
16 THE ORIGINS AND PLACEMENT OF THE BALLCOURT AT YALBAC

Joanne P. Baron

Recent excavations of the ballcourt at Yalbac have demonstrated its Late Preclassic origin and explored its relationship to an adjoining pyramidal structure.. The ballcourt's early construction, termination, and Late Classic revival are indicative of Yalbac's interaction with other polities. In its Late Classic phase, the ballcourt obstructed this structure's axial stairway and access to the plaza below. It is hypothesized that the use of this arrangement was due to the ritual significance of the ballcourt's location. These data, obtained from the 2004 and 2005 excavation seasons of the Valley of Peace Archaeology project, are presented here.

Introduction

The rubber ballgame tradition is widespread in Mesoamerica. There are over 1,500 known ballcourts, located in Central America, the American Southwest and the Caribbean Islands. The ballgame was played from the Middle Preclassic period (1000-400 B.C.) (Agrinier 1991) through to present day (Leyenaar 2001). While much about this game remains unknown, its prevalence alone indicates its paramount importance in Mesoamerican society. Nearly every Maya center contains a ballcourt. Indeed, there are over 50 identified ballcourts in Belize alone. Ballcourts, while often small, can provide insights into the development of polities and regions. The construction history of the Yalbac ballcourt, which is similar to other ballcourts in Belize, and its location, which was maintained throughout the site's history, though it subsequently blocked the axial stairway of a large pyramidal structure, demonstrate the ballcourt's political and ceremonial nature.

The Ballcourt's Significance

The ballcourt of an ancient Maya center was an area of both religious and political significance. In scholarly literature concerning the Maya ballcourt, the story of the Hero Twins is the most often cited mythological reference to the ballgame. Our

understanding of their story comes from the Popol Vuh, the Quiché creation story recorded in colonial times. In this myth, the Maize God, his brother, and his Hero Twin sons have a series of adventurous encounters with the lords of the underworld involving several ball games. While the Popol Vuh is only one version of a basic traditional origin mythology, scenes from the story of the Hero Twins are represented in Classic Maya iconography, indicating that they are part of the same enduring tradition. For instance, ballcourt markers at the sites of Copán and La Esperanza show their kings acting out ballgames described in the Popol Vuh and impersonating gods from the story (Tokovinine 2001). In addition to these gods, several others, unrelated to the Hero Twin story are impersonated in ballcourt scenes (Tokovinine 2001). This plethora of religious associations with the ballgame indicates that the ballcourt was ritually and religiously significant.

In addition to their religious function, ballcourts and associated ballgame events served a political purpose as well. Although not every Maya center contained a ballcourt, especially during the Late Preclassic and Early Classic periods, many centers contained multiple ballcourts. Therefore, scholars have often hypothesized that the presence or absence of a ballcourt

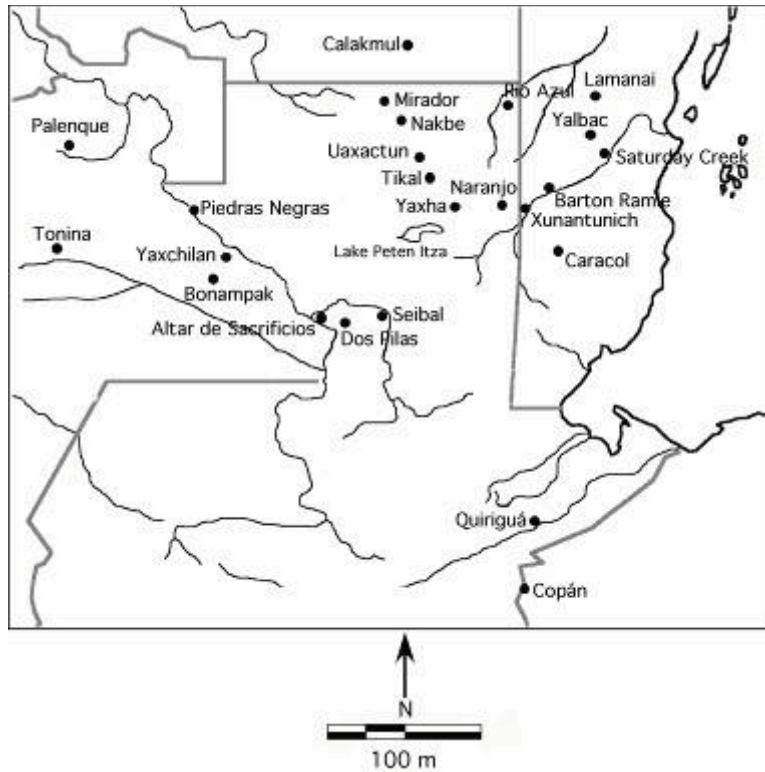


Figure 1. Map of the Maya Area showing Yalbac. (Courtesy of VOPA.)

corresponds to the political power held by a particular center (e.g. van Tuerenhout 1991; Healy 1992; Lohse et al. 2004). The presence of a ballcourt at a site demonstrates the ability of the rulers of that polity to sponsor public spectacles and feasts for locals or visitors, thus enhancing their prestige among elites and authority over subjects.

