

Time and the E-Group. A Hermeneutical Reflection on Maya Ceremonial Centers

El tiempo y los conjuntos arquitectónicos Grupo E. Una reflexión hermenéutica sobre centros ceremoniales mayas

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Abstract: This work makes a critical evaluation of the interpretation of the architectural complex known as E-Group. The discussion is aligned with post-colonial studies and historical criticism, where ontological conflicts between indigenous cultures and 'Western' culture are highlighted. Through hermeneutic reflection, where living traditions play a fundamental role, it offers an alternative interpretation and a decentralized voice in the discussions on Mayan heritage. Contemporary rituals and religious narratives provide an ontological horizon within which a dialogic interaction is established between contemporary Maya communities and the ancestors. Above all, this article advocates a collaborative practice of knowledge production that includes the voice of Indigenous Peoples on issues concerning their own cultural heritage.

Keywords: ancient Maya; architecture; E-Group; hermeneutics; contemporary rituals; indigenous world-view; Mesoamerica.

Resumen: Este artículo realiza una revisión crítica de la interpretación astronómica que normalmente se asume para los conjuntos arquitectónicos 'Grupo E' en sitios arqueológicos mayas. Esta discusión se alinea con los estudios poscoloniales y la crítica histórica donde se exponen los conflictos sobre la percepción del tiempo y la visión del mundo entre culturas diversas. Mediante la reflexión hermenéutica propongo una interpretación alternativa en la que las tradiciones vivas juegan un papel fundamental. Los rituales contemporáneos y las narrativas religiosas proveen un 'horizonte' ontológico dentro del cual se establece una interacción dialógica entre las comunidades mayas contemporáneas y los ancestros. De esta forma este artículo aboga por una praxis colaborativa en la producción de conocimiento, en la cual se promueva la inclusión de los pueblos indígenas en temas relacionados con su patrimonio.

Palabras clave: mayas antiguos; arquitectura; Grupo E; hermenéutica; rituales contemporáneos; visión del mundo indígena; Mesoamérica.

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Introduction

In 1924 Frans Blom, a Danish archaeologist, surveyed the E-Group at Uaxactun and proposed that these buildings were probably functioning as a solar observatory (Blom 1926). His field data showed that the alignments between the central pyramid and the east temples appeared to be pointing to the equinoctial and solstitial position of the sun upon the horizon. At that time, Blom's findings had an enormous impact on the academic community because they seemed to confirm information from colonial documents and converged with the interest of epigraphic studies in astronomy. For example, the work of Ernst Wilhelm Förstemann (1822-1906), Paul Schellas (1859-1945), J. T. Goodman and Charles P. Bowditch (1842-1921) focused primarily on the calendar and astronomical content of the Maya script.

After Bloom, Oliver Ricketson continued excavations on Uaxactun's E-Group and supported Blom's astronomical hypothesis (Ricketson 1933). Blom and Ricketson agreed that the temples could have served as solstitial and equinoctial markers indicating key positions of the Sun as it moved over the horizon. Over the next nine decades, more than 250 E-Group sites were identified in the Maya region (see May 2014: 161), and its astronomical function was consolidated on the basis of Blom and Ricketson's studies. Thus, Group E of Uaxactun was gradually accepted as the archetype of the Mayan astronomical observatories, and for almost a century little critical assessment was made of its function and meaning.¹ In contrast, the astronomical function – to record solstices and equinoxes – is often taken for granted and, as a result, its religious meaning is overshadowed.

An extensive historiography on the E-Group can be found elsewhere (Chase & Chase 1995, Aimers & Rice 2006, Doyle 2012). Therefore, in this paper I'll base my reflections on the main interpretations and previous criticisms. Since most of the sites have not yet been fully investigated, the qualitative data is essential here. There are approximately seven cases that have been extensively excavated: Cival, El Palmar, Nakbe, Naranjo, San Bartolo, Tikal and Uaxactun, while eight others have only been partially excavated: Calakmul, Cenote, Mirador, Mucaanah, Nakum, Wakna, Yaxha and Yaxnohcah (see Doyle 2012). Therefore, we only have qualitative data from about 6 % of the known E-Groups, which restricts any attempt at comparative study.

By the middle of the last century the astronomical function had been challenged by archaeological findings: Ruppert (1962) registered about 19 E-Group cases and noticed that several cases were not accurately aligned to the solstitial and equinoctial points on the horizon. In light of the evidence, he suggested that the 'less accurate' examples might be poor replicas of the Uaxactun's archetype. However, his suggestion was not supported by the archaeological record when it was found that other cases were built

¹ See further discussions on the function and meaning in Aveni, Dowd & Vining (2003); Fialko (1988); Laporte & Fialko (1995); Quintana & Wurster (2001: 144); Ruppert (1962).

before Uaxactun. One good example is the well-known case of Mundo Perdido, Tikal, which is older and has a deviation of approximately 6 degrees from the eastern equinoctial point (Fialko 1988; Laporte & Fialko 1995).

It's worth mentioning that the substantial amount of archaeological data collected at Uaxactun by the Carnegie Institution between 1926 and 1937, for historical reasons, strongly conditioned interpretations of Maya culture in the last century. This was the case with E-Group assemblages as well as for other Maya buildings that were also seen as astronomical devices. For instance, the well-known 'equinoctial' phenomena of Chichen Itza,² Dzibilchaltun and Mayapan, among others, were first mentioned early in the last century, following Blom's publication of Uaxactun (May 2014: 180). However, some weaknesses have been detected in the interpretations that rely on early data from Uaxactun. One such example is the chronological errors mentioned by Chase & Chase (1995). Similarly, the astronomical interpretations of the E-Group assemblages have been weakened by recent archaeoastronomical findings.

In light of the most recent findings, this paper proposes a critical reassessment of the role and significance of the E-Group through a hermeneutical reflection, from an insider perspective, in order to provide an alternative interpretation in line with indigenous thought.

However, before doing so, it is necessary to establish the limits of this discussion: Although there are a number of formal variations and differences between E-Group assemblages, this paper will rely on three architectural features that seem to be present in most cases: a) the elongated platform on the eastern side of the complex, b) the three temples sitting on top of the platform and c) the pyramid to the west (Figure 1). This is not to say that other features are less important, but because of space limitations they will not be included here.

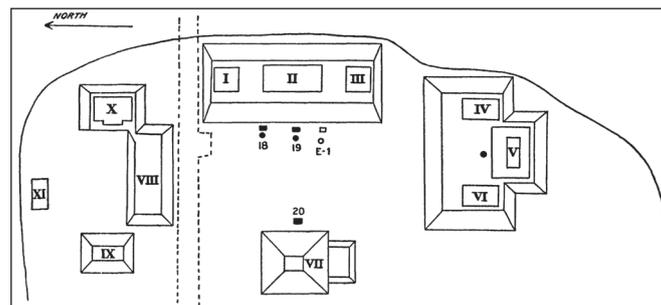


Figure 1. Uaxactun's E-Group (Ricketson 1933: 77).

² Interestingly, during the 'celebrations of equinoxes' hundreds of non-indigenous peoples (especially New Agers dressed in white clothes), arrive at Chichen Itza to receive the energy of Kukulkan. However, there are barely any Yucatec Maya people present celebrating this ceremony.

It is important to note that the center of the great platform has a higher hierarchy by housing a larger temple, a twin temple, or a larger staircase (more variations are discussed in Chase & Chase 1995, Aimers & Rice 2006, and Doyle 2012). The hierarchy of the central temple combined with the imaginary central point of the western pyramid generates an east-west axis that has historically been related to the equinoctial points. However, this alignment of the central axis of the E-Group seems to be symbolically relevant, so I will return to it later in the text.

Solstitial-equinoctial markers?

Discussions on the astronomical function of the E-Group are still open. Yet, the astronomical interpretations linking the eastern temples with equinoctial and solstitial markers are increasingly contested by recent archaeoastronomical data. Mostly, the critical debates rely on the work of Horst Hartung, a German architect and Anthony Aveni, a North American astronomer, who decided to test whether the equinox-solstice hypothesis was correct by collecting systematic data and more accurate measurements of the visual lines of the Uaxactun E-Group, including the central axis. Their results were conclusive and contested the interpretation of the E-Group as an astronomical apparatus for the precise recording of the solstices and equinoxes (Aveni & Hartung 1989):

[...] though the architecture appears to enframe these key Sun positions rather neatly, the Group E complex in any sense offered a precise means for determining the solstitial dates.

A few lines ahead, they assert:

Consequently, Group E should be regarded as a functioning (though not precise) solstice observatory only and not as an equinoctial one'.

The authors offered alternative interpretations, such as relating architectural orientations to calendrical meanings. Following a previous study by themselves (Aveni & Hartung 1986), they firstly asserted that the orientation of the E-Group may correspond to specific positions of the sun over the horizon at specific dates of the Maya calendar, and secondly that those dates might be closely related to zenith passages of the sun (Aveni & Hartung 1986), they in first place asserted that the orientation of the E-Group may correspond to specific positions of the Sun at specific dates of the Maya calendar, and secondly that those dates are closely related to zenith passages in the Maya region (see also Aveni, Dowd & Vining 2003).

