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## **La Yerbabuena, Veracruz: A Salvage Investigation of an Olmec Regional Center near Pico de Orizaba Volcano**



**Research Year:** 1998

**Culture:** Olmec

**Chronology:** Middle Formative to the Late Classic

**Location:** Veracruz, México

**Site:** La Yerbabuena

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### **Introduction**

The specific objectives of the first field season of the La Yerbabuena project are:

1. The determination of the total area and the precise limits of the site by means of surface surveys and the completion of a topographic or planimetric map. Special

intensive surveys and some excavations will be done in areas where obsidian workshops are found.

2. The definition of the cultural chronology of the site using stratigraphic excavations in the ceremonial precinct and other sectors, especially residential zones. Hopefully these excavations will recover organic samples suitable for radiocarbon dating. The ceramics at La Yerbabuena are well preserved, and we hope to analyze the major pottery complexes in detail.
3. A crucial objective is the rescue of the remaining fragments of the Olmec monument in excavations which hopefully will recover key contexts concerning its chronology and its specific political or ideological functions.

*Submitted 04/01/1999 by:*

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## **Surface Surveys**

Our surface survey of the site is nearly complete and has defined a far greater area than we expected: La Yerbabuena has continuous surface ceramics and other archaeological materials along with many small mounds, platforms and other structures for an area of approximately 114.5 hectares. The limits of this area have been fairly well defined by us on Mexican government (DENTENAL) maps, but a better definition could be made if we finally get a photogrametric map of La Yerbabuena—INAH cancelled the budget for the air photos and photogrametric map this year, but I am requesting funds for these again for next year. (See maps locating La Yerbabuena within the Pico de Orizaba Region, [Figure 1](#) and [Figure 2](#).)

I doubt that the Formative settlement of La Yerbabuena covered all 114 hectares. In several months when we finish analyzing the surface survey materials, we will be able to determine better the size of the Formative occupation, but it definitely is very extensive: All of the monumental structures mapped in the central portion of La Yerbabuena almost surely are Late Formative and some probably have important Middle Formative components. (The area mapped covers 48.7 hectares.)



Figure 1. Map locating Tomatlán, Veracruz within the Pico de Orizaba Region.