Images on ceramics and carved monuments show that ballgame events were scenes of richly costumed lords, and bountiful feasts (Zender 2001). Archaeological evidence for feasting events has been found at ballcourts throughout the Maya area in the form of serving vessels, grinding tools, obsidian blades, and animal bones (Fox 1996). Evidence indicates that the sponsoring of ritual ballgame events was used by elites during the Classic period for political integration and competition. As John Fox puts it,

'ballcourts may be viewed as public arenas in which power relations were negotiated, reproduced, and occasionally transformed through rituals in which the layered symbols of ballgames and feasts were alternately evoked [Fox 1996: 493].'

A ballcourt, then, served as more than a symbolic location. It indicated a ruler's ability to engage in inter-site competition, as well as his ability to sponsor expensive events for the local populace and visiting lords.

Ballcourts of Belize

Archaeologists have recorded and excavated numerous ballcourts throughout Belize. While most of these ballcourts date to the Late Classic period (A.D. 600-800), there are several that date to the Late Preclassic period (400 B.C.-A.D. 250) as well. Ballcourts in the Belize River Valley and Three Rivers Region, those two areas

closest to Yalbac, demonstrate similar patterns of construction history.

Preclassic ballcourts in the Belize River Valley include those at Actuncan (McGovern 1993), Buenavista (Ball and Taschek 2001), El Pilar (Ferguson 1999), Pacbitun (Healy 1992), and Saturday Creek (Jeakle 2002). Of these ballcourts, only those of Buenavista and Pacbitun were maintained during the Early Classic period (A.D. 250-600). Even so, this maintenance amounted to a mere series of replasterings rather than major architectural changes or new phases (Ball and Taschek 2001 and Healy et al. 2004). The other aforementioned ballcourts in the Belize Valley lacked construction activity during the Early Classic period. El Pilar's northern ballcourt did not see reconstruction after the Late Preclassic period (Ferguson 1999), and those at Actuncan and Saturday Creek had no construction episodes for the duration of the Early Classic, only to become once again the focus of building activity during the Late Classic (McGovern 1993; Healy 1992; Jeakle 2002).

The only ballcourt in the Belize Valley to witness construction in the Early Classic was located at Las Ruinas de Arenal (Ferguson 1999). In the Late Classic, however, several new ballcourts were constructed in the Belize River Valley, most of them at sites that had not previously had a ballcourt. It seems, therefore, that while building activity was relatively common during the Preclassic period, ballcourt construction declined in the Early Classic only to regain popularity in the Late Classic.

This phenomenon also occurred in the Three Rivers Region of Northwestern Belize, where several ballcourts have been dated to the Late Classic period. While no Preclassic ballcourts have yet been identified in this region, there are only two known Early Classic ballcourts: those at Blue Creek (Guderjan 2004) and Ixno'ha

(Lohse et al. 2004). A comparatively larger number of ballcourts were built during the Late Classic period: those at Gran Cacao, Ma'ax Na (Lohse et al. 2004), Chan Chich (Houk 1997), Punta de Cacao (Robichaux et al. 2001), San Jose (Thompson 1939) and two each at Dos Hombres (McDougal 1997; Houk 1996) and La Milpa (Schultz et al. 1994). Therefore, the Three Rivers Region shows a similar pattern to the Belize River Valley to the south. While lacking Preclassic ballcourts, this region shows a marked increase in ballcourt construction during the Late Classic period as compared to the paucity in the Early Classic.

There are several possible explanations for this phenomenon. Perhaps the act of ball playing lost popularity or changed dramatically during this time. Taladoire (2001), citing a pan-Mesoamerican drop-off in Early Classic ballcourt construction, hypothesizes that the city of Teotihuacán in Central Mexico, whose influence reached the Maya area, might have had an impact on ballgame practices during this time. Teotihuacán lacks a ballcourt, suggesting that a different form of the game, one that did not require a ballcourt, was played at Teotihuacán and in the areas under its influence.

There are other possible explanations as well. As discussed, the ballgame played among the Maya, was an opportunity to show off wealth and power, but required great expenditures on the part of rulers or elites. A decline in the ability to sponsor these types of events for economic or political reasons may have manifested itself in a lack of renovation or rebuilding at the local ballcourt. Alternatively, the location of ceremonial functions may have moved from the ballcourts to other site areas. Such changes do not suggest that ballcourts necessarily fell out of use completely, but that they served a less important function,

and suffered a decline in use reflected by a decrease in construction activity.

Finally, it is possible that the apparent Early Classic decline in ballcourt construction is simply an artifact of the ceramic chronology used to date the structures. It has been argued that Early Classic ceramic assemblages contain what had previously been recognized as Preclassic pottery types. This might lead an Early Classic assemblage to be misidentified as Preclassic. Therefore, “our current typological scheme artificially inflates the number of Late Formative sites and falsely exaggerates the decline in Early Classic sites (LeCount 2004: 28).” This is a rather disturbing conclusion, which has implications beyond the question of ballcourt construction.