It should be noted that Aveni and Hartung had the authoritative academic background and technical skills to re-evaluate the function of the E-Group. Nevertheless,

their conclusions at the time had to contend with more than six decades of interpretations that traditionally relied on Blom's hypothesis.³

Since the early 1960s, Hartung related the alignments of Uaxactun's E-Group to solar positions that bore religious meanings, rather than to the utilitarian function of astronomical observation. He never mentioned the equinoctial-solstitial hypothesis in his dissertation (see Hartung 1971: 17-18), even when this was widely accepted by Mayanists at the time (e.g. Guillemin 1968, quoted by Hartung, mentioned the solstitial-equinoctial hypothesis).⁴

It was several years after Aveni & Hartung (1989) until Chase & Chase (1995) openly refused to include the astronomical function of E-Groups in their discussion. Rather, they attributed religious and political meanings to E-Groups. Aveni (2005: 392), meanwhile, proposed that while the solstice recording function may be more or less acceptable, the equinox recording function is more problematic. In line with Aveni and Hartung's critical view of the accuracy of the recording of equinoxes and solstices, Aimers & Rice (2006) proposed that

[...] it seems more likely that precise architectural indicators of solstice and equinox positions were less important to the ancient Maya than they have been to archaeologists.

In fact, Aimers & Rice tested 45 E-Group cases, and noted the absence of accuracy when registering the equinoxes in most cases. The same was concluded for solstices, given that only in two cases can the solstice be measured with any accuracy. Moreover, more than 10 % of the cases studied by Aimers & Rice (2006) have temples whose alignments⁵ fall outside the solar trajectory on the horizon. Even when several temples fall within the solar trajectory over the horizon and close to the solstitial points, in most cases they are far from accurate. In particular, the case of Uaxactun, as Aveni & Hartung (1989) have demonstrated, cannot be considered an astronomical apparatus for registering solstitial points accurately. Aimers & Rice also stressed that Maya architects were able to build accurate alignments towards equinoctial and solstitial positions, had they wanted to. As such, they take other possibilities on the function of E-Group into consideration, and propose that the astronomical purpose was not the only factor conditioning the orientation of the buildings:

3 Hartung (1992), gives an idea on how his work was strongly criticized by archaeologists at the main academic forums, such as the International Congress of Americanists.

4 Let us not forget that at that time archaeology, as a discipline, enjoyed an exclusive hegemony in Mayan studies.

5 These alignments refer to the line linking the center of a pyramid to the west and the center of the temple on the platform to the east.

Less functionally utilitarian factors probably influenced the design of these [...] (Aimers & Rice 2006: 86).

The authors, in agreement with Aveni & Hartung's proposal, related the function of E-Group complexes with rituals and celebrations for annual solar cycles.

Fialko (1988) concluded that, according to archaeological data, the E-Group did not function as solar observatory, but rather as a public space for rituals related to commemoration of solar cycles. Notably, Fialko's assertions on the astronomical inaccuracy and religious significance were in line with Aveni & Hartung (1989).

The religious dimension of E-Group assemblies hardly goes unnoticed. First of all, it is worth remembering that the buildings that make up E-Groups consist of three temples with altars on the eastern platform and the pyramid to the west representing the sacred mountain (see Schele & Mathews 1999: 43). Secondly, we should note its recurrent insertion in religious contexts where it is spatially and symbolically related to other religious architectures, such as ball games and triadic buildings (see Flores Esquivel 2010). In addition, according to archaeological data, E-Group ensembles appear to have existed as ceremonial centres since the pristine planning of settlements and appear to have maintained religious functions for centuries (Aveni 2005: 391ff.; Chase & Chase 1995; Fialko 1988; Laporte & Fialko 1995; Rupert 1962).

In short, according to recent data, the solstice-equinoctial hypothesis is increasingly difficult to sustain and it is worthwhile to turn our attention to the religious aspect.

The ontological problem of solstices and equinoxes in Mesoamerica

Despite the above evidence, equinoxes and solstices, as astronomical concepts that influence the notion of time, still influence the interpretations of Mayan temples in one way or another. This requires a brief historical review of its origin and use in Mesoamerica.

How did the concepts of equinoxes and solstices become of common use in Mayan studies?

As Aimers & Rice (2006) suggests, the solstice-equinoctial hypothesis seems to be a modern academic construction. Furthermore, it seems to be deeply rooted in 'Western' traditions, particularly those related to religion, astronomy and the perception of time.

Indeed, equinoxes and solstices are concepts rooted in ancient Europe. The equinoxes and solstices were used as temporary markers from which both secular activities and religious festivities were programmed, long before the colonization of the Americas. Christian priests in particular were very knowledgeable about astronomy in medieval times, when European science served the interests of religion. Thanks to this we can find publications such as the *Libro de los relojes solares*, by Pedro Roiz (1985) or the *Tratado de Gnomónica*, a manual for building sundials, by Thomas Vincent Tosca, a priest from Valencia, Spain (Tosca 2006: 7). Interestingly, Tosca cites Vitruvius, an author of the

first century BC, in his work. Indeed, Vitruvius (2006 (1 BC): c. VII-VIII), in book IX of his *De Architectura libri decem*, mentions solstices and equinoxes as key astronomical concepts for designing and constructing sundials. At that time, sundials were part of the architectural programme of the classical Roman world. This and other classical traditions were taken up again in the late medieval period by the Renaissance and decisively influenced the work of intellectuals throughout Europe.

Thus, equinoxes and solstices were already in common use at the time of the colonization of the Americas and the Spanish friars were well informed about such concepts. In fact, some of them were expert sundial builders, as the books by Tosca and Roiz show. These time-measurement devices were built in the convents and cathedrals of the colonies,⁶ to regulate the schedule of religious and secular activities. The sundials were coordinated with the church bells, allowing them to control time, an essential strategy for the colonization project.

It is very likely that the first mention of the equinox, as an astronomical-temporal concept, occurred in the Americas around 1541 during Motolinia's description of the celebration of the *Tlacaxipehualistli*, a festivity that took place in the Templo Mayor (*Uchilobos*) in Tenochtitlan:

[...] Esta fiesta caía estando el sol en medio del Uchilobos, que era equinoccio, y porque estaba un poco tuerto lo quería derrocar Mutizuma y enderezallo. Ofrecían tortillas de maíz con miel; y estos veinte días bailaban, y daba de comer Mutizuma, y daba libreas a los valientes hombres (Motolinia 1903: 44).

However, we need to bear in mind that Motolinia's account was addressed to a Spanish speaking audience, so the friar used a rhetoric in which the concept of equinox was widely known.

Without doubt the sun 'rose' in the middle of *Uchilobos* at a certain time during the year, but from an indigenous perspective this astronomical event should have had a different meaning.⁷ In addition, it is worth noting that Motolinia couldn't have witnessed such a ceremony in which Moctezuma took part, given that he arrived at Tenochtitlan in June of 1524 and Moctezuma had died in 1520. It is highly possible that he heard a narrative related to Templo Mayor directly from the Spanish who welcomed him at Tenochtitlan in 1524. There are two reasons that lead me to think that Motolinia's description

6 Several examples are still visible in the convents of the Yucatan peninsula, for instance in the convent of Mama and the Cathedral in Merida, among others.

7 Aveni & Gibbs (1976), support the hypothesis of observing the equinoxes at Uchilobos, based on the alignment of its central axis (97.5°) and hypothetical reconstructions of other buildings. However, Aveni (2005: 323-333) adds the connection of the alignment with the sacred landscape. This interaction with the landscape is supported and elaborated further by Broda (1989), who proposes that the festivities were more in accordance with the rainy season in Mesoamerica and related with the zenith passages rather than equinoxes.

was based on the Spanish accounts, and not in direct testimony from the Aztecs. Firstly, we can see some interesting similarities between Motolinia's description of Aztec festivities and those in the texts of Hernán Cortés and Bernal Díaz del Castillo. Interestingly, in his *True history*, Díaz del Castillo commends the Franciscan friar (Díaz 1904: 252-253), who in turn gave political support to Díaz and Cortés in his manuscripts.

Secondly, there is one map⁸ that fits in well with Motolinia's story. This map, depicting the Templo Mayor with the sun in the middle of its superior buildings (Figure 2), is said to illustrate Tenochtitlan during Moctezuma's life, however, it was purportedly published in Nuremberg in 1524 (Díaz 1967), and was drawn after the destruction of the city, in 1521. Clearly the information on the map is biased, given that the draftsman would have made a distance-illustration of an event he never saw and drew a city that had already been destroyed. This would explain why the city in the map resembles a medieval European city. In fact, the archaeological evidence proves that the map is far from accurate. This map, I argue, is congruent with Motolinia's narrative of the equinoctial event at *Uchilobos*, as both the map and the description would rely on the accounts of Cortés and Díaz.

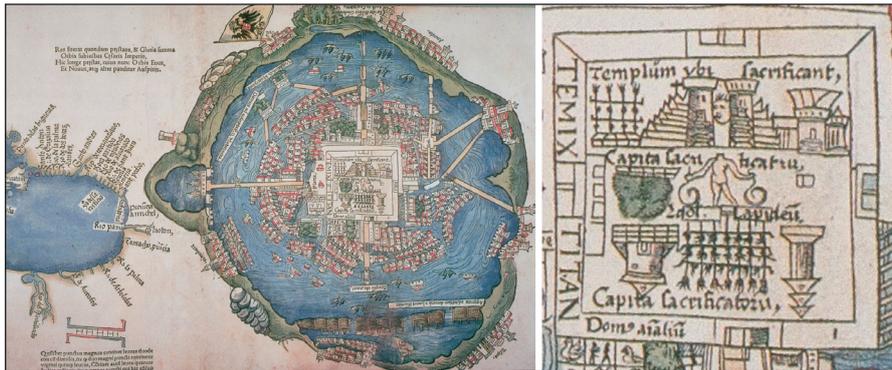


Figure 2. Map of Tenochtitlan by Pietro Savorgnani, 1524. <https://commons.wikimedia.org/wiki/File:Map_of_Tenochtitlan,_1524.jpg> (25.05.2018).

