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**Proyecto Río Verde, 2003: Report on Excavations at Yugüe**



**Research Year:** 2003

**Culture:** Chatino (uncertain)

**Chronology:** Terminal Pre-Classic

**Location:** Río Verde Valley, Oaxaca, México

**Site:** Yugüe

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## **Abstract**

This report summarizes the results of excavations undertaken at the site of Yugüe, in the lower Río Verde valley of Oaxaca, México. The Yugüe excavations were undertaken from February to April of 2003 as part of the Proyecto Río Verde 2003 (PRV03). The PRV03 was designed as a study of early state organization on the Pacific coast of Oaxaca, focusing on elite activities in the lower Río Verde valley's first regional polity. A second goal of the PRV03 was to obtain as much archaeological information as possible from the threatened site of Yugüe, where ongoing construction is causing irrevocable damage to a Terminal Formative Period (150 B.C.–A.D. 250) archaeological site. The Yugüe excavations were very successful, providing the first primary deposits related to Terminal Formative elite public activities such as burial, feasting, and other rituals.

An addendum is included with this report summarizing the results of conservation efforts undertaken to conserve and restore a late Terminal Formative Period (A.D. 100–250) incised bone flute from the site of Yugüe. The object was discovered during the Proyecto Río Verde 2003. At the time of its discovery, the flute was in extremely fragile condition due to compaction, seasonal changes in humidity, and bioturbation in the form of root and insect activity. Mireya Olvera Sánchez consolidated, reconstructed, and restored the object. It is now in the collection of the Centro Cultural Santo Domingo, Oaxaca City, México.

## **Resumen**

Este informe presenta los resultados de excavaciones arqueológicas en el sitio de Yugüe, ubicado en el valle inferior del Río Verde. Las excavaciones tuvieron lugar entre febrero y abril del año 2003, y formaron parte del Proyecto Río Verde 2003 (PRV03). El PRV03 se diseñó como un estudio de la organización estatal del período Formativo Terminal (150 a.C.–250 d.C.) en la Costa Chica de Oaxaca, México. El objetivo principal era el de obtener datos sobre las actividades de la élite en el primer estado regional del valle inferior del Río Verde. El segundo objetivo del PRV03 fue el de emprender excavaciones de rescate en el sitio, que corre peligro a causa de una reocupación moderna del sitio. La construcción moderna continúa causando daños irreparables en este sitio del período Formativo Terminal. Las excavaciones tuvieron éxito, puesto que llegaron a proporcionar los contextos primarios correspondientes a las actividades públicas de la élite durante el período Formativo Terminal, incluyendo entierros, fiestas y rituales.

Este informe incluye un apéndice que resume los resultados de la restauración y conservación de una flauta de hueso del período Formativo Terminal (100–250 d.C.), proveniente del sitio de Yugüe. El objeto se descubrió durante las excavaciones del Proyecto Río Verde 2003. Cuando fue descubierta, esta flauta denotaba gran fragilidad debido a la compactación, a los cambios de humedad estacionales, y a las bioperturbaciones causadas por las raíces y la actividad de los insectos. La Lic. Mireya

Olvera Sánchez se ocupó de consolidar, reconstruir y restaurar el objeto. La flauta está en la colección del Centro Cultural Santo Domingo, Oaxaca de Juárez, México.

Submitted 03/08/2004 by:  
Sarah B. Barber  
University of Colorado at Boulder  
[Sarah.Barber@colorado.edu](mailto:Sarah.Barber@colorado.edu)

## Introduction

The PRV03 excavations constituted part of an ongoing study of state development and social organization during the earliest period of statehood in the lower Río Verde valley, Oaxaca, México ([Figure 1](#)). By the Terminal Formative Period (150 B.C.–A.D. 250; [Table 1](#), shown below), a regional polity had developed in the lower Verde with a center at the 200-hectare site of Río Viejo. Recent excavations by Joyce at Río Viejo demonstrated the existence of a Terminal Formative urban center with massive earthen platforms supporting public ceremonial structures (Barber and Joyce 2002). The organization of this polity has remained unclear, however, due to a lack of data from Terminal Formative Period contexts.



Figure 1. Mesoamerica and the Lower Río Verde Valley.

A primary objective of the PRV03 was to obtain much needed Terminal Formative archaeological materials that would enable a study of early state development and organization in the lower Río Verde valley. To this end, the site of Yugüe was chosen for excavation. Previous research had shown that Yugüe was occupied from the Late Formative Period Minizundo Phase (400–150 B.C.) until the Late Terminal Formative Period Chacahua Phase (A.D. 100–250; Barber n.d.). No Classic or Postclassic Period occupation was identified, meaning that the Terminal Formative materials were close to the surface and accessible through shallow horizontal excavation. Excavation at Yugüe was also deemed necessary because the site is threatened by modern construction.

<b>Table 1. Lower Río Verde Valley Chronology</b>		
<b>Time Period</b>	<b>Regional Phase</b>	<b>Dates</b>
Late Postclassic	Yucudzaa	A.D. 1100–1522
Early Postclassic	Yugüe	A.D. 800–1100
Late Classic	Yuta Tiyoo	A.D. 500–800
Early Classic	Coyuche	A.D. 250–500
Late Terminal Formative	Chacahua	A.D. 100–250
Early Terminal Formative	Miniyua	150 B.C.–A.D. 100
Late Formative	Minizundo	400–150 B.C.
Middle Formative	Charco	700–400 B.C.

## **Research Methods**

The site of Yugüe lies on the Río Verde’s floodplain approximately 2.5 kilometers east of the Río Verde, 3.75 kilometers southeast of Río Viejo, and 7.5 kilometers north of the Pacific Ocean. Today, Yugüe is home to a modern hamlet of 12–15 residences. The core of ancient Yugüe is a 9.75 hectare earthen occupation platform that rises up to 10 meters above the surrounding floodplain. Generally rectangular in shape, the Yugüe platform is approximately 300 meters long (E–W) and 150 wide (N–S), its long axis is approximately 105°/285° ([Figure 2](#)) (Joyce 1999:50). Excavation data indicate that the Yugüe platform was built in the early Terminal Formative Period Miniyua Phase (150 B.C.–A.D. 100), although a smaller platform may have been subsumed by Terminal Formative Period construction (Barber n.d.).