The Yalbac Ballcourt

The Yalbac site core is located near Yalbac Creek at the very southern edge of the Orange Walk district (Figure 1). The Yalbac hills form a steep, east-west ridge just four kilometers to the north. These hills form a natural barrier between the Belize River and its tributaries to the south and the Three Rivers region to the north. Excavations at Yalbac have yielded ceramics dating from ca. 300 B.C. through A.D. 900, or Late Preclassic through Terminal Classic periods (Conlon and Ehret 2002). The site core contains three main plazas, an acropolis over 20 m in height; several range structures and six pyramidal structures ranging from 8 to 16 m in height. Attached to the front of the largest of these is Yalbac’s only known ballcourt (Graebner 2002a, 2002b) (Figure 2).

The Valley of Peace Archaeology (VOPA) project has worked at Yalbac since 2001 collecting chronological and architectural information from excavation as well as from the many looters’ trenches at the site (Lucero 2002, 2003, 2004b, 2005).

However, little is known about the nature of Yalbac’s relationship with other centers in Belize, and the work that has taken place at the nearby sites of San Jose and Mun Diego has not been extensive (see Thompson 1939). Other large sites also exist in the area that have not been excavated, and to our knowledge, have not been mapped.

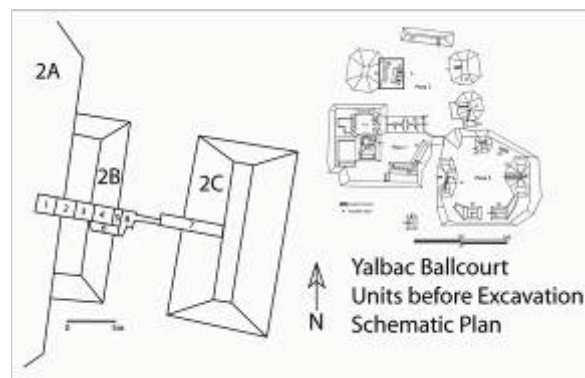


Figure 2. Map of the Yalbac site core and 2005 trenches (Courtesy of VOPA)

Prior Excavations 2002 - 2003.

The ballcourt at Yalbac is located in Plaza 2 and is comprised of Structures 2B and 2C. Structure 2B is attached to the front of Structure 2A, one of the largest constructions at the site. Excavations at the Yalbac ballcourt took place over several years. Weather conditions during the 2002 and 2003 seasons delayed the completion of excavation in the ballcourt alley until 2004 (Baron 2005). In 2003 a 3-x-1-m trench was placed in the ballcourt alley perpendicular to Structures 2B and 2C, which are oriented 17° east of north. The purpose of this excavation was to locate the alley floor and, it was hoped, a ballcourt marker. For this reason the trench was placed in the center of the alley, perpendicular to Structures 2B and 2C. Excavations revealed collapse debris as well as a series of tightly spaced plaster floors, possibly compensating for poor construction or lack of ballast (Lucero 2004a). The ceramics yielded by these strata indicated that the most recent floors

from the ballcourt alley date to the Late Classic period (A.D. 600 or later). Before rains became too heavy to continue working in 2003, excavators came upon a layer of heavy burning. Partially removing this stratum, they also uncovered another plaster floor, but were forced to cover it and stop the season's excavations.

2004 Excavations

The 2004 season saw the completion of excavation in the ballcourt alley (Baron 2005). Exposure of the burned stratum indicated a substantial burning event, which was dated by associated ceramics to ca. 250 B.C. to A.D. 250 (Late Preclassic). It is hypothesized that the burning event corresponded to the ritual termination of the ballcourt. Beneath the burned layer was the plaster floor that had been exposed during the previous season, also dating to the Late Preclassic period. Finally, below this floor and an intermediate layer of clay fill, a final plaster floor was uncovered. This floor was continuously plastered with the western edge of a low bench of the ballcourt's first construction phase, exposed at the very eastern end of the trench (Figure 3). While no ceramics were found in the masonry fill of this bench, those from the clay fill between the flooring episodes dated from ca. 300-100 B.C. in the Late Preclassic period. Not far below this floor was light-colored sterile soil (Baron 2005).

In summary, the ballcourt alley contained three major episodes of plaster floor construction (Figure 4 and 5). Two of these were built between 300 and 100 B.C. during the Late Preclassic period, and were followed by a major burning episode dating to 250 B.C.-A.D. 250, also in the Late Preclassic. Finally, between A.D. 600 and 700, in the Late Classic period, a series of floors was constructed. These include the floors uncovered in 2003, as well as another exposed in 2005, which had not been recognized in original excavations (see 2005

excavations below). Due to the heavy burning found on top of these earlier floors, it is likely that the ballcourt was terminated during the Late Preclassic period and was not used again until the Late Classic, at which point it was rebuilt.

This construction sequence in the ballcourt alley at Yalbac is most similar to that of the nearby Saturday Creek ballcourt, at which two Late Preclassic flooring episodes were found, covered in Late Preclassic fill. This fill contained burned materials limited to the center of the ballcourt alley. Two more flooring episodes were later added to the ballcourt alley, both during the Late Classic period (Jeakle 2002; Jeakle et al. 2002).



