar 3 suggests the probable coexistence of Topiltzin Quetzalcoatl with the cult of Tezcatlipoca and supports the possibility that the conflict between this king and the followers of Tezcatlipoca described in the chronicles really could have occurred, ending with the expulsion of Quetzalcoatl and his faction from Tula.

It also is very significant that on the same pillar and exactly opposite the Tezcatlipoca figure, a warrior is represented with attributes of Taloc (figs. 12–13). The presence of this figure on one of Pyramid B's columns very probably is related to the Taloc Warrior cult of Teotihuacan tradition, which is the same cult to which Karl Taube (n.d.) proposed the offering with the shell garment in Sala 2 of the Palacio Quemado was dedicated. The presence of a Warrior Taloc on Pyramid B further supports Taube's emphasis on the importance of this cult in ancient Tula.

The South Vestibule

Pyramid B is limited on the south by an L-shaped, columned vestibule 54 meters long and 12 meters wide, with its longest section oriented east-west and its shortest section oriented north-south. This vestibule was open only toward the principal plaza (Acosta 1945:38–40). Its north, east, and west sides were closed by adobe walls with benches and cornices, which originally were covered with sculptured panels having polychrome reliefs. A total of 50 rectangular columns supported the roof that covered the entire vestibule (fig. 15).

According to Acosta (1945), the vestibule was built during the same period as Pyramid B and, like that structure, consists of several construction phases, the first of which did not have benches. During the last phase, the decorated benches were added along all three walls of the vestibule along with an altar near the eastern edge of Pyramid B's stairway. The southeast section of the vestibule contains two stepped platforms, which go down nearly to the level of the plaza and, on the southeast, adjoin a passageway several meters wide, which separates the vestibule from Pyramid C. Two lower stairways, one on the south edge and another on the east edge, permit access from the plaza to the vestibule. The southern stairway is aligned with the north–south axis of Pyramid B and gives access to the pyramid, while the eastern stairway is an access to what Acosta (1956) called "The Palace to the East of the Vestibule."

The benches that bordered the walls of the vestibule nearly totally survived, but the friezes that covered them only were preserved in a section covering about eight meters in the northwest corner. The cornice of this frieze is decorated with reliefs of undulating, plumed serpents, a common motif on the existing sculptured bench cornices at Tula. The polychrome frieze of Pyramid B's vestibule is known as the "Friso de los Caciques" (Acosta 1945, Moedano 1947) (fig. 16) and has been analyzed in some detail by a number of scholars including Kristan-Graham (1989), Umberger (1987), and Klein (1987), who have discussed the similarity of these reliefs with those of benches at Chichen Itza and the sacred precinct of Tenochtitlan. In the opinion of Moedano (1947:133), who excavated this sculpture group, the preserved part of the frieze represents:

A procession of principal nobles (señores) . . . of the principal peoples subject to Toltec domination. . . . because of this we find personages with headdresses and other attributes of diverse forms and richness, ranging from a noble with a simple headdress to one who wears a Xibuitzolli (crown) . . . (and others with) headdresses and attributes of warriors, because these chiefs possessed among their principal functions that of the military command, although just nominal, of their own armies.
Kristan-Graham (1989:274-275; 1993) proposes that the persons represented in this frieze could be *pochteca* (merchants) and not noble lords or warriors. To support this interpretation, she cites Sahagún's description (Book IX) of a ritual that the *pochteca* performed before leaving for a journey in which they formed two rows facing each other, with old merchants on one side and young ones on the other; but she notes that this *pochteca* ritual differs from scene in the Friso de los Caciques in that all the merchants where seated.

We agree with these authors that the personages in the Friso de los Caciques probably are not warriors, and especially with the suggestion of Moedano that the presence of some military elements in the representation of some figures does not automatically mean that these personages are warriors (1947). Some elements in the Friso de los Caciques that have been identified as arms more likely appear to be banners, staffs, scepters, and elaborate rattles similar to the ones described by Sahagún and other chroniclers, which the Mexica used in processions, festivals, and other rituals.

In the eastern sector of the vestibule, Acosta (1956:74, lám. 2) found fragments of another bench frieze representing personages walking from right to left, and in the southeast limit of the vestibule, he found a panel in situ depicting two figures walking in this direction. On the basis of this, both Acosta and Moedano (1947) propose that the bench friezes in the vestibule show two processions: one starting from the extreme west and another from the east, with the two processions meeting at the stairway of Pyramid B. Thus it seems beyond doubt that the bench friezes in the vestibule represent two processions, but it is not clear that these met at the pyramid stairway, and we believe it is more probable that the meeting point of the processions was the altar directly east of the stairway.

Various authors (Klein 1987:300–301; De la Fuente 1990) propose that the central motif at the confluence...
of the two processions very probably was a *zacatapayolli* (a symbol representing a ball of grass with maguey spines jutting out of it for autosacrifice), because of the similarity with Mexica bench processions near Tenochtitlan’s Temple Mayor, such as the reliefs analyzed by Beyer (1955) and a procession in the Casa de las Aguilas (Matos 1999), both of which are centered on a *zacatapayolli*, and because Acosta (1957:141, lám. 21) found a dismantled panel with a motif that De la Fuente (1990) identifies as a *zacatapayolli* in the balustrade of a stairway in the vestibule. Nevertheless, it should be noted that Acosta (1957) identified this symbol as a *cuauhxicalli*, and that it is uncertain that this panel was part of the bench frieze, because it had been reused with the *cuauhxicalli* motif on its reverse side. However, although we do not know what the central motif in these bench reliefs was, it is possible that the ritual represented in the vestibule bench processions concerns autosacrifice ceremonies and penitence rites performed by Tula’s king and his principal functionaries or councilors, perhaps similar to the penitence rituals that Klein (1987) proposes could have taken place in Tenochtitlan’s Casa de las Aguilas, which we will mention later.

**Building 4 or “The Palace to the East of the Vestibule”**

On the east side of the vestibule, there is an entrance to a building complex that Acosta only partially excavated and which he called “Building 4 or the Palace to the East of the Vestibule” (1957:44–46;77–80). He describes this structure as an “enormous palace,” where he only was able to explore parts of four rooms, but his project reports do not explain why more sectors of this “complicated system of rooms” were not excavated: “The discovery of a wide entrance on the east side of the vestibule led us to an enormous and complicated system of rooms constructed with adobe having (preserved) walls which sometimes reached four meters in height” (Acosta 1964:60). It is worth emphasizing that the “wide entrance” to this room complex measured almost nine meters in width and was subdivided by
two pillars supporting the lintels. Thus this was no ordinary entrance, but a very special access of great dimensions divided in three sections similar to the entrance that Acosta (1967) proposed in the reconstruction for the temple on the summit of Pyramid B.

The remains of Building 4, which are still visible on Tula's precinct and especially in the maps of Acosta, consist only of sections of four different rooms (fig. 17). Acosta (1967) mentions that the adobe walls in the third room were preserved to a height of four meters and that he found in situ the wooden beams for the entrance to this room. We only know that part of this building consisted of a long narrow room, which extended for the entire length of the vestibule's east side, and beyond this narrow room to the east, there are sections of three other rooms, two of them located on the north. We do not know the complete dimensions and the internal structure of the building, which, without doubt, constituted a very important structure on Tula's sacred precinct because of its proximity to the two pyramids and its direct access to Pyramid B.