Later on, some indigenous authors mentioned the same astronomical-temporal concept in Mesoamerica. For example, the indigenous writers of the *Chilam Balam* books (approximately from 1583) elaborated on these concepts. However the words *equinox* and *solstice* do not appear at all:⁹

8 Apparently issued for the Latin translation of Cortés' letters 2-3, by Pietro Savorgnani and addressed to Pope Clemente VII (Díaz 1967).

9 Interestingly, there are no similar concepts for solstices and equinoxes in Maya languages (see, for instance, Kaufman 2003), as for *solstitium*, meaning that the sun remains motionless and *aequinoctium*, equal night-day.

When the eleventh day of June shall come, it will be the longest day. When the thirteenth day of September comes, this day and night are precisely the same <in length>. When the twelfth day of December shall come the day is short, <but> the night <begins to> shorten. When the tenth day of March comes, the day and night will be equal <in length> (Roys 1933: 40).

Evidently, the writer of this passage is addressing a Mayan-speaking audience, since we must not forget that these books were written in Yucatecan Maya. As such, it seems clear that the writer was trying to convey a new perception of time (through the European calendar) and to integrate these concepts into the local perception of time. E.g. the words June, September, December, and March were written in the Spanish language and not the correspondent *Uinal* of the Mayan calendar (see original document, Gordon 1913: 15). In fact, the writer explains in detail how the Julian calendar works a few pages earlier. Thus, it is not difficult to reveal the Spanish mindset behind the *Chilam Balam* texts and an intention to colonize the Maya perception of time seems evident.

In fact, the colonization of 'indigenous time' was an essential step in the 'spiritual conquest'. Therefore, the European calendar, along with the religious festivities, was disseminated among Mayan intellectuals as part of the 'colonial package'.

As anticipated earlier, in the Christian religion the most relevant feasts were synchronized with the equinoxes and solstices: the birth of Jesus falls on the winter solstice, Holy Week is scheduled every year according to the spring equinox. Finally, Saint John, who baptized Jesus, is celebrated on the summer solstice. Furthermore, the European calendar is linked to this astronomical event since 325 AD, when the First Council of Nicaea established that Easter had to be scheduled in accordance with the equinoxes. Because of this, the European calendar had to be modified in order to fit with the equinoxes, first by the Roman king Numa Pompilius around 700 BC and later by Pope Gregorio XIII in 1582 (Elosua & Velez 1859: np).

As such, the (ontological) problem with solstices and equinoxes is that they are astronomical concepts that had ruled European perceptions of time and religious life since Classic Roman times. These concepts dictate the four seasons of the solar year: spring, summer, fall (of tree leaves) and winter (cold and snowy). The last two deserve our attention when we are in tropical latitudes, since there the trees barely lose their leaves and, especially in the southern Maya region, the jungle remains green for most of the year. Nor is there a cold, harsh winter like in northern Europe.

In contrast, there are two main seasons in the Maya region: the rainy season (*K'áaxal Cháak*) and the dry season of maximum heat (*Yáax K'iin* or *Nooj K'iin*). The latter coincides partially with the European winter but lasts longer. The rainy season could include a hurricane sub-season, but again, these divisions would be inherent to the Maya region due to its geographical location. Even more, contemporary religious rituals are consistent with this perception of Time. The rituals called *Ch'á' Cháak* (bringing the rain deity), is performed around the 3rd of May in the Yucatan peninsula, just before the rainy season starts.

Due to their geographical origin and the Christian beliefs attached to them, it is difficult for equinoxes and solstices to coincide properly with the Maya perception of Time, religious symbolisms, and consequently with architectural orientations.

This is not to say that Maya astronomers did not know the extreme and middle positions of the sun on the horizon. I am convinced that they did know these astronomical phenomena, but argue that their symbolic importance was not as relevant as is advocated in other studies.¹⁰

Returning to the architectural orientations and the discussion of the E-Group complexes, we see that their central axes show a rich diversity seemingly pointing to dates that fit with the Mesoamerican calendar. According to recent data (González-García & Šprajc 2016; Šprajc & Sánchez Nava 2012), just a few buildings in the Maya area can be found pointing towards the solstitial points on the horizon, whereas buildings oriented or aligned accurately to the equinoxes are practically non-existent.¹¹

The epigraphic sources do not provide conclusive data that would allow equinoxes and solstices to be equated with ancient Mayan concepts. At most, some calendrical dates can be related to dates near the equinoxes, such as 9.16.17.16.4 in Tikal, (September 25, 768 AD) but this and other similar dates refer to relevant events in Maya history. In the case of Tikal, the date clearly indicates the ascension of the ruler *Yaax Nuun Ayiin II* (Martin & Grube 2002: 51). The (non-precise) position of the sun near the equinoctial point in the case of Tikal appears to be a mere coincidence. Architectural alignments, such as the relationship between Temple III and Temple I at Tikal, can always be explained in terms of the Maya calendar, as stated in other literature (Richter & Sprajc 2011) and not necessarily in terms of equinoxes and solstices.

The orientation of E-Group's central axis

Apart from the astronomical-calendrical explanation, there are sufficient reasons to believe that the east-west central axis of the E-Group played a major role in the spatial design and construction of these ceremonial spaces. According to Aveni & Hartung (1989), the central axis that joins the central temple and the square pyramid always falls within the solar trajectories on the east horizon. On the other hand, Aveni, Dowd & Vining (2003) proposed that, with or without accuracy, the E-Groups would have served the purpose of verifying that the sun was at the appropriate place at the appropriate time and that this symbolic aspect was more relevant than the accuracy of the observations. In addition, they

10 It could be argued that, in the Highlands of Guatemala, some *ajk'ijab* integrate the equinoxes and solstices into the ancestral ceremonies. It would be necessary to reflect further upon this phenomenon, however, since these practices appear to have modern influences from New Agers and the academia.

11 Šprajc & Sánchez Nava (2012) note that some buildings point to days that, together with the solstices, divide the tropical year into four equal parts. However, these days occur two days after or before the equinoxes.

proposed that the central axes of E-Groups pointed to certain positions of the Sun that can be explained in terms of the Mayan calendar and some can be linked to dates when the sun passed through the zenith. That is to say, the alignments of the central axes of E-Groups seem to point towards sunrises on dates separated by periods of 13 or 20 days, or multiples of them, and also connected with the zenithal passages in similar periods of time.¹²

In fact, the pattern of alignments of the central axes of E-Groups seems to be in accordance with conventional principles of orientation/alignment that governed other Mayan buildings (see Figures 3 and 4). This common pattern of orientations appears to be based on the structure of the Maya calendar. As such, the dates indicated by the alignments and orientations of the buildings appear to be organized into periods of 13 and 20 days and/or a combination of both. The combination of both results in 260 days, which is the same length of the *Tzolk'in* cycle¹³ (Aveni & Hartung 1986; Aveni, Dowd & Vining 2003; González-García & Šprajc 2016; Šprajc & Sánchez Nava 2012).

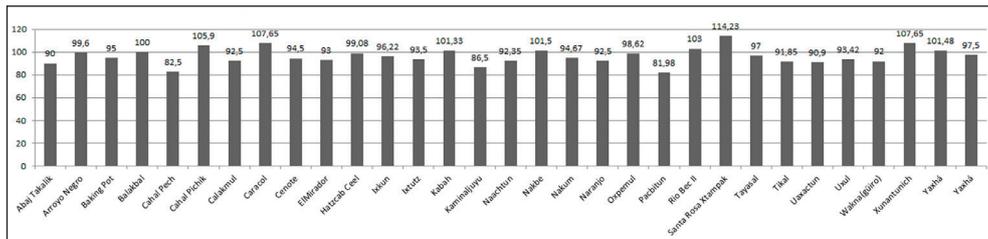


Figure 3a. Azimuth from the center of the pyramid to the center of the elongated platform.

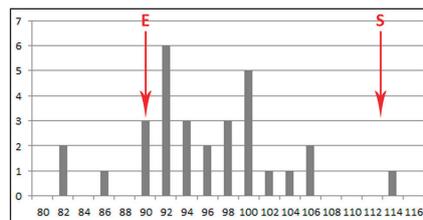


Figure 3b. Variations of Azimuth of E-Groups. The letter 'E' denotes equinoxes and the letter 'S' denotes solstices.

- 12 Indeed, some architectural orientations and alignments point to precise positions of the sun on the horizon on days of zenithal passages. For example, the northern alignment of the 6J2 building in La Blanca, Petén, Guatemala (May 2014: 360).
- 13 E.G., the central axis of Temple III at Tikal, Guatemala, points to a solar position on the horizon that marks dates separated by intervals of 260 days approximately (Richter & Šprajc 2011). Such orientations and alignments are also common in other buildings in Mesoamerica (Šprajc 2001; Šprajc & Sánchez Nava 2012).

