Las Bocas, Puebla, Archaeological Project

Translation of the Spanish by Alex Lomónaco

Research Year: 2000
Culture: Olmec
Chronology: Pre-Classic
Location: Puebla, México
Site: Las Bocas-Caballo Pintado

Table of Contents

Introduction

The Third Field Season, 2000, of the Las Bocas, Puebla, Archaeological Project was completed thanks to the financial support provided by the Foundation for the Advancement of Mesoamerican Studies, Inc., (FAMSI), through Grant No. 99041 of December 28, 1999, and the approval of INAH's Archaeology Council, written communication number C.A. 401-36/0128 of February 9, 2000.

The archaeological fieldwork explorations were carried out from May 4 to June 17, 2000, with the authorization by the Direction of the DICPA-INAH, commission document number 401-7-1/228 issued on April 27, 2000, coordinated by archaeologist María de la Cruz Paillés H. and with the support of the following archaeology students from the Universidad de Las Américas: Verónica Velasquez Sánchez-Hidalgo and Andrée Bojalil Daou.

Submitted 01/25/2001 by:
María de la Cruz Paillés Hernández
hgrmx@hotmail.com

Preface

The archaeological region known as Las Bocas is located in the southern portion of the state of Puebla, 7 km east of Izúcar de Matamoros, along the road that links this county capital with the town of San Juan Epatlán, in the vicinity of the town of San José Las Bocas.

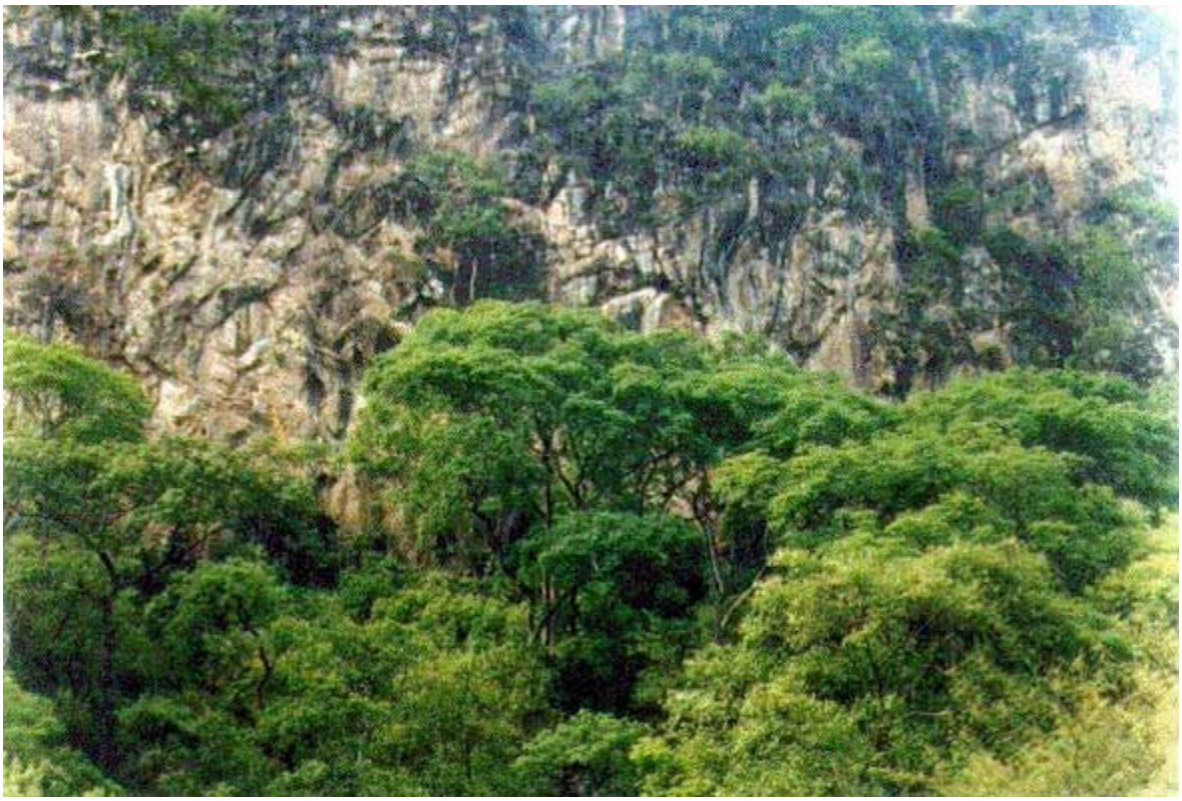


Photo 1. Caballo Pintado, located in the fluvial terrace contiguous to the NW slope of the Teponaztle hill.

During our research, we were able to corroborate that the pre-Hispanic settlements of the Formative Period are found in the region of Caballo Pintado, located in the fluvial terrace contiguous to the NW slope of the Teponaztle hill, at the SW edge of the town (Photo 1, shown above, and Photo 2, below). Therefore, and even though in literature the site is widely known as Las Bocas, we have chosen to call it Las Bocas-Caballo Pintado.

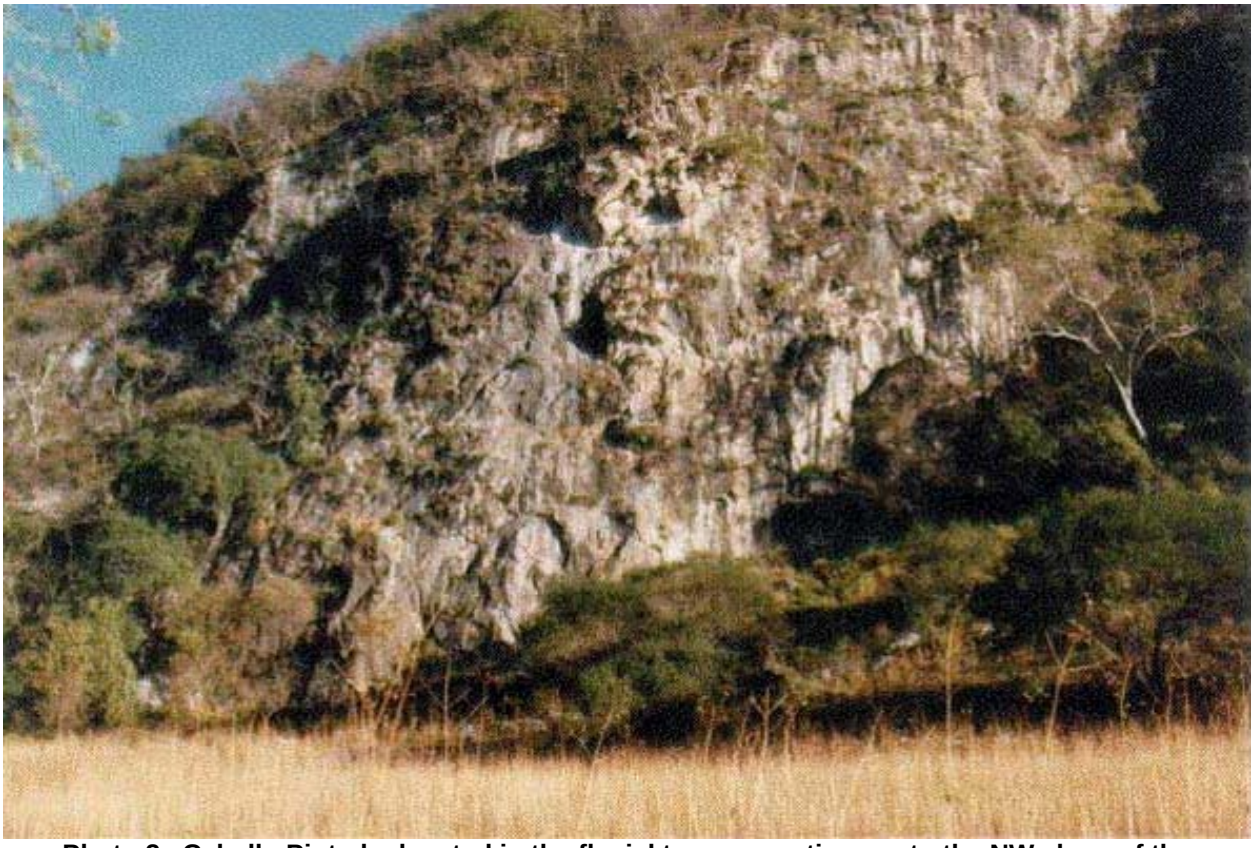


Photo 2. Caballo Pintado, located in the fluvial terrace contiguous to the NW slope of the Teponaztle hill.

Prior to our archaeological exploration works at the site, the only official information available regarding this region was found on Report No. 5, a two-page report submitted by David Grove to the head of pre-Hispanic Monuments in 1967, file B/311.47 (Z47-39)(02)/-1, Technical Archive, Coordination of Archaeology, INAH. In this report, Grove says that he cancelled his plans for excavation at Las Bocas because Román Piña Chan, from the National Museum of Anthropology, was simultaneously conducting excavations at the site area locally known as Caballo Pintado, the results of which we failed to find in any written report.

The archaeological site of Las Bocas-Caballo Pintado is one of the few agricultural villages from the Formative Period that still exists in México's central altiplano (Paillés, 1995) as most of them have disappeared, devoured largely by the urban patches (Sanders, 1997); such was the case with Tlatilco (Piña Chan, 1958; García Moll, 1989) and Tlapacoya (Porter, 1967; Niederberger, 1976; 1987) in the greater urban zone of Mexico City, Gualupita (Vaillant and Vaillant, 1934) in Cuernavaca, and others whose past existence we are perhaps unaware.

Prior to our explorations at Las Bocas-Caballo Pintado, the ceramic objects considered to have "originated" at this archaeological locality represented the sole information used

to evaluate the Olmec dilemma in southern Puebla and its impact on the contemporary communities of the Mexican Basin (Paillés, *op. cit*.).

Due to its particular geographical location in the Mexican central altiplano, in the middle of the routes that link the Gulf Coast, Guerrero, Morelos and Oaxaca, one of the project proposals was to understand the strategic role that this village probably played during the Formative Period as a place of exchange for raw materials and manufactured goods.

The site of Las Bocas is so far the most disseminated archaeological place from the Formative Period in the entire state of Puebla (SEP, 1998: 82-83), as are the materials that have seemingly originated there, since most of them, in spite of having been taken out in illegal excavations, are considered "examples of the Olmec presence outside the Gulf Coast's nuclear zone" (Grove, 1996: 105-117).

As stated above, the strategic geographic location in the midst of the major exchange routes that linked the altiplano, the Gulf Coast, Guerrero and Oaxaca, is reflected in the archaeological materials recovered during the 1998 excavations and the subsequent explorations conducted in 2000, many of which are undoubtedly Olmec in style (Paillés, 1999; Paillés, Velasquez and Bojalil, 2000).

Although the precise location of the site was not known, it had been previously mentioned in countless publications, but it was only following Michael Coe's publication of *The Jaguar's Children* in 1965, in which a vast collection of archaeological objects from Las Bocas, mostly ceramics, was first illustrated, that the site acquired international fame.

With the exception of the excavations we have previously referred to, conducted by Piña Chan at the site of Caballo Pintado during 1967, which included only four test units the results of which have remained unpublished, we can assert that it was only in 1995, when we first inspected the site, that the site was given official attention by INAH. I would also like to say that the proposal for the Las Bocas Archaeological Project was first submitted by me in 1994; however, it wasn't until 1997 when INAH finally granted financial support in the amount of $30,000 to undertake the First Field Season.