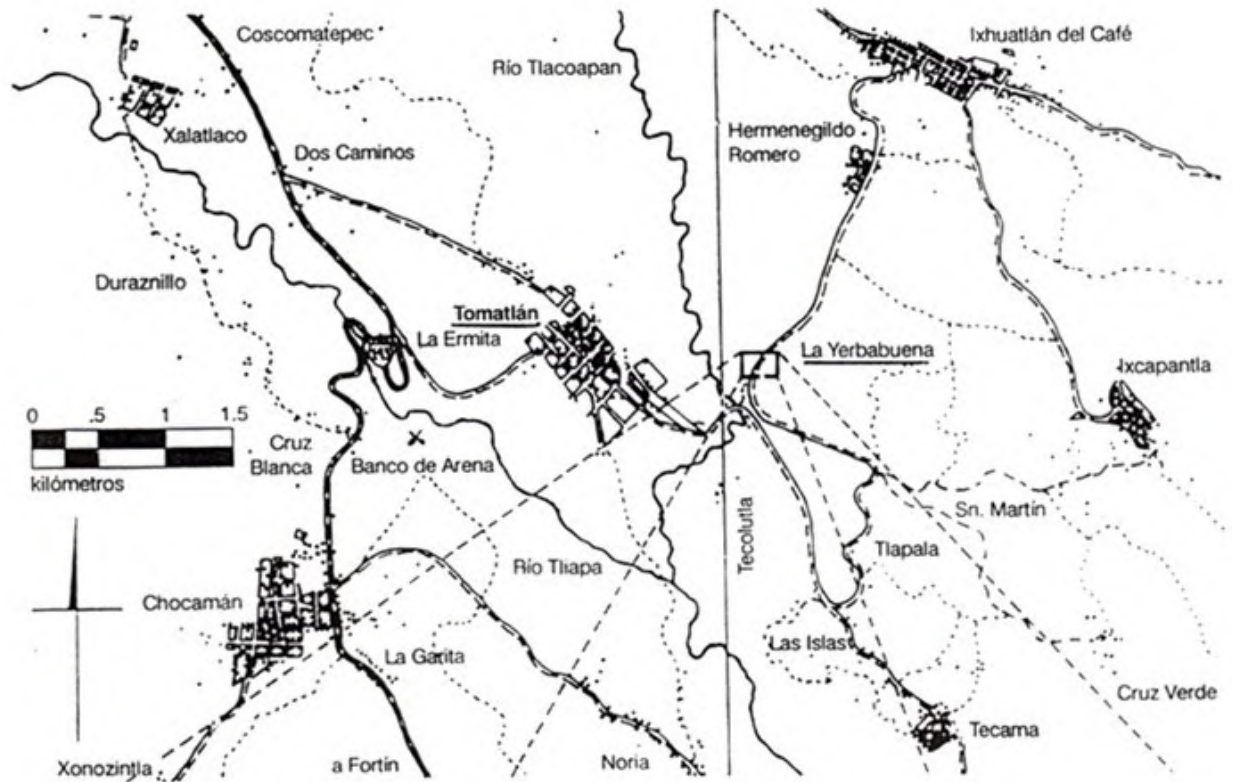


Figure 2. Map locating La Yerbabuena (Tomatlán, Veracruz).

## Chronology

The cultural chronology of La Yerbabuena has turned out to be more complex than we originally thought. On the basis of surface surveys, test pits and small excavations of residential structures, we have identified an occupation sequence spanning from the Middle Formative to the Late Classic (circa 1200 B.C.-900 A.D). The most extensive occupation probably corresponds to the beginning of the Late Formative (circa 400 B.C.). This occupation covers at least 60-80 hectares including all of the main ceremonial precinct. The Middle Formative occupation (to which the Monument 1 stela probably dates) generally is buried beneath later occupations throughout the site, but we have recovered substantial amounts of Middle Formative ceramics, figurines and other materials in excavations and some surveys; especially in the area of Pyramid 2.



**Figure 22.** La Yerbabuena (Unit 53). Early Classic Teotihuacán style figurine found in a trash midden above the floors of a Late Formative house.

There appears to have been important Early Classic (circa 200-600 A.D.) occupations in some sectors on the peripheries of the main ceremonial precinct, but so far we have not identified Thin Orange or any other Teotihuacán-related ceramics except for one Teotihuacán-style figurine shown in [Figure 22](#).

On the northwest periphery of the ceremonial precinct, we have found Late Classic reoccupations with substantial quantities of Fine Orange and some other fine paste ceramics. Some Late Postclassic (circa 1400-1500 A.D.) pottery was recovered from excavations in Unit 91 in this area, but there does not appear to have been an important Postclassic occupation at La Yerbabuena.

The excavations have recovered numerous carbonized wood samples which should make possible the radiocarbon dating of the principal occupation at La Yerbabuena.

## **The Obsidian Industry**

We have done some very thorough surveys and excavations of obsidian workshops at La Yerbabuena. We have identified over six hectares of probable Formative obsidian workshops located mainly to the southeast of the main ceremonial precinct. Some of our excavations in other sectors of the site also recovered obsidian tool production remains. The two most intensively surveyed workshops are in Units 70 and 74 south and east of Pyramid 2. We are currently excavating part of the workshop in Unit 70. Some Early Classic obsidian workshops also have been identified, and we will have to do detailed chronological analyses in order to distinguish correctly between the Formative and the Classic obsidian industries at La Yerbabuena.

Dan Healan of Tulane University spent a week at our field lab analyzing the obsidian remains from our surface surveys, and in preliminary studies he has identified at least three different industries: a casual flake industry which produced the irregular flake tools which are the most common obsidian artifacts at the site, a small percussion blade industry, and a prismatic core-blade industry. Healan observes that very little of the workshop debris possesses cortex (the original weathered surface of the natural obsidian blocks), which indicates that La Yerbabuena probably was receiving obsidian from intermediary workshop sites and not directly from the mines on Pico de Orizaba volcano. This suggests that even during the Formative, the obsidian exploitation system among the Olmec was fairly complex with specialists at two or three types of workshop sites interacting to produce finished obsidian tools. We need to survey the slopes of Pico de Orizaba to the west of La Yerbabuena in order to locate other kinds of Formative workshop sites that were processing obsidian blocks with cortex coming directly from the mines.