Embellishing the base of the interior wall of the first room was a rectangular altar with a cornice, which is aligned with the great entrance of the building. Both the main register and the cornice of the altar originally were covered with reliefs, the surviving panels of which cover part of its main (west) face and its south side. The reliefs of this altar depict a procession of richly costumed personages walking from east to west and from south to north toward a central motif, which, in this case, is a human figure with his torso sculpted frontally and his head facing south toward the personages in the procession. An undulating blue plumed serpent forming a capital “S” surrounds the central figure, which Acosta (1956:74–80, láms 28, 29) calls the “Great Priest Quetzalcoatl” (“el Gran Sacerdote Quetzalcoatl”). The rest of the relief on the main face and the north side of the altar has been destroyed, but on the north edge of the central figure are depictions of feathers that probably are part of a banner or headdress for another (missing) figure.

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3. We think that in the art of Tula, the serpents in the form of a capital “S” are symbols of royalty, possibly signifying the title of ruler, and that personages with the serpent behind them represent Toltec kings (Mastache, Cobeán, and Healan n.d.).
which indicates that there probably was another procession of personages going in the opposite direction with both processions converging on the plumed serpent figure (fig. 18).

The costumes, placement, and other attributes of the central personage and the other members in the altar processions suggest that this relief may represent an important ceremony, where the protagonists consist of the king (perhaps recently enthroned) and lords from other regions, who are greeting or paying homage to the newly invested sovereign. This scene suggests a situation similar to a ceremony described by Sahagún that was part of the festivities in the election of a new Mexica emperor who “. . . sent his ambassadors to all surrounding Kingdoms, from Quautimalan to Michoacan, and from sea to sea, and then came the same lords or their dignitaries to attend . . . the festival of the election, all the invited participants were together some days before the festival” (Sahagún 1956:II, libro 8, 324).

There is a notable similarity between this altar frieze and the bench reliefs at the Mercado and the friezes in the Temple of the Jaguar at Chichen Itza (Marquín 1964:fotos 435, 436, lám. 272), both of which depict processions of richly dressed figures centered around a great personage surrounded by an undulating feathered serpent. The reliefs in the Mercado are especially similar to the Building 4 reliefs, because the Mercado benches have cornices with plumed serpents like those of most Tula bench cornices including those of Building 4.

Several investigators have discussed correlations between the sculptured benches in the Casa de las Aguilas (Building E) in Tenochtitlan and those of two structures at Tula: the vestibule (the Friso de los Caciques bench) and the Palacio Quemado, emphasizing the existence on bench reliefs of processional of figures with similar style, ritual themes, and iconography, along with the presence of cornices decorated with plumed serpents (Klein 1987; Umberger 1987; Kristan-Graham 1989; López 1993; De la Fuente 1990). Klein (1987:307) observes that the east room of the Casa de las Aguilas has a sunken patio with drains comparable to the halls in Tula’s Palacio Quemado and the Mercado at Chichen Itza; especially emphasizing the compositional and iconographic similarities between the bench friezes near the Templo Mayor and the Friso de los Caciques at Tula. López Lujián (1993:82) also supports the idea that the spatial distribution of the Casa de las Aguilas (Building E) and the form, proportions, and decoration of its benches are reminiscent of the Palacio Quemado in Tula and the Mercado in Chichen Itza.4

Even taking into account that the correlations proposed by the just-cited authors do exist, we are in agreement with Augusto Molina Montes (1987) and Francisco Hinojosa (cited in Molina 1987:102), who show that the spatial organization of the Casa de las Aguilas is similar to that of the building excavated by Acosta to the east of the vestibule, stating that in “both cases the access is up a stairway, through a portico which is part of an L-shaped colonnade. . . . this portico entrance is gained through a doorway located axially with the stairway into a long, narrow chamber. From here one proceeds into the patio through a doorway not located on the same axis but displaced to one side. . . .” It is important to note that the similarities between these building complexes are not just limited to the compositional and iconographic aspects of their benches, they also shared specific room forms and structural proportions.

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4. López Lujián subsequently made a detailed study of the Casa de las Aguilas for his doctoral dissertation, but we have not seen this text because the author was revising it for publication and could not give us more information when we consulted him.
We also want to emphasize that besides the existence of an L-shaped vestibule with columns and other similarities described by Molina Montes (1987), there exist additional shared elements between these buildings. In both complexes, the principal axes are oriented east–west with a secondary axis oriented north–south, including colonnades having square pillars and two stairways, one on the north side and the other on the east side. In addition, in Tula and at the Templo Mayor, the group of rooms is located on the east side of the vestibule, and at the entrance of these rooms, there is a long narrow rectangular space with an altar placed against its inner wall. In both cases, the altar is aligned with the principal entrance, and the architectonic relationship between the building entrance and the altar with the east stairway of the vestibule (all are roughly aligned) is the same.

In the Casa de las Aguilas, adjoining the first room on the northeast is another room, which on its south side connects with a sunken patio having columns. At Tula, we can observe in the same location part of a room that appears to have a similar form (for example, Room 3, where Acosta [1956] found the doorway beams in situ). This room is adjoined to the north by a smaller room, which has a second doorway in its northwest corner, apparently like the plan of the equivalent room in the Casa de las Aguilas (fig. 19). The letters B, C, and D in figures 17 and 19, indicate the doorways of the two structures, which are similarly placed. In Tula, the sector to the south of Room 3, where the columned patio would be, was not excavated (and may have been destroyed in pre-Hispanic times). Thus we do not know if the rest of this building also was similar in plan to the Casa de las Aguilas, as is the part near the portico, but even so, the correlations in terms of general plan and location are notable.

Probably even more significant is the fact that the location and spatial relationship of both buildings with the nearby pyramids are the same. The placement and architectural relationship of the South Vestibule with Pyramid C are clearly the same as those the Casa de las Aguilas has with the Templo Mayor. In both complexes, the vestibule and its rooms are placed on the northwest side of the pyramid, in a location near the pyramid but separated from it by a hallway.