Figure 3. Preclassic ballcourt bench

2005 Excavations

During the 2005 season, work at Yalbac's ballcourt focused on its final construction phase and its relationship to Structure 2A, which the ballcourt abuts. Structure 2A is the largest pyramidal construction at the site and the only one that has not suffered looting. However, we lack chronological information about it. The position of the ballcourt in relation to 2A is unusual. While ballcourts at many Maya sites are located behind temples or within major plazas, Yalbac's ballcourt is attached to the front of 2A. This configuration would

have blocked the frontal stairway and obstructed the structure from the plaza.

Excavations in 2005 were designed to expose the terminal architecture of ballcourt structures 2B and 2C. This was accomplished with a series of axial trenches across the structures and through the center of the alley (figure 2). The greatest effort was focused on a 2-x-9-m trench running from the estimated area of juncture between Structures 2A and 2B to the estimated eastern edge of Structure 2B. This trench was divided into four 2-x-2-m and one 1-x-2-m units, numbered 1-5. This placement overlapped with the original trench from the 2002 season. To the south of this trench was placed another, unit 6, measuring 3-x-1 m, to expose more of the sloping playing wall. This trench was confined to the eastward, bottom portion of 2B and did not continue above the sloping surface. A 1-x-6.5-m trench (unit 7) was opened in Structure 2C to fully establish the parallel, mirror-image nature of the structures and support the final conclusion that these structures represent a ballcourt. Finally, for clarification of the base of each structure, units 7 and 5 were connected with on final unit, (number 8) which was an eastward extension of units 5 and 6, and a narrow (.5 m wide) trench along the alley floor.

There were two questions to address in the 2005 season. The first was the nature of the ballcourt's terminal phase construction. To this end, excavation was designed to simply expose the architecture of 2B and 2C. However, the excavators of the ballcourt trench in 2002 had accidentally mistaken architectural layers for collapse and removed them. The area of this removal corresponded to the center of our units 4, 5 and 8. The internal layers of 2B were therefore also included in analysis. The original trench, however, was only 1 m wide, and intact strata were left on either side. The end result was an exposed profile

of the fill behind the sloping playing wall and the foundation underneath it (Figure 6). Based upon the 2002 excavations and the trenches on Structure 2B, conclusions could be drawn about the construction of the ballcourt's terminal phase.

Excavation revealed a line of small boulders on top of the plastered playing alley, which formed a low step only about 20 cm tall. Most of these stones were no longer present in unit 8, possibly having been removed in 2002. Above these stones was a layer of cobbles set in mortar about 20 or 30 cm thick. This stratum was best exposed on a narrow line between units 5 and 6, since elsewhere it was covered in cobble facing stones or collapse. Above the layer of cobbles was a layer of large, flat boulders set in mortar. The eastern edge of these flat stones was set back from the first line of small boulders by 20-30 cm to account for the sloping of the playing wall. These three layers apparently made up the foundation of Structure 2B and may have continued westward all the way under the structure.

Above the flat stones set in mortar was a dry fill of stones of all sizes, from large boulders to small pebbles. It was this fill that was removed in 2002 in the center of the trench. The fill was piled to form the sloping wall of the playing alley, which was then covered with a layer of facing stones, continuing all the way down to the level of the first foundation layer, the line of small boulders. The resulting slope rose above the alley at an angle of about 30° and ended about 2 m above and 3 m west of the edge of the alley. West of this sloping wall was a platform, about 60 cm wide, composed of more large, flat boulders set in plaster. This platform was placed on top of the dry fill exposed in unit 4. Above the narrow platform rose a nearly vertical wall face, about 1.5 m high. This formed a retaining wall for the rest of Structure 2B behind it,