In 1997, as a result of surface surveys and of the archaeological materials recovered, we believed that the archaeological site extended towards the southwest of the town along two fluvial terraces of the Atotonilco River, of which the one contiguous to the Teponaztle hill yielded a larger concentration of materials, and was therefore surveyed and delimited. Thus, we considered this terrace place at the foothills of the Teponaztle, locally known as Caballo Pintado, to be the settlement's nuclear zone, without excluding a future inclusion of the lower terrace; therefore, and to protect it, an initial delimitation proposal for the archaeological site was submitted, which included a surface of 18,619.91 square meters (Paillés *et al*., 1997).

Throughout the Third Field Season, 2000, we realized that the settlements of the Formative Period were located on the first fluvial terrace of the location known as

Caballo Pintado, with no occupation of the lower terrace on the banks of the Atotonilco River. Therefore, and following the last explorations carried out in 2000, we decided to call this archaeological site: Las Bocas-Caballo Pintado.

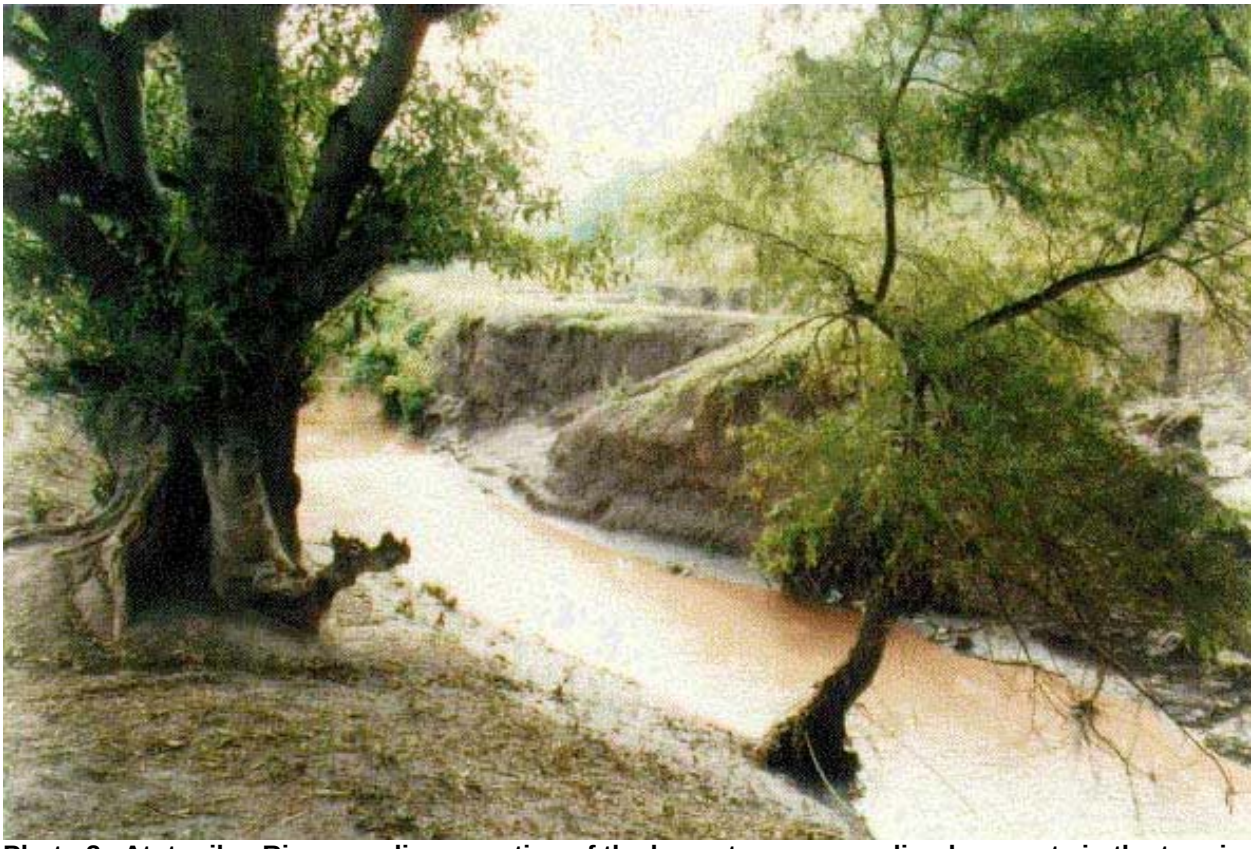


Photo 3. Atotonilco River, eroding a portion of the lower terrace revealing large cuts in the terrain.

We noticed that the archaeological materials recovered in 1997 at the lower terrace actually came from Caballo Pintado, and were dumped on this lower terrace when the surrounding watering channel was opened with heavy machinery. This has happened because the past two rainy seasons were very intense and have considerably augmented the flow of the Atotonilco River, eroding a portion of the lower terrace and revealing large cuts in the terrain. These cuts exhibited the natural stratigraphy only, and no evidence of contexts or archaeological materials (Photo 3, shown above, and Photo 4).

Photo 4. Atotonilco River, eroding a portion of the lower terrace revealing large cuts in the terrain.

Prior to undertaking the exploration works we had requested authorization from the land owner, who mentioned that he had not worked the land at Caballo Pintado for the past two years, however, due to the lack of funding the opportunity to carry out the Third Field Season in 1999 was lost and we had to postpone until this year, 2000, when we were granted financial support by FAMSI, Inc. Since the land surface was clean, we were able to notice an E-W slope, in addition to the N-S slope recorded during our 1998 season (Paillés, 1999).

Acknowledgements

First, we would like to extend our gratitude to the Foundation for the Advancement of Mesoamerican Studies, Inc., (FAMSI), and to its Director Dr. Sandra Noble, for Grant No. 99041 in the amount of $7,800 U.S. dollars received to undertake work for the Las Bocas Archaeological Project, Third Field Season 2000. We are also indebted to the Director's Assistant, Rita Fleming, whom on numerous occasions replied kindly to our queries and doubts on the appropriate procedures for obtaining the grant.

For their trust, we want to thank FAMSI's Board of Directors: Lewis Ranieri, Margaret Ranieri, Elizabeth Barbera, Richard Diehl, Marilyn Goldstein, Barbara Kerr, Justin Kerr,

Sandra Noble and Dorie Reents-Budet, for the approval of our project and the granting of their financial support.

We want to extend a very special acknowledgement to Dr. William T. Sanders, from Pennsylvania State University, who since 1995 when we initiated our investigations, has enthusiastically and generously supported our project, whose primary objective was the study of a community from the Formative Period located in the Mexican central altiplano, a region poorly known to archaeology. In addition to his constant advise we also thank him for his suggestion to apply for the FAMSI, Inc. grant, as well as for his recommendation of the Las Bocas Project for obtaining the grant.

We are indebted to Dr. Mercedes de la Garza Camino, Director, National Museum of Anthropology and to Dr. Jaime Litvak King, Institute of Anthropological Investigations, UNAM, who strongly recommended our research proposal to FAMSI, Inc.

We also wish to thank Lic. Sergio Raúl Arroyo, Technical Secretary, INAH, for helping us with the formalities of the budgetary execution regarding the funds granted by FAMSI, Inc.

Also, we are indebted to the Director of the Archaeology Council, Eng. Joaquín García Bárcena for his recommendations regarding our work in this season, and to the DICPA representatives before the Council, Prof. Leonor Merino Carrión and Archaeologist Luis Alberto Martos.

We are particularly grateful to Prof. Felipe Solís Olguín, Assistant Director of Archaeology, National Museum of Anthropology, for the facilities provided, and to Computation Chief Jenny Piña, together with the staff and students of the Computation Center of this institution, for their advises and support in the preparation of this report.

We thank Prof. Hernado Gómez Rueda, from DICPA, for his excellent pictures of archaeological materials and his pertinent observations regarding the Formative communities in Mesoamerica.

For the second time, ENAH's P.A. José Rodríguez Yc has been responsible for the analysis of the chipped lithics included in this report. His expertise with this kind of Formative material comes from his study of grinding instruments from the Basin of Mexico present in the collections of the National Museum of Anthropology, and from the analysis of artifacts recovered at Las Bocas in 1997. To José, our most sincere thanks for his help.

Among the academicians that have encouraged our project, there's a very special place for Prof. Josefina Bautista, Director of Physical Anthropology, INAH, who is presently studying the bone remains from Las Bocas' Burial 2; we wish to thank her for her enormous enthusiasm and her invaluable knowledge of the ancient populations that once inhabited our country.

To Pablo Brontese Vicari, thanks for the drawings that illustrate Plate 2, Plate 3 and Plate 4.

Our most sincere thanks go to Eng. Luis Téllez, Head of the Technological University at Izúcar de Matamoros, and to Eng. Victor Luna and Lic. Dolores Ceballos Bravo, also from that institution, for their interest in our investigations and their subsequent dissemination, for inviting us to participate in their academic gatherings, and for sharing their facilities with us.

We are indebted to our workers from the town of San José Las Bocas for their constant support to our work. Through many days of hard work and with the difficulties we had to face to access the archaeological site, they helped us recover a fragment of their region's history, showing at all times a great respect for our explorations and great skill and care during the excavations and handling of the materials. Warm memories of the pleasant moments of rest we shared under the shadow of a tree, while talking about the ancient inhabitants of the region and enjoying the delicious "taquitos" they offered us for breakfast, will forever remain with us.

Photo 5. 4th, 5th and 6th graders from the Benito Juárez school in San José Las Bocas visit the excavations.

We also wish to thank the teachers of the Benito Juárez school from the town of San José Las Bocas for the visit they paid to the excavations with the 4th, 5th and 6th graders of the elementary school, and in so doing, they helped us bring awareness to

the people about the value of the archaeological heritage of their region and the importance of its study and preservation (Photo 5, shown above).

Problems Faced

Due to a delay of a month and a half by INAH in delivering the funds granted by FAMSI, Inc., that I deposited myself at the Institute as Third Party Contributions to be further disbursed according to procedures, regulations and dispositions established by INAH, we had to initiate our field work on May 4, 2000, well into the rainy season, which hindered access to the archaeological site and created unnecessary difficulties for our explorations.

For this reason, we were forced to cover the excavated areas with tarps and several roofs to protect the fragile archaeological contexts (Photo 6), which once exposed by the excavations risked being washed away or deteriorating.

As days went by and rains grew stronger, access to the site by the laborers with the tools they used for the excavations became increasingly difficult. When we began work, we would cross the Atotonilco River stepping on a number of stones that were placed at the river bed, but later these were covered by the increased water flow, and then we had to use the trunk of a fallen tree as a bridge to reach the location of Caballo Pintado. During our last week of work, the strong water currents carried the trunk away, and from then on we had to take long walks through very muddy terrains to finally reach the site, crossing the river towards the east edge of the town of San José Las Bocas.

In addition to the natural events, one of the major social inconveniences all across Izúcar de Matamoros is the large amount of kidnappings perpetrated by criminal bands, as this is a passing zone between the states of Morelos, Guerrero and Oaxaca. During our explorations, several inhabitants of the municipio were kidnapped, and during the last two weeks of work, helicopters from the state of Puebla's Attorney General's office would fly over our excavations at different times of the day, in an attempt to spot the criminals who customarily hid in the many caves from the nearby hills of the Caballo Pintado region.