It is important to state that the sizes and forms of these two buildings are not entirely known and that different sections of each structure were preserved at Tula and Tenochtitlan. In the case of the Casa de las Aguilas, the rooms of its east wing are known almost in their totality except for the northern limit, which is covered by the modern street of Justo Sierra. Because of this, the length and width of the building's north wing are unknown as is the total number of columns in this section. The existing excavation uncovered a row of six columns, but there may have been more. At Tula, in contrast, much of the "east wing" (consisting of Acosta's "Palace to the East of the Vestibule") of the complex has not been excavated, but we know the size and characteristics of the adjoining sector (the vestibule), and we know the nature of the building to the north with which this complex was integrated—Pyramid B, for which the vestibule was the only direct access.
If the north wing of the Casa de las Aguigas really was a long, narrow portico similar to the South Vestible of Pyramid B, then it is logical to ask whether this columned hall was articulated with another building to the north, and if this is the case, what was the specific identity of this building? According to Marquina's (1964) map, the Temple of Tezcatlipoca would be located nearby, and it is interesting that Klein (1987) identified the Casa de las Aguigas as the Tlacochcalco and observed that the buildings with this name were dedicated to Tezcatlipoca. Another possibility is that directly to the north of the Casa de las Aguigas, there was a plaza or other open area like those at Chichen Itza north of the colonnade (which also has small stairways) to the southeast of the Temple of the Warriors, or to the north of the vestibule on the west side of Chichen's plaza. On the other hand, it may be possible that the Casa de las Aguigas constituted an independent architectural unit in itself, in the form of a capital L, and was not specifically integrated with another building to the north. Without knowing the total plan and dimensions of the Casa de las Aguigas, including especially its north wing, it is highly speculative, in our opinion, to attempt to make an architectural reconstruction of this building.

In the case of Tula, it is important to emphasize that only the occupants of the “Palace to the East of the Vestible” had direct access to Pyramid B and the temple on its summit; from this structure, it was possible to walk directly to the stairway of the pyramid without going down to the plaza. No other building had such direct access to this pyramid. The great columned doorway of this palace probably was the starting point for ceremonial processions going to the summit of the pyramid. It is evident therefore, that the vestibule and the “Palace to the East” constituted an architectonic unit that was integrated with Pyramid B. It is worth adding that even though, on first impression, it might appear that the Palacio Quemado and the Palace of Quetzalcoatl also had direct access to Pyramid B, this was not so because, despite the proximity of these buildings, different types of architectural barriers exist between them.

The Palace of Quetzalcoatl or Building 1

Adjacent to Pyramid B on the east, and in some sense overlapping with part of the pyramid, is the building that Acosta (1964) called the “Palace of Quetzalcoatl” or Building 1, in which he identified three principal construction phases, some of them covering part of the lower two taluds or tiers of Pyramid B on its east side. According to Acosta (1964:58–61), this building measures approximately 60 meters east–west, and its east base ended in a stuccoed talud, which in some sectors was at least two meters high, apparently with a cornice on its upper edge and remains of connecting walls at its base. On the east face of this talud, there was a mural painted on a clay surface of which only the lower portion survived, representing the feet of two personages walking toward the south along with part of a circular motif placed between the two figures.

On the basis of Acosta’s topographic map (1956–1957:mapa 1), it appears that the Palace of Quetzalcoatl probably constituted a compound similar to the Palacio Quemado, although Acosta’s excavations totally exposed only one columned hall of this first structure. The elevation of this hall is about 4.5 meters above the base of Pyramid B; this room was slightly rectangular like Salas 1 and 3 in the Palacio Quemado, although smaller, with only one row of columns sustaining the roof. To the west, this hall adjoins Pyramid B, but it is important to note that its floor level was several meters above the pyramid base.

The Palacio Quemado or “Burned Palace”

Among the columned buildings on the sacred precinct, the largest and perhaps the most important is called the Palacio Quemado. This architectonic complex has a rectangular form measuring approximately 90 meters by 60 meters, and it is located directly west of Pyramid B, from which it is separated by a narrow passageway. This structure basically consists of three great quadrangular columned halls with central sunken patios (impluvios). These halls are independent and do not interconnect in common entrances or passageways. Each hall possesses its own entrance on different sides: Sala 1 on the east, Sala 3 on the west, and Sala 2 on the south, which means that only Sala 2 had direct access toward the main plaza (see fig. 20). These halls are adjoined on the north by a row of six long narrow rooms. The three rooms (numbers 1, 5, and 6) on the western and eastern ends of the row have doorways only toward the north and do not connect with the main halls, whereas the central three rooms (2, 3, and 4) are closed on the north but have direct communication with Sala 2 on the south.
Acosta (1956–1957) emphasized that a significant aspect of this structure is the existence of columned vestibules (columnatas), which surround it on three sides: south, north, and west. These vestibules are independent or isolated, with transverse walls that block communication between them and separate them from one another. The existence of architectural barriers between the vestibules conditioned the possibilities of circulation for most spaces in the Palacio Quemado complex. Most of the Palacio Quemado apparently did not have direct access to Pyramid B, because the vestibules of both buildings were separated by a walled passageway (fig. 21), which blocked circulation to the pyramid. Only Sala 2, through its southern entrance, would have had access to Pyramid B via the plaza.

Some differences exist in the columns and pillars supporting the roofs of the three halls and the vestibules. The halls (1 and 3) on the extremes of the Palacio Quemado have circular columns as do the north and west vestibules that communicate with them. In contrast, Sala 2 and the southern vestibule of the Palace have square columns. Probably the reason for placing columns with the same forms in specific halls and the vestibules with which they communicate was not merely to achieve greater architectural unity, or harmony in particular sectors of the structure, but also was a means of marking two different categories of space. Only the spaces with square columns had direct access to the plaza, that is, Sala 2 and the southern vestibule (figs. 20–21). As Acosta (1961a) observed, Sala 2 was without doubt the most important room in the Palacio Quemado: this is indicated by its central location and its being the only hall with direct access to the plaza. In addition, Sala 2 is connected to three small rooms on its north side, one of which (Room 4) was directly aligned with the palace's north–south axis and has a stairway. The room is described by Acosta (1961a:34, 37) as surely constituting "...a sanctuary where the most sacred rites were celebrated."

In the interior of this small room, there was a bench or altar from which some polychrome friezes survived that represent figures dressed as warriors. The two
preserved personages are depicted frontally instead of in profile like most Tula friezes. They are shown with characteristic Toltec weapons (atlatl and fending stick) along with butterfly pectorals and a Tezcatiltili back mirror. One figure is surrounded by a undulating, plumed serpent forming an inverted capital S motif, while the other warrior lacks a serpent but is followed by a panel fragment with the relief of the tail of another feathered serpent. Thus originally this frieze probably consisted of alternating figures with one personage having a plumed serpent and the next one lacking the serpent (ibid.), which suggests that each figure had a different status. We agree with Acosta that this room was no ordinary place. It clearly constituted an important ritual setting that had restricted access (perhaps only for the sovereign) and played significant roles in the ceremonial functions of Sala 2.

The three great columned halls (salas) of the Palacio Quemado can be reconstructed in some detail on the basis of Acosta’s excavation reports. He found the roofs fallen on the floors and damage by burning. The roofs originally had a central open section (impluvio), which provided light to the interior of each hall. The upper parts of these open patios were decorated with polychrome relief panels, which possessed three principal motifs: reclining human figures, great solar disks like the dorsal disks of the Atlantes, and representations of Cuauhxicalli, or vessels with sacrificed hearts (Acosta 1956). Fallen sculptures of Chalchihuites (precious stones or drops of water) and bundles of columns (atados de columnillas) were also found. The patio roofs were decorated with merlons (almenas) in the form of a capital G, which Acosta (1956) interpreted as depicting the cut cross-section of a conch shell, and thus being a Venus-Quetzalcoatl symbol (fig. 22).

