

**CONTRIBUTIONS
IN NEW WORLD ARCHAEOLOGY**
Volume 10

CONTRIBUTIONS

IN NEW WORLD ARCHAEOLOGY



Contributions in New World Archaeology (*ISSN 2080-8216*) is a semi-annual journal dealing with various aspects of North and South American archaeology, anthropology and ethnohistory. Its main aim is to publish results of archaeological excavations and surveys conducted in various parts of the New World as well as to present papers devoted to the studies of collections of archaeological artefacts discovered in either American continent. Moreover, the journal addresses such subjects as theory, methodology and practice in New World archaeology.

www.cnwajournal.org
E-mail: cnwajournal@gmail.com

REDACTION ADDRESS:

Department of New World Archaeology
Institute of Archaeology
Jagiellonian University
Golebia 11 Street
31-007 Krakow
Poland
Telephone: +48 126631595

EDITORS:

Janusz Krzysztof Kozłowski
Jarosław Żrałka
Radosław Palonka
Michał Wasilewski

EDITORIAL BOARD:

Víctor González Fernandez

Instituto Colombiano de Antropología e Historia, Bogotá, D.C., Colombia

Christophe Helmke

Institute of Cross-Cultural and Regional Studies, University of Copenhagen, Denmark

Michał Kobusiewicz

Institute of Archaeology and Ethnology of the Polish Academy of Sciences (Poznań Branch), Poland

Krzysztof Makowski

Pontificia Universidad Católica del Perú, Lima, Peru

Aleksander Posern-Zieliński

Department of Ethnology and Cultural Anthropology, Adam Mickiewicz University, Poznań, Poland

William I. Woods

Department of Geography, Department of Anthropology, University of Kansas, Lawrence, USA

Mariusz S. Ziółkowski

Centre for Precolumbian Studies, University of Warsaw, Poland



JAGIELLONIAN UNIVERSITY
IN KRAKÓW



POLISH ACADEMY OF ARTS AND SCIENCES
JAGIELLONIAN UNIVERSITY – INSTITUTE OF ARCHAEOLOGY

**CONTRIBUTIONS
IN NEW WORLD ARCHAEOLOGY**

Volume 10

**Into the Underworld:
Landscapes of Creation and Conceptions
of the Afterlife in Mesoamerica**

Special Issue

*Proceedings of the 4th Cracow Maya Conference
'Into the Underworld: Archaeological and anthropological perspectives
on caves, death and the afterlife in the Pre-Columbian Americas'
February 19-22, 2015, Cracow*

Edited by
Jarosław Żrałka
and Christophe Helmke

Assistant editor:
Monika Banach

Kraków 2016

Cover image:

Front cover: ceremony conducted in Paxil (community Xolcuay, Chajul),
photograph by Monika Banach; back cover: chert eccentrics from Pusilha and Nim li Punit,
photograph by Geoffrey Braswell, drawing by Edwin Barnes

Linguistic editors:

English: Steve Jones (GB), BA in Modern Languages – English, Director of Distinction
Language Centre, Gdańsk

Spanish: Ewa Palka (PL), Departamento de Filología Románica – Universidad Jaguelónica,
Kraków, Polonia

Cover art design
Adam Borkowski

Graphics editing and DTP
Elzbieta Fidler-Żrałka
Alter Publishing House

© Copyright by:
Polish Academy of Arts and Sciences and
Jagiellonian University – Institute of Archaeology
Kraków 2016

ISSN 2080-8216

The print version of Contributions in New World Archaeology
is the primary, reference version of this journal.

Indexed on  **BazHum**

CONTENTS

- 7 From the editors
- 11 Through the valley of the shadow of death: Death as a typical domain requiring non-literal treatment
Agnieszka Hamann
- 25 *Xo' l vitz y xe' naloj*: el paisaje sagrado de los mayas ixiles de Guatemala
Monika Banach
- 43 Lacandon paths to the Underworld
Milan Kováč
- 55 Caves and New Fire ceremonies in the Central Mexican Highlands: The case of the Cerro de la Estrella, Iztapalapa, Mexico
Christophe Helmke and Ismael Arturo Montero García
- 101 The cave and the butterfly: Thoughts on death and rebirth in ancient Mesoamerica
Jesper Nielsen
- 113 *Uk'ay ajbuj*: Otherworldly owls in the *mundo maya*
Harri Kettunen
- 149 Places of beginning, modes of belonging: Steambaths and caves in Mesoamerica
John S. Henderson and Kathryn M. Hudson
- 183 The life, death, and afterlife of an ancient Maya king: A study of Pusilha Ruler G
Andrew D. Somerville and Geoffrey E. Braswell
- 207 Burials, offerings, flints and the cult of ancestors: The case of Nakum Structure X, Peten, Guatemala
Jaroslav Žralka, Wiesław Koszkuł, Varinia Matute, Bogumił Pilarski, Bernard Hermes, Juan Luis Velásquez
- 251 Excavating data: Harmonization of burial data from Uaxactun, Guatemala
Lenka Horáková
- 287 Out of the Underworld: The resurrection of the Maize God and its architectural context
Jan Szymański