Photo 6. Tarps covering the excavated areas to protect the fragile archaeological contexts.

Location and Setting

Location

The area delimited in 1997 is located between the UTM coordinates E:561487.40 and N:205841.10, and up to the UTM coordinates E:56498.90 and N:2056892.60, with a total surface of 18,616.91 square meters, and an elevation that ranges from 1280 to 1300 meters above sea level. These data were recorded in the Topographic Stereography of the Las Bocas Archaeological Site by Architect Oscar Reyes, during the same year (Paillés *et al*., 1997).

Physiography and Geology of the Region

The physiographic region of our study area is located in the Province of the Sierra Madre del Sur, considered the most complex and least known of the country. Within the state of Puebla, it is partially represented by seven sub-provinces. The town of Izúcar de Matamoros is located in the sub-province of Guerrero's sierras and valleys; here, the main system of topomorphs consists of sierras with stretched-out slopes, formed by continental sedimentary materials whose maximum altitude climbs to 2,060 meters

above sea level; there are also topomorphs denominated sloping sierras in some plateaus, valleys and hillocks.

Hydrographically, it belongs to the upper basin of the Balsas River, whose regional tributaries are the Atoyac and Nexapa rivers, the latter one enriched by the flow contribution of the Atotonilco River, which runs around the N and W slopes of the Teponaztle hill nearby the site of Las Bocas-Caballo Pintado.

The geology of the region is composed of Mesozoic sedimentary rocks, abundant in the Sierra Madre del Sur. The region includes a varied lithology of the Precambric era with traits of metamorphism, jointly forming the Acatlán Complex. Deposits of lead ores were exploited in the region (79 tons); silver (37 and 14 kg); copper (2 tons) and gold (2 to 1 kg); these figures represent the yearly production (INEGI, 1987).

Geology of the archaeological site

With INEGI's Geological Chart for the State of Puebla we were able to establish that the region of Izúcar is formed by sedimentary and volcano-sedimentary rocks from the Quaternary (Q). The Grande hill, north of the archaeological zone of Las Bocas, is formed by rocks from the Lower Cretaceous (Ki), and is also of a sedimentary and volcano-sedimentary nature. The mountain known as El Teponaztle, at whose southwestern foothills Caballo Pintado is located, is formed with sedimentary and volcano-sedimentary rocks from the Lower Tertiary (Ti). Finally, the region of Epatlán is formed by sedimentary and volcano-sedimentary rocks from the Paleozoic (P).

Soils from the region

The valleys of Izúcar and Epatlán are physiographically located within the Mexican plateau at the southernmost region of the Neovolcanic Cordillera. In the basins of the Amacuzac and Nexapa rivers, there are extended and sloping plains, formed by large volcanic ash of alluvial fans dragged by the streams that descend from the Popocatépetl volcano. Due to the fertility of the volcanic alluvium, the deposits within the valleys of this area of more even terrain, have been major agricultural centers for growing tropical and subtropical crops, and represented a very important region for the domestication of corn and the practice of irrigation agriculture in pre-Hispanic times (West, 1964).

The soils correspond to the Vertisole groups (Vp+eHh+1) made of sandstone, limestone and basic igneous stones, which due to intemperization, have formed moderately fine materials which provide soils with a clayish texture and present a large amount of calcium, magnesium and potassium. The soils of the region abound in extrusive, acid, igneous rocks of the Ts type (Igea) integrated by acid tuff in pseudo-deposits of approximately 2 mm and some intercalated medium tuff with pumicitic lapilli. Basalts from the Upper Tertiary are also found on Ki limestones (c2) of the Lower and Upper Cretaceous.

Climate

The climate of the region corresponds to the Aw (w) type, a warm subhumid climate with annual rainfalls below the 800 mm. Average temperatures range from 22° to 26° C, with droughts throughout the winter months (West, *op. cit*.).

Vegetation

The local flora is dominated by the type known as Low Jungle Caducifoliae, which does not grow beyond 10 m in height. The following secondary vegetation is also present: arboreal, shrub-like and herbaceous. The genres and species correspond mostly to those reported in INEGI (1987). The forest is used to serve domestic needs, while a number of species have a medicinal use.

Agriculture is temporal and is practiced manually, seasonally and mechanized through a continuous artificial watering system controlled from the lower parts of valleys.

Research Background

Second Field Season, 1998

The Second Field Season of the Las Bocas, Puebla, Archaeological Project was authorized by INAH's Archaeology Council through official communication No. C:A: 401-36/1337 of November 27, 1998, and was carried out from December 1-21, 1998.

During this field season several archaeological test units were excavated with the purpose of gaining knowledge on the contexts and the overall nature of the site, to thereafter define the potential areas where we would carry out extensive exploration during the third field season, scheduled for last year (1999), but not carried out due to the lack of financial support from INAH.

In spite of how limited the excavations turned out to be, because of the poor budget assigned in 1998 ($23,000 pesos), and, in consequence, because of the time programmed for the original field work reduced to 21 days, the results obtained from the test excavations were highly satisfactory, and have allowed us to evaluate some of the archaeological contexts from Caballo Pintado. Thanks to these test excavations, we have succeeded in identifying different activity areas in part of what once was a Formative village (Photo 7, and Photo 8, below).

Photo 7. Test excavation.

Photo 8. Test excavation.

Previous archaeological works for the survey and delimitation of the site, allowed me to evaluate the potential areas for test excavations on the field in 1998 at the site of Caballo Pintado. Thus, I was able to select an area with no looting disturbances, to later draw out a transect with three alternating pits: I, II and III (Paillés, 1999).

A 53 m long transect was set out with a 15° deviation from the north, starting at the watering channel on the northern bank of the terrace towards the slope of the hill known as El Teponaztle and to the south, along which three test units were placed at regular intervals (Photo 9).

Photo 9. Test units looking towards El Teponaztle.

During the excavations and with the purpose of understanding the archaeological contexts that were gradually being revealed, Pit III was extended one meter to the south. This extension of Pit III was denominated Pit IV, in an attempt to maintain an adequate control of the archaeological materials recovered in that section. Also, Pit V was excavated towards the slope of the Teponaztle hill, with a course of 227° course from Station 1 of the surrounding polygonal with which the archaeological zone was delimited in 1997.

The results of the 1998 season are available in the Technical Report submitted to the Archaeology Council, INAH (Paillés, 1999).

Research Proposal for the Third Field Season, 2000

Still, in spite of the destruction of several archaeological contexts by looters, we thought that there were areas susceptible to exploration at the site of Caballo Pintado, and consequently, we felt it was urgent to proceed with the archaeological exploration works interrupted in 1999 due the lack of financial resources we had requested from INAH.

A consequence of having interrupted the archaeological explorations in 1999 was that upon initiating our field work this year, thanks to FAMSI Inc.'s financial support, we observed the destruction of additional archaeological contexts due to new illegal excavations carried out at the site. Like we have explained elsewhere, the site has been systematically looted from the 1960s to the present, with the purpose of selling these archaeological objects which are in high demand in the illicit commerce of archaeological artifacts because they can bring large amounts of money in auction houses abroad (Gamboa, 1999; Sotheby's: Pre-Columbian Art, 1998: 125, 126, 196, figs: 285 and 295; Sotheby's: Pre-Columbian Art, 1999: 22, figs: 61 and 62).

Nevertheless, as we have concluded after the first inspection for the Las Bocas Project in 1996, and with the results obtained in subsequent explorations made in 1997 and 1998, we disagree with Grove's point of view (1996: 108) when he says, "it is too late to conduct research in this ancient village [Las Bocas] because the archaeological deposits have been completely destroyed by the intensive, illegal excavations"…

Precisely, because the site was heavily looted and according to what we were able to detect through our archaeological works, a number of important buried contexts and structures are still in place. These circumstances urge us, from the scientific and ethical perspective, and in our role of professional archaeologists, to carry out intensive and extensive explorations at Las Bocas-Caballo Pintado, aimed at recovering every possible bit of information on a village from the Formative Period at the Mexican central altiplano, perhaps the last opportunity at hand to achieve this goal.

With the results of the second season which revealed evidence of well preserved remains, we proposed to carry out extensive excavations in the areas nearby pits II, III and IV, aimed at recovering evidence of activities related to a possible household, data regarding work areas, particularly lithic and pottery workshops, and to liberate an earthen platform.

As Manzanilla (1993: 15) has mentioned, the study of activity zones has become an area of particular interest within archaeology. This study area has been denominated "domestic archaeology" or "context archaeology", and is mainly concerned with understanding the distribution of repeated human behavioral patterns. A household is the spatial unit representing the minimal archaeological record where raw materials, artifacts and associated debris have concentrated.

Simultaneously, we proposed to continue with the test units program in other zones of the site in an attempt to locate other occupational areas, particularly the area of the Teponaztle. However, the Council of Archaeology suggested that during the 2000 season, only the areas close to pits II, III and IV were to be excavated.

Third Field Season, 2000

Activities

The exploration works began by rectifying the line corresponding to the transect along which pits I, II and III had been alternately excavated, to use it as a base line to lay out a grid and place in it the extensive excavations of this season.

In the 1998 season we had placed two bench marks built with cement and iron rods at each end of the transect; the one corresponding to the northern station located towards the bank of the fluvial terrace was still in place, while the one corresponding to the southern station had been removed.

To rectify the transect line we proceeded to measure the distance between the pits excavated in 1998, starting at the north station and post marking the SE edge of each one of them, thus obtaining a measurement of 44.20 m, to which we added 5.80 m so that that the base line of the transect had a distance of 50.0 m in a N-S direction. There, a bench mark with iron rods and cement was placed, to replace the lost southern station.

Once the transect was verified, we saw that the distance between pits II and III was 18.0 m, too long a stretch of land to extend an excavation in-between, considering we only had 45 days for our explorations. Calculating the volume of earth removed in 19 days of work during 1998, and because of the archaeological contexts we had detected during that season, which had forced us due to their nature, to carry out a very slow and careful excavation, we decided to only extend the excavations of 2000 to the areas nearby pits III and IV.

Excavations at Unit 1

The transect used to place the test pits in 1998, which runs in a N-S direction with a 15° deviation, rectified, was the base line on which we laid out the grid for the excavation of Unit 1. Another line was laid out in an E-W direction based on the south wall of pit IV excavated in 1998. The grid was internally divided in squares measuring 2 m × 2 m at the sides, for a more accurate record of the excavations. Based on both lines the first section of excavations was delimited, contiguous to pits III and IV excavated in 1998, measuring 6 m in a N-S direction, and 4 m in an E-W direction. We have used a nomenclature for the charts, made of numbers and letters.

Excavations began emptying pits III and IV utilizing its walls as stratigraphic references. As we did in the 1998 season, we excavated with metric levels of .20 cm for a more accurate control of the materials, referring to and recording the natural, cultural stratigraphic layers as well as other evidence of human activity, such as hearths. Soil colors were defined by using the Munsell Color Chart (1996). The consistency of the soils was made on the field by means of macroscopic observations directly made in the course of our explorations, thus the use of very broad terms such as soft, compact, and friable (Limbrey, 1975).