In Sala 1, Acosta (1956, 1957) recovered fragments corresponding to eight solar disks and four Cuauhxicalli. Even more numerous were the panels with reclining personages, which totaled at least 20, of which only seven were reconstructed. These reclining figures are armed and have costume elements of Toltec warriors.
Some are surrounded by feathered serpents, and others wear a large, transversely cut conch shell as a pectoral. Most of the figures looking toward the right have serpents, while the other figures look toward the left, suggesting that, in the original sculpture group, the reclining personages (fig. 23) were divided in rows of figures looking in the same direction, with groups of figures looking to the left and to the right arranged around central motifs, which could have been the Cuauhtlicalli or the solar disks (Tezcatlilapotli) or both. It is significant that four of the reclining figures have leggings with tied bows, which may constitute symbols of royalty (Mastache, Cobean, and Healan n.d.; Kristan-Graham 1989:159–161). The other personages have plain, rounded leggings or knee protectors (rodilleras).

Anatomical and costume attributes of the reclining figures in the Palacio Quemado suggest that they may represent some of the same personages who are depicted on the pillars of Pyramid B. Like the figures of the Pyramid B pillars, the Palacio Quemado roof panels may represent personages of two different categories: kings or rulers and other personages having a lesser status or function. Only a detailed analysis of all the restored panels and the hundreds of fragments found on the palace floors would determine if these proposals are viable.

The benches and altars originally located in the interior of Salas 1 and 2 were similar in size and architectural characteristics to those of the Pyramid B vestibule. The Palacio Quemado benches and altars doubtlessly also were covered with friezes, but these reliefs were preserved only in three areas of Sala 2 and in Room 4 to the north (which already were mentioned). In addition, the three vestibules surrounding the Palacio Quemado all probably possessed sculptured benches and altars, but only a few reliefs have survived in situ in the north vestibule (Acosta 1957, 1961a).

Figure 22. Different decorative elements and symbols that formed the frieze in the upper section of the patio in Sala 1 of the Palacio Quemado. From Acosta (1956:fig. 16). Reproduced courtesy of the Instituto Nacional de Antropología e Historia, Mexico.
The principal preserved friezes in Sala 2 include an important relief panel in the northeast corner at the east side of the entrance for Rooms 2 and 3, which depicts two warriors walking from left to right, one of whom is bowed like an elderly person (fig. 24). Surely this frieze continued for the entire length of the bench until it connected with the surviving relief panels on the east side of the hall's principal entrance. Here Acosta found a section of bench friezes representing six personages in procession from left to right, with three figures on the north face of the bench and three figures on the east face at the main entrance. The procession on the north face turns the corner at the entrance and is shown leaving the building on the east bench face (Acosta 1957:131, 153, 168, láms. 8, 31).

The personage who leads this procession out of the building possesses the eye goggles characteristic of the god Tlaloc and is without doubt the most important figure in the frieze (fig. 25). His high status is expressed in his leading the procession, his being represented with greater stature than the other figures, and his having the most elaborate costume. This leader also has the most elaborate speech scroll in the procession, and it is noteworthy that one of the figures following him wears a xihuitzolli. All the surviving figures in this procession are armed (usually with fending sticks or spears) but do not have butterfly pectorals or other attributes of high status Toltec warriors. On the west side of the entrance to Rooms 2 and 3, a bench frieze section shows 13 personages walking from right to left (fig. 26). This relief series is interesting, because some of the undulating serpents on the cornice above the human figures have white scrolls on their bodies instead of feathers. Acosta (1957) suggests that these are cloud serpents and constitute a reference to the legendary lord or god Mixcoatl.

Acosta concludes that the two processions in the Sala 2 friezes (one going from left to right and the other from right to left) surrounded the entire hall going in opposite directions and then met at the main entrance in the south, probably finally leaving the hall to enter the south vestibule (Acosta 1957:168–169). He considers the personages in the two processions to be warriors, but in...
our opinion, only one figure (núm. 2) in the west procession is armed, and instead of weapons, the others carry what appear to be long banners or ceremonial staffs (scepters), decorated rattles, round banners (which may be shields), and at least one conch shell trumpet. It is significant that no personage in the west procession has a speech scroll coming from his mouth, but there are speech scroll–like elements associated with the shell trumpet and the rattles, which probably represent the music or sounds produced by these instruments.

In contrast, the personages in the procession led by the Tlaloc figure on the east side of Sala 2 do carry weapons (and sometimes have cotton armor) and almost surely represent warriors. Of the eight surviving figures in this procession, five have speech scrolls coming from their mouths. In our opinion, the two processions in Sala 2 possess different character or functions. The figures in the west procession appear to represent high-ranking lords who are not warriors (fig. 26). These personages have the most sumptuous costumes depicted in any of Tula’s friezes, and instead of weapons, they carry what appear to be musical instruments or noisemakers. The east procession is composed of warrior figures, and the speech scrolls coming from their mouths, including that of the leading personage dressed as Tlaloc, could well be symbols of song or of prayer. These friezes suggest a ritual similar to a ceremony (for the sixth month called Etzalqualiztli) described by the informants of Sahagún in which priests formed processions led by the high priest of Tlaloc, while they sang, chanted prayers, and played musical instruments (including rattles) in honor of this god (1956: vol. 1, bk. 2, p. 169). With this citation, we do not mean to suggest that the reliefs in Sala 2 represent the specific ceremony described by Sahagún, or that the friezes are related to these festivals, but only that the reliefs could depict a ritual, perhaps in honor of Tlaloc, which included processions with songs, music, and prayers.

The importance of rites to Tlaloc in Sala 2 of the Palacio Quemado is further supported by the nature of the offerings recovered there. During the 1990s, a conservation project (Cobean and Mastache n.d.) found in the center of this hall under the floor a massive offering of marine materials, which included an elaborate ceremonial garment made of hundreds of finely carved shell plaques, and in a subsequent offering at the same central point, a large pyrite mirror with turquoise mosaic fire serpents (that is, a solar disk or Tezcatlipoca), like the disks sculptured on the fallen roof panels of Salas 1 and 2). In an analysis of these ritual deposits, Taube (n.d.) considers the offering with the cut-shell garment to be a manifestation at Tula of the Teotihuacan tradition of Tlaloc as a war god, as was mentioned earlier. This interpretation is further supported by the existence in Sala 2 of the frieze procession showing warriors being led by a personage with Tlaloc attributes.

Besides the turquoise mosaic mirror in the latest Sala 2 offering, an undecorated pyrite mirror was deposited on top of the shell garment in the earlier offering (Cobean and Mastache n.d.). These are not the only mirrors found in Sala 2. During the 1950s, Acosta (1957) recovered another turquoise mosaic mirror and several small pyrite mirrors among a group of offerings under the Chac Mool found in situ in front of the eastern altar in Sala 2. On the north side of Sala 2, Acosta (1957) encountered most of another Chac Mool, which originally may have been placed in front of another altar in this hall. In Sala 1, he excavated a thorax fragment of a Chac Mool near the entrance (Acosta 1956:70).