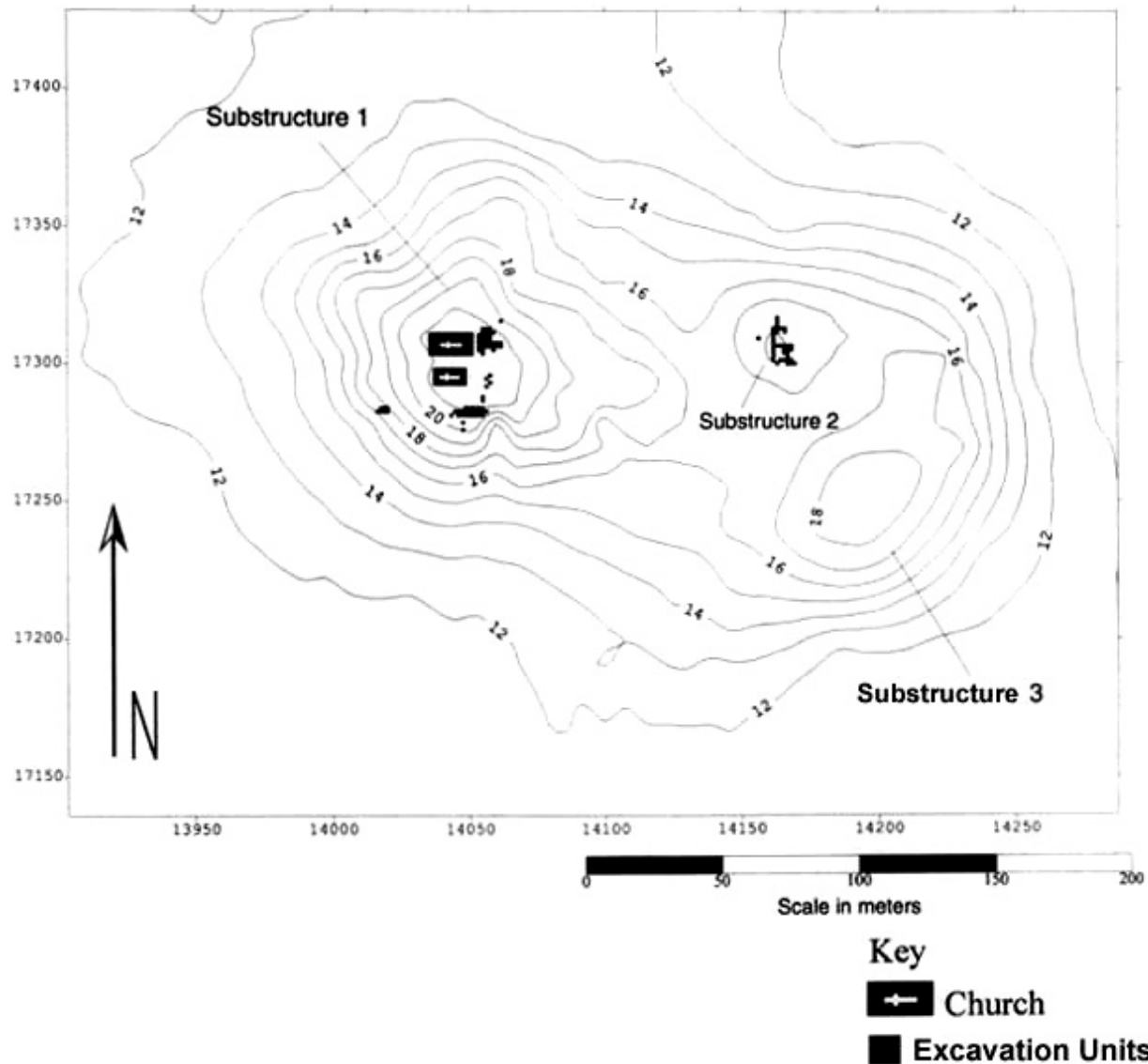


Figure 2. Topographic Map of Yugüe showing excavated areas. (Topographic map courtesy of Dr. Arthur Joyce.)

The Yugüe platform supported three earthen substructures. The largest of these, Substructure 1, comprised the north-western apex of the platform. Substructure 1 has been considerably disturbed by 20th century building activities. The summit of Substructure 1 is now home to the Yugüe community's chapel as well as the remnants of an older chapel that was destroyed in an earthquake. The portion of the platform surrounding Substructure 1 was clearly an area of considerable importance to the PreColumbian inhabitants of the site. In addition to being the highest part of the site, the perimeter of the platform surrounding Substructure 1 was delimited by retaining walls made of massive granite slabs. About 62 meters to the east of Substructure 1 sits Substructure 2. Substructure 2 is the smallest of the three substructures but also the best preserved. Substructure 3 lies approximately 25 meters south and east of

Substructure 2. An abandoned 20th century house sits near the top of Substructure 3. The construction of this house was extremely destructive to Substructure 3, essentially leveling much of its western side.

In order to study the Terminal Formative Period occupation of Yugüe, shallow horizontal excavations were undertaken on Substructures 1 and 2. Operation 1 entailed the excavation of materials on and near Substructure 1. Despite the obvious modern disturbance of Substructure 1, it was deemed necessary to at least test the area to determine whether any PreColumbian materials remained in this architecturally elaborate area of the site. As excavations revealed, a number of very important materials had survived the 20th century construction. Operation 2 consisted of excavation on and near Substructure 2. Prior to excavation, Substructure 2 was believed to be a residence. Its small size and its prominent placement near the summit of the platform suggested that it was home to some of Yugüe's PreColumbian elite. In addition, it was presumed that Yugüe was not a large enough site to have more than one area of ritual and public focus. The Operation 2 excavations quickly proved this presupposition to be incorrect when the ephemeral remains of a public area were revealed.

### **Operation 1**

The Operation 1 excavations at Yugüe were designed to determine whether any remnants of PreColumbian activity remained at what would have been the public center of the site. The Operation 1 testing entailed shallow excavation of 66m<sup>2</sup> in three separate areas around Substructure 1 (see [Figure 2](#)). Area A was situated in the southwestern corner of Substructure 1, Area B ran along the southeastern and south central portions of Substructure 1, and Area C lay near the northeastern section of Substructure 1 just behind a modern chapel.



Figure 3. Historic Lime Kiln.

### **Area A**

The Area A excavations were focused on an adobe ring (Op. 1–Feature 1) that was visible on the surface. The Area A excavations cleared an area of 7m<sup>2</sup> surrounding this surface feature. Excavations within Feature 1 revealed it to be a lime kiln excavated into Terminal Formative Period fill (Figure 3, shown above). Discussions with older members of the community revealed that this feature was historic, probably dating to between 1940 and 1960. After an historic date was confirmed for the lime kiln, excavations in Area A were stopped because it was outside the purview of the project.