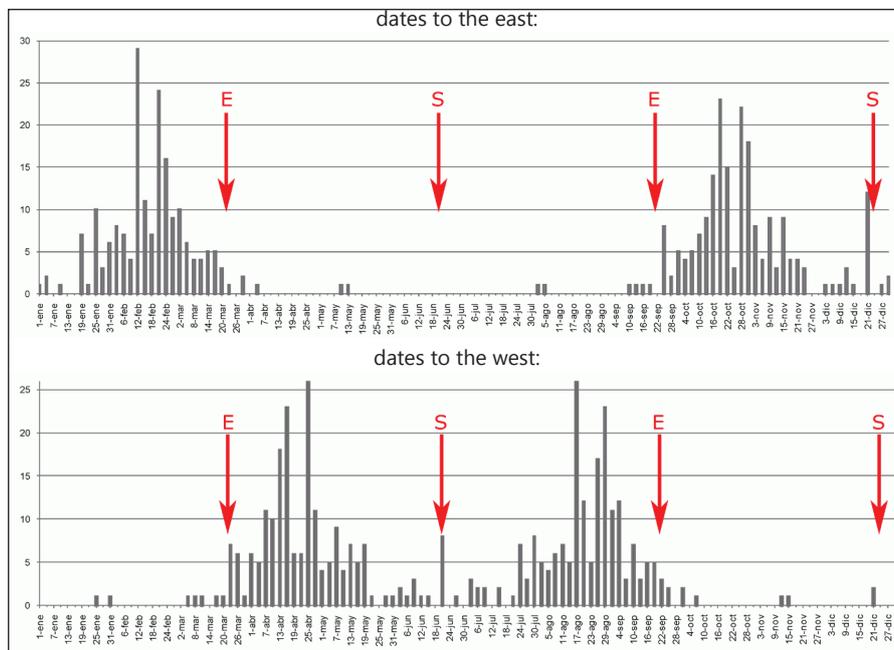


Figure 4. Variations of Azimuth for other temples in the Maya region. The letter 'E' denotes equinoxes and the letter 'S' denotes solstices. Modified from Sprajc & Sánchez Nava (2012).

In addition, the alignments seem to remain fixed over time even when buildings undergo changes.¹⁴ For example, in Group E of Uaxactun, there were no major changes in the orientation of its axes during thirteen phases of construction (Rosal & Valdés 2005: 135, 154). Similarly, in Tikal, Group E of Mundo Perdido seems to have maintained its line-up ($96^{\circ}45'$) for over a thousand years (Fialko 1998; Laporte & Fialko 1995). The fact that the alignments are maintained for a long time suggests that an immutability that is typical of religious rituals was sought.¹⁵ This reinforces the argument that E-Groups were primary ceremonial centres.

Once exposed the cultural roots of equinoxes and solstices and assuming, based on recent findings, that the central axes alignments of E-Group complexes may bear calendrical meanings, we can proceed exploring further other meanings of these axes.

¹⁴ In contrast, other buildings' alignments and urban axes certainly changed across time, according to archaeological findings (Michelet & Becquelin 2001; Rivera Dorado 1987).

¹⁵ About the immutability of ritual components see Rappaport (1999).

The archaeological record and historical documents shed some light on the religious meaning of east-west lines. On the one hand, at Mundo Perdido, the inhabitants did a ceremonial burial of a couple following the alignment of the central axis, at the east and behind the elongated platform (Chinchilla Mazariago & Gómez 2010). On the other hand, the importance of the east region as the symbolic place for the Maya ancestors is well known in colonial and pre-colonial sources. An example can be seen in the following lines from the *Popol Vuh*:

And when the sun came forth, all the small animals and great animals rejoiced. They came up from the rivers and from the canyons. They were there on the mountain peak. As one they turned their faces toward the coming forth of the sun.

[...]

There were not many people then. There were only a few on top of the mountain of Hacavitz. There they dawned and there they burned incense, waving their censers toward the coming forth of the sun. This was their mountain, their plain. There came they who are named Balam Quitze, Balam Acab, Mahucutah, and Iqui Balam.

[...]

There it was that the sun, moon, and stars truly appeared.¹⁶

This text excerpt, alluding to a ceremony that takes place at dawn, makes evident a couple of fundamentals of the Maya rituals, which are a) facing to the east, a cultural continuity that is kept alive in contemporary ceremonies, and, b) stand on top of the mountains during certain rituals, which makes sense for the central pyramid, the symbolic mountain, in the E-Group (see Schele & Mathews 1999: 43).

Hermeneutics on Uaxactun's E-Group

The cultural continuities in Mayan communities have great potential to carry out interpretive studies in line with modern hermeneutics,¹⁷ since they provide suitable information that is outside the archaeological context but is preserved in the cultural memory of Maya peoples. In this way, it is possible to explore the ancestral symbolisms transmitted to the – past and present – users of E-Groups. Put another way:

What messages did sacred architecture convey to the ancient Maya? What do they transmit and communicate to us?

Through this approach, interpretation becomes a process of communicating and understanding between subjects across time, synchronically and diachronically. It is not to be seen just as an act of ‘deciphering’ enigmatic messages or ‘discovering’ apparently pre-existing meanings codified in hieroglyphs or architectural symbols. However, it is more a dialogical interaction between the subjects of the past and those in the present,

¹⁶ Excerpt from the translation by Christenson (2007: 214, 216).

¹⁷ My proposal is aligned with the discussions by Gadamer (2006), Johnsen & Olsen (1992), and Jones (1993; 2000), and is inspired by the postcolonial hermeneutics of Jansen & Pérez Jiménez (2008; 2011).

who in turn communicate new meanings with their coevals, and with those subjects in the future (the public). In this inter-subjective interaction, we do expect to find, not 'the meaning', but an abundance of dynamic meanings, dependent on time and their context. Naturally, this interaction generates new knowledge and of course power relationships are not absent in this dialectic. Such an interpretive process situates the interpreter not as neutral beholder, but as active participant in constructing significance.

This interpretation not only takes place from the vantage point of the present, but it is also affected by the socio-cultural context of the interpreter.

In such a present context a dichotomous relationship emerges between a 'Western' interpreter ('Self') and the indigenous subject ('Other'), whose heritage is under inquiry. One of the major concerns in hermeneutical reflection is that of overcoming the paradigmatic, and conflictive (see Fabian 2002), relationship between the 'Self' and the 'Other' in the quest for meanings of the past. Mostly hermeneuticians advocate a sympathetic identification or trying to understand the Other as he/she understood her/himself. This is fundamental to experiencing the pre-colonial sacred architectures, and to interpreting them from the academia.

However, I propose to decentralize the Western interpretative discourse and move it towards a more peripheral and indigenous position. Thus, as an indigenous scholar, I assume my role in the historical process in which my socio-cultural context influences the final interpretation. In this way the 'Self'-'Other' dichotomy is nuanced and a dialogic interaction is established between subjects of the same cultural context (contemporary Mayan peoples-ancestors). Thus, this reflection advocates giving a leading role to the indigenous tradition and placing it as the ontological horizon within which interpretation takes place. According to Gadamer:

That which has been sanctioned by tradition and custom has an authority that is nameless [...] All education depends on this [...] (Gadamer 2006: 281).

In fact, the indigenous tradition involves an epistemology of its own that gives authority to other indigenous agents¹⁸ (e.g., the *h/xmeno'ob-Ajk'ijab*)¹⁹ to be protagonists and produce an effect in the interpretation of ancestral meanings. Again, following Gadamer (2006: 284):

The effect (Wirkung) of a living tradition and the effect of historical study must constitute a unity of effect, the analysis of which would reveal only a texture of reciprocal effects.

18 Notably, this is in line with ethical guidelines proposed by the United Nations Declaration on the Rights of Indigenous Peoples (UN 2007: arts. 3, 5, 11, 13, 14, 31).

19 In Yucatecan Maya the prefix 'x' is used for the feminine gender and 'h' for the masculine. So for the plural of religious specialist we will use the neutral term *meno'ob* from now on.

In accordance with these considerations my reflection follows a three-step method²⁰ consisting, firstly, of the identification and description of architectural elements (symbolic forms and religious motifs), secondly, of the identification and comparison²¹ of religious themes in liminal²² spaces and, thirdly, a personal evaluation and exploration of intrinsic meanings in architecture.

As for the second step, contemporary religious narratives are the cornerstone for understanding the indigenous world-view and the symbolisms embodied in the architecture of ceremonial spaces. Thus, the past and the present are united by narratives through religious symbolism. In addition, narratives convey fundamental meanings and values (ethical, moral, etc.) to the participants in the rituals (see Rappaport 1999: 29). In fact, narratives are often attached to religious meta-narratives that move beyond the conventional bounds of time and space.

E.g.: For Christians in Mexico, the ritual act of eating a communion wafer in combination with the utterance ‘this is the body of Christ’, is coherent (and only makes sense in combination) with the meta-narrative ‘The Passion of The Christ’, which originated a long time ago in a ‘remote’ place, with respect to Mesoamerica. Similarly, the *Popol Vuh* and other ancestral narratives are coherent and give sense to contemporary rituals and their utterances irrespectively of the location where the primordial event took place. On the other hand, rituals such as the *Ch’a’ Cháak* play the role of living tradition and provide the epistemics for building a temporary ceremonial space (as it is built every year for the rainy season).

The form of ceremonial spaces

To make the comparison of the religious themes we will first identify and describe the elements of two ceremonial spaces: the Mayan ceremonial space of the contemporary *Ch’a’ Cháak* ritual (‘rain ceremony’) and the ceremonial space of the E-Group of Uaxactun (Figures 7 and 8). The elements of E-Group of Uaxactun are briefly described below:²³ it consists of an open space with a) an elongated platform on the east side of the architectural complex, b) three temples on the east platform and c) the pyramid in the centre of an open square. The elongated platform has a central staircase in front of the central temple. The northern and southern temples on the elongated platform have two rooms each and a small access staircase. In these temples, the rooms are placed one after the other and in the back room there is a niche-altar. On the other hand, the central temple on the elongated platform

20 I am following an interpretive ‘tradition’ started by Panofsky (1980: 6ff) and developed further for Mesoamerican manuscripts by Jansen & Pérez Jiménez (2011: 181-216).

21 See the chapter on architectural comparisons by Jones (2000: 170-186).

22 On the liminal concept see Turner (1991: 94ff).

23 See Ricketson (1933; 2006). Due to the limitations of space, in this paper I’m not mentioning the different phases of the buildings, yet they are taken into account; my discussion is restricted to the phase *Tzakol 3*, according to Rosal & Valdés (2005).

is larger and also has two main rooms (four in total as for the Tzakol phase), one opposite the other. A third central space houses the niche-altar whose use appears to be shared.