Figure 4. North wall of the 2004 ballcourt alley trench

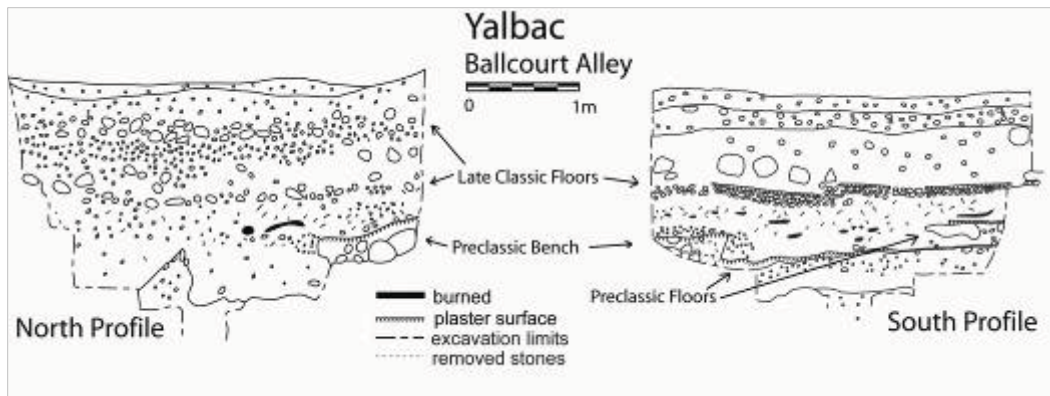


Figure 5. North and south profiles of 2004 ballcourt alley trench

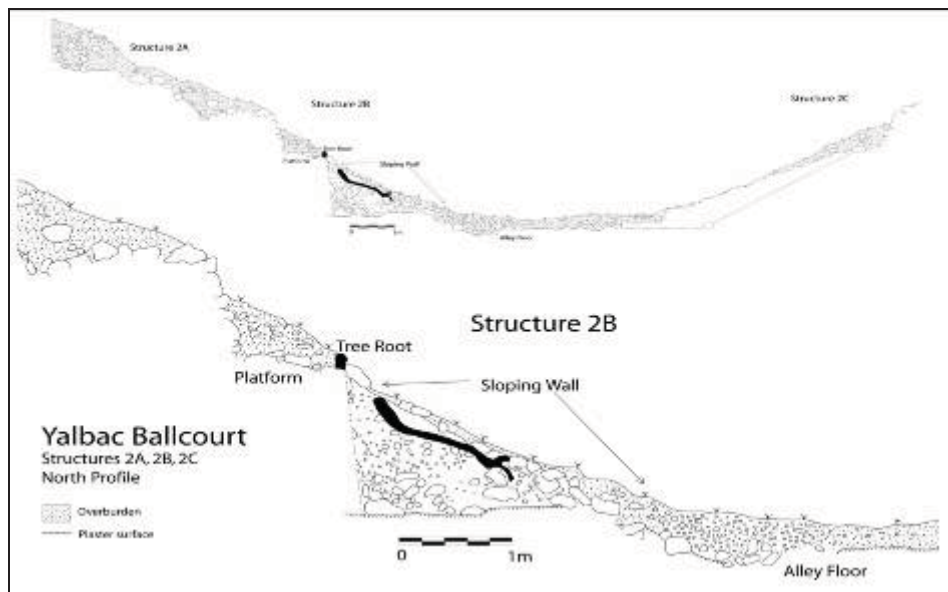


Figure 6. Profile of Structures 2A, 2B, and 2C

which, was topped with an eroded platform. This platform continued westward to the juncture with Structure 2A.

Our attempt to expose the architecture of Structure 2C was less successful. The 1.5-m vertical wall that topped the playing walls was fully exposed, along with the narrow platform at its base. The existence of these two features at the correct height satisfactorily demonstrated that the structures do represent a ballcourt. However, exposure of the sloping wall of 2B was not enough and it became clear at the end of the season that while not all of the collapse on Structure 2C had been removed, there was insufficient time to remove it. Therefore the sloping playing wall of 2C is reconstructed by analogy to the much more fully excavated 2B. Between the two structures was exposed the much eroded plaster floor of the final playing alley. While this floor was not reported in 2002 when the original trench was excavated, its cobble ballast can be seen in the north profile of the ballcourt alley unit completed in 2004 (Figure 5).

All of the features just discussed yielded Late Classic (A.D. 600-800) ceramics. While it was originally surmised that the foundation layers of 2B might have been built during an earlier phase of construction, the ceramics recovered showed that this was not the case. Therefore the entirety of the architecture exposed in 2005 represents the terminal construction of the ballcourt, and the architecture of its Late Preclassic predecessor still lies buried underneath or was demolished during the Late Preclassic termination.

The second area of inquiry during the 2005 field season was the relationship between Structures 2A and 2B. Finding the location of their abutment proved laborious and time consuming, as many large boulders that had fallen from 2A had to be removed.

However, the juncture of the two structures was finally located in unit 2. West of the vertical retaining wall discussed above, Structure 2B was topped by an eroded platform 1.5 m wide. At this point the platform abutted with steep sloping architecture consisting of large boulders piled on top of one another and set in mortar. This sloped wall face was about 1.2 m high, above which was another terrace, this one several meters wide and continuing into the west wall of unit 1.

A close examination of the point of juncture between the two structures did not reveal a clear superposition of one above the other (Figure 7). In fact, the terminal construction of the two structures appeared to have been built in a single phase. Ceramic analysis corroborated this conclusion. Sherds from both structures were Late Classic in date. It is clear, therefore, that whatever the chronology of the architecture buried under Structures 2A and 2B, their terminal phases were coeval and therefore the structures were undoubtedly in use at the same time during the Late Classic period.