### **Area B**

Area B was excavated because a slight rise and a few stones were visible from the surface. It was hoped that Area B might represent an intact Terminal Formative structure. Shallow excavations bisecting the area were undertaken to determine the stratigraphic sequence and identify any PreColumbian features. Several intact PreColumbian contexts were revealed in this process.

Intact contexts included two partial human burials and a midden. Yugüe Burials 4 and 5 were found close to the modern ground surface and in very poor condition. Less than a meter north of Burial 5, excavation revealed a sheet midden containing Late Terminal



Formative Period materials ([Figure 4](#)). This sheet midden was located between 2 and 12 centimeters below the modern ground surface, near an area of moderate modern pedestrian traffic. The midden was present over an area of approximately 18m<sup>2</sup> and contained a wide variety of artifacts and ecofacts, including: partially reconstructible vessels, sherds, obsidian prismatic blades, ash, charcoal, marine shell, animal bone, fragments of adobe blocks, figurine fragments, earspool fragments, flakes of mica, a ceramic whistle, and a greenstone fragment. Stratigraphically, the sheet midden was located just below a narrow band of modern topsoil/construction fill. The stratigraphic break was identifiable in profile by the high quantity of fine sand in the surface layer.



**Figure 4. Operation 1, Area B Sheet Midden.**

A final primary context of some interest was found at the very eastern edge of the Area B excavations. Excavators encountered a Late Postclassic Period (Yucudzaa Phase, A.D. 1100–1522) pit feature containing polychrome sherds of the Mixteca-Puebla style. The pit was distinguished by a dark, loamy matrix and a high density of Late Postclassic polychromes. The existence of this feature revealed the unexpected existence of Late Postclassic activity at Yugüe. The feature was clearly intrusive into the surrounding Terminal Formative deposits ([Figure 5](#), shown below).



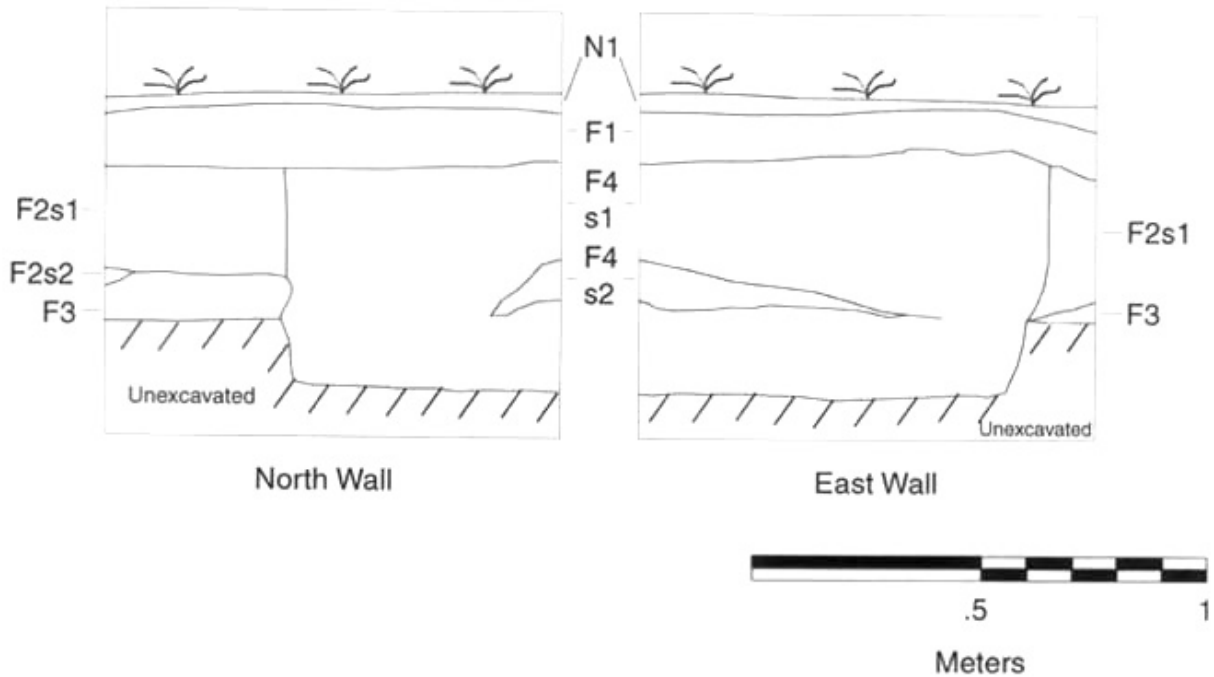


Figure 5. Profile of Postclassic Pit Feature (Unit 1G225).

As Figure 5 shows, the stratigraphy revealed:

- N1: A naturally formed, poorly developed topsoil (10YR 5/3, sandy clay loam).
- F1: Disturbed Terminal Formative Period occupational debris (10YR 5/3, sandy clay loam).
- F2s1: Formative Period fill (10YR 5/4, silty clay).
- F2s2: Ashy lens (10YR 4/3, sandy clay).
- F3: Formative Period occupational layer/debris (10YR 6/4, silty clay).
- F4s1: Postclassic pit feature (10YR 4/3, silty clay loam).
- F4s2: Dark organic lens (10YR 4/3, loam).

### Area C

Area C excavations were undertaken east of the Yugüe town chapel in order to determine whether anything remained of the Terminal Formative structure that would have existed on top of Substructure 1. The Area C excavations uncovered four very important Terminal Formative contexts: the remnants of an Early Terminal Formative adobe structure, an Early Terminal Formative burial area, a series of Early Terminal Formative ritual deposits, and a Late Terminal Formative burial area.