The pyramid E-vii has four sides. Apparently in its last phase it only had one staircase on the eastern side.

Finally, there are altar Stelae (18-19-E1 and 20) that follow a triangular arrangement similar to the arrangement of the temples and the pyramid: The altar Stelae 18-19 and E1 are aligned with the elongated platform and Stela 20 is in front of the pyramid.

As for the ceremonial space for *Ch'a' Cháak*, it is made up of a square space delimited in the corners by four branches of ceremonial trees, from which hangs a bowl of *jícara*²⁴ (*luuch* in Maya yucatec) with food offerings. At the center of the east course is a twin stone altar with two food offerings inside jicara bowls and a pair of votive candles. In the centre of the ceremonial space is a central altar called *Káanche'*, which is a symbolic representation of the Mayan world and has its own particular arrangement: it consists of a flat surface (a 'table'), covered with green leaves, with supports at the four corners and in the centre on each side. The corner pillars also sustain the symbolic arch of the sky. Food offerings are placed at each corner and center, which match the supports. In addition, three votive candles are placed on the east side and one votive candle on the center on the west side. It is also interesting that the central candle on the eastern side has a Christian crucifix. As we can see, the *Ch'a' Cháak* ceremonial space also emphasizes the east-west central axis through the west side votive candle, the Christian crucifix and the pair of votive candles of the eastern twin stone altar. Other elements of the ceremonial space are present, but due to their complexity they merit further detailed description elsewhere.

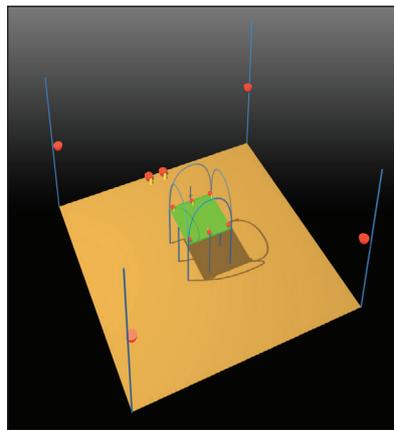


Figure 5. Ceremonial space for the *Ch'a' Cháak* ritual.

²⁴ *Crescentia cujete*.

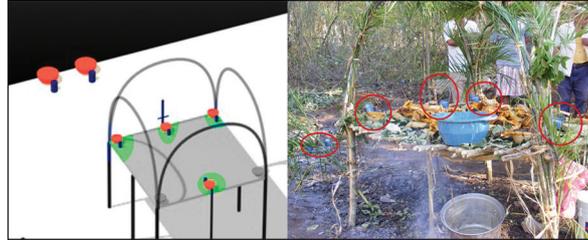


Figure 6. Arrangement of votive candles for the *Ch'a' Ch'áak* ceremonial space (photo: Manuel May Castillo, 2012).

Comparison of religious themes

In this second step we will move the discussion to the realm of religious themes and symbolisms, regardless of whether the elements of contemporary ritual come from Christian or Mayan traditions. As such, I argue that the formal expression of religious images, even when they come from different traditions, may be comparable/compatible in terms of religious symbolism. For example, a Christian crucifix and the communion wafer, although physically different, embody the main Christian *numen*: Jesus. They are therefore comparable in terms of their symbolic meaning. Similarly, the two-room temple in the center of the great platform of an E-Group is comparable to the twin stone altar in the *Ch'a' Ch'áak* ritual, as both embody significant Mayan *numina* (a couple), located in the center of the east side of their respective ceremonial spaces.

However, when a Christian crucifix is being used in the *Ka'anche'*, then we can assume that this element is compatible with the major *numen* (or *numina*) of the Maya.²⁵ Similarly, a candle votive is compatible with the Maya incense (*pom*).

As for the religious themes for Group E of Uaxactun, what is immediately noticed is that the three temples and altars of the platform diagnose the presence of three liminal spaces (where the divine, the numinous or the sacred can be found during religious ceremonies, see also Rappaport 1999: 371-405). However, the two-room central temple is a compound liminal space that shares an altar. This is interesting because we can see a clear message from the builders: the liminal space of two rooms and an altar must be shared by a divine couple. That is, two deities share the central temple and the offerings made by the people of Uaxactun. The latter supports the idea that the central temple

²⁵ This is presumably because the Maya religious guides had/have to replace pre-colonial images to survive the Christian inquisition. But, what we see is a religious synergy rather than syncretism. As such, abstract concepts for numinous entities, Christian and Maya, enrich each other in an open and inclusive manner, which is probably due to the inclusiveness of Mesoamerican religions (see also Jansen & Pérez Jiménez 2015).

seems to have played a more prominent role than the other two. About the temples on the corners I will return later, however, in a discussion about the corners of the Mayan symbolic world.

In comparison, we find in the ceremonial space of the *Ch'a' Cháak*, three liminal spaces on its eastern side including a pair of divine entities, located on the twin stone altar in the center. The pair of divinities are made visible by the offerings: two portions of sacred food placed together, inside *jícaras*, and by two votive candles. In addition, we see a numinous entity in each corner of the eastern side of the ceremonial space (symbolized by a stick and offerings in a *jícara*).

As for E-Group, the square pyramid with a staircase and a temple at the top, presumably facing east, suggests that a person might stand in the temple facing east during a ritual act. This is supported by the person depicted in Stela 20, whose position suggests that he is facing east.²⁶

On the other hand, in the space of the *Ch'a' Cháak*²⁷ we find a square altar in the centre, the *Ka'an che'*, where the *hmen* is placed to initiate the ritual facing east (and it is kept in this position during almost all the ritual). If we analyze in detail the elements of the *Ka'an che'*, we can see that on its eastern side are the three candles and a Christian crucifix behind the central candle, while on the western side there is only one candle, in its center (Figure 6). In front of this candle in the west, the *hmen* stands during the ceremony. The four liminal points indicated by the candles are arranged in a pattern similar to the stelae of the E-Group of Uaxactun: The three candles to the east coincide with the Stelae-altars 18,19 and E1 and the candle to the west coincides with the Stela-altar 20 located at the front of the staircase of the square pyramid. The allegories represented in the stelae seem to refer to ceremonial events performed on special calendar dates by personalities whose identities are more or less clear in the hieroglyphics (see Rosal & Valdés 2005). Interestingly, the calendar dates on the stelae refer to *Ajau* days, which have a profound symbolic meaning: Stelae 18 and 19 indicate the date 3 *Ahau* 8 *Kankin* and Stela 20 indicates 2 *Ahau* 18 *Muan* (Ricketson 2006: 491).

26 The pyramid underneath (E-VII sub) provides more archaeological evidence for the religious theme, and possible allegories. However, they won't be used in this discussion because they belong to a different time phase.

27 It is worth mentioning that *Ch'a' Cháak's* ceremonial space involves more religious themes that will not be discussed here, but mentioned to provide contextual meanings.

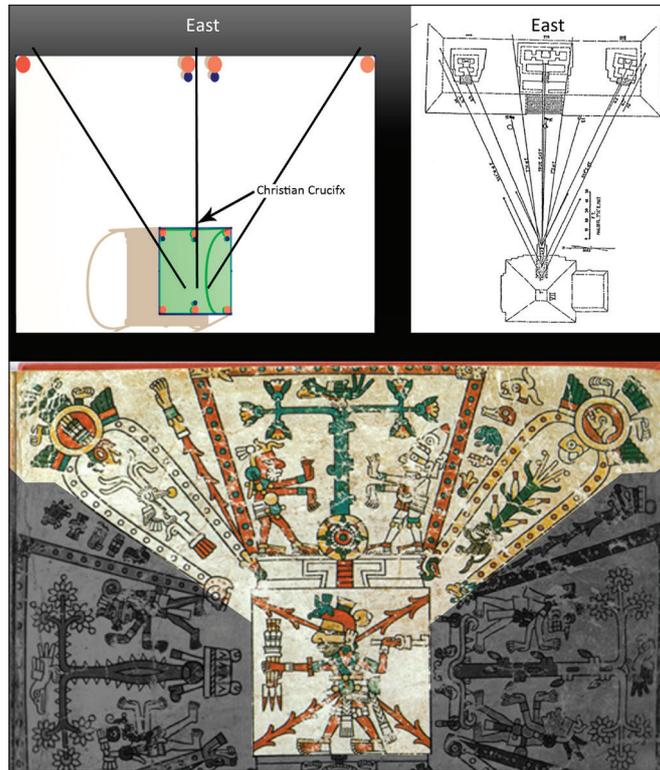


Figure 7. Comparison of religious themes between the ceremonial space of *Ch'a' Cháak* (upper left), Uaxactun's E-Group (upper right: modified from Ricketson 2006: 487, Figure 28.3.1) and Tezcatlipoca Codex (below: modified from Codex Tezcatlipoca ?-1521).

