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Middle Balsas Project: An Investigation of Pottery Functionality and Chronology



Research Year: 2006

Culture: Guerrero and Michoacán

Chronology: Classic to Postclassic

Location: Middle Balsas Region, México

Sites: La Quesería, Itzímbaro, and Mexiquito

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Abstract

This report describes the field work and preliminary ceramic analysis results from the Middle Balsas Project. The Middle Balsas Project was designed to provide both additional study and detail into the chronology and occupation of the Middle Balsas region of Guerrero and Michoacán, México, and to investigate the pottery production technology of the region. This report presents the results from the field phases of the project that were supported by FAMSI, which includes maps of each site, a description of the pottery types found in the region, and preliminary radiocarbon dates supporting the likely age of the three sites in the region studied. I also present basic preliminary data on other material from the sites, such as obsidian and figurines, which suggest trade or other contacts between the Middle Balsas region and the rest of Mesoamerica. My evidence suggests that Middle Balsas region was densely occupied during the Classic and Postclassic periods, and it likely played an active role within the greater Mesoamerican system.

Resumen

Este informe describe el trabajo de campo y los resultados preliminares del análisis de la cerámica del Proyecto Balsas Medio. Las metas del proyecto son: 1) investigación adicional y obtener más detalles sobre la cronología y duración de la ocupación en la región del Balsas Medio de Guerrero y Michoacán, México y 2) una investigación sobre la tecnología de la alfarería en la región. En este informe, presento los resultados de las temporadas de campo financiadas por FAMSI, incluyendo los planos topográficos de los tres sitios, una descripción de los tipos cerámicos de la región, y los análisis de las muestras de radiocarbono que empiezan a sugerir las fechas de ocupación de los sitios. Además, presento los resultados preliminares del análisis de las figurillas y de la obsidiana, los cuales sugieren que hubo contacto entre la región Balsas Medio y otras zonas de Mesoamérica. La evidencia sugiere también que la región del Balsas Medio estuvo densamente poblada durante el Clásico y Posclásico, y que sus habitantes probablemente tuvieron un papel activo dentro del sistema mesoamericano.

Background

The Middle Balsas region of México is located in the northwestern portion of the state of Guerrero, along with parts of the adjoining southeastern part of Michoacán (see [Figure 1](#) and [Figure 2](#), below). This region is practically unstudied by systematic archaeological research, leaving archaeologists speculating about the possible contacts and role of this region in greater Mesoamerica. The majority of the basic research on the area was performed in the late 1930s and early 1940s, leading to a definition of the area as a cultural zone and providing brief descriptions of a few basic ceramic types and architectural forms typical of the region (Lister 1947; Armillas 1944, 1945). Lister describes the most common pottery as "Balsas rojo" and lists a number of typical

architectural features, including ring shaped ball courts and truncated pyramids with a raised plaza to one side (Lister 1947, 1955, 1971). More recent projects have focused on occupation during specific time periods, including one investigation of the Late Postclassic interactions between the Mexica and Purépecha (Silverstein 2000) and one investigation of a Preclassic settlement (Paradis 1974). Both of these projects leave the Classic and early Postclassic periods loosely defined from a chronological and ceramic typology standpoint.