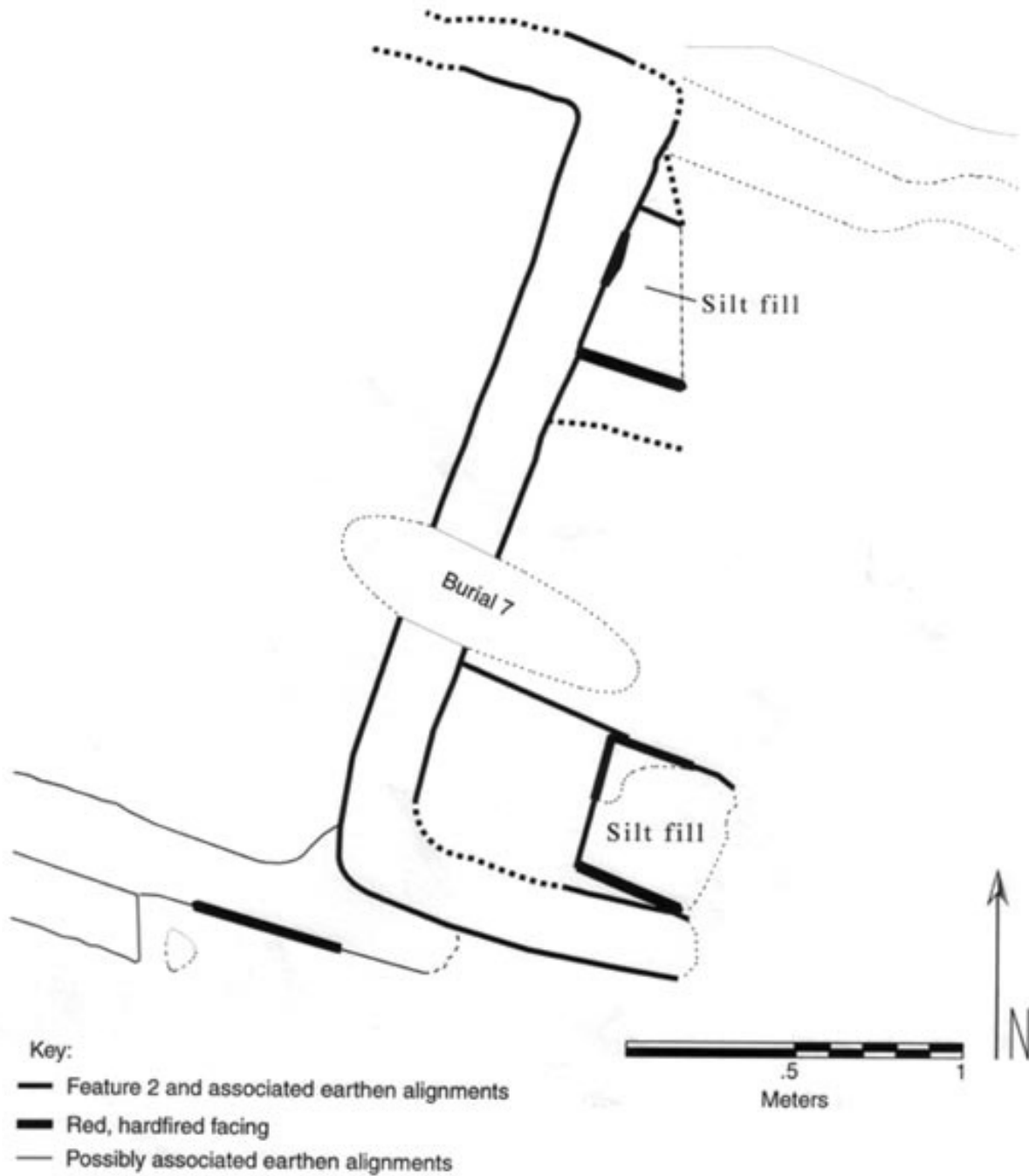


Figure 6. Plan View, Area C Earthen Features.



Figure 7. Close-up of Earthen Feature.

The earliest context in Area C was a group of linear features made of fired and hardened earth that may have been part of a structure (Figure 6). The best preserved was Op. 1–Feature 2, a 2.5m-long, 21cm-wide alignment of fired earth that was oriented 15°/195°, perpendicular to the long axis of the Yugüe mound. In several places a thin cap of red, hard-fired earth coated the vertical surfaces of the feature (Figure 7). Fragments of four additional linear features ran perpendicular to Feature 2. All were aligned between 102°/282° and 105°/285°, parallel to the long axis of the Yugüe mound. None of these alignments had foundation stones beneath them. Just to the east of Feature 2 were several fragments of a compacted earthen surface. There are two possible interpretations of these features. The first is that they represent the remnants of an Early Terminal Formative building—probably public in nature given the location, shape, and size. The second interpretation is that these features pertain to shaping and retaining the fill that constituted Yugüe’s Early Terminal Formative mound.

An Early Terminal Formative date is indicated for Feature 2 due to the presence of a group of intrusive burials and ritual deposits. Yugüe burials 3, 6, and 7 were all interred near Feature 2. A total of 22 vessels were also found near the burials, some in direct association. Most of the vessels were deposited in pairs, with a small coarse brownware jar topped by an upside-down fine brownware bowl (Figure 8). Burials 3 and 7 were adults, Burial 6 was a newborn. The interment of Burial 7 disturbed Burial 3 and intruded into Feature 2.



**Figure 8. Miniyua Burial Vessels.**

To the north and west of Feature 2, excavations uncovered a large ritual deposit consisting of 55 poorly-fired coarse brownware cylinders and two cooking vessels. The cylinders appear in several different strata, indicating ongoing deposition over a number of years—perhaps even centuries. Nearby were interred two large coarse brownware cooking vessels. One was capped with fragments from another coarse brownware vessel. The tops of both vessels were surrounded by burned earth and ash. When excavated in the laboratory, these vessels were found to contain marine shell.

A Late Terminal Formative Burial area was uncovered three meters west of Feature 2. The area, only 7m in size, contained the remains of more than 40 individuals and various grave goods. The burials included individuals of all ages; both males and females were represented. The burials appear to have been interred over a number of years. Earlier interments were disturbed to make way for later ones. Several of the latest interments were found intact. Of particular interest was the interment of two adult males: one about 14.5 years of age and the other about 35 years of age ([Figure 9](#); Arion

Mayes, personal communication 2003). Both were buried extended, on their right sides with their heads to the west. It is not clear if they were buried simultaneously. The younger male was found with two particularly valuable grave goods: an unfired ceramic disk coated with a layer of plaster found just below his chin; and an elaborately incised mammal femur placed in his left hand.



**Figure 9. Burial of Two Adult Males.**



## Operation 2

The Operation 2 excavations were undertaken to uncover what was presumed to be an elite residence built on Substructure 2. A total of 41m<sup>2</sup> were excavated in the process of uncovering a number of PreColumbian features. Overall, the Operation 2 excavations yielded very low artifact densities and few intact features. Due to the limited number of artifacts and the character of the features that were encountered, Substructure 2 was probably a ritual location in antiquity.