In our opinion, the iconography of the sculptures in Sala 2, together with its offerings and architectural features, suggests that its main functions were not related to rites of autosacrifice, even though several authors (for example, Klein 1987, De la Fuente 1990) have proposed this interpretation. The presence of two Chac Moools (with
one placed in front of an altar) and the panels with Cuauhxicalli (vessels with sacrificed hearts) in the patio roof friezes probably indicate human sacrifice rather than penitence and autosacrifice. It is pertinent for this conclusion that Miller and Samayoa (1998; Miller 1985) consider Chac Mools to be elements for cults of human sacrifice and especially the sacrifice of war prisoners. Peter Schmidt’s recent recovery of a Chac Mool with its arms tied like a war prisoner in the Group of the Thousand Columns at Chichen Itza supports this interpretation (cited in Schele and Mathews 1998:358). In addition, both Miller (1985) and Graulich (1984) propose a ritual relationship between Chac Mools and Tlaloc cults, which correlates well with the associations of sculptures and offerings in the Palacio Quemado.

Likewise, the find of Chac Mools in Tenochtitlan in situ at the Templo Mayor in front of the temple of Tlaloc directly relates them to the cult of this god, as does, of course, the well-known Tlaloc Chac Mool recovered under the modern streets of Venustiano Carranza and Pino Suarez, which has irrefutable attributes of this deity (Matos 1988; De la Fuente 1990:49–52; Miller and Samayoa 1998:67–69, fig. 15). Thus even though the Chac Mools of Tula are representations of warriors that lack specific attributes directly linking them to a particular deity, it is probable that the association between this type of sculpture and cults to Tlaloc, which is evident in the Templo Mayor, goes back to Tula—especially when considering that the only Chac Mool found in situ at Tula is next to the bench frieze procession led by a Tlaloc figure.

Kristan-Graham (1989:288–289) proposes that the reclining figures in the Palacio Quemado reliefs could represent vanquished warriors and that the halls possessed a function related to the funeral rites of dead warriors, dead heroes, or fallen leaders. She and Klein (1987) identified the functions of the Palacio Quemado as similar to those of the Mexica Tlacochehcalco (“Dart House”), based on Klein’s (1987) studies of sixteenth-century accounts of autosacrifice ceremonies of newly elected Aztec kings and of the funeral rites for Aztec rulers and high-ranking warriors. Klein (1987) also notes
that the *Tlacochealcó* was the place where the Mexica emperor's cadaver was dressed and masked before it was cremated, and she cites Mendieta and Duran as stating that the dead king and funerary images of dead warriors were put in this building. She concludes that, according to various ethnohistorical sources, the *Tlacochealcó* buildings were dedicated to the god Tezcatlipoca, and that war captives were sacrificed in Tenochtitlan's Casa de las Águilas (which she considers to have been a *Tlacochealcó*) after Mexico military victories.

Klein's and Kristan-Graham's hypothesis that the Palacio Quemado had similar ritual functions to those of Tenochtitlan's *Tlacochealcó* is highly suggestive but difficult to confirm, because for Tula, we do not have the vast ethnohistorical sources that exist for Tenochtitlan, nor the detailed descriptions of chroniclers concerning specific structures, rituals, festivals, and ceremonies that make possible nearly ethnographic reconstructions of the appearance and function of the buildings in the great precinct surrounding the Templo Mayor.

**Building J or “The Building to the South of Pyramid C”**

South of Pyramid C (and separated from it by a passageway several meters wide) is a long, rectangular platform designated "Building J," which Acosta (1961a:54) describes as "a big building of the 'Palace' type with an enormous colonnade on its front (west facade) which extends for the entire length of the platform." This is one of the structures at Tula with the least basic information, and the existing excavation reports lack key data concerning some contexts and finds. This structure had a narrow stairway on its southwest side. Apparently its principal entrance did not face the plaza, but instead was on the south facade where Acosta (1961a) found remains of stairway balustrades. In a reconstruction drawing made by Ponciano Salazar (Acosta 1968:fig. 17), this building is shown with a south stairway and two small, open interior patios (which are not mentioned in the published reports).

On the south of this building, an important series of stone relief panels were recovered, which have key information concerning the iconography of this sector of the precinct. Acosta (1960:68–69) describes these reliefs and their probable original contexts as follows:

Over all the explored surface (of the south part of the building) a series of sculptured stones appeared that without doubt belonged to relief panels which decorated the south face of the platform. . . . A study of the reliefs, and of the locations where they were found, shows that these sculptured panels ought to have been similar to those which decorate Pyramid B. . . . But now, what we do not know is specifically where the three different motifs were placed, that is, Quetzalcoatl, the god Tlaloc and the reclining personages; the first elements are easy to place because they only could be set in the (sunken) section of the panel group. . . . hypothetically the (other) two motifs (Tlaloc and the reclining personages) were one in the upper frieze and the other in the intermediate panels. . . . I (suppose) that the
reclining personages were (directly displayed) in the middle part of the panel group, while the images of Tlaloc formed a procession in the upper frieze.

The image that Acosta refers to as Quetzalcoatl is identical to the representations in the friezes of Pyramid B—that is, the composite man-bird-reptile being that Acosta and Moedano identify as Tlahuizcalpantecuhtli (fig. 8). Whether or not this identification is correct, the presence of this motif on Building J is very significant, because it indicates that the man-bird-reptile symbol was used in other structures on the sacred precinct that were not pyramids, suggesting that Pyramid B may not have been dedicated principally to this possible deity.

The presence of panels with the man-bird-reptile motif on Building J also suggests the possibility that the nearby Pyramid C originally possessed panels with this image among the friezes that covered its facades. This motif probably was more common in Tula than has been thought. Another panel relief depicting it was recovered at the El Corral residential compound in the northeast city (Mandeville and Healan 1989:fig. 12.11), and Cobean found another sculpture with this image on the urban zone surface approximately 80 meters east of the Tula Chico plaza (Mastache and Cobean n.d.). However, these two reliefs from the eastern city have stylistic differences from the man-bird-reptile panels of Pyramid B and Building J.

The representations of Tlaloc that formed part of the Building J friezes are different from nearly all the images of this god found in other structures of Tula’s main precinct, in that the face of the god has what appears to be a large buccal mask with a long tube-like snout curling upward ending in a hook (Acosta 1960:láms. XVI, XVII, XIX). Acosta (ibid., p. 68) observed that the great curved noses of these figures (fig. 27) are reminiscent of Maya Chac images in Yucatan, but Karl Taube (pers. comm.) considers the Tlalocs of Building J to be more similar iconographically to images of the rain god at El Tajín than to Chac. In the recent excavation of Building K (to the southwest of Building J), a relief fragment was recovered with a Tlaloc image essentially identical to the version of this god found in Building J (Cobean 1994).

The panels representing reclining personages in Building J are quite similar to those of reclining figures in the upper friezes of the patios in the Palacio Quemado, but the Building J figures are unarmed. One of the personages is accompanied by the glyph ‘9-Hand,’ which Acosta (1960) proposes is the calendrical name of this lord.