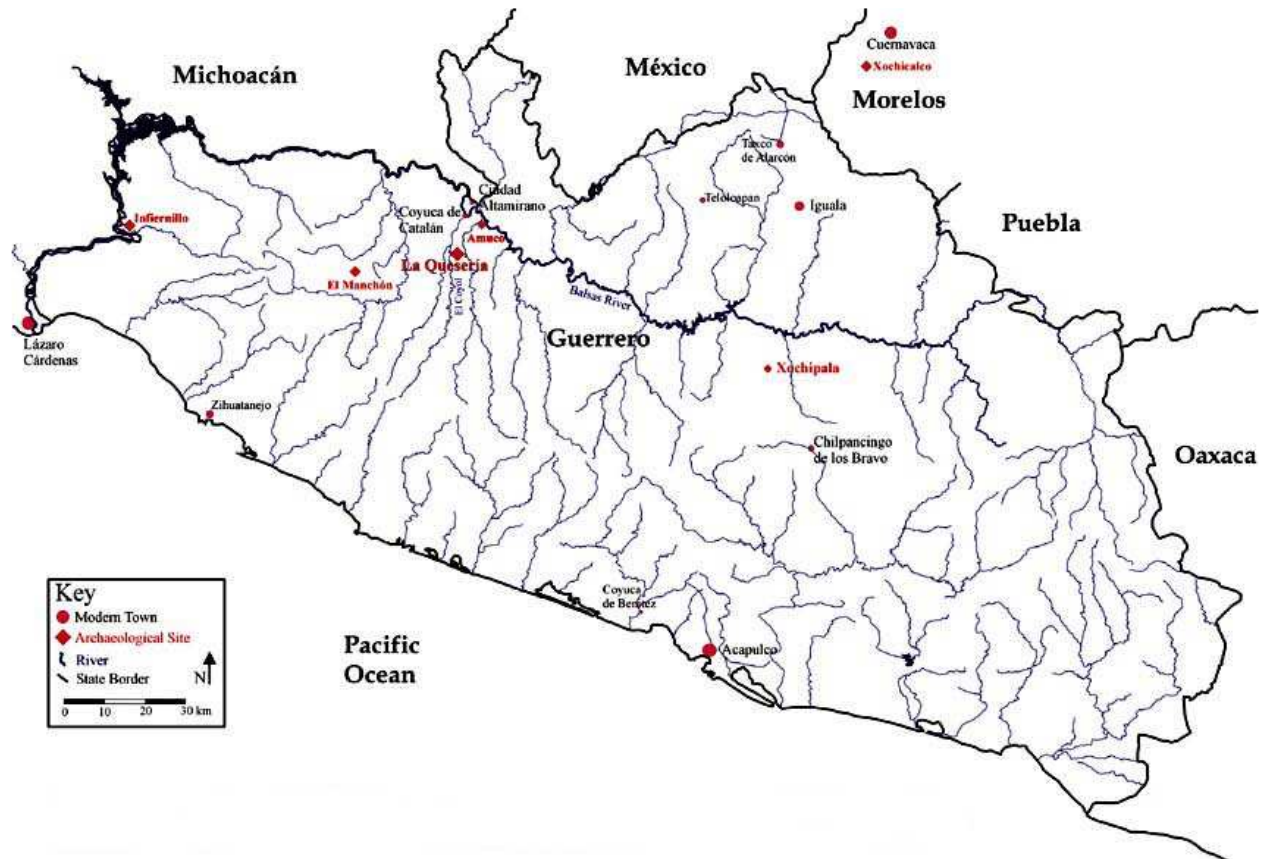


Figure 1. Map of Guerrero showing La Quesería, Itzímbaro and Mexiquito within the Middle Balsas Region as well as selected modern towns, archaeological sites and drainage patterns. Drawn by Meanwell from maps available at www.maps-of-mexico.com/guerrero-state-mexico/guerrero-state-mexico-maps-main.shtml.

The Middle Balsas Project had two interrelated goals. First, I hoped to further define the pottery types typical of the Classic period to allow other researchers to use these types in dating their own sites, as well as make stronger conclusions about the extent of interaction between the Middle Balsas and other Mesoamerican regions. Second, I will investigate the technical choices made during pottery production based on the intended function of the vessel in a later phase of the project. This investigation will look at the raw materials and production methods to determine if either or both were tailored to produce vessels intended to serve particular functions during use, such as being especially thermal shock resistant for cooking vessels or slightly porous to cool water for

water storage vessels. I will also determine if production methods are consistent across both time and space or if they changed through time due to clay source exhaustion or other factors.



Figure 2. Close-up view of Middle Balsas Region showing the relative locations of La Quesería, Itzímbaro and Mexiquito. The distance from La Quesería to Amuco is approximately 10 km.

I chose three large sites in the Middle Balsas region, La Quesería, Itzímbaro, and Mexiquito which appeared to have possible Classic or Epiclassic occupations for the study (see [Figure 2](#)). These three sites are all located along major watercourses in the area (two on the banks of the Balsas River, and one along a tributary), and appear to be among the largest sites in the region. Each site exhibits some characteristic Middle Balsas architectural features and typical regional pottery.

Methodology

The field season in 2006 was primarily focused on the excavation phases of the Middle Balsas Project. In this phase, my goal was to encounter deep deposits of ceramic material, such as a midden, along with associated carbon samples, to produce a stratigraphic pottery sequence covering the Classic and Early Postclassic periods of Mesoamerica. The excavations were carried out during the 2006 field season which ran from late January through late June. Also during this phase, I mapped the site of

Mexiquito, which had been inaccessible during a previous mapping season in the summer of 2005.