An initial stratigraphic trench was excavated to bisect Substructure 2 ([Figure 10](#)). These excavations revealed three occupation layers: (1) a deflated Late Postclassic/Colonial Period layer (10YR 4/3, silt loam); (2) immediately below that, a deflated Late Terminal Formative Period layer (10YR 3/2, silt loam); (3) separated by a layer of fill (10YR 5/4, clay), another Terminal Formative Period occupation layer (10YR 6/4, silty clay). Based upon permit restrictions and the practicalities of time and budget, it was decided that excavations would focus on the upper Late Terminal Formative occupation layer. Several features were found at or near the stratigraphic breaks that defined this occupation layer.

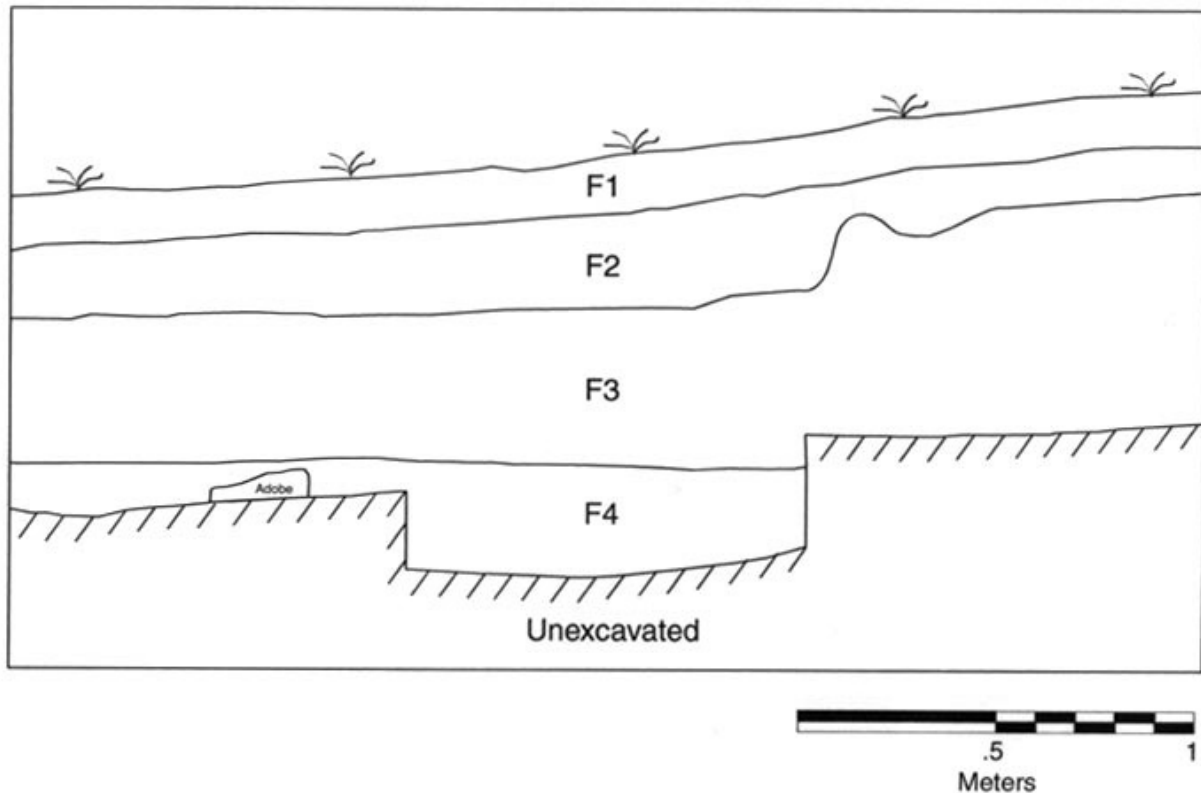


Figure 10. East Profile, Operation 2 (Units 40-6051).



Despite extensive testing, no well-preserved foundation walls were uncovered at Operation 2. However, excavation did uncover shaped rocks and rocks with adobe attached to them in several places. It seems probable that one or more structures existed upon Substructure 2 in the Late Terminal Formative Period. This interpretation was strengthened by the discovery of a circular feature of calcified earth lying on the stratigraphic break near the southern margin of Substructure 2.



**Figure 11. Operation 2 Cache.**

Two ritual deposits were also uncovered in the fill immediately beneath the Terminal Formative occupation layer. The first was a cache consisting of five coarse brownware vessels: four conical vessels arranged around a lidded ceramic box ([Figure 11](#), shown above). The box was empty. A second, more ambiguous, deposit was found to consist of a partially reconstructable jar, half of a decorated grayware bowl, sherds, fragments from 13 ceramic earspools, fragments of adobes, a figurine, and marine shell. Densely-packed fragments of marine shell lined the wide, shallow pit that contained the large coarse brownware jar lying on its side, broken in half. The other objects were mixed into the matrix above these materials. The nature of this deposit is unclear, but it may represent discarded artifacts from a single ritual event that involved feasting.

## Conservation of a Formative Period Incised Bone Flute from Oaxaca

*With contributions by: Mireya Olvera Sánchez.*

### ***Introduction***

Excavations at the site of Yugüe in the lower Río Verde valley of Pacific coastal Oaxaca, México, resulted in the discovery of an incised bone flute dating to the late Terminal Formative Period (A.D. 100–250; [Figure 1](#), and [Figure 12](#), shown below). The Yugüe excavations were part of the Proyecto Río Verde 2003 (PRV03)—an archaeological research project designed to study political centralization and social organization during the Terminal Formative Period. A community cemetery, containing the remains of at least 33 individuals, was uncovered near the site's largest public building. The flute was a burial offering interred with a subadult male within the cemetery.



**Figure 12. Incised bone flute.**

The flute was in a very poor state of preservation at the time of its discovery. Interred in an earthen mound and situated close to the modern ground surface, it had been subjected to nearly 2000 years of cultural and natural disturbance. Given its obvious importance as an example of early iconography, as well as its unusual media, the object was quickly removed from the ground and taken to the conservation laboratory of Mireya Olvera. Ms. Olvera undertook a year-long consolidation and restoration effort to stabilize, reconstruct, and restore the object.