Building K

Building K is a long, narrow rectangular structure marking the southern limit of the main plaza, which was excavated recently but found to be very damaged from pre-Hispanic (Aztec) and colonial looting (Cobean 1994). Like most buildings on the ceremonial precinct, it was burned at the end of the Tollan phase (circa A.D. 1150) and has partial reoccupations during Late Postclassic and early Colonial times. The original structure has at least three construction stages: the first associated with the Coyotlatelco culture (Corral phase, circa A.D. 800) and two constructions during the Tollan phase.

The final Tollan phase version of Building K consists of three overlapping talud-tiers, with the upper platform supporting a long, columned hall and vestibule similar to those of Building J south of Pyramid C. The vestibule was closed on its southern limit by a long adobe wall with a bench that originally was covered by relief panels like the benches in other structures on the precinct. No friezes were recovered in situ, but several relief fragments were found fallen on floors including the just-mentioned Tlaloc image. A long row of square columns supported the roof of the vestibule’s north side, which was open toward the plaza.

South of the vestibule, apparently there was a long, narrow columned hall (that was badly damaged subsequently), which had two rows of pillars placed...
together in two groups of six around a central space functioning as an entrance, or an open patio (*impluvio*). This columned hall was connected in the west with a long, narrow room, which probably lacked other accesses. The walls of the columned hall form two capital *Ls*, the largest of which, in terms of its placement and shape, repeats the capital *L* formed by the vestibules on the north side of the plaza, especially that of the vestibule of Pyramid B.

On the south side, the limits of Building K extended beyond the edge of its main platform in what appears to have been a great lateral stairway platform (or “cuerpo adosado”), like that of Pyramid C. Despite the damaged nature of this area, it is clear that the principal entrance for Building K was on its south facade and not toward the plaza on the north. There is no evidence for a stairway or other forms of access on the north facade of this structure, the lower platform of which was over two meters high, essentially forming a barrier. The only lateral construction found adjoining this platform was a small, low altar approximately two meters wide.

Thus Building K was a construction having several tiers, with a narrow hall bordered by a long vestibule. This structure probably was quite similar to the nearby Building J and very different from the Palacio Quemado. No contexts were found indicating that Building K functioned as a residence (Cobean 1994). Its central location on the south side of the plaza and its exact alignment with the transverse axis of the Adoratorio (in the center of the plaza) emphasize its importance in the overall plan of the precinct. Nevertheless, the fact that Building K’s entrance stairway is on the south facade outside the main plaza suggests that its architectonic, functional, and symbolic importance was in some ways of secondary status within the sacred precinct, but perhaps Building K constituted the axis of the south plaza that may well have been the site of Tula’s royal palace. We propose that the palace explored by Charnay (1885) in the south plaza, or an adjacent unexcavated building, perhaps was a royal residence, because of this area’s prominent elevated setting, its proximity to the main plaza, and the characteristics of associated structures (Mastache, Cobean, and Healan n.d.).

**The Adoratorio**

The Adoratorio was the main plaza’s central altar, of which little is known. It probably had stairs and a Chac Mool sculpture, but apparently it had been badly looted before Charnay’s (1885) excavations. He found a burial (probably secondary and from the Aztec reoccupation) underneath the Adoratorio. Clear architectural similarities exist between the Adoratorio and the much larger Plataforma de Venus at Chichen Itza (Marquina 1964:886). The Chac Mool was found by Acosta (1942–1944:148) in rubble on the east side of the Adoratorio. It is a large fragment lacking the head, like most Chac Moools from Tula. In various sectors of the altar, Acosta recovered shattered relief panels, one of which, representing a warrior with a feather cape in polychrome, is among the finest sculptures known from Tula (ibid., fig. 26). In further excavations, he found a badly damaged early Tollan altar within the Adoratorio (Acosta 1945:46–48).

**The ballcourts**

Two ballcourts have been excavated and restored at Tula. The largest, Ballcourt 2 (excavated by Eduardo Matos [1976] at the end of the 1960s), occupies the western limits of the main plaza in front of Pyramid C; a smaller structure, Ballcourt 1 (excavated by Acosta 1940, 1941, 1945), lies outside the plaza directly north of Pyramid B in an area called the Plazoleta Norte. Also outside the plaza to the northeast of Pyramid B is a small (almost miniature) unexcavated structure approximately 30 meters long, which probably constitutes a third ballcourt.

The two excavated ballcourts have interesting architectonic relationships with the two pyramids. Ballcourt 2 obviously was the most important structure, because of its larger dimensions and location within the main plaza, directly opposite the largest pyramid (C). On the other hand, the smaller ballcourt is outside the plaza and is related to the smaller pyramid (B). Even though Ballcourt 1 is behind Pyramid B and not in front, there is a clear spatial relationship between the two structures: the east–west dimensions of Pyramid B and Ballcourt 1 are the same, and the east and west limits of the two structures are exactly aligned.

There are many similarities between Ballcourt 2 and the great Ballcourt of Chichen Itza. The proportions and architectural features of the two structures are closely analogous, including the specific locations of temples and other lateral buildings (Patiño 1994; Marquina 1964:855, lám. 264). The probable temple on the east facade has essentially the same location as the Temple of the Jaguars in Chichen, and the small platforms on
shell garment of Offering 2 further suggests the existence of important ritual ties between the Palacio Quemado (especially Sala 2) and its particular ceremonial functions with Ballcourt 1, and suggests a link between this ballcourt and the Tlaloc Warrior cult.

The Tzompantli

Tzompantli or skull altars are structures for cults of human sacrifice and war that became frequent in ancient Mexico during the Late Postclassic (A.D. 1200–1520) and are often associated with ballcourts. At Tula the Tzompantli is located next to Ballcourt 2 to the west of the Adoratorio and was excavated by Matos (1976) during the 1960s. In North Mexico, the Tzompantli cult appears to be earlier than in the Central Highlands. Hers (1989) identified an Early Classic skull rack at Cerro del Huistle, Jalisco, and Spencer (1982) reports one for the Late Formative in the Cuicatlán Calaada, Oaxaca, although Hers and Brunif (1998) dispute the chronology of this Tzompantli.

The apparent absence of a Tzompantli associated with Ballcourt 1 may be specious, because various sectors directly north and west of this structure never have been systematically excavated. If real, this absence could be another indicator of a hierarchical difference between Ballcourts 1 and 2 and suggests that perhaps only Ballcourt 2, located within the plaza, was involved in human sacrifice rites, such as those extensively documented in sixteenth-century chronicles and codices for Tenochtitlan and other centers. At present, with the exception of the skull rack at Cerro del Huistle, Jalisco (Hers 1989), which has different characteristics, the Tzompantli of Tula is the oldest structure of its kind known for north-central Mexico and is without doubt the prototype for Aztec Tzompantli.