## **The La Yerbabuena Monuments**

The most difficult part of our project has been the investigation and rescue of the remaining fragments of the original La Yerbabuena monument ([Figure 10](#)). During the first five weeks of fieldwork, the family who owns the land south of Pyramid 1 where the monument was located refused to let us dig there. Only after much pressure and persuasion from committee members of Tomatlán's Casa de Cultura (along with an agreement to pay for "damages" to the field's sugar cane crop) were we allowed to start work.



**Figure 10.** The original fragment of Monument 1 of La Yerbabuena which is now in the plaza of Tomatlán, Veracruz.



**Figure 7. La Yerbabuena (Unit 80). Probable fragment of Monument 1 found in the pile of looters' rubble shown in Figure 6. This fragment had no surviving sculptured surfaces. It probably is part of the uppermost section of the stela.**





**Figure 8. La Yerbabuena (Unit 80). Fragment of the base of Monument 1 found in a modern canal 22 meters southeast of the rubble pile where the other monument fragment (Figure 7) was recovered.**



**Figure 9. La Yerbabuena. Close-up of the sculpted section of the fragment shown in Figure 8. The main human figure in Monument 1 probably was shown standing on this sculpted band. The round hole in the center of the band probably was made by a looter's chisel.**

The first day of work we recovered two fragments of the monument ([Figure 7](#), [Figure 8](#), and [Figure 9](#), shown above). The most important fragment consisted of most of the monument's base which contains the sculpted band on top of which the main figure on the monument probably was standing.



**Figure 5. La Yerbabuena. Pyramid 1-looking northwest. The stela (Monument 1) was on a large platform approximately 2-5 meters west of the tree in the lower right hand corner of the photograph.**



**Figure 6. La Yerbabuena (Unit 80). Pile of looters' rubble on the west side of the tree in Figure 5. At least one probable fragment of Monument 1 was found in this rubble.**

Excavations in a pile of looters' rubble ([Figure 6](#), shown above) and on the platform where the monument was located ([Figure 5](#), shown above, and [Figure 11](#) and [Figure 12](#), shown below) recovered several more probable fragments which have no surviving sculptured surfaces. So far, we have not located the sections having the lower torso and legs of the main sculptured figure. These fragments probably are buried less than one meter below the surface of Pyramid 1's platform which corresponds to Unit 80 in our project. None of the farmers at La Yerbabuena have seen these fragments since the field was transformed from maize to sugar cane cultivation in the early 1960s.



**Figure 11. La Yerbabuena (Unit 80). Excavation of a stairway on the platform where Monument 1 was located. Probably Middle Formative.**



Figure 12. La Yerbabuena (Unit 80). Close-up of the excavation of the stairway shown in Figure 11.

The geophysicists at INAH's Subdirección de Apoyo Académico decided not to do radar or magnetic prospection at La Yerbabuena because the site possesses so many natural igneous rock formations (including basalts) that the monument fragments could not be detected. We have spent over a week probing the entire area of Unit 80 with crowbar-like sharpened wooden poles to a depth of 70 cm., but have not found the missing sculptured fragments. It probably will be necessary to dig trench-like excavations over much of Unit 80 in order to find these fragments, but the land owners want between \$2,000-3,000 dollars for crop damages to do this. I will try to get money for this during our next field season.



**Figure 3. La Yerbabuena: View of main plaza and excavation locale (Unit 80) in front of Pyramid 1. Looking northwest.**



**Figure 4. La Yerbabuena. View of Pico de Orizaba Volcano from the west side of Pyramid 1. Looking northwest.**



**Figure 13. La Yerbabuena (Unit 80). Excavation in the platform where Monument 1 was located. An offering of a Middle Formative vase was found in the southeast corner of this excavation.**

The ceramics of the excavations on the platform where the monument was located date this structure to the Middle Formative (probably between 800-600 B.C.) which corresponds to the probable date of the monument, given its stylistic similarities with the Olmec sculptures at La Venta, Tabasco. We found a well preserved stairway ([Figure 11](#) and [Figure 12](#)) at the edge of the platform associated with an offering of a complete Middle Formative vase ([Figure 13](#), shown above, and [Figure 14](#), shown below).