From metric level 1, levels of .20 cm were dug in each of the A-B squares with the purpose of exposing the different occupations. Based on the analysis of ceramic materials from the 1998 season, we know that those deposited in the first level date to the Classic and Postclassic periods and are mixed, thus preventing their use as diagnostics; besides, the land surface was removed with heavy machinery back in 1994, and the occupations corresponding to those periods were destroyed.

Photo 10. Earthen floor with posthole, Floor 1, Unit 1.

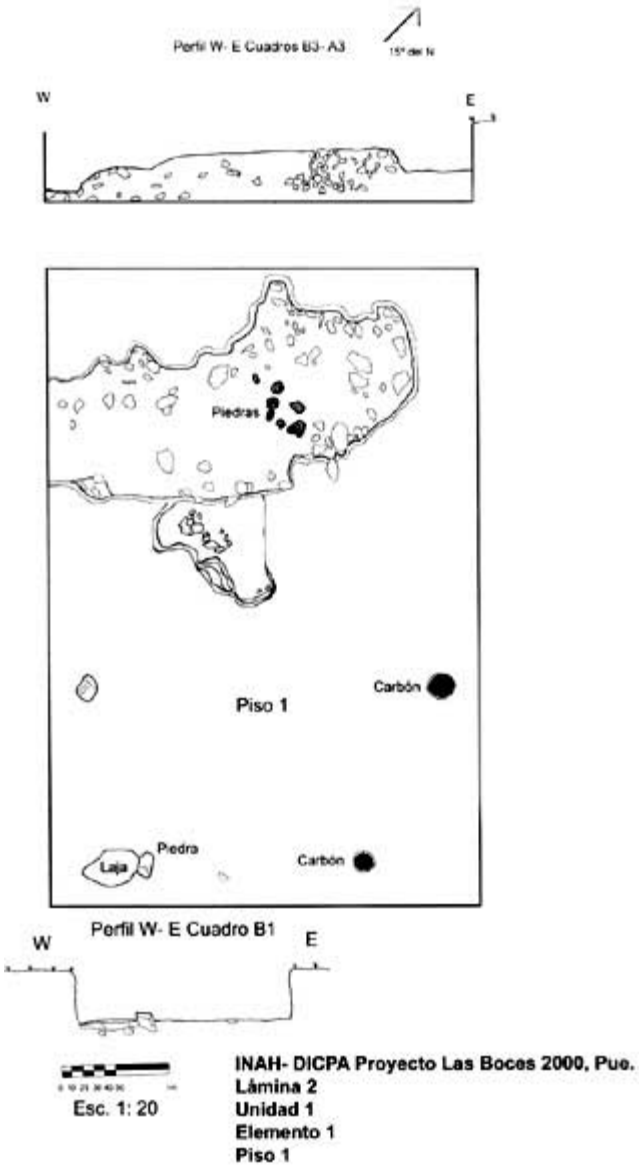
Once we reached metric level 3 (.40 - .60 cm) in the A-B squares, the earthen floor was exposed with small fragments of mixed limestone, where in the prior 1998 season postholes were found (Photo 10, shown above) . This leads us to assume that possibly the excavated area was the patio or outer lot of a household where different activities

might have taken place, for example stone cutting, or the carving of lithic objects (Photo 11).

Photo 11. Excavation of Floor 1, Unit 1.

This floor was recorded as Floor 1, and extends over the entire excavated area (Plate 2). Above this floor and in a northern direction, Feature 2, from grid squares A3 and B3 was explored, which consisted of an accumulation of limestone fragments that were possibly crushed to be further mixed with clay to flatten the floors, together with charcoal remains, metate fragments, carving debitage in the form of silex and obsidian chips, and cobbles (Photo 12, shown below). Floor 1 is composed of a mix of clay with ground limestone, and the samples taken from it during the 1998 and 2000 seasons confirm that the materials used were the same.

Photo 12. Feature 2, limestone fragments mixed with charcoal remains, metate fragments, and carving debitage, from grid squares A3 and B3.



According to Barba (1990), this type of floor is frequent in archaeological contexts of the Formative Period in Mesoamerica, and through phosphate analysis one can identify a number of activity areas, so upon liberating Floor 1 in its full extension, we took phosphate samples every .50 cm, from each square of the grid, to later send them to a laboratory for analysis.

On Floor 1, square B1, a flagstone that we recorded as Feature 1 (Photo 13, below) was found. Since the archaeological contexts are practically unknown because in the 1998 season only test pits were excavated, by doing an extensive excavation we now had the opportunity to appreciate the different activity areas and their interrelation through a thorough recording of the features exposed. The proximity of the flagstone to the postholes, their location at a possible patio or lot, and the fact that the flagstone was

carved, led us to think it could be the lid of a troncoconic, similar to those explored at the site of Gualupita Las Dalias, as a part of the Puebla-Tlaxcala archaeological project (García Cook and Rodríguez, 1975).

Photo 13. Feature 1, a flagstone, found in Floor 1, square B1.

Once Features 1, and 2, and Floor 1 were recorded, excavation continued downwards, bringing our work front closer to the flagstone. However, no troncoconic formation was found, and we observed that the flagstone had merely been tossed on the floor. A fragmented plate, that corresponds to Feature 3, was excavated (Photo 14, below) during the removal of Floor 1, it was in square B2, at a depth of .49 cm, and adjacent to Feature 2. The plate was surrounded by remains of ash, charcoal and charred earth which intruded towards the west into the non-excavated area. Throughout the extension of Floor 1, abundant fragments of figurines and ceramics were found.

Photo 14. Fragmented plate found in square B2.

The excavation of Unit 1 was extended towards the SW, as we observed that there was a slight elevation in the terrain. When the grid was once again laid out, we took the transect as the N-S base line, and the south wall of squares A1 and B1 as the E-W base line, so these squares were given the following nomenclature: D-3, D-4, E-3, E-4, F-3, F-4, and G-4.

It is important to mention that the excavations in the A-B squares were not interrupted, and both fronts of work remained active at the same time, so as to correlate the stratigraphy and the different occupations of Unit 1.

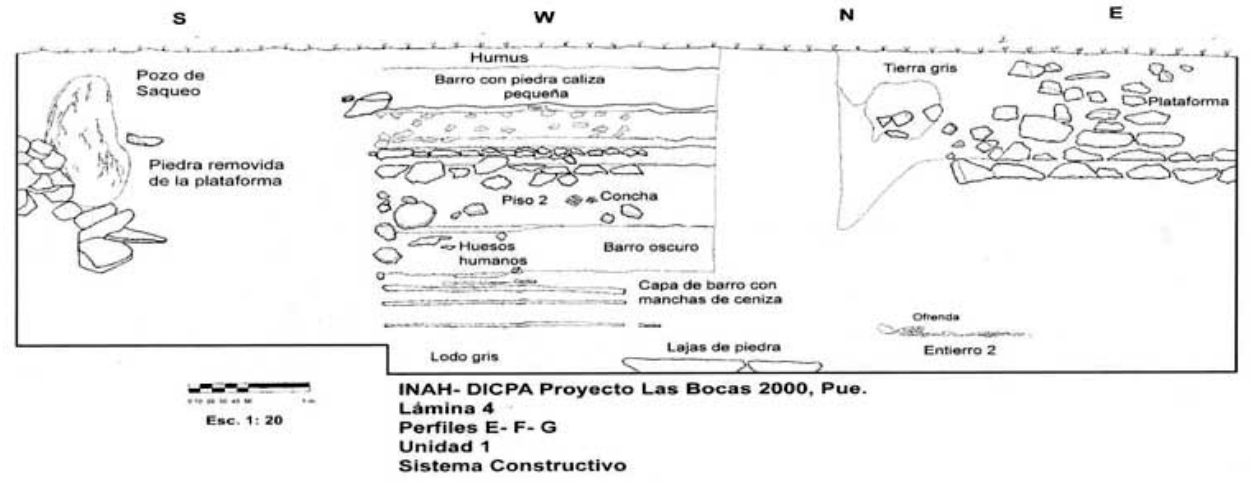
Photo 15. Excavation in squares F-3 and F-4 at the SW section of Unit 1, showing faced stones.

While excavating the first metric level in squares F-3 and F-4 at the SW section of Unit 1, we found a number of faced stones laid in courses and joined together with clay cement, that are architectural vestiges (Photo 15, above). To understand the construction system of what might be a portion of a platform, we decided to lower the level of squares F-4 and G-4, carefully recording the stones to later remove them (Photo 16).

In view of the fragility of the construction system, as the stones were joined together only with a mix of clay with fragments of figurines, sherds, chips of chert and obsidian, chipped lithic fragments and objects such as metates and carved greenstone, shell fragments and objects, we decided not to fully excavate squares E-3, F-3, and G-3 since by excavating their three first metric levels we found that it was possible to detect and record the extension of the stone alignment (Plate 4).

Preserving the architectural vestiges was one of the main reasons for suspending the excavations in this sector, since no restoration team was available at the time; besides, the type of architecture involving clay requires a special treatment for its conservation; therefore we decided to preserve it by not exposing it (ICOMOS France UNESCO, 1999).

Photo 16. Excavation in squares F-4 and G-4.



Excavation continued in squares F-4 and G-4, aimed at understanding the construction system and recording the adjacent occupation levels. A flat section of clay with fragmentary limestone was found, intruding at approximately .70 cm and corresponding

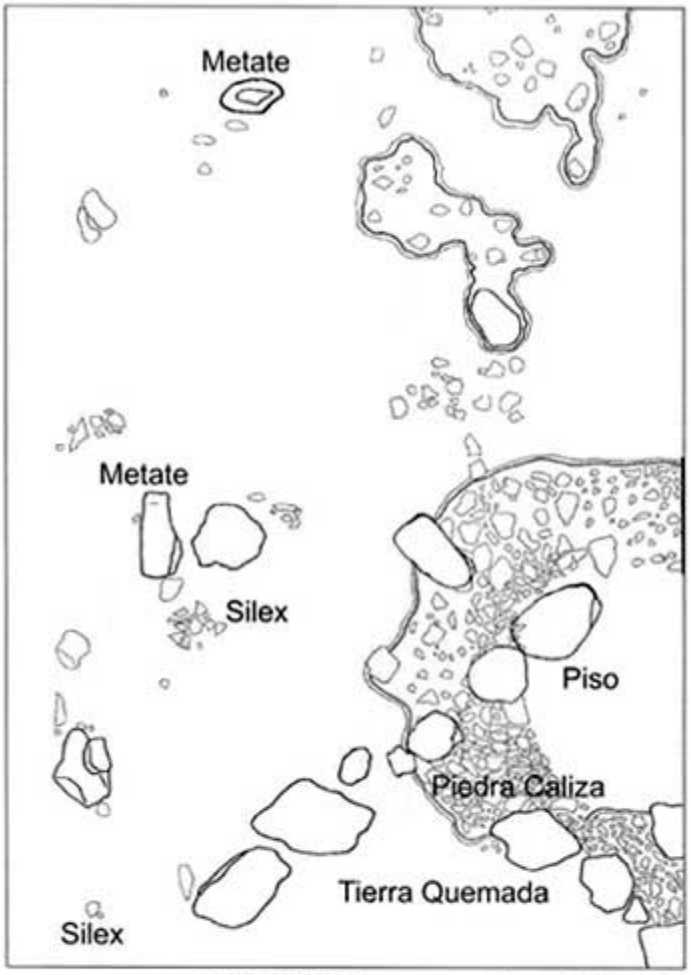
to Floor 1 of the A-B squares (Photo 17). Since in this section of the grid the terrain is at a greater height, there is a difference of approximately .20 cm between this area and the area of squares A-B. This shows that Floor 1 extends all along Unit 1.