### ***Archaeological Context***

Like many sites in the lower Verde region, Yugüe consists of a single earthen platform that supported both domestic and public architecture. The Yugüe mound is approximately 300 m long by 150 m wide and rises 10 m above the floodplain ([Figure](#)

13). Probably built in stages, the entire 10 m construction was in place by 150 B.C. The site was continuously occupied from the Late Formative Period Minizundo Phase (400–150 B.C.) until the Late Terminal Formative Period Chacahua Phase (A.D. 100–250). It was reoccupied during the Late Postclassic Period Yucudzaa Phase (A.D. 1100–1522) and again in the 20th century ([Table 1](#)).

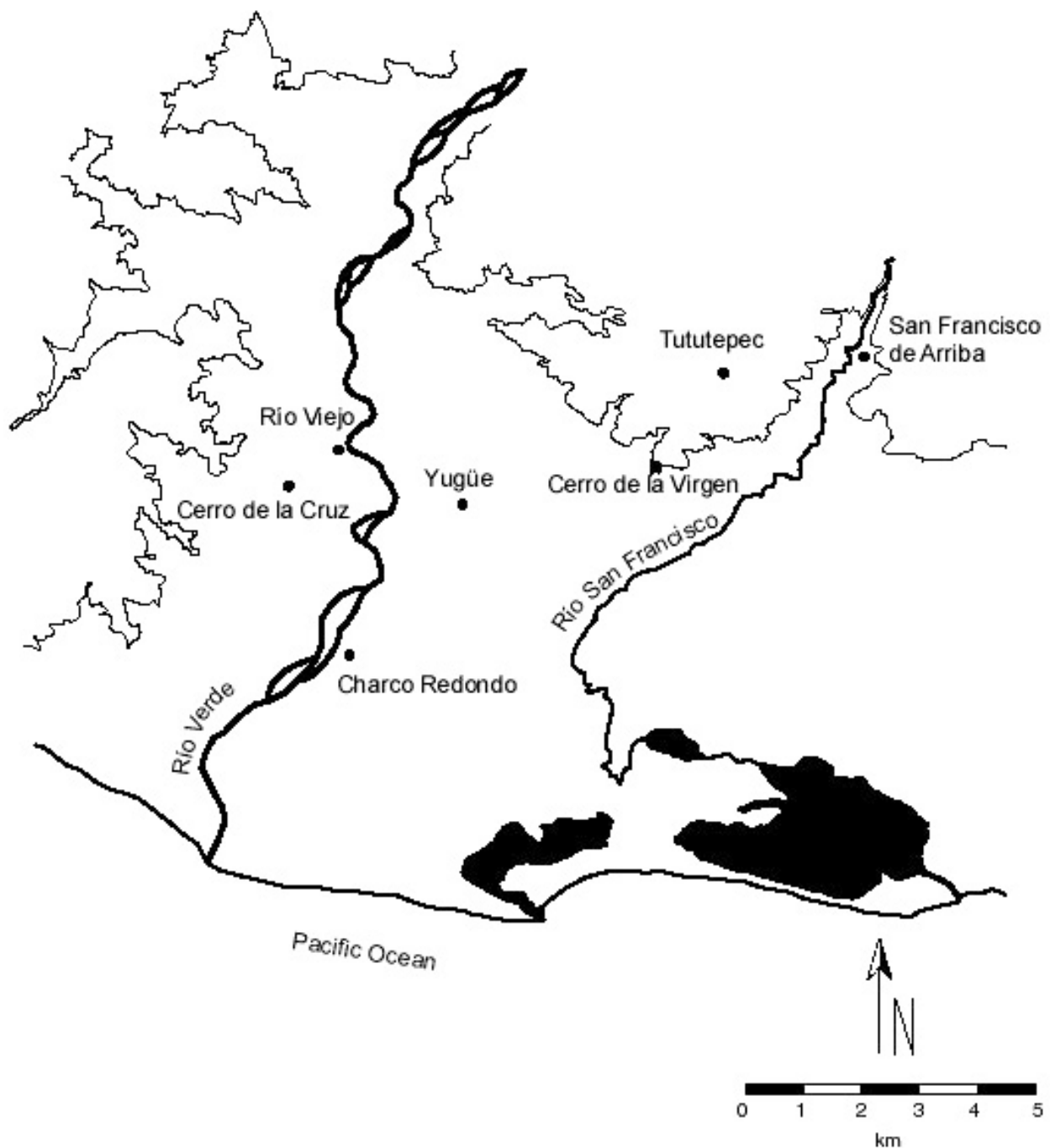
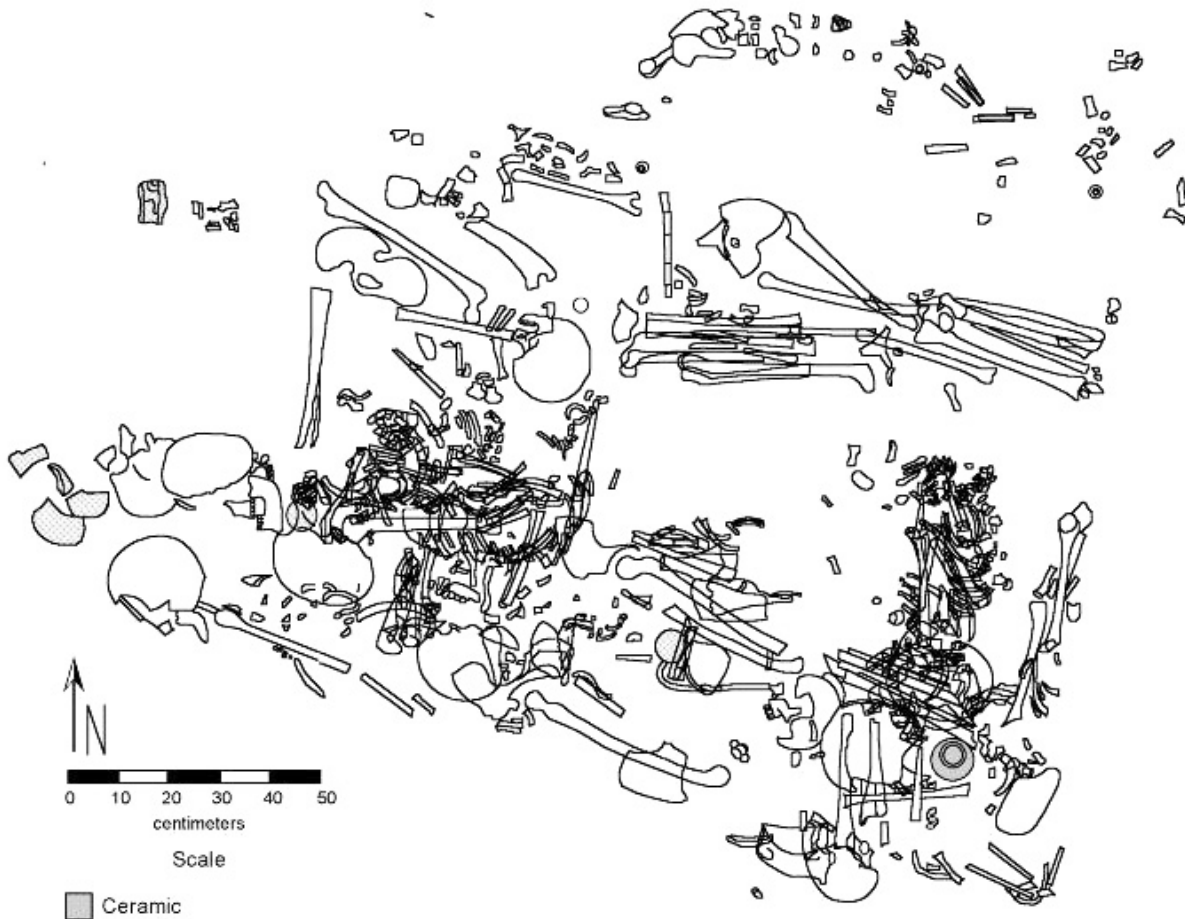