**Figure 14. La Yerbabuena (Unit 80). Probable Middle Formative vase found as an offering in the platform of Monument 1.**





Figure 15. La Yerbabuena (Unit 80). Partial stratigraphy of the platform of Monument 1.

Seventy meters northwest of Pyramid 1, we found a second probable Olmec monument on the surface consisting of a small basin-like basalt sculpture ([Figure 16](#), shown below, and [Figure 17](#)). This monument may have been in its original location on the surface because it is directly aligned with Monument 1 along the Northwest-Southeast axis of the ceremonial center.



**Figure 16. La Yerbabuena. Probable Olmec monument found on the surface 70 meters northwest of Pyramid 1.**



**Figure 17. La Yerbabuena. Probable Olmec monument found on the surface 70 meters northwest of Pyramid 1.**



**Figure 18. La Yerbabuena. General view of the main plaza looking southeast from the platform on the southern edge of Pyramid 1.**



**Figure 19. La Yerbabuena. (Units 70, 71, 74). View of Pyramid 2 and an area of obsidian workshops that was surveyed and excavated. Looking northwest.**

## **Comments on the Plan of La Yerbabuena's Ceremonial Center**

The ceremonial center of La Yerbabuena has a well defined general orientation (40 degrees to the west of north). The major pyramids and platforms all are aligned on axes according to this orientation. Pyramid 1 at La Yerbabuena appears to have the same general plan (including a frontal platform) as the main pyramid of La Venta, Tabasco with its platform complex (Complejo C: [Figure 24](#)).

The stela (Monument 1) of La Yerbabuena was located in a nearly identical position to Stela 2 ("El Gobernante") at La Venta in relation to the main pyramid. Monument 1 almost surely represents the Olmec ruler ("El Gobernante") of La Yerbabuena. Looted offerings including serpentine celts have been reported both from Pyramid 1 and the area directly northwest of Pyramid 1 at La Yerbabuena in locations similar to some of the famous offerings at La Venta to the north of the main pyramid in Complejo A ([Figure 24](#)). (For lack of time and money, along with the desire not to inspire looters after we leave the site this year, we have not yet attempted to excavate possible offering complexes at La Yerbabuena. We plan to investigate the offerings during the next field season.)

It is possible that the Olmec intentionally planned the La Yerbabuena ceremonial center as a small provincial version of the great ceremonial precinct at La Venta.



**Figure 21. La Yerbabuena (Unit 53). Terminal Formative teapot-shaped vessel found in an offering above the floors of a Late Formative house.**