OUT OF THE UNDERWORLD: THE RESURRECTION OF THE MAIZE GOD AND ITS ARCHITECTURAL CONTEXT

JAN SZYMAŃSKI

Center for Pre-Columbian Studies, University of Warsaw, Poland. E-mail: jan.szymanski@gmail.com

Abstract

The resurrection of the Maya Maize God must have been one of the most important mythological events, given its connection with both the culmination of the ruler's destiny and the appearance of new cobs of maize at the end of the agricultural cycle. This paper explores the possibility that rituals performed to recreate that event were linked to Triadic Groups. These architectural assemblages not only conform to the spatial organization of resurrection scenes known from iconography, but also bear stucco decorations that evoke the concept of the Flower Mountain, a mythic location where this scene took place.

Keywords: Maize God, Triadic Group, Resurrection, Flower Mountain

Resumen

La resurrección del Dios de Maíz Maya ha sido uno de los eventos míticos más importantes, dado a la conexión con la culminación del destino de un gobernante, tanto como con la aparición de los nuevos elotes al final del ciclo agrícola. Esta contribución explora la posibilidad de que los rituales realizados para recrear este evento eran vinculados con los Grupos Triádicos. Estos ensamblajes arquitectónicos no solo conforman con la organización espacial de las escenas de resurrección conocidas en iconografía, pero también evocan el concepto de la Montaña Florida, un lugar mítico en el cual este escena sucedió.

Palabras clave: Dios de Maíz, Grupo Triádico, Montaña Florida, Resurrección

INTRODUCTION

The Maize God, with his many appearances and attributes, is certainly one of the major deities in Maya pantheon. He frequently assumes a central role in many mythological concepts, as well as in the iconographic record, at least since the Late Preclassic period. This ubiquity and antiquity has often been explained by an assumption that the ancient Maya diet consisted mostly of maize. That assumption is based on the fact that among contemporary indigenous populations of the Highlands of Guatemala and northern Yucatan maize constitutes up to 86 % of the diet (White and Schwarcz 1989:466). However, isotopic studies have shown that back in the pre-Columbian times this amount was far lower, perhaps

oscillating between 30 % and 50 %, depending on local ecological conditions (Lentz 1999; White and Schwarcz 1989:466). Nevertheless, even then various species of maize combined to make up the largest group of subsistence products, while beans, squashes, meat, and seafood had been utilized in a supplementary rather than general fashion (White and Schwarcz 1989:466-467).

According to psychological descriptions of universal human needs, subsistence belongs to the category of primary human needs, whereas religion and rituals are secondary (Tay and Diener 2011: 354-355). Thus, the latter reflect, and are shaped by, the former, to a certain degree. It is no surprise, then, that the Maya revered the Maize God and included him in almost every important mythological event. The agricultural cycle of the maize plant was allegorically translated into Maize God's mythic life-cycle, divided by Quenon and Le Fort (1997) in four stations on the basis of iconographic record. These are, consecutively, *rebirth*, *dressing*, *canoe journey*, and *resurrection*.¹ This list can be extended by two additional stations, of which *decapitation* would be the very first, preceding the rebirth, and *dance* the last, following the resurrection, and thus closing the cycle. The decapitation scene has been described in the Popol Vuh, the epic story of the K'iche' Maya of the Highlands, wherein Jun Junahpu is killed by the lord gods of Xibalba, and also in iconography, especially evident on the so-called Death Vase (Christenson 2007: 113-114; Taube 2009: 41).² The dancing scene has been repeatedly depicted on "Holmul Dancer" plates, "Tikal Dancer" plates as well as on the famous San Bartolo mural (Reents-Budet 1991; Taube 2009: 48-49).

All those mythological stations derive from the agricultural cycle of maize in the physical world. And thus rebirth, depicted as the first appearance of the naked Maize God, who usually assumes a supine position, lying on his back, is linked with the first sprouting of the plant (Quenon and Le Fort 1997: 885-892). Dressing scenes, wherein young females adorn the god with his attire, match the development of leaves and tassels on top of the stalk (Quenon and Le Fort 1997: 892). The canoe journey, in which the freshly dressed god travels through a watery realm, marks the first half of rainy season (roughly June-August), when the *milpas*, or plots of maize, are heavily soaked, but not much has changed in plant's appearance (USDA-FAS 2012). The moment when first cobs appear on the stalk, some 3 to 5 weeks later, is described as resurrection, in which Maize God emerges from a crack in turtle shell or from the maws of the Earth Monster, accompanied by a pair of his acolytes. These companions vary from one iconographic scene to another, but most often they are depicted as the Hero Twins, or other deities with both feline and watery associations, such as Chahk entities or doubles of the Jaguar God of the Underworld (Szymański 2014: 152-153). Finally, the harvest is perceived as decapitation, the forceful removal of the maize cob from the stalk (Quenon and Le Fort 1997: 894-898).