Figure 13. Map of the Lower Río Verde Valley with sites discussed in the text.

As part of the PRV03, archaeological excavations were undertaken at Yugüe under the direction of Sarah Barber. The 2003 research included horizontal exposures on two of the three substructures that sit atop the Yugüe platform ([Figure 2](#)). The excavations at Substructure 1 were intended originally to be quick rescue operations given the heavy modern disturbance in that portion of the site. Surprisingly, a number of very important PreColumbian contexts survived.

The incised bone flute was discovered in late Terminal Formative Period cemetery located on the northeastern side of Substructure 1 (see [Figure 2](#)). Substructure 1 was used throughout the Terminal Formative Period as a community burial location: five other burials were found on Substructure 1 during the PRV03, and the town's modern residents described several other areas of the Substructure that had produced human remains during modern building projects. The cemetery excavated during the PRV03 was therefore a small sample of a large public space used for human burials over several hundred years.



**Figure 14. Plan View of late Terminal Formative Cemetery.**



The cemetery included bones from at least 33 individuals in an area of approximately 6 m<sup>2</sup> (Figure 14, shown above). Most burials were primary, with the individual placed in an extended position on either their right or left side. It is possible that some of the interments are secondary, however there is insufficient evidence at this time to identify such burials with certainty. Most of the burials are aligned to an east-west azimuth that mirror the axis of the site as a whole or are perpendicular to this azimuth (e.g. north-south). Ages ranged from neonate/infant to elderly adult. Due to the fragmentary nature of most interred individuals, and the poor state of preservation of the bones, sex is not available for most interments. Both males and females were present.

The incised bone was interred with a subadult male (14 to 15 years old; Arion Mayes, personal communication 2003). He was placed in an extended position, oriented along an east-west azimuth, and facing south. The flute was placed in his left hand, resting against his left forearm. At his neck was a plaster and stone disk, probably a mirror. Several ceramic vessels were found around and near his lower extremities, but the density of burials above his legs makes it unclear whether these items were part of the same interment.



**Figure 15. Flute in block of earth. Photo of the removal of the flute.**

## ***State of Preservation***

In the field, it was clear to excavators that the Yugüe flute was a find of particular importance and that it was in a very poor state of preservation. For this reason, excavation of the item was halted after about 25 percent of its surface area had been cleared. It was then lifted within a single block of earth to protect the object and hold it together ([Figure 15](#), shown above). During transit from the field to the conservation laboratory, the item was wrapped in tissue and aluminum foil and set on sand in a plastic box.

When the flute arrived in the conservation laboratory of Mireya Olvera, the surrounding soil had dried and hardened. The high clay content of the Yugüe fill created a very compact matrix that had successfully supported the fragments of bone. About 25 percent of the object was visible, 65 percent was covered with soil, and 10 percent had disintegrated due to natural processes (as revealed when the surrounding matrix was removed).

The overall structure of the object was very fragile. Salts were present on the surface of the posterior section, as were stains created by root action. Due to compaction and pressure, the flute had been deformed. There were numerous longitudinal fractures that had either creased or broken the object completely. The most serious damage was caused by two primary transverse fractures that had divided the artifact into three sections. Within each section, numerous cracks had caused small fragments to detach. As a result, the artifact had broken into over 50 fragments.

## ***Restoration Efforts***

A number of steps were taken to consolidate, reconstruct, and restore the artifact. The most immediate action was to strengthen the object and remove it from the surrounding matrix. A 5-percent mixture of Paraloid B-72 was applied to visible portions of the bone using an eyedropper and paintbrush. The application of Paraloid softened the encasing matrix enough to draw it away from the artifact. As the earth fell away, every fragment of the bone was immersed in Paraloid so that both the exterior, interior, and pores were permeated with consolidant. The surrounding matrix itself was sifted; all fragments of bone within the matrix were removed and consolidated as well.

Once all fragments of the object had been removed from the block of earth and consolidated, a preliminary cleaning was undertaken. Using solvents, the consolidant was diluted slightly and any adhering fragments of soil were removed from the surface of the bone. This process also enabled the removal of encrusted salts.

The flute was reconstructed using Mowilith adhesive and an internal wooden support. Although much of the artifact was self-supporting, a section of the shaft was too fragile to maintain its structural integrity. To reinforce this section of the flute, an interior support was constructed of balsa wood. Due to its flexibility and lightness, balsa wood



was ideal for creating a structure that fit the complex interior topography of the bone's shaft.

Salts were a particular problem in the conservation of the flute. Crystallized salts that had reached the surface of the object were removed using a scalpel and dissecting needle. In isolated instances, it was necessary to remove salts using dilute acids. The acid was then neutralized using distilled water.

Final treatment of the flute was intended to prepare it for long-term storage and possible museum exhibition. Areas of discoloration were treated with a tinted glaze in order to unify the color of the piece as a whole. A final protective of Paraloid B-72 coating was added to the entire exterior of the object.