Analysis

While the Yalbac ballcourt exhibits a unique relationship to the abutting structure 2A, other characteristics such as its chronological history and form are typical of ballcourts in Belize. Examining regional trends in ballcourt chronologies allows us to place the Yalbac ballcourt in its proper perspective. The two regions immediately to the north and south of Yalbac display a relative paucity of Early Classic ballcourt construction as compared to that of the Late Classic period. Additionally, several ballcourts in the Belize River Valley, like Yalbac, have construction phases dating to the Late Preclassic period. Most of these ballcourts, however, reflecting the regional trend, were left unmodified during Early

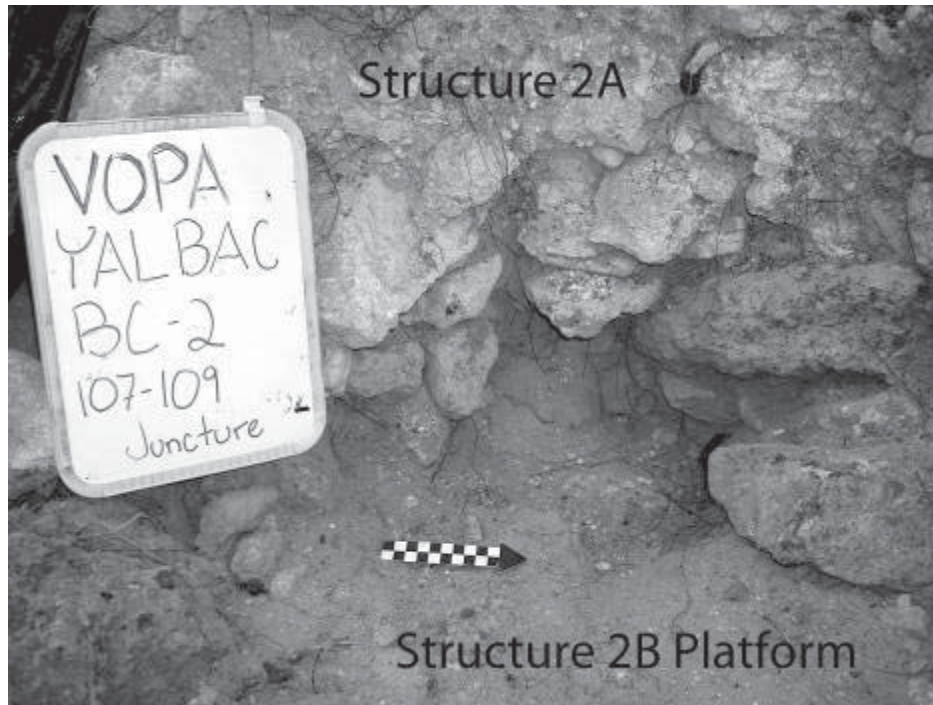


Figure 7. Juncture of Structures 2A and 2B

Classic times. The Yalbac ballcourt fits well into this regional pattern, and its builders even went so far as to conduct a major burning event there, probably representing a ritual termination. The conclusion that can be drawn is that, during the Early Classic period, the Yalbac ballcourt was definitively not in use.

What makes the Yalbac ballcourt unique is its subsequent reuse in a very strange location. Without extensive excavation, there is no way of knowing when 2A, the abutting pyramidal structure, was first built. However, during its final phase, no axial stairway would have been possible on this structure, due to the ballcourt's location. Excavations in 2005 revealed that the two structures were in use simultaneously during the Late Classic period, but it is unlikely that they were originally constructed in this awkward configuration. Therefore, the ballcourt could not have been first constructed after the initial phase of 2A, nor could 2A have been constructed while the ballcourt was in use. Our hypothesis, consequently, has been

that 2A was initiated during the period of time after the ballcourt had been terminated. This also suggests that those features of the ballcourt above the plaza level were razed at the time of its termination. Furthermore, in the Late Classic, when regional trends demanded the presence of a ballcourt at Yalbac, it was revived on its original location.

The data collected in 2004 and 2005, and the hypothesis presented, offer a perspective on the early development of Yalbac. Ballcourts, as loci of political interaction, are indicative of a polity's political associations. In this case, it is likely that during the Late Preclassic period Yalbac's elite interacted with those of sites in the Belize River Valley to the south, where other Late Preclassic ballcourts have been found. During the Late Classic, however, many ballcourts sprang up, both in the Belize Valley and Three Rivers Region to the north. Yalbac followed suit, rebuilding its own ballcourt and putting itself back in the game, figuratively speaking.

The question remains as to why the ballcourt was refurbished at the same locus, now that a large pyramidal structure dominated that area. While it is perhaps impossible to know for sure, the explanation may lie in the ritual significance of the ballcourt itself. A ballcourt, with its underworld associations, may have been considered largely immovable. Indeed, it is uncommon in the Maya area that ballcourts are buried to make way for later construction. Rather, most ballcourts, like Yalbac's, display long histories of use and rebuilding, revealing their "enduring quality" (Scarborough 1991:132). Thus, it is likely that the ceremonial or religious requirement of retaining the position of the ballcourt took precedence over the practicality of moving it out of the way of 2A's axial stairway.

Conclusion

The Yalbac ballcourt has revealed an interesting construction history and points to early development at the site. Although displaying a unique arrangement within the site plan, the ballcourt's construction and chronology are consistent with what is known about the ceremonial importance of the ballgame in Maya society. In addition to the information it can provide about local practices, the ballcourt can also be used to tie Yalbac into the political landscape of the region. Since ballcourts were places of political import for Maya elites, their presence and attributes at a particular site are indicators of the relative wealth and status of the elites of that polity.