It seems reasonable to assume that for primarily agricultural societies, such as the ancient Maya, each of those stations was important, and most likely celebrated in a ritual that would ascertain success of the entire cycle. However, some stations are more critical than others, and thus more anticipated beforehand, and celebrated upon arrival. It is evident as well that the whole mythical biography of Maize God has an additional, deeper dimension in which Maya rulership is rooted.

¹ "Rebirth" and "resurrection" are essentially synonymous, but utilized by Quenon and Le Fort (1997: 885) to mark two different scenes of emergence of the Maize God. This paper will follow their nomenclature.

² Despite some voices cautioning against linking Jun Junahpu with the Maize God (Braakhuis 2009, 2014), the identity of these two personages seems to be plausibly matched and well-rooted in the literature (e.g. Christenson 2007; Taube 1983, 2009).

MAIZE GOD AS THE IDEAL RULER

On a number of depictions, such as Palace Oval Tablet and Pakal's Sarcophagus Lid at Palenque, or Stela H from Copan, various Maya rulers are shown as embodiments of Maize God (Richards Carrol 2005:51). The notoriety with which they display their personal fusion with this deity strongly implies that Maize God stands for "everything a ruler could ever aspire to be" (Richards Carrol 2005: 54). Iconographic renderings of the young Maize God sum up an ideal Maya beauty, with the elongated and flattened forehead and nose, long limbs and delicate fingers, and sophisticated coiffure. Even Pakal the Great of Palenque, who reached the venerable age of eighty, was portrayed as the young Maize God on his funerary monument, the sarcophagus lid mentioned above. However, it was not only vanity that drove him and other *ajawtaak* who wished to be remembered as the maize deity. One of the principal roles of a ruler was to make sure his subjects would be equipped with all the necessary requisites, both substantial and ethereal, to sustain themselves and their families, and to worship the gods. To accomplish that the ruler had to perform self-sacrifice and place his own blood in an offering bowl. This again paralleled the fate of Maize God, who had to be decapitated to bring maize to the human world. Both activities are in essence a trade: blood for food (Houston *et al.* 2006: 127). Thus linking himself with the Maize God, an *ajaw* could expect that the rest of his destiny would also be parallel — that is his divinity, attested by the adjective *k'uhul*, or 'godly, divine', before his title, would be reconfirmed and he himself properly deified and placed among the immortal gods (Richards Carrol 2005; Houston and Stuart 1996: 297).

NATURE OF MAIZE GOD RITUALS

Maya studies have been quite successful in reconstructing large portions of this civilization. However, surprisingly little is known about the nature of Maya religious expression. Large pyramids surmounted by small temples have often been interpreted as commemorative structures for kings buried within them. It can only be speculated what rituals had been performed on their summits and within these small sanctuaries. Fortunately, some hints about such activities were left by the Maya in their iconographic record, and the settings for rituals may be tentatively extrapolated from the spatial data.

Takeshi Inomata (2006) argues that built environment created by monumental centers of Maya cities could have been designed in part to conform to the needs of ritual performances. Extensive plazas would hold crowds of spectators, meanwhile the platforms and pyramids along their edges served as architectural stages for the king and other actors involved in reenactments of mythological scenes and other events, such as completion of time cycles, or dedication or destruction of temples (Inomata 2006; Lucero 2003).

The ubiquity of Maize God scenes in the iconographic record reflects his importance for each tier of the Maya society, from maize farmers to the king. It could be expected, then, that rituals concerning Maize God and the stations of his life would be found with equal frequency in the Maya religious calendar, if such a schedule was ever discovered or otherwise reconstructed. It only makes sense that the six stations discussed above had to be cyclically reenacted, just as a few other reenactments are attested, for example on the Temple XIX panels at Palenque, where the ruler wears a giant avian costume in a performance of a minor calendrical ritual (Stuart 2005: 21-23). Of these six, the last two, that is the *resurrection* and the *dance*, must have been the most crucial and important, because in them the whole cycle climaxed and resolved. In real life, new maize meant abundance and prosperity, and on the mythological level it signaled that the forces of chaos and evil were once more defeated.