In order to deepen the identification and comparison of religious themes it is worthwhile to draw on regional meta-narratives (e.g. allegories or narratives of creation). Thus, we could begin by comparing the icons of E-Group of Uaxactun with those of the Maya codex in Madrid (Codex Tro-Cortesianus 1250-1500: 75-76) and page 1 of the codex Tezcatlipoca²⁸ codex (Figures 7 y 8). In the case of the Maya manuscript, both pages represent the deities of the four directions and the four corners of the Maya world (see more in May 2014: 170-172, 337, 381, 389, 401). The representation of the couples of deities in the center of each direction stands out: east, north, west and

28 I am following the new nomenclature proposed by Jansen & Pérez Jiménez (2004). The manuscript is also known as Fejérváry-Mayer.

south. In addition, there are footprints in the corners moving toward the center. The first page of the codex Tezcatlipoca shows a similar organization of religious images in its four directions and four corners (eight liminal spaces are also identified): There are a couple of deities, plus a tree/bird in the center of the four directions. In addition, there are four divine birds flying towards the center and sacred plants on each of the corners. It is worth noting that the four corners are represented in the manuscripts as regions and not as dots.²⁹

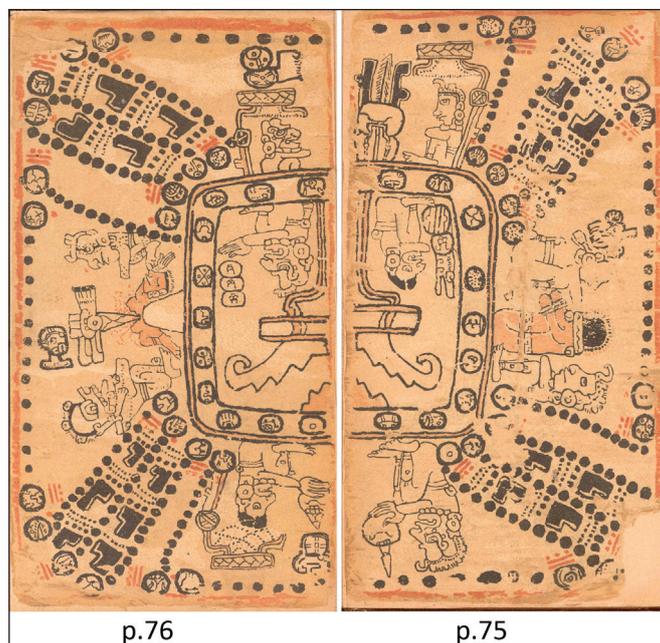


Figure 8. Codex Tro-Cortesianus (1250-1500: 75-76). <https://commons.wikimedia.org/wiki/File:Codex_Tro-Cortesianus_ff_75-76.jpg> (25.05.2018).

On the nature of the four corners, the *Popol Vuh* indicates:

Great is its performance and its account of the completion and germination of all the sky and earth—its four corners and its four sides. All then was measured and staked out into four divisions, doubling over and stretching the measuring cords of the womb of sky and the womb of earth. Thus were established the four corners, the four sides (Christenson 2007: 56-57).

²⁹ This is fundamental to an understanding of why, in certain cases, the temples at the north and south in E-Group assemblages do not correspond to the extreme positions of the sun (namely the solstitial points).

Clearly, mentioning the four corners and the four sides together is not a mere literary resource; here we see an intention to differentiate these eight liminal spaces.

As seen, the Tezcatlipoca codex shows us that the four corners of the world are liminal spaces where sacred stick-plants and sacred birds are located. Yet, other deities could occupy the four corners of the world as well, such as *Cháak*, the God of rain and water. For example, the Maya architects indicated to the locations of *Cháak* by placing masks of this deity in the four corners of some temples (see May 2014: fig. 25), and Landa (2005: chap. xxvii) mentions four *chacs*³⁰ located in the four directions in a ritual space.

For its part, the *Ch'a' Cháak* ceremony indicates the location of the deities of the four corners by placing food offerings in *jícaras* hanging from tree branches.³¹

Therefore, the temples north and south of the elongated platform of the E-Group seem to materialize the north-eastern and south-eastern corners of the world. On the other hand the central temple seems to be dedicated to the twin-deities of the eastern direction.

The codex Tezcatlipoca depicts Tonatiuh, the deity of the sun, and the deity of the knife. Both are standing at the top of a temple, in ceremonial attitude. Above the temple the sun rises (Anders, Jansen & Pérez Jiménez 1994: 165, 181). For its part, the Maya codex depicts a couple of deities in the eastern direction, each inside a temple and venerating a central altar with a sacred bundle. The one on the left is an elder and the one on the right is younger. However, both have on their temples a sign of crossed bones, the symbol for the ancestors (see a similar symbol for the Aztecs in Anders, Jansen & Pérez Jiménez (1994: 151). Similarly, the archaeological record reinforces the religious theme involving a couple of ancestors (see the ceremonial burial of a couple excavated by Chinchilla & Gomez 2010). Furthermore, in Guatemala, contemporary altars in the highlands often display two crucifixes, or one crucifix with two niches for votive candles, at the center of the eastern side of the ceremonial space (Figure 9). All these elements indicate the presence of a divine couple.

The aforementioned information is compatible with a hypothetical ceremony in Uaxactun's E-Group, in which a couple of deities would be venerated in the central temple.

30 Personifications of *Cháak*.

31 Note that the information found in the codices, the *Popol Vuh* and contemporary rituals supports the notion of liminal spaces, or thresholds of communication with divine beings, attributable to each of the four sides and four corners of the Mayan world.



Figure 9. Altar in Todos Santos, Guatemala (photo: Manuel May Castillo, 2013).

Understanding intrinsic meanings

As suggested above, in the exploration of intrinsic meanings I assume a role as an indigenous academic positioned “in the whole of culture-history and society [...]” to examine “[...] the relationship of the past to the present and vice versa” (Jansen & Pérez Jiménez 2011: 196). Therefore, the following interpretation comes from a decentralized position and from an indigenous perspective, with the aim of exploring more inclusive and socially just forms of research.

That said, during the interpretive process I follow Jones’ proposal to participate in a conversation and play with the ceremonial space of the E-Group (Jones 2000: 38-58). So from the beginning of this reflection I position myself as a participant, experiencing the ceremonial space as the ancestors would in the past, in a ritual event (see also Jones 1993). Therefore, in this interpretative step I seek to reconstruct a hypothetical ritual event that could have taken place in this space and make sense with all the data previously exposed.

As a result, my reconstruction of a hypothetical ritual narrative goes as follows:

Just before sunrise, a couple of *Ajk’ijab* who are in charge of leading the ceremonies in Uaxactun climb up the central pyramid staircase from the east side. Once located at the top of the pyramid-mountain, they begin the ceremonial discourse looking east, while *Noj Éek* (Venus) rises from the horizon behind the central temple and traces the path that the Sun must follow after its rise.

As the sun rises on this day, 9 *Ajaw* 3 *Wayeb*,³² the *Ajk'ijab* begin the invocation of the deities of the four corners and the deities of the four sides of the world to join in the ceremony.³³ Meanwhile incense is offered. Immediately the presence of several ancestors is invoked, beginning with the oldest and ending with the beloved ones who have recently passed away. Thus, first we invoke the ancestors *Hun Ahpu-Xbalamque*, the twin ancestors whose shared altar is in the central temple and who transmuted into sun and moon after defeating the lords of *Xibalba*, the lords of the darkness. The ancestors whose skull-reliquies were buried in the three temples of the eastern platform³⁴ are immediately invoked. Thirdly, the rulers represented in Stelae 1, 18, 19 and 20 are invoked.

On this date, the religious leaders, known as *Chuchqajaw*³⁵ (metaphorically speaking the mother-father of the community, regardless of whether they are masculine or feminine), were about to hand over their *cargo* (burden) or terminate their office as *Ah Siyaj K'ahk* (the one who gives birth to the fire, or the people in charge of leading the ceremony of the New Fire in a new calendar cycle).

Both³⁶ were in charge of taking care of the Sacred Bundle³⁷ in the temple of the ancestors-rulership for 360 days. They were in charge of 'keeping the fire alive' or burning incense every 20 days in the temples, on the eastern platform and in the temple on top of the pyramid. However, before the New Fire ceremony, they performed a ritual consisting of visiting the *Chuj* (steam bath) for five nights in order to prepare themselves

32 The date corresponds to 9.6.0.0.0 in the Long Count (3 *Katuno'ob*, or 60 years, after the date in Stela 20). On this day the sun rises aligned to the central axis of Uaxactun's E-Group (March 20, 554 AD in the western calendar. <www.famsi.org> (22.05.2018). Notice that the Maya date (*Ajaw*, *Wayeb*) bears intrinsic meanings related to rulership and the New Year ceremony rather than the 'spring equinox'. Here I argue that the coincidence with any 'equinox' is fortuitous, because the Stelae 18, 19 and 20 are also highlighting the symbolic meaning of these days: 3 *Ajaw* and 2 *Ajaw*. Interestingly, these other dates do not fall on 'equinoctial' dates; rather they fall around January 31 and January 28 of the European calendar.

33 This is the conventional way in which contemporary rituals start. E.g. in Yucatan peninsula the four spirits of the world (*Lak'in I'ik*, *Xaman Ka'an*, *Chik'in I'ik* and *Nobol I'ik*) are always invited at the beginning. At the end of the ritual they are waved goodbye. Accordingly, in the following lines I'm going to use some conventional ritual acts, entitlements and ceremonial terms that are used by our spiritual leaders in Yucatan, Momostenango and San Juan Ixcoy.

34 See Rosal & Valdés 2005.

35 See Ajxup Pelicó & Zapil Xivir (2009). I'm indebted to *Chuchqajaw* Rigoberto Itzep for his precious teachings in Momostenango.

36 In present day, they are also known as *MamAlcal* and *ChuchAlcal* in San Juan Ixcoy, Guatemala, They and the house where they reside are also named *Jolom K'onop*: The head of the community.

37 I am indebted to the *ChuchAlcal* and *MamAlcal* from San Juan Ixcoy, Lucía Tercero Lucas and her husband Pedro Jacinto Bautista, for their precious teachings on giving respect to *El Sagrado* (the Sacred Bundle), during their *cargo* in 2014. I am grateful too to Mr. Domingo Bernabé Escobar and Mr. Manuel Raymundo Rafael from the same community. I also thank the *Jolom K'onop* Miguel Franciso and Mr. Pablo Lucas from Santa Eulalia.

spiritually, to talk to the ancestors and to open³⁸ the sacred bundles. The purpose of this act is to venerate the ancestor's relics as well as to receive advice and moral-ethical teachings from them.