While many ballcourts have been identified throughout the Maya region, not all of them have been fully excavated. As work at some ballcourts has shown, however, many have multiple phases. Thus a ballcourt that appears to date to the Late Classic may, upon further excavation, be revealed to have been constructed much

earlier. Only the further excavation of ballcourts will clarify the role of the ballgame in Belize and in the Maya area as a whole.

Acknowledgements. I would like to thank the Belize Institute of Archaeology for permission to excavate at Yalbac as well as permitting me to write this article and participate in the 2005 Belize Archaeology Symposium. I would also like to thank Dr. Lisa Lucero who has welcomed me to her project and without whom this would not have been possible. I am indebted to the University of Pennsylvania College Alumni Society for their generous support during the summer of 2005. Thanks also to all those who have helped me track down data and those who have read and critiqued this text, including Dr. Hubert Robichaux, Dr. Brett Houk, Christophe Helmke, Dr. Robert Sharer, Simon Martin, Dr. John Morris, and Sara Friedman. Finally, I would like to thank the 2005 Valley of Peace Archaeology crew, and especially Mr. Scott and Andrew Kinkella for all their help and support.

References Cited

- Agrineir, Pierre
1991 The Ballcourts of Southern Chiapas, Mexico. In *The Mesoamerican Ballgame*, edited by Vernon L. Scarborough and David R. Wilcox, pp. 175-194. University of Arizona Press, Tucson.
- Ball, Joseph W., and Jennifer T. Taschek
2001 The Buenavista-Cahal Pech Royal Court: Multi-palace Court Mobility and Usage in a Petty Lowland Maya Kingdom. In *Royal Courts of the Ancient Maya*, Vol. 2, edited by Takeshi Inomata and Stephen D. Houston, pp. 165-200. Westview Press, Boulder, Colorado.
- Baron, Joanne. P.
2005 The Ballcourt at Yalbac: 2004 Season. In *Results of the 2004 Valley of Peace Archaeology Project: The Temples and*

- Ballcourt of Yalbac*, edited by Lisa J. Lucero, pp. 28-42. Report submitted to the Institute of Archaeology, National Institute of Culture and History, Belmopan, Belize.
- Conlon, James M., and Jennifer J. Ehret
2002 Time and Space: The Preliminary Ceramic Analysis for Saturday Creek and Yalbac, Cayo District, Belize, Central America. In *Results of the 2001 Valley of Peace Archaeology Project: Saturday Creek and Yalbac*, edited by Lisa J. Lucero, pp. 8-20. Report submitted to the Department of Archaeology, Ministry of Tourism and Culture, Belize.
- Ferguson, Josalyn
1999 *The Ballgame at Baking Pot, Belize: An Analysis of the Ballcourts at a Maya Civic Center*. Master's thesis, Trent University. University Microfilms, Ann Arbor
- Ford, Owen.
1998 Excavations at the Ballcourt. In *The 1997 Season of the Chan Chich Archaeological Project*, edited by Brett A. Houk, pp. 53-58. Papers of the Chan Chich Archaeological Project No 3. Center for Maya Studies, San Antonio, Texas.
- Fox, John. G.
1996 Playing with Power: Ballcourts and Political Ritual in Southern Mesoamerica. *Current Anthropology* 37(3): 483-509.
- Graebner, Sean M.
2002a Monumental Architecture and the Ancient Maya: The Royal Acropolis at Yalbac, Central Belize. Unpublished Master's thesis, Department of Sociology and Anthropology, New Mexico State University, Las Cruces.
2002b Ancient Maya Royal Courts: Yalbac, Central Belize. In *Results of the 2001 Valley of Peace Archaeology Project: Saturday Creek and Yalbac*, edited by Lisa J. Lucero, pp. 73-83. Report submitted to the Department of Archaeology, Ministry of Tourism and Culture, Belize.
- Guderjan, Thomas H.
2004 Public Architecture, Ritual, and Temporal Dynamics at the Maya Center of Blue Creek, Belize. *Ancient Mesoamerica* 15: 235-250.
- Healy, Paul F.
1992 The Ancient Maya Ballcourt at Pacbitun, Belize. *Ancient Mesoamerica*, 3:229-239.
- Healy, Paul F., Bobbi Hohmann, and Terry G. Powis
2004 The Ancient Maya Center of Pacbitun. In *The Ancient Maya of the Belize Valley: Half a Century of Archaeological Research*, edited by James F. Garber. University of Florida Press, Gainesville.
- Houk, Brett.
1996 *The Archaeology of Site Planning: An Example from the Maya Site of Dos Hombres, Belize*. Ph.D. dissertation, University of Texas, Austin. University Microfilms, Ann Arbor.
- Jeakle, Julie E.
2002 Social Integration and the Maya: The Multifunctionality of Mesoamerican Ball Courts. Unpublished Master's thesis, Department of Sociology and Anthropology, New Mexico State University, Las Cruces.
- Jeakle, Julie, Lisa J. Lucero, and Sarah Field
2002 SC-3: A Minor Center Temple Ball Court. In *Results of the 2001 Valley of Peace Archaeology Project: Saturday Creek and Yalbac*, edited by Lisa J. Lucero, pp. 47-64. Report submitted to the Department of Archaeology, Ministry of Tourism and Culture, Belize.
- LeCount, Lisa J.
2004 Looking for a Needle in a Haystack: The Early Classic Period at Actuncan, Cayo District. In *Research Reports in Belizean Archaeology*, vol. 1, edited by Jaime Awe, John Morris, and Sherilyne Jones. Institute of Archaeology, National Institute of Culture and History, Belmopan, Belize.
- Leyenaar, Ted J. J.
2001 The Modern Ballgames of Sinaloa: A Survival of the Aztec Ullamaliztli. In *The Sport of Life and Death: the Mesoamerican Ballgame*, edited by E. Michael. Whittington, pp. 123-129. Thames and Hudson, New York.
- Lohse, Jon C., Jimmy Barrera, and Antonio Padilla.
2004 2004 Season Excavations in the Gran Cacao Ballcourt, Northwestern Belize. Electronic document,