How exactly such reenactments would have appeared, however, remains an unanswered question. In a speculative manner it can be inferred that an exalted rite would take place, in which, after a period

of preparation, a Maize God impersonator would emerge from a hidden place in assist of two acolytes, played by two other actors. Subsequently he would perform a ritual dance, concluding the entire cycle of Maize God's life, and symbolically ascend to the realm of gods as a re-deified god.

On a more data-related level, some elements of the hypothetical picture above are backed by hard evidence. Dance has been widely present in the available data, as demonstrated by Nikolai Grube (1992), Karl Taube (2009), and MatthewLooper (2009), and apparently was not the prerogative of the ruler. In fact, as Looper has observed (2009: 224):

The theme of triumph reflected in the royal dances of creation was relevant for the entire society, as suggested by the use of plates depicting dancing Maize Gods in elite and sub-elite burials throughout the Tikal—Uaxactún area (...) These plates utilize the Maize God's resurrection, an important part of the creation narrative, as a metaphor for ancestral apotheosis and the continuing influence of the dead in the world of the living.

Nevertheless, dance performed by the Maize God upon his resurrection must have been a special one, matching the magnitude of the moment. Thus it can be safely assumed that in the reenactment that role would be reserved for the ruler.

Adhering to Inomata's (2006) understanding of monumental architecture, the locus for the resurrection and dance ritual would take place on top of an easily-visible summit of a platform or pyramid fronting a large plaza. It would therefore be, most likely, designed and built specifically with this performance in mind, and thus reflecting it in its form and decoration.

ARCHITECTURAL CONTEXT OF RESURRECTION RITUAL

As described in the Popol Vuh (Christenson 2007: 180-181), the original resurrection of the Maize God had happened at a place called Paxil and Kayala, linked with mythical Flower Mountain (Taube 2004; Szymański 2014:151-152). It was a peak with a cave in or near it, and an array of wild animals, avian, terrestrial, and aquatic alike, inhabiting its surroundings. Fragrant smells emanated from flowers and other plants growing on its slopes.

Perhaps all high-rising platforms and pyramids were perceived by the Maya as artificial *witz*, or mountains, as attested by the so-called *Witz*-monster masks adorning many such structures (Freidel *et al.* 1993: 29-37). However, not all of these could serve as representations of the Flower Mountain. Only a limited number of architectural complexes feature iconographic programs compatible with the Flower Mountain archetype. These programs comprise elements such as *witz*-masks with large flower-like earpools, renditions of wild animals from all environments (including aquatic), and frequent three-pronged motifs (Taube 2004: 79-86). Not incidentally, such iconographic sets have been discovered almost exclusively on platforms or pyramids crowned with triadic arrangements. So far over a hundred examples of Triadic Groups are known from almost fifty sites all over the Maya Lowlands. At least half of them bear evidence of stucco decorations on their facades, but this number may be grossly underestimated by poor preservation and lack of detailed studies of the remaining structures (Szymański 2013:24, fig. 2). A recurring motif in the iconographic programs of Triadic Groups is not only related to the Flower Mountain, but also, indirectly, to a sacrifice and the "entering a road" – that is death - via the interplay of readings of the earpools that form one of the most visible elements of the masks. The shape of their oval elements strongly resembles the Maya glyph for b'ih, a word that means „road” or „path” (cf. Mathews and Biró 2006: [road]). Moreover, the volutes on top of each earflare, before identified with K'awiil, now are thought to represent a perforator and a swirl of blood (Freidel *et al.* 2002:63). Freidel and colleagues (2002: 53) also note that in case of Cerros, Belize,

„(...) The upper masks represent Itzamnaaj and Chahk, the axe-wielding sacrificer god; these creator gods caused the death and resurrection of the Maize God. These were the gods impersonated by the king when he performed here as a lord of creation.”

Furthermore, in a number of examples the Triadic Groups are associated with caves or human-made basins — another feature in accordance with the mythological concept of the Flower Mountain (Szymański 2014: 139-147).

FUNCTION AND MEANING OF TRIADIC GROUPS

Triadic Groups are architectural assemblages consisting of a platform or a pyramid accessed via a monumental stairway, and at least three structures on its top, out of which the principal one is set along the main axis facing the stairway, and two lateral ones, usually identical, facing each other. A number of variants have been detected, not altering the principal layout (Figure 1). They first appear at the beginning of the Late Preclassic, perhaps originating from the Mirador area, but soon spread over the entire Lowlands. One of the earliest examples known is in northwestern Yucatan (Anderson 2005). They soon became the most common arrangements of monumental architecture during the remainder of the Preclassic. Although less frequently, new Triadic groups were constructed, and the already existing ones either maintained or expanded all over the Lowlands throughout the Classic times, to vanish almost entirely in the Postclassic (Szymański 2014: 121).