### ***Description of Artifact***

The Yugüe flute is a particularly fine example of ancient Mesoamerican artistry. It is the only known artifact of its kind from Terminal Formative Period Mesoamerica. It also may be the only complete bone flute from Mesoamerica prior to the Postclassic Period.<sup>1</sup> In addition, as an incised bone artifact the Yugüe flute is one of only a handful of such objects from Terminal Formative Mesoamerica. The best known, a pair of incised bones from Chiapa de Corzo (Dixon 1958), are very different in style. The Chiapa de Corzo bones were human femurs, also found as mortuary offerings.

The Yugüe flute was carved from a deer femur. Air would have entered the instrument from the distal end of the femur and exited through an opening created in the proximal end. A perishable mouthpiece probably would have been inserted into the large circular opening on the distal end of the bone (Figure 16).

An interpretation of the complex iconography on the Yugüe flute is not yet complete, although several general observations can be made at this time (Barber, et al. in prep). The object bears the image of a skeletal figure in profile (Figure 17; Javier Urcid, personal communication 2004). The figure's head is at the bottom of the flute, facing the end from which sound would have emerged. The figure is dressed in an ornate loincloth with a belt or ornament bearing a cross symbol (Figure 18, shown below). A scroll extends from the figure's mouth and nose towards the proximal end of the bone—probably depicting the music emanating from the flute (see Figure 17, above).

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<sup>1</sup> A number of fragments of bone flutes have been found in Mesoamerica, particularly from Classic Period contexts. A fragment of a second Terminal Formative Period bone flute was also found in a midden context at Yugüe.



Figure 16. Distal end of the Yugüe flute.



Figure 17. Close-up of the Yugüe flute.

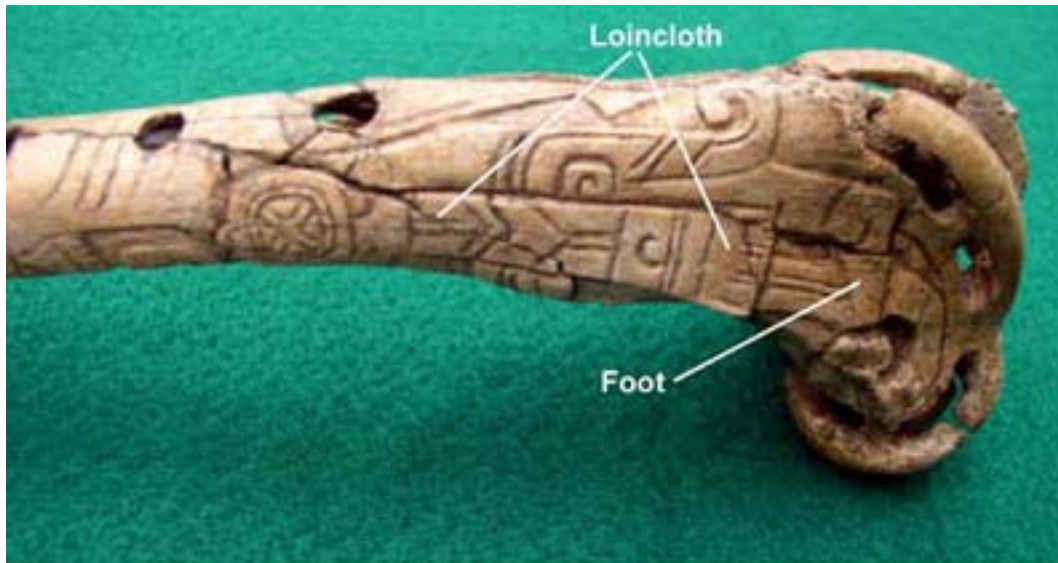


Figure 18. Close-up of the loincloth.

### ***Conclusion***

The Yügüe flute will provide considerable insight into a number of aspects of PreColumbian belief and practice in the lower Río Verde valley. The object's iconography depicts a supernatural individual with links to music, death, and perhaps ancestry. As a musical instrument, the Yügüe flute is an unusual find for such an early time period. It offers information on PreColumbian music—a topic that is not well understood, particularly in the Formative Period. Finally, the Yügüe flute is a burial object interred with a young individual at a small site. Its context hints at the complex character of social relations between elites, their local communities, and the regional polity in the Terminal Formative lower Verde region.

### ***Acknowledgements***

Funds for the conservation of the Yügüe flute were provided through the generous support of the Foundation for the Advancement of Mesoamerican Studies, Inc., (FAMSI) and Dumbarton Oaks of Harvard University. The Consejo Nacional de Arqueología of the Instituto Nacional de Antropología e Historia in México provided the permits for this project. We are greatly indebted also to the staff at the Centro INAH-Oaxaca, including: Antropólogo Eduardo Lopez Calzada, Dr. Marcus Winter, Dr. Robert Markens, Arqueóloga Cira Martínez López, and Arqueóloga Victoria Arriola. Staff at Monte Albán was also of great assistance: Dra. Nelly Robles-García, Lic. Miguel Angel Cruz, and Lic. Aciel Sanchez Flores. We also appreciate the assistance of Dr. Arthur Joyce, Dr. Payson Sheets, and Lic. José Luis Tenorio.

## Conclusions

The PRV03 excavations provided an enormous quantity of new information regarding Terminal Formative social organization. A number of preliminary observations can be made. First, there was greater complexity in the organization of this third-order site than was previously anticipated. The existence of two public ceremonial spaces at a 9.75 hectare site was unexpected prior to commencing the project. This complexity is reiterated by the diversity of burial goods in the Op. 1 burial areas. Individuals of differing status were interred at Yugüe. The burial practices of Yugüe offer a further insight into Terminal Formative Period social organization. Despite significant change in the regional political system, the pre-state pattern of communal burial in public spaces was continued into the era of statehood (Barber and Joyce 2003, Joyce 1991a, Joyce 1991b). In addition, feasting appears to have played a significant role in ancient ceremonial life at Yugüe. Both substructures at the Yugüe mound had evidence for Late Terminal Formative ceremony tied to food.

As a rescue archaeology project, the PRV03 Yugüe excavations were also highly successful. All of the excavated contexts were close to the modern ground surface and in areas where construction and disturbance are likely to continue. The Op. 1 midden had already been partially destroyed due to erosion. The Early Terminal Formative Period burials in Area C were less than a meter from the foundation of the modern chapel. The village plans to extend a portion of the chapel west to the area directly above those burials. This will probably destroy Feature 2, and would have destroyed the burials had they remained *in situ*. The Late Terminal Formative Period burial area was in an area of water runoff during the rainy season. The latest burials were only a few centimeters below the modern ground surface and would certainly have eroded to the surface in the near future.

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