Photo 17. Excavation in squares F-4 and G-4.

At a depth of 1.10 m a second floor was found, formed by limestone fragments packed with clay, which was placed on a stone alignment of larger sized stones, this finding corresponded to Floor 2 of squares A-B, which shall be described later (Photo 18).

We continued to lower this second floor which ended at a depth of 1.30 m, and we noticed that its construction system was similar to Floor 2 of squares A-B, and used fragmentary limestone mixed with clay and placed on larger, faced stones to form the lower part of Floor 2, which like Floor 1, extends all throughout Unit 1 (Plate 3).

Photo 18. Excavation of square G-4.



Below the floor and at metric level 7 (1.20 - 1.40) in squares F-4 and G-4, a number of depositions begin, consisting of finer clay with sand, abundant sherds, fragments of figurines, chert and obsidian chips. Initially, we thought that these depositions could be a filling with materials brought from elsewhere in the site; however, this cannot be confirmed until analysis of the materials from this section of the excavations is completed (Paillés, Velasquez and Bojalil, 2000). This deposition continues, but as of metric level 10 (1.80 - 2.00) and down to metric level 11 (2.00 - 2.20), the sandy clay, in addition to the large amount of figurine and ceramic fragments, presents an abundance of charcoal, ash, and loose bones, while at the bottom of this level, an alignment of faced stones was uncovered.

At a depth of 2.20 m, in the same squares F-4 and G-4, charcoal was more abundant, together with charred earth and ash, in association with loose human bones

represented by one mandible fragment and one long bone. Excavation continued down to metric level 17 (3.20 cm- 3.40 cm) which was composed of the same type of fill (Photo 18); at a depth of 3.30 m, a small greenstone axe was recovered, on the SE corner of square G-4. When we reached this level we suspended the excavations in this sector and initiated excavation of squares E-4 and F-4, in an attempt to gain a greater understanding of the construction system.

In correlating these excavations with the excavation of square A-1 (pits IV and III in the 1998 field season), it is evident that the occupation extends throughout Unit 1, as we have a series of layers conformed by materials, floors, and evidence of similar activities. On the south wall of pit IV, and towards the west wall of pit III excavated in 1998, Floors 1 and 2 were recorded, together with the clay and sand fill, and fragments of figurines, sherds, silex and obsidian chips, while at a depth of 1.92 m a mandible fragment associated to ash and abundant charcoal was also excavated (Paillés, 1999: photo 21).

Going deeper in the excavation of squares F-4 and G-4 allowed us to observe on the profile of the east wall of square E-4 that the series of aligned stones ended at a depth of 1.40 m (Plate 4; Photo 19, below). Sediments of very compacted clay continued below.

In squares D-4 and E-4 we descended the first three levels, to expose another section of aligned stones with clay cement (Photo 20, below). Towards the north edge a looters pit was found, and we therefore decided to suspend excavation in this sector.

Photo 19. Profile of the east wall of square E-4, showing a series of aligned stones.

Photo 20. Excavation in squares D-4 and E-4.

During the exploration works carried out in 2000, we realized that it was not possible to observe these smaller looter pits on the ground surface, which unlike the very large ones that are easily observed, are instead narrow and deep (Photos 21 and 22, below). Some of our workers told us that when they were little boys in the 1960s they would occasionally come close to observe how illegal excavations were being done, and that they also saw female looters, who were in charge of the "small excavations".

Photo 21. Looter's pit.

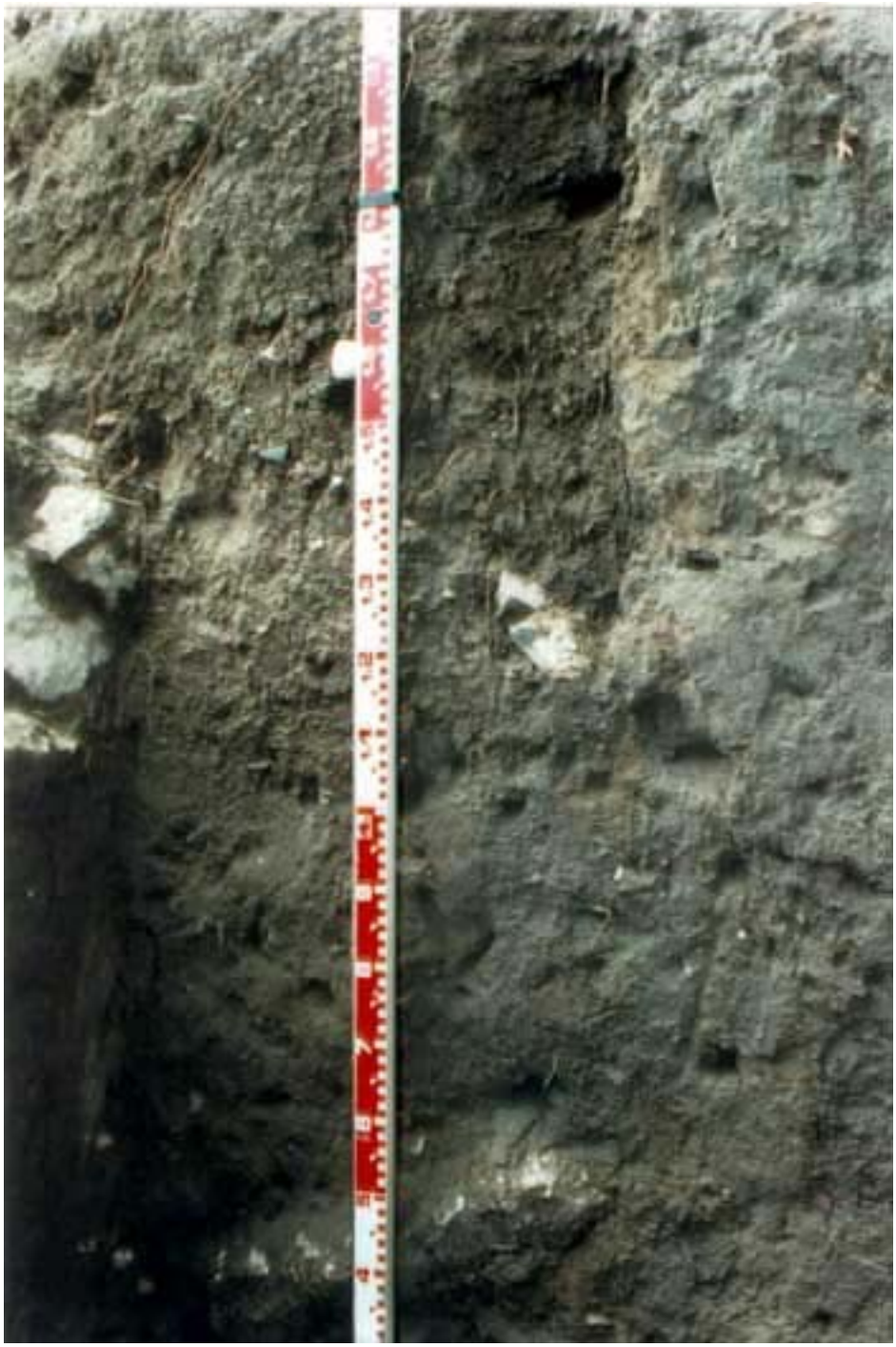


Photo 22. Looter's pit.

Excavations continued in the A-B squares, and when metric level 6 was reached (1.20 m), Floor 2, also explored in squares F-4 and G-4, was found and, like Floor 1, covered all the excavated area from Unit 1.

Floor 2, squares A-B

We shall now describe Floor 2 from squares A-B, because due to the extent of the excavated area in this section of the grid, it is possible to more distinctly observe the activity areas and the construction system. Floor 2 appeared at metric level 6 (1.00 - 1.20 m), as it did in squares F-G, encompassing mainly square A3 in its south side, A2 in its north side, and B2 in its west side (Plate 3).

Photo 23. Excavation of Floor 2, square A1.

This is an earthen packed floor, very smoothed and compacted, the color is Light Brown 7.5 YR 6/3 and lies on a sub-floor of grinding debris and cut stones. Within this clay sub-floor there is a mix of large and small sherds, and debitage fragments of obsidian and chert carvings. In square A1, and south of square A3, a large concentration of charcoal was revealed. The texture of the earth is clayish and very small bone fragments were recovered (Photo 23, above, and Photo 24, below).

Photo 24. Small bone fragments recovered from the clay sub-floor of square A1.

Floor 2 was sampled with a .30 × .30 cm test bed .20 cm deep, but due to its fragile constitution of fine, compacted clay on pieces of stone without cementation, it was not possible to fully remove it, but it was sampled by sections, according to its component parts, for further lab analysis (Photo 25, below). Also, in A3, the zone where Floor 2 seemed to be best preserved, soil samples were taken each .50 cm for flotation.

Photo 25. Excavation of Floor 2.

In the 1998 season, at the same level of square A1, an earth bank was left unexcavated, because the land owner had interrupted the exploration work. This section of Pit IV, which corresponds to the SE corner of square A1, was explored during the present 2000 season. Here, remains of Floor 2 have also been found, with small concentrations of ash, and as the excavation proceeded it revealed three large, aligned stones each approximately .20 cm high, with an orientation of 120° in relation to the N, similar to that of the excavated walls in the 1998 season at Pit III, which also correspond to Floor 2 (Photo 8). These stones form an angle in the B1 square with another alignment along which a *metate* was found. The corner of a possible stone wall or fence was found below the alignment of faced stones in square A1, while a concentration of heavily burned earth was revealed towards the north, intruding at a depth of 1.00 - 1.10 m, Pink 7.5 YR 8/4 in color. The stones were surrounded by areas of concentrated charcoal.

Another alignment of large stones was revealed in the middle of square A3, at level 7, oriented towards the E and intruding below Floor 2, together with an additional course of large, faced stones in square B2 with an additional metate and surrounding charcoal remains. Interestingly, Floor 2 was entirely covered by large concentrations of figurine fragments, and fragments of ceramics, bones, obsidian and silex chips, suggesting areas of domestic activities, just like the charcoal remains and areas with ash.

Photo 26. Possible outdoors hearth for firing pottery.

When the components of Floor 2 in square A1 were removed, and we went deeper into the excavation, we found at a depth of 1.78 m and at metric level 9, a semicircle formed by stones of approximately .10 cm in height, separated from one another. All of the surrounding earth presented small fragments of charcoal and there were also ash remains. The remaining section of the circumference intruded below wall E in the non-excavated area (Photo 26, shown above). We believe this might have been an outdoors hearth for firing pottery, as these hearths were customarily built by placing stones on the ground at a certain distance, then building a support on top of them with reed or spikes to support the vessels, to further cover them with branches that were subsequently lit (Meggers and Evans, 1969). The finding of unfired wedged clay at the same depth level in square B2, in addition to the numerous fragments of ceramics and figurines found in all occupation levels, suggests that this was a pottery production center.

Photo 27. Lower limb of a hollow figurine of the "baby-face" type, completely charred.