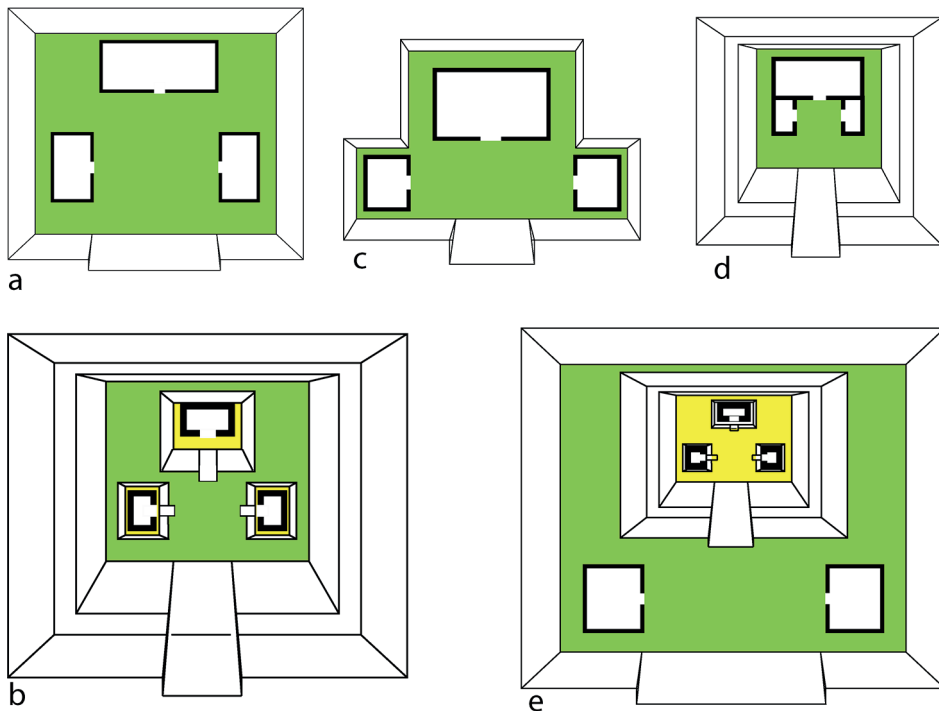


Figure 1. Triadic Group typology: a) single-tiered, b) double-tiered, c) T-type, d) U-type, e) Fractal-type.

Previous studies had led some scholars to believe that Triadic Groups shared some of the basic functions with E-Groups in being architectural devices designed to observe movements of certain celestial bodies. While E-Groups appear to be functionally related to movements of the Sun, according to some archaeologists Triadic Groups would have been constructed as the architectural emulations of the southern part of Orion (Aveni *et al.* 2003: 171-174). The latter was of particular interest to scholars as it is linked with the Celestial Hearth and the creation of the world (Freidel *et al.* 1993: 140; Hansen 1998: 80; Taube 1998: 486). The Celestial Hearth reflects the actual design of hearths in Maya houses, which consist of three stones of roughly equal height placed around a fireplace, serving as supports for cooking vessels (Figure 2). However, Triadic Groups have the inherent quality of emphasizing the central temple at the expense of the lateral ones, which makes them poor representations of Maya hearths, either domestic or cosmic. Furthermore, unlike E-Groups, Triadic Groups as a genre are not oriented towards any specific direction, nor do they conform to the movements of either Sirius or Orion, or any other prominent astronomical phenomenon (Figure 3).

It is evident that Maya builders were capable of designing and positioning even complex structures according to the desired markers, either in the surrounding landscape or the celestial horizon, as seen in the original E-Group at Uxactun, or so-called Caracol at Chichen Itza (Aveni *et al.* 2003). Thus, it can be assumed that the lack of a predefined orientation of Triadic Groups attests to its irrelevance to their original function and meaning.

As seen above, strong connections between Triadic Groups and the Flower Mountain concept exist, reflected in a set of iconographic motifs alluding to it, and the proximity of caves or artificial basins. The mythological importance of the Flower Mountain as a place of creation and the discovery of maize stands



Figure 2. Modern hearth in Campeche, Mexico (photograph by Jan Szymański).

in accordance with principal locations assumed by the Triadic Groups, and the sheer number and longevity of them. Stucco decorations in the form of avian, aquatic, and terrestrial animals, along with flower-like earspools worn by large, central beings on the friezes, have probably been designed as a sacred “scenography”, decorating the monumental stages, and providing context for performances and rituals held atop. The triadic layout of temples surmounting the platform further strengthens this hypothesis. If indeed the two lateral temples served as “scenographies” for a pair of acolytes accompanying the Maize God throughout the process of death and resurrection, as postulated by Freidel and others (2002), the central temple would have likely been dedicated to the resurrecting Maize God.