Thus, primarily this ritual is meant to reinforce the communion with the ancestors and the *communitas* with the ritual participants.

Naturally, the ritual also involves the burning of copal and aromatic plants, ceremonial food offerings, and chants. Religious leaders will also invoke the *Chuchqajaw* whose skulls were buried in temples long ago because of their extraordinary contributions to the community during their lifetime. Their skulls (symbolizing the head of the community) were carefully taken apart from the body in ceremonial ways 260 days³⁹ after they died. Thus, they became priceless relics for the community and are venerated at a number of important events. In addition, the mother-father couple will perform a ceremony to remember and commemorate the closing ceremony of *Katun 8*, celebrated 138 years earlier (or 7 *Katuno'ob* earlier, on the date 8.19.0.0.0 of the Long Count, March 23, 416 AD, when the sun also rose behind the central temple). Then eight vessels with offerings and copal were buried in the central temple in a particularly significant ceremony.

They will also commemorate the ceremonial burial of a – feminine – *Chuchqajaw* who was placed at the top of the pyramid, symbolically in the 'heart of the earth' and the mountain, as an ancestor mediator between the community and the deity of the earth.

Conclusions

This paper elaborates a critical discussion of the function and meaning of the architectural assemblages known as E-Groups. Based on the most recent data, we affirm that their function as astronomical devices for recording the solstices and equinoxes, seems biased by 'Western' notions of time and religious world-view.

The hermeneutical reflection put forth here does offer an alternative interpretation, from an indigenous perspective, where the living tradition plays a protagonist role. In such indigenous hermeneutics it has been proposed that the E-Group assemblages had eminently religious functions. The spatial syntaxes, already consolidated in the Preclassic

38 See the contemporary rituals in Pomuch, Campeche, Mexico on the Day of the Dead, consisting of opening the ancestor's relics for preservation and veneration. The ritual promotes community encounters involving ceremonial food, music and chants where the past is made part of the present. In this way, the community lives in communion with the past and prepares itself spiritually to face the challenges of the future.

39 I'm grateful to Saqch'en Ruperto Montejo who, during the MAM epigraphy meeting in 2014 shared with me the tradition of making a ceremony for the 260 days, dedicated to the beloved ones who recently passed away in Soloma. At the same meeting, Pakal B'alam Rodríguez identified a cycle of 260 days in a monument in Tonina where a phrase *tumukil* ('his/her burial') was included in a ceremonial context.

period, seems to follow a canonical religious model that would materialize the divine world. Such a model remained immutable up to the Postclassic period, as shown by the Maya manuscript. Furthermore, this notion of sacred space appears to be shared by other peoples in Mesoamerica, as seen in the Tezcatlipoca codex.

However, the most intriguing finding is that such 'Preclassic canonical religious model' seems to persist up to the present, as can be seen by the ceremonial space recreated every year in contemporary rain rituals.

This means that in the E-Group we might be looking at the ceremonial space *par excellence*,⁴⁰ which has been shared by Mesoamerican peoples and preserved as a cultural continuity for millennia. The – significant – religious value it had and still has for the indigenous peoples of Mesoamerica could explain its cultural persistence during five centuries of persecution and discrimination from colonial times to the present.

Therefore, we must recognize the religious guides, *Meno'ob*, *Ajk'ija'ab*, etc., as the true guardians of this ancestral heritage. As such, they deserve to be included and to play a leading role in research on these issues and the formulation of policies relating to the management and preservation of cultural heritage.

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⁴⁰ Comparable to the Latin cross layout of Christian churches.

References cited

- Aimers, James J. & Prudence M. Rice
 2006 Astronomy, ritual, and the interpretation of Maya 'E-Group' architectural assemblages. *Ancient Mesoamerica* 17(1): 79-96. <<https://doi.org/10.1017/S0956536106060056>>, <<https://www.academia.edu/2247550>> (22.05.2018).
- Ajxup Pelicó, Virginia & Juan Zapil Xivir
 2009² *Ri wajxaqib' b'aatz'*. Guatemala City: Consejo Maya "Jun Ajpu' Ixb'alamke".
- Anders, Ferdinand, Maarten E.R.G.N. Jansen & Gabina Aurora Pérez Jiménez
 1994 *El Libro de Tezcatlipoca, Señor del Tiempo. Libro explicativo del llamado Códice Fejérváry-Mayer*. México, D.F.: Fondo de Cultura Económica.
- Aveni, Anthony F.
 2005 *Observadores del cielo del México antiguo*. México, D.F.: Fondo de Cultura Económica.
- Aveni, Anthony F. & Sharon L. Gibbs
 1976 On the orientation of precolumbian buildings in central Mexico. *American Antiquity* 41(4): 510-517. <<http://www.jstor.org/stable/279020>> (22.05.2018).
- Aveni, Anthony F. & Horst Hartung
 1986 *Maya city planning and the calendar*. Transactions of the American Philosophical Society held at Philadelphia for promoting useful knowledge, new series 76(7). Philadelphia: The American Philosophical Society.
 1989 Uaxactun, Guatemala, Group E and similar assemblages: An archaeoastronomical reconsideration. In: Aveni, Anthony F. (ed.): *World archaeoastronomy. Selected papers from the 2nd Oxford International Conference on Archaeoastronomy held at Merida, Yucatan, Mexico*. Cambridge: Cambridge University Press, 441-461.
- Aveni, Anthony F., Anne S. Dowd & Benjamin Vining
 2003 Maya calendar reform? Evidence from orientations of specialized architectural assemblages. *Latin American Antiquity* 14(2): 159-178. <<http://www.jstor.org/stable/3557592>> (22.05.2018).
- Blom, Frans
 1926 El observatorio más antiguo del continente americano. *Anales de la Sociedad de Geografía e Historia de Guatemala* 2(3), 335-338. <<https://archive.org/details/AnalesAGHGTomoIIAnyoIINo3Marzo1926>> (22.05.2018).
- Broda, Johanna
 1989 Templo Mayor as ritual space. In Johanna Broda, David Carrasco & Eduardo Matos Moctezuma (eds.): *The Great Temple of Tenochtitlan: Center and periphery in the Aztec world*. Berkeley/Los Angeles/London University of California Press, 61-108.
- Chase, Arlen F. & Diane Z. Chase
 1995 External impetus, internal synthesis, and standardization: 'E Group' assemblages and the crystallization of Classic Maya society in the southern lowlands. In: Grube, Nikolai (ed.): *The emergence of lowland Maya civilization. The transition from the Preclassic to the Early Classic: A conference at Hildesheim, November 1992*. Acta mesoamericana, 8. Möckmühl: A. Saurwein, 87-101.

- Chinchilla Mazariego, Oswaldo & Oswaldo Gómez
 2010 El nacimiento del sol en Tikal, interpretación de un entierro asociado al conjunto de tipo Grupo E de Mundo Perdido. In: Arroyo, Bárbara, Adriana Linares Palma, Lorena Paiz Aragón & Ana Lucía Arroyave (eds.): *XXIII Simposio de Investigaciones Arqueológicas en Guatemala, 2009*, vol. 2. Guatemala City: Museo Nacional de Arqueología y Etnología, 1193-1201. <<https://www.academia.edu/1787237>> (22.05.2018).
- Christenson, Allen J.
 2007 *Popol Vuh: Sacred book of the Quiché Maya people. Electronic version of original 2003 publication*. Mesoweb Publications. <www.mesoweb.com/publications/Christenson/PopolVuh.pdf> (22.05.2018).
- Díaz del Castillo, Bernal
 1904 *Historia verdadera de la conquista de la Nueva España*. Vol. 1 (Genaro García, ed.). México, D.F.: Oficina Tipografica de la Secretaría de Fomento.
 1967 *The true history of the conquest of New Spain*. Vol. 3. Nendeln: Kraus Reprint.
- Doyle, James A.
 2012 Regroup on 'E-Groups': Monumentality and early centers in the Middle Preclassic Maya lowlands. *Latin American Antiquity* 23(4): 355-379. <<http://www.jstor.org/stable/23645603>> (22.05.2018).
- Elosua y Velez, Pedro de
 1859 *Calendario perpetuo* (facsimile). Valencia: Imprenta de la Regeneración Tipográfica.
- Fabian, Johannes
 2002 *Time and the other: How anthropology makes its object*. New York: Columbia University Press.
- Fialko, Vilma
 1988 Mundo Perdido, Tikal. Un ejemplo de complejos de conmemoración astronómica. *Mayab* 4: 13-21. <<https://dialnet.unirioja.es/descarga/articulo/2774859.pdf>> (22.05.2018).
- Flores Esquivel, Atasta
 2010 Los complejos del tipo "E" y su asociación con acrópolis o arreglos de tipo triádico: esbozos de un posible patrón urbano y sus posibles significados. In: Arroyo, Bárbara, Adriana Linares Palma, Lorena Paiz Aragón & Ana Lucía Arroyave (eds.): *XXIII Simposio de Investigaciones Arqueológicas en Guatemala, 2009*, vol. 2. Guatemala City: Museo Nacional de Arqueología y Etnología, 111-122. <http://www.asociaciontikal.com/wp-content/uploads/2016/12/10.09_Flores_Esquivel.pdf> (22.05.2018).
- Gadamer, Hans-Georg
 2006² *Truth and method*. London/New York: Continuum.
- González-García, A. César & Ivan Šprajc
 2016 Astronomical significance of architectural orientations in the Maya Lowlands: A statistical approach. *Journal of Archaeological Science: Reports* 9: 191-202. <<https://doi.org/10.1016/j.jasrep.2016.07.020>>.
- Gordon, George Byron (ed.)
 1913 *The book of Chilam Balam of Chumayel, with introd. by G.B. Gordon*. Philadelphia: University of Pennsylvania, The Anthropological Museum.