Perhaps this explains the large amount of charcoal fragments mixed with earth present within these excavation levels, which were already detected in 1998 as of metric level 9 and downwards, in pits III and IV; here precisely at a depth of 1.63 m, the lower limb of a hollow figurine of the "baby-face" type, completely charred, was found (Photo 27), similar to the Tlapacoya "baby" that Niederberger (1987: 420, fig. 260) denominated the Pilli Sans Pupilles type, and assigned to the Ayotla phase, from 1250 to 1000 B.C.

Archaeological Materials

Ceramics

The 2000 Field Season came to an end on June 17 of this year, only four months ago, so we are still in the process of analyzing the ceramics and other materials recovered.

With the purpose of making an approximate evaluation of the ceramic types recovered, their chronology and archaeological context, we have selected the ceramic materials of the A squares of the Unit corresponding to pits III and IV excavated in 1998 to initiate

the ceramic analysis. The reason for selecting these sections from Unit 1 is that the zone had been partially excavated during the previous season, and the ceramic materials recovered have already been analyzed and recorded, allowing us to have an approximation of the site's chronology.

The presence of Classic and Postclassic ceramics is minimal in the excavations, as in 1994 the grounds of the archaeological site were removed with heavy machinery and the occupations corresponding to these periods were almost completely destroyed. When we carried out the surface reconnaissance these objects were obviously more abundant, as they were mixed in the ground with other ceramic fragments of the Formative Period that looters had left behind as garbage at the edge of the illegal excavations. They were also recovered in the town area of San José Las Bocas, suggesting that is where the settlements corresponding to the Classic and Posclassic periods are located, now covered by modern buildings.

Overall, the Formative ceramic materials explored in 1998 and 2000 are mostly similar to the ceramic types I identified when I had the opportunity to revise the collections attributed to Las Bocas, presently a part of the cultural collections of different museums abroad, like the Metropolitan Museum and the Museum of Primitive Art in New York, and particularly those exhibited at the exhibition "Olmec Art of Ancient Mexico", presented by the National Gallery of Art, Washington (Benson and De la Fuente). And of course, those excavated during the 1998 season.

System of Analysis

Given the characteristics of the materials and considering the previous typology of the site, tentatively established based on the analysis of ceramic materials excavated in 1998, groups of association were formed, that is to say, groups that shared minimum specific attributes applying the same classification criteria previously established (Paillés et al., 1997; Paillés, 1999).

We first established the outer and inner color identifications, in other words, the black, orange, gray, white, brown, red, etc., ceramic groups.

The next attribute was the tentative separation of different macroscopically apparent paste types, with the differentiation, whenever possible, of the type of temper used, yielding a division of fine pastes with and without temper, porous pastes and compact pastes.

The third most important attribute was the form of the vessel: bowl, *cajete*, plate, jar, vase, etc.

Finally, we considered the type of decoration that the material exhibited, which could be incised, scraped, Sgraffito (*Sgraffiare*), carved, with painting, with appliqué.

Whenever we had the chance to make identifications with ceramic materials, both from sites nearby the study area and chronologically contemporary, we decided to assign the same previously established denomination.

Features for the ceramic description

Paste

It refers to the color, type of temper used, texture, and general degree of firing, specifying the thickness of the walls and the dimensions of the piece, taking as a point of reference the upper portion of the rim.

Finish

The presence of coatings, slips, paintings, and surface treatments, in case they were smoothed, polished and/or burnished.

Decoration

Determination of type of decoration technique: incised, incised post fire, raked, appliqué, dotted, textile imprint, modeled, with differential firing, etc., specifying the decoration motif whenever it was possible to clearly identify it in the paste.

Form

The characteristic forms and the variants thereof are described for each ceramic group, while the type of rim, silhouette, background, base and supports, is also recorded.

Chronology

Their chronological situation and percentage present.

External Relations

The comparative study of the ceramic group to other ceramics originating from synchronic or asynchronic sites or areas with those from the site of Caballo Pintado-Las Bocas.

Work Process

Analysis of the ceramic material was accomplished by separately considering each one of the squares from excavation Unit 1. Once analysis of all the ceramic materials is completed, we shall proceed with diagramming and recording the ceramic types by periods of occupation in the overall site.

Known Types

One factor that facilitated the analysis of the ceramics excavated in 1998 and 2000, has been the typological identification of materials collected in 1997. Of course, once the analysis of materials is completed in full, in the case of unidentified materials from other archaeological localities contemporary to Las Bocas-Caballo Pintado, we shall proceed to give them a name. Our classification is based mainly on the ceramic typology established by Niederberger (1976; 1987) for the site of Zohapilco-Tlapacoya in the Basin of Mexico and its chronology.

Formative Period: Ayotla Phase (1250 - 1000 B.C.) and Manantial Phase (1000 - 800 B.C.)

Orange Ayotla (*Ayotla Naranja*)
Smoothed Chalco (*Chalco Alisado*)
White Pilli (*Pilli Blanco*)
Red/Copper Pilli (*Pilli Rojo/Bayo*)
Red/White Pilli (*Pilli Rojo/Blanco*)
Polished Tortuga (*Tortuga Pulido*)
Thick Wall Tunal (*Tunal Pared Gruesa*)
Negative Rim Valle (*Valle Borde Negativo*)
Polished Volcán (*Volcán Pulido*)
White Cesto (*Cesto Blanco*)

Granular Paste Ceramics

This is a very abundant ceramic type in all occupational periods of this archaeological site; it was profusely collected in 1997 (Paillés, *op. cit*.), and was recovered from all levels of the different excavation units from 1998, and also in the extensive excavations of 2000.

In broad outlines, it may be described as follows: this is a ceramic type characterized by a paste with a grain temper from some type of ground metamorphic rock, which in plain sight is visible on the fragmented rims of vessels and which protrudes from smoothed surfaces, with a variable density. The paste is coarse, regularly fired and with a color that varies from Brown 2.5 YR 4-5/6 to Reddish 5 YR 6/6, while sherds occasionally present a dark grey core.

The outer surfaces are smoothed, though pots show a rugose interior; occasionally, the trace of fingers can be appreciated. They may or may not have a slip, and orange and pink tones dominate, although light brown to reddish are also found. Since it was used as domestic pottery, many sherds show traces of burning.

A common form of the vessels is the cajete with curved and convergent walls, and the hemispherical vessels with composite silhouette and rounded rims. The predominant form is represented by large pots, many of which have a flat base, with walls that vary in thickness from .4 mm to .6 mm, to .9 mm and to 1.4 mm; they have a curved, diverging

neck, very divergent with rounded rims in some cases, and diameters that vary from 16 cm to 44 cm.

Although I did not have the opportunity to check for myself the ceramic type known as Del Prado Rosa, explored at Chalcatzingo, Morelos, Cyphers' description (1992: 46-47) matches our Granular Paste ceramic, as it has tentatively been denominated, while the author states: … "The petrographic comparison with similar sherds from Las Bocas, Puebla, indicates a strong similarity, and it should be noted that that place is located near a metamorphic terrain that could be the source of such minerals" … "The strongest resemblance is observed between Del Prado Rosa and the nearly identical ceramics from Las Bocas, Puebla. The forms and pastes seem to be almost identical…"

At Chalcatzingo, the type Del Prado Rosa is found in the Late Amate, 1250 - 1100 B.C. and Early Barranca, 1100 - 1000 B.C. sub-phases, while the Granular Paste type from Las Bocas-Caballo Pintado is abundantly found in all occupational levels. In the case of those ceramic types that lasted throughout all occupation phases, it is important to observe how they changed, mainly the vessel forms, a criterion of analysis I am applying with the present materials, while I hope to have the necessary resources to carry out the petrographic analysis, to later compare them with Chalcatzingo's.

This type of Granular Paste Ceramic is also frequent in the Middle Formative sites from the basin of the Balsas River explored by Manzanilla López (1996). According to the author, these communities were related through a very wide exchange network that connected sites such as Tlapacoya, Chalcatzingo, Teopantecuanitlán, Huituzco, Oxtotitlán and other sites from Guerrero, to continue in the direction of Puebla with Las Bocas, to finally reach the Olmec nuclear area in Veracruz. The ceramics with granular paste are called by the author Granular Amacuzac Type and Granular White, and they are assigned to the Manantial phase between 1000 and 800 B.C. (op. cit., 59, 60, 62, 88; figs. 28 and 29).

In general, the Formative types from Las Bocas-Caballo Pintado are consistent with the Ayotla (1250 - 1000 B.C.) and Manantial (1000 - 800 B.C.) phases of the typology established by Niederberger (1976; 1987), who in spite of not having had carried out extensive excavations in Tlapacoya-Zohapilco, has established an outstanding chronological sequence for this lakeside site, with the support of many experts from the Prehistory Department of INAH (no longer in existence), besides creating a good comparative system of its materials with others from museums and collections.

Figurines

According to the figurines typology, mainly of the D1, D2, and D4 type (Photo 28, shown below), there is an occupation related to the Manantial phase, from 1000 to 800 B.C. (Niederberger, 1980) which begins in Floor 1 at a depth of .40 cm to 60 cm, and continues to Floor 2 at average 1.20 m. Interestingly, during the 1998 excavations I explored pits III and IV, which correspond to the A1 square of our grid, to Floor 1 where a number of postholes appeared, while at the edge of the one showing the largest

diameter the leg of a figurine of the D3 type was found; to the NE, more fragmentary figurines were recorded (Paillés, 1999).

Photo 28. Figurine fragment.

As to the "baby-face" type figurines, some hollow type limb fragments were excavated at metric level 9 (1.60 - 1.80 m) from square A1, at metric level 16 (3.00 - 3.20 m) of the F-4 square below the platform, and in association with Burial 2. To the hollow "baby-face" type Pilli Sans Pupilles (Niederberger, *op. cit*.), Ayotla phase, 1250 to 1000 B.C.

Photo 29. "Baby-face" figurine with cranial deformation from Las Bocas-Caballo Pintado.

Figurine fragments were also found, little heads of the solid "baby-face" type, similar to the hollow figurines illustrated by Coe (1992: 44-45) from the Olmec site of San Lorenzo Tenochtitlán, Veracruz, dating to the Early Formative, 1200 B.C. According to the research of physical anthropologist Josefina Bautista (personal communication, 2000), who is presently conducting a comparative analysis between the bone remains from the collections of the Office of Physical Anthropology, INAH, and the collections of figurines from the archaeological collection of the National Museum of Anthropology, the type of cranial deformation present in one of the "baby-face" solid figurines from Las Bocas-Caballo Pintado (Photo 29, shown above) is identical to the one present in the Olmec skull of Pajón (Photo 30, shown below), which corresponds to an individual of approximately 12 years of age, explored at the site of Pampa el Pajón in coastal Chiapas, in Olmec contexts of the Cuadros and Jocotal phases (Paillés, 1980).