A question may be raised, as to why there are no explicit references to the Maize God within the iconographic programs of Triadic Groups. The answer runs along two lines of reasoning. First, it would be more appropriate for a stage to provide just the scenery, rather than depicting the actual performance, with its actors and their activities. Even at times when there was no performance, such a stage would create a powerful reminder, arguably even more so with an allusion instead of an attempt of recapping the whole ritual. Much in the same manner the mat motifs discovered on facades of a number of Maya buildings have been interpreted as allusions to the rulership, either as throne rooms or “council houses” (Fash *et al.* 1992). No actual council members or kings seated on mat-laden thrones had to be depicted on the walls of such buildings for them to be correctly understood by the citizens. However, where additional information is displayed, just as in the case of Copan (Fash *et al.* 1992), it may be due to the necessity of hinting the existence of multiple meanings. This leads to the second line of reasoning.

A particularly long history of Triadic Groups as a genre seems to be reflecting an equally persistent concept behind their construction. The motive of Maize God’s resurrection certainly fulfills this criterion. However, over the centuries such important loci must have gained additional significance. For instance, the Triadic Groups in the Mirador area, perhaps the most ancient ones, have failed to yield burials (Hansen 1991, 1992, 2002). Much later Triadic Groups, that constituted an early version of Tikal North Acropolis, from the start have been designed to hold royal tombs within their cores, and the Triadic Group A-V at Uaxactun had undergone a series of alterations to be finally transformed into a combined ritual-palatial building (Loten 2007: 43-48; Valdés 1989). This by no means stands contrary to Triadic Groups being stages for Maize God resurrection. Quite the opposite — their additional, funerary or religious-administrative character only enhances their significance, drawing from the original source of divine power, and transforming it.

This is perhaps the best illustrated by the iconographic program of the Cross Group in Palenque, the only one with the explicit illustrations of the activities performed within its temples. Not only are the temples symbolic houses of the Palenque Triad — a group of gods involved in Creation — but they

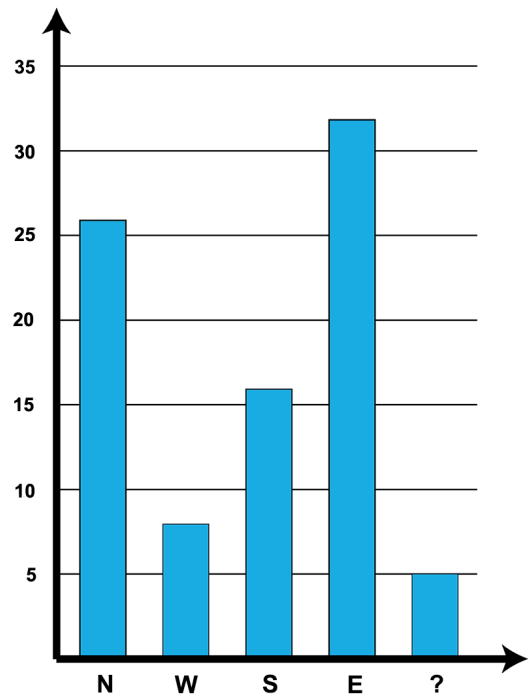


Figure 3. Cardinal orientation distribution in a sample of 87 Triadic Groups from the Maya area.

had also been stages for accession rituals of Kan Bahlam, the king who sponsored their construction. He is displayed twice on each of the three sculpted panels — as a young, underage heir, and a young male in his prime (Hansen 1998: 80; Lounsbury 1980; Miller and Taube 1993: 130; Stuart 2005: 170-174). The Cross Group, commissioned at the end of the seventh century, is a relatively late Triadic Group. More than a thousand years of building triadic arrangements must have resulted in an accumulated significance, evoking certain association in the Late Classic members of Palenque society. Only the newest meanings, stacked on top of the ancient ones, required an explicit description — in this case the accession rituals, and allusions to the Palenque Triad of gods. All three layers, that is the Maize God's resurrection, the Palenque Triad, and the accession rituals of Kan Bahlam, are skillfully tuned together in a coherent manner. They all reach to the Maize God's ideal biography as the source of authority and divinity, and ultimately serve Kan Bahlam in his efforts to be deified.