- Guillemin, George F.
1968 *Tikal ceremonial center*. Lund: Berlingska.
- Hartung, Horst
1971 *Die Zeremonialzentren der Maya. Ein Beitrag zur Untersuchung der Planungsprinzipien*. Graz: Akademische Druck- u. Verlagsanstalt.
1992 Investigaciones sobre el urbanismo mesoamericano y la arqueoastronomía en las últimas décadas (1960-1990). *Cuadernos de Arquitectura Mesoamericana* 19: 5-12. <<https://drive.google.com/file/d/1CUUJy74xbekyDYMzvXA-5-3PrQHEfthk/view>> (22.05.2018).
- Jansen, Maarten E.R.G.N. & Pérez Jiménez, Gabina Aurora
2004 Renaming the Mexican codices. *Ancient Mesoamerica* 15: 267-271. <<https://openaccess.leidenuniv.nl/handle/1887/16354>> (22.05.2018), <<https://doi.org/10.1017/S0956536104040179>>.
2008 Paisajes sagrados: códices y arqueología de ÑuuDzauí. *Itinerarios* 8: 83-112. <<https://dialnet.unirioja.es/servlet/articulo?codigo=5744259>> (22.05.2018).
2011 *The Mixtec pictorial manuscripts: Time, agency, and memory in ancient Mexico*. Leiden/Boston: Brill.
2015 Tiempo, religión e interculturalidad en la Colonia: los catecismos pictográficos de México. In: Jansen, Maarten E.R.G.N. & Valentina Raffa (eds.): *Tiempo y comunidad. Herencias e interacciones socioculturales en Mesoamérica y Occidente*. Leiden: Universiteit Leiden, 65-101.
- Johnsen, H. & Bjornar Olsen
1992 Hermeneutics and archaeology: On the philosophy of contextual archaeology. *American Antiquity* 57(3), 419-436. <<http://www.jstor.org/stable/280931>> (22.05.2018).
- Jones, Lindsay
1993 The hermeneutics of sacred architecture: A reassessment of the similitude between Tula, Hidalgo and Chichen Itza, Yucatan, Part I. *History of Religions*, 32(3), 207-232. <<http://www.academicroom.com/article/hermeneutics-sacred-architecture-reassessment-similitude-between-tula-hidalgo-and-chichen-itza-yucatan-part-i>> (22.05.2018).
2000 *The hermeneutics of sacred architecture: Experience, interpretation, comparison. Volume 1: Monumental occasions: Reflections on the eventfulness of religious architecture*. Cambridge: Harvard University Press.
- Kaufman, Terrence
2003 *A preliminary Mayan etymological dictionary*. Guatemala City: Foundation for the Advancement of Mesoamerican Studies. <<http://www.famsi.org/reports/01051/pmed.pdf>> (22.05.2018).
- Landa, Fray Diego de
2005 *Relación de las Cosas de Yucatán* (Primera Reimpresión). México, D.F.: Monclém.
- Laporte, Juan Pedro & Vilma Fialko
1995 Un recuento con Mundo Perdido, Tikal, Guatemala. *Ancient Mesoamerica* 6: 41-94. <<http://www.jstor.org/stable/26307204>> (22.05.2018).
- May Castillo, M.
2014 *Análisis, estudio y conservación de los edificios astronómicos mayas. Arquitectura Maya y urbanismo, una aproximación desde la arquitectura y el paisaje*. PhD thesis, Universitat Politècnica de València. <<https://doi.org/10.4995/Thesis/10251/43218>>.

- Martin, Simon & Nikolai Grube
2002 *Crónica de los reyes y reinas mayas*. Barcelona: Crítica.
- Michelet, Dominique & Pierre Becquelin
2001 De Río Bec a Dzibilchaltún: interrogaciones acerca de la ciudad maya clásica desde la perspectiva del Yucatán central y septentrional. In: Ciudad Ruíz, Andrés, María Josefa Iglesias Ponce de León & María del Carmen Martínez Martínez (eds.): *Reconstruyendo la ciudad maya: El urbanismo en las sociedades antiguas*. Publicaciones de la S.E.E.M, 6. Madrid: Sociedad Española de Estudios Mayas, 211-252. <<https://dialnet.unirioja.es/servlet/articulo?codigo=2776097>> (22.05.2018).
- Motolinia, Fray Toribio de
1903 *Memoriales de Fray Toribio de Motolinia: Manuscrito de la colección del señor Don Joaquín García Icazbalceta*. (Luis García Pimentel, ed.). Documentos históricos de Méjico. Madrid: Librería de Gabriel Sánchez.
- Panofsky, Erwin
1980 *Estudios sobre iconología*. Madrid: Alianza Editorial.
- Quintana, Oswaldo & Wolfgang W. Wurster
2001 *Ciudades mayas del noreste del Petén, Guatemala: un estudio urbanístico comparativo*. Mainz: Philipp von Zabern.
- Rappaport, Roy A.
1999 *Ritual and religion in the making of humanity*. Cambridge/New York: Cambridge University Press.
- Ricketson, Oliver G.
1933 Excavations at Uaxactun. *The Scientific Monthly* 37: 72-86. <<http://www.latinamericanstudies.org/maya/Uaxactun-1933.pdf>> (22.05.2018).
2006 Report on the Uaxactun Project, in: Weeks, John M. & Jane A. Hill (comp.): *The Carnegie Maya. The Carnegie Institution of Washington Maya Research Program, 1913-1967*. Boulder: The University Press of Colorado, 486-491.
- Richter, Heinz-Dieter & Ivan Šprajc
2011 *Informe del proyecto de investigación arqueoastronómica en Tikal, Petén, Guatemala* (unpublished manuscript). Guatemala City: Instituto de Antropología e Historia (IDAEH).
- Rivera Dorado, Miguel
1987 El proyecto Oxkintok, Introducción. In: *Oxkintok I*. Madrid: Misión Arqueológica de España en México, 8-18.
- Roiz, Pedro
1985 [1575] *Libro de los relojes solares* (facsimile). Biblioteca Valenciana. Valencia: Librería París Valencia.
- Rosal, Marco Antonio & Juan Antonio Valdés
2005 El Grupo E de Uaxactun. In: Valdés, Juan Antonio (ed.): *El periodo Clásico en Uaxactun, Guatemala: arqueología en el centro de Petén*. Guatemala City: Universidad de San Carlos, 135-154.
- Roys, Ralph Loveland
1933 *The book of Chilam Balam of Chumayel*. Washington, D.C.: Carnegie Institution of Washington.

- Ruppert, Karl
1962 A special assemblage of Maya structures. In: Hay, Clarence L. & Jesse D. Jennings (eds.): *The Maya and their neighbors*. Salt Lake City: University of Utah Press, 222-231.
- Schele, Linda & Peter L Mathews
1999 *The code of kings: The language of seven sacred Maya temples and tombs*. New York: Touchstone.
- Šprajc, Ivan
2001 *Orientaciones astronómicas en la arquitectura prehispánica del centro de México*. Colección científica, serie Arqueología, 427. México, D.F.: Instituto Nacional de Antropología e Historia (INAH).
- Šprajc, Ivan & Pedro Francisco Sánchez Nava
2012 Orientaciones astronómicas en la arquitectura maya de las Tierras Bajas: nuevos datos e interpretaciones. In: Arroyo, Bárbara, Lorena Paíz, & Hector Mejía (eds.): *XXV Simposio de Investigaciones Arqueológicas en Guatemala 2011*. Guatemala City: Museo Nacional de Arqueología y Etnología, 977-996.
- Tosca, Tomás Vicente
2006 [1727] *Tratado de la Gnomonica u De la Theorica y practica de los relojes de sol* (facsimile). Valencia: Librería París Valencia.
- Turner, Victor Witter
1991⁷ *The ritual process: Structure and anti-structure*. Symbol, myth, and ritual series, Cornell paperbacks. Ithaca: Cornell University Press.
- United Nations (UN)
2007 *United Nations declaration on the rights of indigenous peoples (UNDRIP)*. <<https://undocs.org/A/RES/61/295>> (22.05.2018).
- Vitruvius Pollio, Marcus
2006 *Ten books on architecture*. Ebook. Salt Lake City: Project Gutenberg Literary Archive Foundation.

Codices

- Codex Tro-Cortesianus
1250-1500 Museo de América, Ministerio de Educación Cultura y Deporte. Digital edition, Madrid. <[http://ceres.mcu.es/pages/ResultSearch?Museo=MAM&txtSimpleSearch=C%F3dice%20trocortesiano%20o%20de%20Madrid&simpleSearch=0&hipertextSearch=1&search=simple&MuseumsSearch=MAM%7C&MuseumsRolSearch=11&listaMuseos=\[-Museo%20de%20Am%E9rica](http://ceres.mcu.es/pages/ResultSearch?Museo=MAM&txtSimpleSearch=C%F3dice%20trocortesiano%20o%20de%20Madrid&simpleSearch=0&hipertextSearch=1&search=simple&MuseumsSearch=MAM%7C&MuseumsRolSearch=11&listaMuseos=[-Museo%20de%20Am%E9rica)>.
- Codex Tezcatlipoca (= Fejérváry-Mayer)
?-1521 Liverpool Museum. Digital Edition of facsimile by Akademische Druck-u. Verlagsanstalt-Graz. <http://www.famsi.org/spanish/research/graz/fejervary_mayer/thumbs_0.html>.