The Coatepantli

This structure, which the Mexica called “the serpent wall,” physically and symbolically defined the sacred space of some cities’ precincts during the Late Postclassic. The Coatepantli at Tula is the oldest serpent wall known for the Central Highlands and surely was the prototype for this feature present in some Aztec centers. Acosta (1942–1944, 1945) excavated and restored the Coatepantli, and Diehl (1989) presents an insightful analysis of this structure. Some scholars have assumed that the elements restored by Acosta are only
fragments of a larger wall. Nevertheless, no other sections of this wall have been found in other parts of the precinct, and it is probable that the existing structure constitutes the complete length of the original Coatepantli, because its limits are aligned exactly with the width of Pyramid B and the length (east-west) of Ballcourt 1.

Symbolically, the Coatepantli does mark a sacred limit at Tula, indicating that the most sanctified area consists of the buildings surrounding the plaza but does not include the Plazoleta Norte and Ballcourt 1. The placement of the Coatepantli indicates the separation of these two zones, showing that the Plazoleta Norte possessed a different status from the plaza in terms of function and surely also in terms of accessibility. Besides limiting sacred space, the Coatepantli, from an architectonic point of view emphasizes the relation between Pyramid B and Ballcourt 1. The focus of Pyramid B is not on the plaza, where Pyramid C predominates as the central architectonic unit but is directed toward the Plazoleta Norte, where it is the fundamental architectural element.

The main precinct of Tula is thus limited both on the north and the south by two smaller plazas, which complement it and constitute a kind of prolongation of the sacred zone, including the Plazoleta Norte and the other plaza to the south, which has buildings of unknown characteristics except for the Toltec Palace excavated by Charnay (1885). If this building was a royal palace, as we have suggested, then Building K would constitute the point of communication between the south plaza and the sacred precinct, that is, between two different realms of the state. On the other side of the precinct, the Plazoleta Norte is articulated to the north with the compound called the Plaza Charnay (Matos 1974), which was partially reoccupied by the Aztec. Little is known concerning the characteristics of this complex during the Tollan phase apogee of Tula, but its monumental setting and its proximity to the main plaza suggest an important function, which may have been as the city’s market. But this hypothesis needs to be investigated with excavations.

**Accesses**

Tula’s main plaza possesses two obvious entrances, which are placed in diagonal. What doubtlessly was the main entrance is in the extreme southeast between Building K and the platform south of Pyramid C (Building J), measuring approximately 20 meters wide and connecting with a great stairway, which climbed Tula’s acropolis from the lower terraces near the Tula River below. The other access is in the plaza’s northwest corner, between the north end of Ballcourt 2 and the Palacio Quemado; this is a narrow passage, which communicated the main plaza with the Plazoleta Norte. Another secondary entrance appears to have been located between the south end of Ballcourt 2 and Building K, which connected the precinct with the south plaza (fig. 4).

We do not know the manner in which the precinct entrances articulated this zone with the rest of the city, including immediately adjacent areas and more distant points in the urban zone. Also uncertain is the level of access which the city’s non-elite inhabitants had to the sacred precinct. The great height of the acropolis, the limited number of entrances, and the sacred nature of the monumental plaza suggest that, although it dominated the urban space, this area may have been somewhat alien and inaccessible for much of the population. Castells (1982) observes that the monumental center of a city is composed of great open spaces along with closed areas. There are public domains, but also inaccessible domains, which are restricted to all but a few persons.

**Final comments**

The previous analysis shows that Tula’s sacred precinct was composed of different types of buildings, the specific functions of which have not been defined in all cases. The two pyramids, arranged adjacent forming a 90 degree angle, were without doubt the most important architectonic elements in the compound, with Pyramid C being the principal building and the predominant component on the basis of which all the monumental center was planned, possibly along with the rest of the city. Pyramid B, which faces south, has a secondary position or status that is manifested in its smaller size and its specific location within the precinct.

It should be emphasized that the differences between the two pyramids concern not only their volumes and placement within the plaza but also that both these structures are conceptually distinct. Pyramid C, probably the axis mundi of the sacred precinct, in a sense constituted an entity in itself, that is, an independent architectural unit that was not articulated with other buildings. Even though Pyramid C was flanked by two
structures, in both cases these buildings are separated from the pyramid by passageways. The smaller scale of these side structures highlights the size and volume of Pyramid C.

As stated earlier, Pyramid C is architecturally similar to the Pyramids of the Sun and the Moon at Teotihuacan, because, like these, it possesses a lateral stairway platform (cuerpo adosado) in the center of its principal facade, therefore being the same architectonic conception, although, of course, on a smaller scale as the great Classic pyramids. In this sense, Pyramid C represents a continuity with Teotihuacan, constituting a conservative architectonic element that conceptually ties Tula with Classic Teotihuacan architectural traditions. Thus there is a clear Teotihuacan presence in the principal structure of Tula's sacred precinct.

Pyramid B, in contrast, is architecturally innovative, constituting a distinct entity, which integrates in a single architectonic complex a pyramid-temple, a vestibule, and halls with benches and altars, thus uniting three kinds of spaces and functions in the same structural unit. From this perspective, Pyramid B represents essentially innovative aspects characteristic of Toltec culture. Just as Pyramid C links Tula with Teotihuacan, one can say that Pyramid B represents an essentially Toltec building and Tula's northern origins with its ties to northern architectural traditions. This new concept of a pyramid with a vestibule places a portico in front of a pyramidal structure, thus covering most of its principal facade and obstructing the visual impact of the pyramid toward the plaza, creating the effect of diminishing its volume and to some degree the magnificence characteristic of these structures.5 Hers and Braniff (1998:65) have shown that this combination of a portico in front of a pyramid is surprising and apparently contradictory, because it makes the pyramidal structure look like the second story of the portico (fig. 29).

Nevertheless, we believe that this apparent contradiction is due to the two pyramids probably having different specific functions, because as the principal building on the precinct, it was important for Pyramid C to be uncovered, thus dominating the sacred space. Pyramid B, with its frontal vestibule, would have been a more private and restricted space for performing different kinds of rites and ceremonies from those of the other pyramid. Probably Pyramid B was above all else a monument related to royalty, government, and power, exalting the royal dynasties and the institution of war, which was closely tied to the leadership and government of Tula. It should not be forgotten that the pillars in the temple on Pyramid B's summit apparently represent Tula's kings and other nobility; the Atlantes being along with idealized versions of high ranking Toltec warriors.

As we showed before, the great vestibule and the Palace to the East clearly constituted an architectural unit integrated with Pyramid B. Even though the specific functions of the Palace to the East of the Vestibule are unknown, the iconographic elements associated with this building and the vestibule, its similarity with the Casa de las Aguylas at Tenochtitlan, and the fact that it was the only structure having direct access to Pyramid B and the temple in its summit, strongly suggest that the three buildings (the vestibule, the Palace to the East, and Pyramid B) constituted a kind of royal sanctuary, that is, a special temple for the king and his priests and dignitaries, where rituals and ceremonies were performed related to the functions of the sovereign.

These ceremonies probably were centered around penitence, enthronement, war, and government, and perhaps were similar to rites which Klein (1987) proposes took place in Tenochtitlan's Casa de las Aguylas based on descriptions in sixteenth-century chronicles.