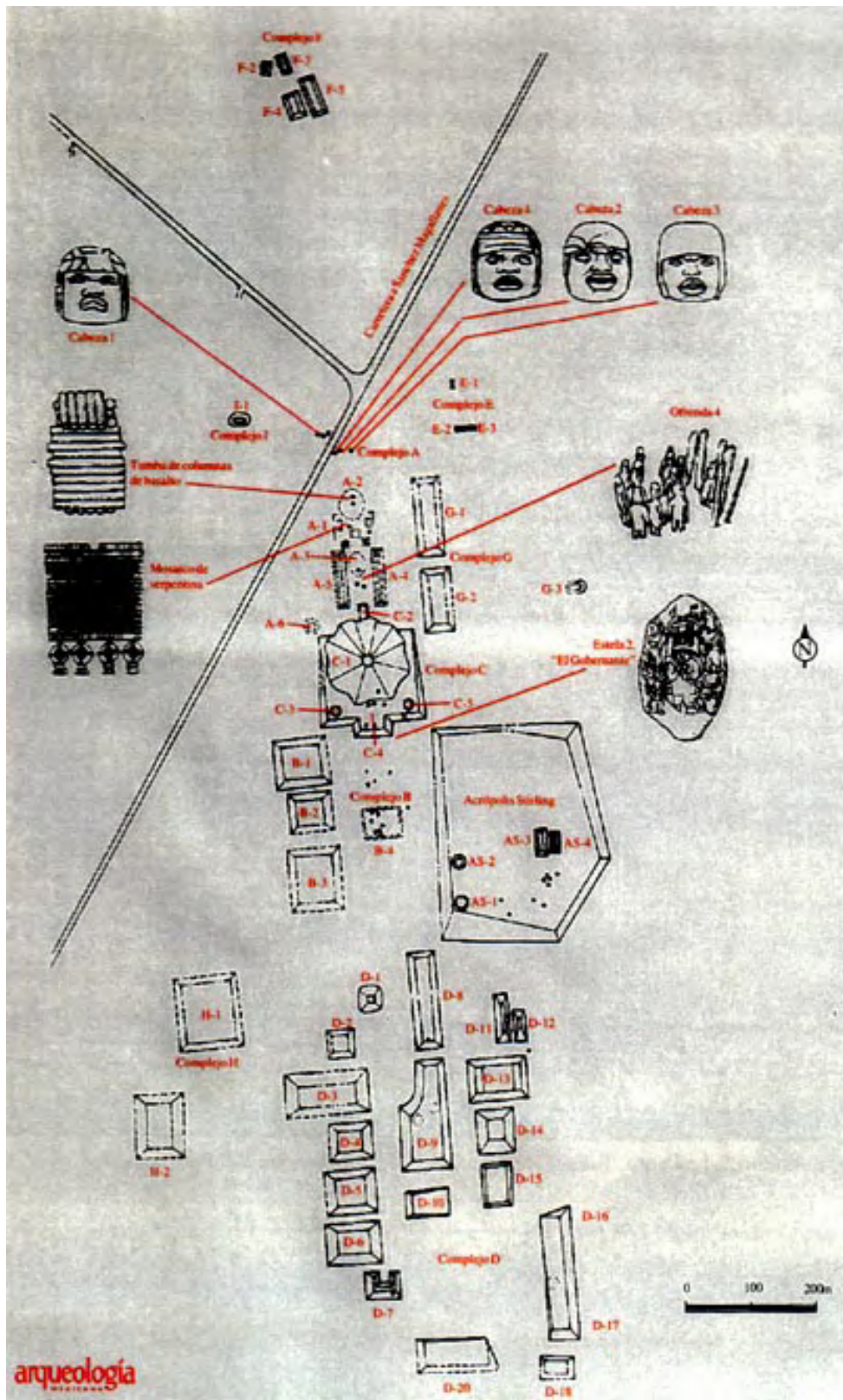


Figure 24. Map of La Venta, Tabasco. (From: Rebecca B. González Lauck, "La Venta." *Arqueología Mexicana*. 1995. Vol. II, Num. 12. p. 39).

## **Mecanized Agriculture and the Destruction of La Yerbabuena**

Over the last three months, we have been able to document better the processes related to mecanized agriculture which have destroyed or damaged parts of La Yerbabuena. So far, chisel plowing and the use of bulldozers to improve agricultural land has occurred in only a few hectares of the site. These machines are being used mainly in sectors where the farmers are converting coffee plantations to sugar cane growing areas. But this process probably will continue because the prices of coffee have fallen greatly over the years, and sugar cane generally is a more profitable crop in this region.

The recent agricultural history of the La Yerbabuena area is very complex. Even though nearly all the site is currently being used for coffee and sugar cane cultivation, these crops were introduced only between 30-40 years ago. During the 19<sup>th</sup> and the 20<sup>th</sup> centuries until the 1950s, most of the site was used to cultivate maize, beans and tobacco. These recent changes in crops along with the increased use of machines have damaged many ancient structures. Through interviews with farmers, we also have documented some cases (mainly over the last ten years) of large structures, including the pyramid in Unit 91, that were dismantled without machinery (using picks and shovels) in order to enlarge sugar cane fields. We are locating these destroyed structures on maps and will try to verify their existence via excavations and studies of older aerial photographs.





**Figure 20. La Yerbabuena (Unit 91). Excavations on the eastern edge of a pyramid that was destroyed by farmers about ten years ago.**

Most landowners at La Yerbabuena have been very cooperative with the goals of our project, and they along with the committee members of the Tomatlán, Veracruz Casa de Cultura seem to have scared off looters from the site. We have found only one new looters' pit at the site (on the west side of Pyramid 1) which apparently was dug about six months before we started fieldwork.



**Figure 23.** View of Pico de Orizaba Volcano from a forest with izote palms near a coffee plantation on the southern edge of La Yerbabuena.

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### **Source Cited**

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1996 "La Yerbabuena, Veracruz: un monumento olmeca en la región de Pico de Orizaba." In *Arqueología* 16:15-27.