- http://www.mayaresearchprogram.org/content/BC_2004_Report_ballcourt.pdf, accessed October 9, 2005.
- Lucero, Lisa J.
- 2004a The 2003 Season at Yalbac: The Ball Court and Acropolis. In *Results of the 2003 Valley of Peace Archaeology Project: Yalbac*, edited by Lisa J. Lucero, pp. 4-12. Report submitted to the Institute of Archaeology, National Institute of Culture and History, Belmopan, Belize.
- Lucero, Lisa J. (editor)
- 2002 *Results of the 2001 Valley of Peace Archaeology Project: Saturday Creek and Yalbac*. Report submitted to the Department of Archaeology, Ministry of Tourism and Culture, Belize.
- 2003 *Result of the 2002 Valley of Peace Archaeology Project: Yalbac*. Report submitted to the Institute of Archaeology, National Institute of Culture and History, Belmopan, Belize.
- 2004b *Results of the 2003 Valley of Peace Archaeology Project: Yalbac*. Report submitted to the Institute of Archaeology, National Institute of Culture and History, Belmopan, Belize.
- 2005 *Results of the 2004 Valley of Peace Archaeology Project: The Temples and Ballcourt of Yalbac*. Report submitted to the Institute of Archaeology, National Institute of Culture and History, Belmopan, Belize.
- McDougal, Steven. R.
- 1997 *Archaeological Investigations at Ballcourt 2, Dos Hombres, Belize*. Master's thesis, University of Cincinnati. University Microfilms, Ann Arbor.
- McGovern, James O.
- 1993 Survey and Excavation at Actuncan. In *Xunantunich Archaeological Project: 1994 Field Season*, edited by Richard Leventhal and Wendy Ashmore, pp. 109-113. University of California, Los Angeles.
- Robichaux, Herbert R., Alexandra Miller, Fred Valdez, and Robynne R. Valdez
- 2001 Punta de Cacao Archaeological Project: the 2001 Season Report. Electronic document, <http://www.uiwtx.edu/%7Ecacao/2001.html>, accessed October 9, 2005.
- Scarborough, Vernon L.
- 1991 Courting the Southern Maya Lowlands: A Study in Pre-Hispanic Ballgame Architecture. In *The Mesoamerican Ballgame*, edited by Vernon L. Scarborough and David R. Wilcox, pp. 129-144. University of Arizona Press, Tucson.
- Schultz, Kevan C., Jason J. Gonzalez, and Norman Hammond
- 1994 Classic Maya Ballcourts at La Milpa, Belize. *Ancient Mesoamerica* 5: 45-53.
- Taladoire, Eric
- 2001 The Architectural Background of the Pre-Hispanic Ballgame: An Evolutionary Perspective. In *The Sport of Life and Death: the Mesoamerican Ballgame*, edited by E. Michael. Whittington, pp. 97-115. Thames and Hudson, New York.
- Thompson, J. Eric.
- 1939 *Excavations at San Jose, British Honduras*. Publication No. 506. Carnegie Institution of Washington, Washington, DC.
- Tokovinine, Alexandre.
- 2002 Divine Patrons of the Maya Ballgame. Electronic Document, www.mesoweb.com/features/tokovinine/Ballgame.pdf, accessed October 9, 2005.
- Van Tuerenhout, Dirk
- 1991 The Socio-Cultural Context of the Ballcourt at Nohmul, Belize. In *The Mesoamerican Ballgame: Papers presented at the International Colloquium, 'The Mesoamerican Ballgame 2000 BC- AD 2000,' Leiden, June 30th-July 3rd, 1998*. Edited by Gerard W. van Bussel, Paul L. F. van Dongen, and Ted J. J. Leyenaar, pp. 59-70. Rijksmuseum voor Volkenkunde, Leiden.
- Zender, Marc.
- 2004 Sport, Spectacle and Political Theater: New Views of the Classic Maya Ballgame. *The PARI Journal* 4(4):10-12.