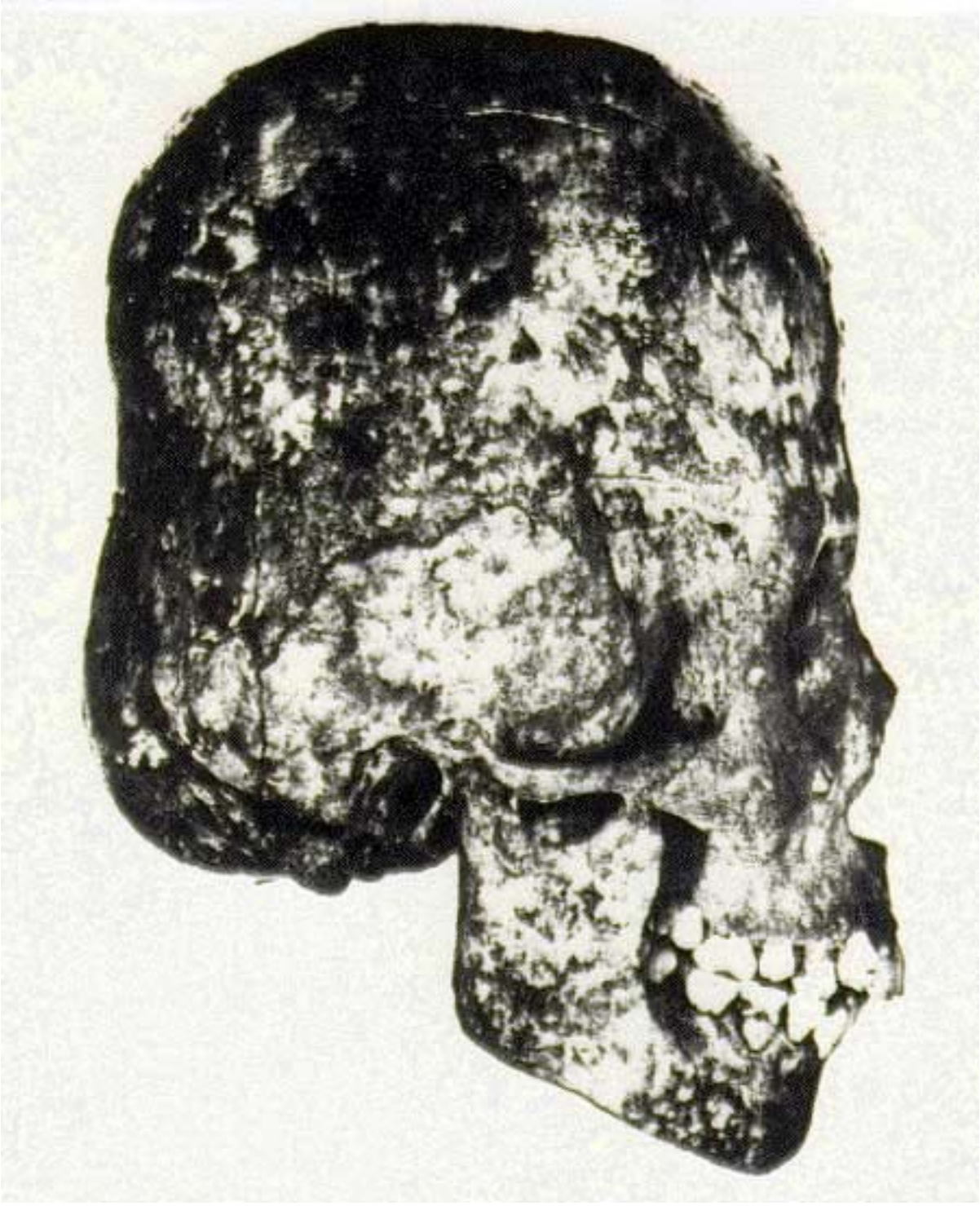


Photo 30. Olmec skull of Pajón with same type of cranial deformation.

It is important to mention that the fragments of the hollow "baby-face" type figurines were excavated in levels below Floor 2. According to the initial analysis of the ceramic materials and the figurines, the occupation corresponding to the Manantial phase, 1000

to 800 B.C., begins at the level of Floor 1 and ends in Floor 2; however, the analysis of charcoal samples and obsidian hydration is required, to more accurately establish the site's chronologic sequence.

Stamps

Two cylindrical stamps were excavated from squares A3 and B2, at metric level 6 from 1.00 to 1.20 m in Floor 2. The fragment explored in A3 corresponds to the Hollow Cylinder type and shows traces of a red pigment, while the one excavated in B2 corresponds to the Rolling Pin type, with handles. They are modeled with clay with a geometrical decoration consisting of deep incisions similar to those illustrated by Field (1967: 4; 33, fig. 34). This author analyzed an abundant collection of stamps attributed to Las Bocas, though their provenience is not certain because they came from non-controlled excavations. On the other hand, Niederberger (1976: 240, plate LXXXIX) illustrates similar stamps from Zohapilco-Tlapacoya, which date to the Ayotla-Manantial occupational phases.

Lithic objects

During the explorations conducted in 2000, numerous artifacts of carved and polished stone were excavated, together with chips and other carving debris. The materials used in the manufacturing process were mainly obsidian (Photo 31), silex or chert (Photo 32) and greenstone.

The assemblage of polished stone artifacts, together with those explored in 1998 in pits III and IV, corresponding to square A1 from the year 2000, were analyzed by the P.A. José Rodríguez Yc, from ENAH, and are included in this report under the title: Analysis of Grinding Implements from Las Bocas, Puebla. Season 2000. (Appendix 1).

Photo 31. Obsidian.

Photo 32. Silex or chert.

The carved stone tools are presently under analysis.

Also, we recovered a carved, greenstone object, with an incised, excavated decoration which represents the "Blazing Eyebrow" of the Olmec dragon (Reilly III, 1995). It is a portable object with the following dimensions: length: 8.8 cm, maximum width: 1.2 cm, minimum width 0.8 mm, color: Dark Greenish Gray 3/10 BG.

Shell:

Several shell objects were excavated, together with complete and fragmentary shells, from the construction fill of the structure and the occupational levels of the floors.

The objects include quadrangular pendants, 2.6 cm long and 1.5 cm wide, with four perforations at the extremes. They were excavated in square F-4, metric level 9, at a depth of 1.67 m and in the B3 square, level 8.

Triangular pendants with a perforation at one apex, maximum width: 2.7 cm, minimum width: 2.3 cm. They were explored in the B1 square, Floor 2, at a depth of 1.15 m.

A schematic representation of the upper frontal portion of the jaguar head, carved in two shell flakes from the same section. The larger one is 4.1 cm long and 2.6 cm wide, the smaller one is 3.4 cm long and 1.8 cm wide. They have incised and excised decoration representing the eyes and fangs of the jaguar. They were explored in the F-4 square, at a depth of .53 cm.

Soils and charcoal samples

Throughout the explorations, numerous soil samples were taken to establish the composition and to analyze the phosphates and organic remains from the occupational floors and soils.

Charcoal samples for dating were very abundant in all excavation sections of Unit 1 and at every level. We hope to obtain the necessary resources to send them to the corresponding laboratories.

Burial 2

During the explorations, and three days before closing the excavations, Burial 2 was found in the E-4 square, below the stone terrace at the NE corner, 15° from N.

It is an adult individual, placed directly in soil matrix, in an extended dorsal decubitus position, with semiflexed legs, the left one bent over the right one (Photo 33). The state

of preservation is very poor due to the climatic conditions typical of the region, while the excavation was made difficult because of the intensive rains. This is the second burial found (Paillés, Velasquez and Bojalil, 2000).

Photo 33. Burial 2.

The associated offerings are:

1. One *cajete* modeled in clay, smoothed, both the internal and external surfaces show traces of burnings, the shape is curved and convergent, with a rounded rim, walls 1.1 cm thick, diameter 14.2 cm, height 6.8 cm, color Light Reddish Brown 5YR 6/3, burnt portion Black 7.5 YR 2.5/1.

2. Zoomorphic figurines of miniature dog, height 2.6 cm, length 4.4 cm, width 2.3 cm, paste color Dark Grey 10YR 4/1, exterior color Gray 7.5 YR 5/1. This zoomorphic figurine is almost identical to the little clay dog illustrated by Niederberger (1987: 488, fig. 368-1), placed in the Ayotla-Manantial phases.

3. Fragmented small box modeled in clay with traces of red pigment, height 2.1 cm, width 4.2 cm, length 5.3 cm, color Light Red 10 R 6/6, pigment Red 10R 5/6.

Burial 2 was taken to the Department of Physical Anthropology, INAH, where it is being studied by physical anthropologist Josefina Bautista.

Considerations

The results obtained in the explorations conducted in 1997 with photo interpretation, surface surveys and delimitation of the zone have revealed a densely populated area in pre-Hispanic times, since through aerial photos we can observe abundant white patches caused by phosphates and other chemical traces which have been deposited and concentrated in residential zones as a part of domestic and various other activities. Thus, although only a large platform was found in the growing fields at the entrance of the town of San José Las Bocas, as sole evidence of structures on the land surface, we believe that many others must have been destroyed throughout time. Materials recovered at the terrace correspond to a later time, thus confirming that Classic and Post-Classic settlements were covered by the town's modern constructions.

Photo interpretation was accomplished using INEGI's photographic mosaic of vertical, black and white photos (stereoscopic pairs): Special flight Izúcar de Matamoros, Puebla, Scale 1: 20,000, date December 1993 and March 1994, flight lines 8, 9, 10, 11, and 12, and the facilities of the Office of Archaeological Records, INAH, with the support of archaeologist Hernando Gómez Rueda, from DICPA.

Photo interpretation allowed the study of an extended area of the Epatlán valley up to the lagoon, and the E section of the Izúcar valley. Thus, we were able to identify the present human impacts on the environment in the shape of agricultural fields, villages, communication networks, and irrigation systems, among others. Pre-Hispanic settlements were mainly located by marks on the ground, resulting from deeply buried archaeological vestiges (Barba, 1990: 11-13).

Soils at the archaeological site are of an alluvial sedimentary nature, and as reported by Sánchez Pérez and Pastor (1999), their granulometric features and geographical

location suggest they correspond to a larger bed than what physiographically is known as an alluvial plain.

These types of soils favor temporal agriculture, and are easily sown with manual agricultural implements like those that were probably used in the Formative Period, which we assume were made of wood and therefore have not survived to our days. During the 1998 and 2000 explorations we recovered no lithic artifact that could be inferred as having been used for farming. Through very early XVIth century historic documents, it is known that in the region of the Mexican altiplano, just after the Spanish conquest, agricultural works were still being accomplished with three types of manual tools made of wood and of pre-Hispanic manufacture, one of them the well known coa (Rojas, 1998).

By bringing together the previous proposals, we are attempting to provide an a priori explanation of the great incidence of marks on the land detected through photo interpretation, which has allowed us to conjecture that the area was densely populated in pre-Hispanic times, without establishing so far the period to which the settlements correspond. However, an intensive and systematic study of the area with sufficient resources and personnel will be required to verify such interpretations. One of our goals includes a continued survey through future field seasons, so that with a study of the settlement pattern we may gain a deeper understanding of the development process of the pre-Hispanic communities, both locally and regionally.

As already stated in 1998, we were able to conduct only test excavations as a consequence of the small budget assigned; however, the results have allowed us to catch a glimpse of some archaeological contexts from the site, like evidences of possible households, workshops, hearths and other activity areas, in addition to the finding of an earthen foundation similar to those from the Gulf Coast explored by Coe and Diehl at San Lorenzo Tenochtitlán (1980: 106 and 107). This foundation was detected at Pit II, but up to now, the P.A. Emma Marmolejo, from the Office of Archaeological Records, INAH, who was in charge of this excavation unit in 1998, has not submitted the information requested (Appendix 2).