CONCLUSIONS

Theorizing on issues as transcendental as myths, ritual behavior, or human perception of gods, is a somewhat dangerous and frustrating task. Dangerous, because only a handful of facts must serve as a base for drawing conclusions, which makes room for overinterpretations. Frustrating, because the results usually cannot be verified, remaining in a kind of scholarly limbo. Only when many pieces of the puzzle are securely fitted in their places, the empty shape that is left shows which theories may fit, and which can be definitely discarded. This paper attempts to combine the etic, outer perspective, represented by archaeological data, with an emic view that tries to emulate the Maya thoughts basing on what is already known. Linking the Triadic architecture with Maize God and his resurrection on the Flower Mountain is an idea that seems to be accommodating all the current facts, as to the knowledge of the author. It addresses many issues previously unexplained, such as the variable cardinal orientation of Triadic Groups. However, it cannot be presently either falsified or verified. Nevertheless, it relies on a number of interpretations of the facts that may be subject to change when more of the relevant data is gathered. Further research, both in the field and behind the desk, provides hope for this idea to be dragged out of the limbo some day, and either remain sustained or laid to rest.

REFERENCES

ANDERSON, DAVID

2005 A Report on Activites at Xtobo, Yucatan, Mexico, electronic report: <https://drive.google.com/file/d/0B0OwsolI40ayBMzZmNjg0MDctMzQ3ZC00MGY1LWFjNzYtNjQ5NmM2ODQ1ZTU0/view?ddrp=1&hl=en&pli=1#>. [Accessed: December 3rd, 2015].

AVENI, ANTHONY, ANNE DOWD AND BENJAMIN VINING

2003 Maya Calendar Reform? Evidence from Orientations of Specialized Architectural Assemblages, *Latin American Antiquity* 14(2): 159-178.

BRAAKHUIS, H. EDWIN D.

2009 The Tonsured Maize God and Chicome-Xochitl as Maize Bringers and Culture Heroes: a Gulf Coast Perspective. *Wayeb Notes* 32: 1-38.

2014 Challenging the Lightnings: San Bartolo's West Wall Mural and the Maize Hero Myth. *Wayeb Notes* 46: 1-26.

CHRISTENSON, ALLEN

2007 Popol Vuh: Sacred Book of the Quiché Maya People. *Mesoweb*: 2003 publication. <http://www.mesoweb.com/publications/Christenson/PopolVuh.pdf>. [Accessed: November 18th, 2015].

- FASH, BARBARA, WILLIAM FASH, SHEREE LANE, RUDY LARIOS, LINDA SCHELE, JEFFREY STOMPER AND DAVID STUART
1992 Investigations of a Classic Maya Council House at Copan, Honduras. *Journal of Field Archaeology* 19(4): 419-442.
- FREIDEL, DAVID, LINDA SCHELE AND JOY PARKER
1993 *Maya Cosmos: Three Thousand Years on the Shaman's Path*. New York: Harper Collins.
- FREIDEL, DAVID, KATHRYN REESE-TAYLOR AND DAVID MORA-MARÍN
2002 The Origins of Maya Civilization: The Old Shell Game, Commodity, Treasure, and Kingship. *Ancient Maya Political Economies*, edited by Marilyn Mason and David Freidel, pp: 41-86, New York, NY: Altamira.
- GRUBE, NIKOLAI
1992 Classic Maya Dance. Evidence from hieroglyphs and iconography. *Ancient Mesoamerica* 3: 201-218.
- HANSEN, RICHARD
1991 Resultados preliminares de las investigaciones arqueológicas en el sitio Nakbe, Petén, Guatemala. *II Simposio de Investigaciones Arqueológicas en Guatemala, 1988*, edited by Juan Laporte, Sandra Villagrán, Hector Escobedo, Dora de González and Juan Valdés, pp. 163-178. Guatemala: Museo Nacional de Arqueología y Etnología.
1992 Proyecto Regional de Investigaciones Arqueológicas del Norte de Petén, Guatemala: Temporada 1990. *IV Simposio de Investigaciones Arqueológicas en Guatemala, 1990*, edited by Juan Laporte, Hector Escobedo and Sandra Brady, pp. 1-28. Guatemala: Museo Nacional de Arqueología y Etnología.
1998 Continuity and Disjunction: The Pre-Classic Antecedents of Classic Maya Architecture. *Function and Meaning in Classic Maya Architecture*, edited by Stephen Houston, pp. 49-122. Washington D.C.: Dumbarton Oaks Library and Collection.
2002 The Architectural Development of an Early Maya Structure at Nakbe, Peten, Guatemala, *Foundation for the Advancement of Mesoamerican Studies, Inc.*: <http://www.famsi.org/reports/95113/95113Hansen01.pdf>. [Accessed: December 4th, 2015].
- HOUSTON, STEPHEN AND DAVID STUART
1996 Of gods, glyphs and kings: divinity and rulership among the Classic Maya, *Antiquity* 70: 289-312.
- HOUSTON, STEPHEN, DAVID STUART AND KARL TAUBE
2006 *The Memory of Bones: Body, Being and Experience among the Classic Maya*. Austin: University of Texas Press.
- INOMATA, TAKESHI
2006 Plazas, Performers, and Spectators. Political Theaters in the Classic Maya. *Current Anthropology* 47(5): 805-842.
- LENTZ, DAVID
1999 Plant Resources of the Ancient Maya; The Paleoethnobotanical Evidence. *Reconstructing Ancient Maya Diet*, edited by Christine D. White, pp. 3-18. Provo: University of Utah Press.
- LOOPER, MATTHEW
2009 *To be like Gods: Dance in Ancient Maya Civilization*. Austin: University of Texas Press.
- LOTEN, STANLEY
2007 *Additions and Alterations: A Commentary on the Architecture of North Acropolis, Tikal, Guatemala*. Tikal Reports 34A. Philadelphia: University of Pennsylvania.
- LOUNSBURY, FLOYD
1980 The Identities of the Mythological Figures in the Cross Group Inscriptions of Palenque. *Fourth Palenque Round Table*, edited by Elizabeth Benson, pp. 45-58. San Francisco: Precolumbian Art Research Institute.
- LUCERO, LISA
2003 The Politics of Ritual: The Emergence of Classic Maya Rulers. *Current Anthropology* 44(4): 523-558.