Perhaps the existence of two large pyramids at Teotihuacan and Tula, with the before-mentioned correlations in placement and orientation, is related to the concept of duality, with the universe structured in pairs of opposing and complementary entities, which was a fundamental concept in the cosmology of peoples in the Central Highlands and other areas of Mesoamerica.6 It is probable that the two pyramids in both centers express this duality and the existence of two principal cults in the same way that in the Templo Mayor of Tenochtitlan and in other cities of the Late Postclassic, this binary conception is expressed in a single pyramid having two temples on its summit.

5. This combination of a pyramid with a frontal portico also occurs in the Temple of the Warriors at Chichen Itza, although at this site apparently no adjacent building equivalent to the Palace to the East of the Vestibule existed. At Tula, as we have emphasized, Pyramid B, the Vestibule, and the Palace to the East constituted an architectural unit.

6. Regarding concepts of duality in the universe among the peoples of ancient Mexico, see Lopez Austin (1973, 1980), who analyzes this topic thoroughly and also discusses the most common types of opposition in the Nahua cosmvision.
In Teotihuacan the two pyramids are separated; centuries later at Tula, the pyramids are together on the same plaza, and at Tenochtitlan, apparently what was once two entities becomes one, that is, one pyramid with two temples on its summit. It is likely that because of this, in the Mexica Templo Mayor, the north temple dedicated to Tlaloc was smaller than the south temple dedicated to Huitzilopochtli, probably as a remembrance that the north pyramid-temple should be the smallest and possess a different hierarchy. This appears to have been a process that lasted several centuries, which manifests the continuity in the cosmovision and the fundamental ideological concepts shared by these three cultures; this is also evident in iconography and some other aspects, although many central features, such as the urban conception and planning of the three cities, are different.

We do not possess sufficient information to determine if the deities and cults of both pyramids at Teotihuacan and Tula were similar to the gods of the Templo Mayor at Tenochtitlan, because this problem still is the object of speculation and controversy. It often has been assumed that the Pyramid of the Moon could have been dedicated to Tlaloc or to an aquatic goddess fundamentally, because of the great importance of Tlaloc in Teotihuacan iconography and the recovery of a monumental statue of a female water deity in the plaza near this pyramid. It also is significant that eight Tlaloc effigy vessels were recovered in the recently found of offerings inside the Pyramid of the Moon (Sugiyama and Cabrera, in press).

With regard to the Pyramid of the Sun, the general absence of representations of deities or other

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7. See López Luján (1993:95–101) on the dual pattern of the Templo Mayor, including a summary and analysis of different proposals from diverse investigations and the controversy concerning the significance of the temples or “double chapels” on this pyramid’s summit. This author also discusses the notable preeminence of the cult to Huitzilopochtli at the Templo Mayor, showing that indications of this superior status can be observed in the frequent generic reference to the Templo Mayor as the “Cu of Huitzilopochtli” in the early sources, and in the greater size of the “chapel” of Huitzilopochtli evident in the remains of the Templo Mayor at Tenochtitlan and Tlatelolco and in sixteenth-century illustrations of these structures (ibid., p. 98).
iconographic elements in mural paintings or sculptures associated with this building makes this subject even more speculative. Nevertheless, some indications exist that this monument could have been dedicated to a solar deity. Among this evidence are the descriptions of Boturini and Clavijero stating that in the eighteenth century there still was a monumental sculpture on the summit of the Pyramid of the Sun that had a large golden disk on its chest; Seler (1915:407) considered this a descriptive fantasy of these chroniclers.\footnote{8} But taking into account the recovery of several large mirrors (some with reliefs probably representing warriors) in the offering in the cave under this pyramid (Heyden 1973:figs. 3–4), and the importance of mirrors and related solar cults that Taube (1992) has documented in Teotihuacan iconography, it is plausible that the principal cult of this pyramid involved a solar deity. However, it is important to mention that some pyrite mirrors also were recovered in the recently found offerings inside the Pyramid of the Moon (Sugiyama and Cabrera 1999, in press).

At Tula, Acosta (1956:ám. 5) proposed that Pyramid C was dedicated to Quetzalcoatl as Venus the Morning Star on the limited basis that the only preserved sculpture associated with this structure was the balustrade relief of a symbol, which he interpreted as depicting a cut conch shell characteristic of this deity (fig. 6). It is worth observing that a similar symbol called “estrella de cinco puntas” is common in Teotihuacan mural art (see De la Fuente 1995, I (1):63, lám. 8; 66, lám. 19, 77, fig. 6.13 among other illustrations).

Acosta (1943) and Moedano (1946) proposed that Pyramid B was dedicated to Tlahuizcalpantecuhlti, or the god Quetzalcoatl embodied as the planet Venus the evening star, based mainly on supposed representations of this deity in the pyramid’s reliefs showing a man-bird-reptile composite being (fig. 8), the identification of which with Tlahuizcalpantecuhlti is not at all clear (Taube n.d.). Recent research has shown that the Tlaloc warrior cult of Teotihuacan tradition could be very important in Tula. The representations or attributes of this deity in the north ballcourt (fig. 28), on the offerings (ibid.) and reliefs of the Palacio Quemado, and on the pillars of Pyramid B open the possibility that his cult was associated with this pyramid. It is worth noting that representations of armed Tlalocs until now have been found only on the north side of the precinct, given that the Tlalocs in Buildings J and K are stylistically different and do not carry weapons.

A continuity in the iconography of Pyramid B and the art of Teotihuacan, which has been cited for decades (Armillas 1950), is the similarity of the processions of seemingly domesticated canines and felines accompanied by eagles or vultures on this pyramid’s facades with processions of animals in Teotihuacan murals, especially those at Atetelco. Even though no murals or reliefs with files of animals have been found at the Pyramid of the Moon, the recently recovered offerings in its interior consist of skeletal canines, jaguars, and eagles and other birds of prey (Sugiyama and Cabrera 1999, in press:167), which emphasizes this similarity or continuity and suggests that both pyramids were the focus of similar cults and rites.

Nearly twenty years ago, Sanders and Santley (1983) in their essay “A Tale of Three Cities” presented an eloquent synthesis concerning the continuities and discontinuities between Teotihuacan, Tula, and Tenochtitlan principally in terms of economic and urbanistic processes. The analysis of Tula’s sacred precinct indicates that there also were continuities involving ideological concepts and cosmovision in these three cities. However, the crucial question, as Calnek observes, is how these kinds of continuity were achieved.\footnote{9} The investigation of this problem requires profound studies of the iconography and urbanism of these centers and their historical processes, along with the crucial factor of their ethnic compositions. We also should take into consideration the possibility that many key ideological concepts and institutions of these cities could be far older than Teotihuacan.

\footnote{8} We thank Karl Taube for informing us of this discussion by Seler, and for advising us on the possible significance of the giant sculpture with a probable mirror on its chest associated with the Pyramid of the Sun. We also appreciate very much his valuable comments and suggestions on this text.

\footnote{9} This observation was part of a series of valuable comments which Edward Calnek made on an earlier version of this text. We greatly appreciate his kindness.
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