In the 1960s, when Michael Coe published his book *The Jaguar's Children*, he referred to Las Bocas as one of the last cemeteries of the Mexican altiplano, similar to Tlatilco; however, our excavations have only shown one child burial at Pit II and disarticulated bones such as finger phalanxes, one mandible, and other loose fragments in pits II and III, which will be sent to the Office of Physical Anthropology, INAH, for analysis, once the information is completed with the report of Pit II.

Perhaps at the time of the great illegal excavations in the 1960s, other burials were found, because only such a thing would account for the large amount of complete ceramic objects and figurines that have practically flooded private collections and foreign museums, as we assume they must have been a part of the offerings associated to the burials.

Nevertheless, they are no more than unfounded speculations, and surely as suggested by Grove (1996: 108-109), the high prices that pieces attributed to Las Bocas reach in the illegal market of archaeological objects may entice those who auction and sell pieces to "label" them as originating from this site. We agree with this line of thinking, although Grove (*ibid*) also refers to the remarkable degree of looting evident at Las Bocas-Caballo Pintado. One explanation leads to the other, and vice-versa.

On the other hand, it is worth mentioning that Tlatilco and Las Bocas were widely thought to be cemeteries (Coe, 1965: 10), a non-existent type of archaeological site in Mesoamerica. However, thirty years later such notions still exist, as seen in recent works on the Olmecs from the central altiplano, in which Las Bocas is still postulated as a burial place (Serra Puche, 1995: 184).

In his pioneer works, Piña Chan (1958; 1960: 53-66) refers to the Pre-Classic villages and their evolution along three stages: Early, Middle and Late, until the beginning of urbanism takes place. Later, with Flannery's (1970; 1976) works in Oaxaca, it was possible to recover evidence of the development of agricultural villages from the Formative or Pre-Classic periods, stage by stage, through the study of households, their activity areas and spatial distribution.

In Mesoamerican archaeology, there are big issues still to be resolved concerning social, economic and political institutions in the earlier villages of the Mexican central altiplano, and moreover, enigmas of the Olmec societies in this region, as for example, what was the degree of political centralization, the degree and complexity of social stratification and economic specialization in these early Mesoamerican societies?

We consider that the results achieved with the explorations of the Las Bocas Project are highly satisfactory, as they have allowed us to evaluate archaeological contexts from this site, by recovering information from several activity areas of a Formative village. Nonetheless, there's still plenty of research to be carried out.

Finally, we feel that no appreciations should be advanced, and no judgments should be expressed without a scientific foundation, as in the case with Las Bocas, a place that throughout time gradually turned into a myth in Mesoamerican archaeology, and the dilemma of the Olmec presence in the Mexican central altiplano.

List of Figures

Photo 4. Atotonilco River, eroding a portion of the lower terrace revealing large cuts in the terrain.

Photo 5. 4th, 5th and 6th graders from the Benito Juárez school in San José Las Bocas visit the excavations.

Photo 6. Tarps covering the excavated areas to protect the fragile archaeological contexts.

Photo 7. Test excavation.

Photo 8. Test excavation.

Photo 9. Test units looking towards El Teponaztle.

Photo 10. Earthen floor with posthole, Floor 1, Unit 1.

Photo 11. Excavation of Floor 1, Unit 1.

Photo 12. Feature 2, limestone fragments mixed with charcoal remains, metate fragments, and carving debitage, from grid squares A3 and B3.

Photo 13. Feature 1, a flagstone, found in Floor 1, square B1.

Photo 14. Fragmented plate found in square B2.

Photo 15. Excavation in squares F-3 and F-4 at the SW section of Unit 1, showing faced stones.

Photo 16. Excavation in squares F-4 and G-4.

Photo 17. Excavation in squares F-4 and G-4.

Photo 18. Excavation of square G-4.

Photo 19. Profile of the east wall of square E-4, showing a series of aligned stones.

Photo 20. Excavation in squares D-4 and E-4.

Photo 21. Looter's pit.

Photo 22. Looter's pit.

Photo 23. Excavation of Floor 2, square A1.

Photo 24. Small bone fragments recovered from the clay sub-floor of square A1.

Photo 25. Excavation of Floor 2.

List of Plates

Sources Cited

Barba, Luis
1990 *Radiografía de un sitio arqueológico.* Instituto de Investigaciones Antropológicas, UNAM, México.

Benson, Elizabeth P. and Beatríz de la Fuente eds.
1996 *Olmec Art of Ancient México.* National Gallery of Art, Washington D.C.

Coe, Michael D.
1965 The Jaguar's Children: Preclassic Central México. Museum of Primitive Art, New York.

1992 "Los Olmecas", in *Museo de Antropología de Xalapa,* Gobierno del Estado de Veracrúz, pp. 32-75.

Coe, Michael D. and Richard A. Diehl
1980 *In the Land of the Olmec.* 2 vols. University of Texas Press. Austin.

Cyphers Guillén, A.
1987 "Estudio petrográfico de dos cerámicas importadas a Chalcatzingo, Morelos", in*Antropología y Técnica* No. 2:85-98, UNAM, México.

1992 *Chalcatzingo, Morelos. Estudio de cerámica y sociedad.* Instituto de Investigaciones Antropológicas, UNAM, México.

Expediente B/311 (247-39) (02)/-1
n.d. Archivo Técnico de la Coordinación de Arqueología, INAH

Feuchtwanger, Franz
1989 *Cerámica Olmeca.* Operadora de Bolsa, Editorial Patría, México.

Field, Frederick V.
1967 Thoughts on the Meaning and Use of Pre-hispanic Mexican Sellos. Dumbarton Oaks, Studies in Pre-Columbian Art and Archaeology, no. 33, Washington D.C.

Flannery, Kent V.
1970 Preliminary Archaeological Investigations in the Valley of Oaxaca, México. University of Michigan, Ann Arbor.

1976 *The Early Mesoamerican Villages.* Museum of Anthropology, University of Michigan, Ann Arbor.

Gamboa, Nicolás
1999 "Historia Robada", in *unomásuno* suplemento Cultura, Miércoles 17 de noviembre, pp. V y VI, México D.F.

García Cook, Angel and Felipe Rodríguez
1975 "Excavaciones Arqueológicas en 'Gualupita las Dalias', Puebla", in: *Comunicaciones*No. 12, Fundación Alemana para la Investigación Científica, Puebla

García Moll, Roberto, *et al.*
1989 San Luis Tlatilco, México. Catálogo de entierros. temporada IV. Serie Antropología Física-Arqueología, INAH, México.

Grove, David C.
1987 *Ancient Chalcatzingo.* University of Texas Press, Austin.

1995 "Chalcatzingo", in *Los Olmecas en Mesoamérica,* Citibank, México, pp. 165-173.

1996 "Archaeological Contexts of Olmec art Outside of the Gulf Coast", in *Olmec Art of Ancient México.* pp. 105-117. National Gallery of Art Washington D.C.

Guía México Desconocido
1999 *Museos.* Guía No. 48, Editorial México Desconocido, México.

ICOMOS France Unesco
1999 La consolidation des mortieres dans le maconneries anciennes: les coulis d'injection.Section Francaise de l'ICOMOS, UNESCO, Paris.

INEGI
1987 Síntesis Geográfica, nomenclator y anexo cartográfico del Edo. de Puebla.

Limbrey, Susan
1975 *Soils Science and Archaeology.* University of Birmingham, England, Academic Press.

Manzanilla, Linda
1993 "Introducción", in: Anatomía de un conjunto residencial teotihuacano en Oztoyahualco,vol.I, IIA, UNAM, pp. 15-30.

Manzanilla López, Rubén
1996 Cuetlajuchitlan, un ejemplo de sociedad jerárquica agrícola en la región de Mezcala de Guerrero. Tesis de Maestría, ENAH, México D.F.

Meggers, Betty J. and Clifford Evans
1969 *Cómo Interpretar el Lenguaje de los Tiestos.* Manual para arqueólogos, Trd. Victor a. Nuñez Regueiro. Smithsonian Institution, Washington D.C.

Niederberger, Christine
1976 *Zohapilco.* Colección Científica No. 30, INAH, México.

1987 Paleopaysages et Archeologie Pre-Urbaine du Basin de México. Collection Études Mesoamericaines, 2 Vols. CEMCA, México.

Paillés, María de la Cruz
1980 Pampa El Pajón, an Early-Middle Preclassic Site on the Chiapas Coast, México.Papers of the New World Archaeological Foundation No. 44, BYU. Provo, Utah.

1995 Propuesta para el Catálogo de la Cerámica de Las Bocas en Museos de Estados Unidos. Presentada a la National Gallery of Art de Washington.

1999 *Proyecto Arqueológico Las Bocas, Puebla.* Informe de la Segunda Temporada de Campo, 1998. Archivo Coordinación Nacional de Arqueología.

Paillés, María de la Cruz, Laura Castañedo and Emma Marmolejo
1997 *Proyecto Arqueológico Las Bocas, Puebla.* Informe de la Primera Temporada de Campo 1997, Archivo de la Coordinación de Arqueología del INAH.

Paillés, María de la Cruz, Verónica Velasquez and Andreé Bojalil
2000 "Las Bocas y la presencia Olmeca en el Altiplano Mexicano", in: *Diario de Campo,* No. 25, Agosto 2000, INAH.

Piña Chan, Román
1960 Mesoamérica. Ensayo Histórico Cultural. Memorias VI, INAH, SEP, México.

1958 *Tlatilco.* Serie Investigaciones No. 1 y 2, INAH, México.

Porter, Muriel
1967 *Tlapacoya Pottery in the Museum Collection.* Indian Notes and Monographs, No. 56, Museum of the American Indian, Heye Foundation, New York.

Reilly III, Kent F.
1995 "Cosmología, soberanismo y espacio ritual en la Mesoamérica del Formativo", in *Los Olmecas en Mesoamérica,* Citibank, México, pp. 239-259.

Rojas Rabiela, Teresa
1988 Las Siembras del Ayer. La agricultura indígena del S.XVI. SEP./ CIESAS, México.

Sánchez Pérez, Serafín and Israel Pastor
1999 "Reporte de los análisis físico-químicos del pozo 1 del sitio Caballo Pintado-Las Bocas Edo. de Puebla", Apéndice 1 in Paillés, *Proyecto Las Bocas Puebla,* Informe de la Segunda Temporada de Campo, 1998. Archivo C.N.A., INAH.

Sanders, William T., Jeffrey Parsons and Robert Santley
1979 The Basin of México. Ecological Processes in the Evolution of a Civilization. Academic Press, New York.

SEP
1998 *Puebla, Historia y Geografía, Tercer Grado.* Comisión Nacional de los Libros de Texto Gratuitos.

Serra Puche, Maricarmen
1995 "Presencia olmeca en el altiplano" in *Los Olmecas en Mesoamérica,* Citibank, México, pp. 175-187.

Sotheby's
1998 *Pre-Columbian Art.* Catálogo de la Subasta de Noviembre 23 de 1998, New York.

Sotheby's
1999 *Pre-Columbian Art.* Catálogo de la Subasta de Junio 2 de 1999, New York.

Vaillant, George and Suzannah B. Vaillant
1934 *Excavations at Gualupita.* Anthropological Papers, Volume XXXV, Part I, The American Museum of Natural History.

West, Robert
1964 "Surface Configuration and Associated Geology of Middle America", in *Handbook of Middle American Indians,* vol. 1, pp. 33-83, University of Texas Press, Austin.