MILLER, MARY AND KARL TAUBE

1993 *An Illustrated Dictionary of Gods and Symbols of Ancient Mexico and the Maya*. London: Thames and Hudson.

QUENON, MICHEL AND GENEVIÈVE LE FORT

1997 Rebirth and Resurrection in Maize God Iconography. *The Maya Vase Book*, vVol 5., edited by Justin Kerr, pp. 884-902. New York: Kerr Associates.

REENTS-BUDET, DORIE

1991 The "Holmul Dancer" Theme in Maya Art. *Sixth Palenque Round Table*, edited by Virginia M. Fields, pp. 217-222. Norman: University of Oklahoma Press.

RICHARDS CARROL, CYNTHIA

2005 The Image of the Maize God in Classic Maya Art: The Ideal Aesthetic of Gods and Royalty. *Studia Antiqua* 4(1): 43-61.

STUART, DAVID

2005 *The Inscriptions from Temple XIX at Palenque: A Commentary*. San Francisco: The Pre-Columbian Art Research Institute.

SZYMAŃSKI, JAN

2013 Between Death and Divinity: Rethinking the Significance of Triadic Groups in Ancient Maya Culture. Unpublished PHD dissertation, University of Warsaw. <https://depotuw.ceon.pl/bitstream/handle/item/358/Between%20Death%20and%20Divinity.pdf?sequence=1> (accessed march 2017).

2014 Between Death and Divinity: Rethinking the Significance of Triadic Groups in Ancient Maya Culture. *Estudios de Cultura Maya* 44: 119-166.

TAUBE, KARL

1983 The Classic Maya Maize God: A Reappraisal. *Fifth Palenque Round Table*, Vol. VII, edited by Virginia M. Fields, pp. 171-181. San Francisco: Pre-Columbian Art Research Institute.

1998 The Jade Hearth: Centrality, Rulership, and the Classic Maya Temple. *Function and Meaning in Classic Maya Architecture*, edited by Stephen Houston, pp. 427-478. Washington D.C.: Dumbarton Oaks Library and Collection.

2004 Flower Mountain: Concepts of Life, Beauty, and Paradise among the Classic Maya. *RES: Anthropology and Aesthetics* 45: 69-98.

2009 The Maya Maize God and the Origins of Dance. *The Maya and their Sacred Narratives: Text and Context in Maya Mythologies*, edited by Geneviève Le Fort, Raphaël Gardiol, Sebastian Matteo, and Christophe Helmke, pp. 41-52. Markt Schwaben: Verlag Anton Saurwein.

TAY, LOUIS AND ED DIENER

2011 Needs and subjective well-being around the world. *Journal of Personality and Social Psychology* 101(2): 354-365.

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREIGN AGRICULTURAL SERVICE

2012 Mexico: Corn Production Forecast to Increase Significantly in 2012/13. *Commodity Intelligence Report*: http://www.pecad.fas.usda.gov/highlights/2012/08/Mexico_corn/. [Accessed: November 18th, 2015].

VALDÉS, JUAN ANTONIO

1989 El Grupo A de Uaxactun: Manifestaciones arquitectónicas y dinásticas durante el Clásico Temprano. *Mayab* 5: 30-40.

WHITE, CHRISTINE AND HENRY SCHWARCZ

1989 Ancient Maya Diet: as Inferred from Isotopic and Elemental Analysis of Human Bone. *Journal of Archaeological Science* 16: 451-474.