Mapping Techniques

The mapping of Mexiquito was carried out using standard procedures with the help of Arq. Carlos Santos Rodríguez, an experienced architect from the Instituto Nacional de Antropología e Historia (INAH) offices in Guadalajara, Jalisco. Portions of the site were mapped using a theodolite and stadia rod according to standard technique, while the rest of the site, which was very overgrown, was mapped using a hand level, compass, and measuring tape to take the points along a straight transect. The final topographic map is shown in [Figure 3](#).

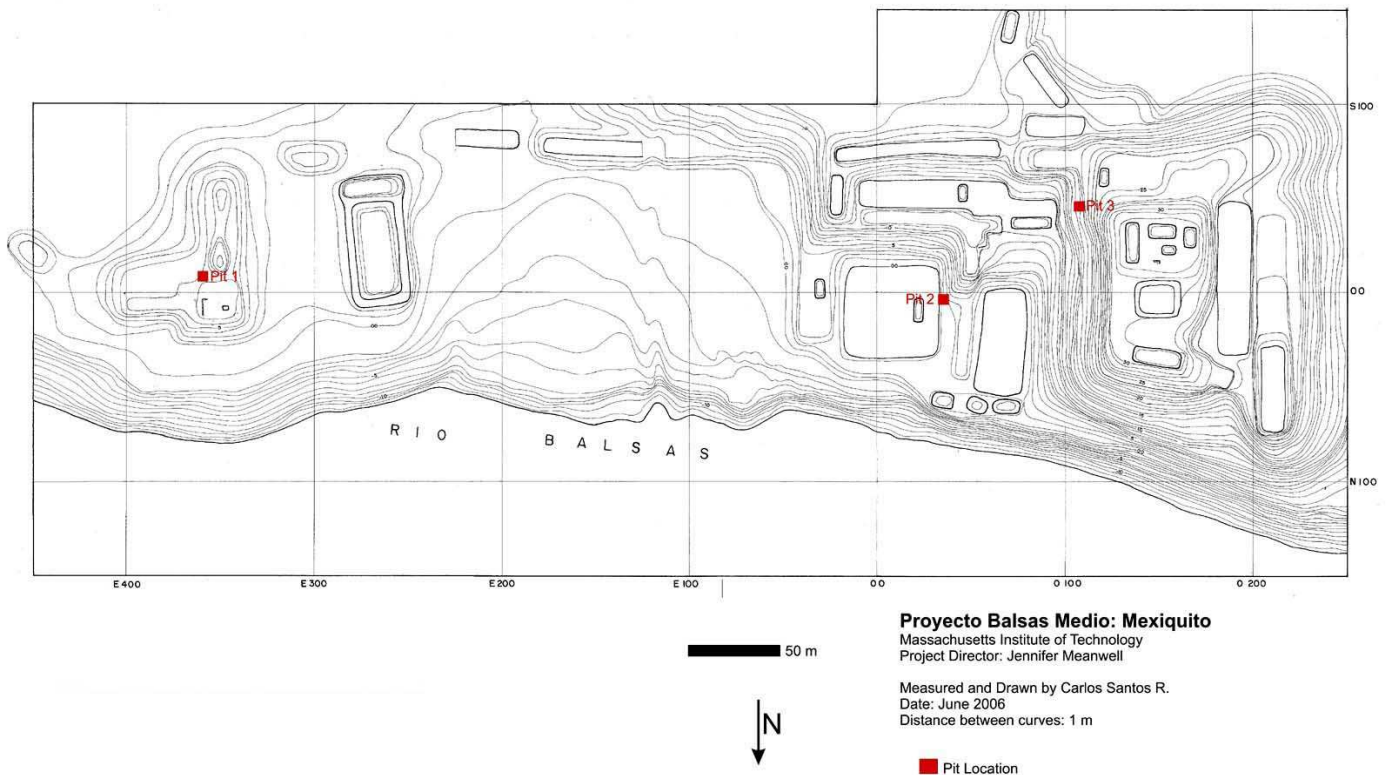


Figure 3. Map of Mexiquito showing the location of the excavated test pits.

Test Pit Excavation

Consistent with our excavation permit, we excavated three to four 1 m × 1 m square test pits oriented with magnetic north at each of the three sites. The excavation proceeded in arbitrary 20 cm levels, with attention paid to recording natural stratigraphic features. We subdivided the arbitrary levels where the natural stratigraphy necessitated. The excavation continued until sterile soil was reached, except in one case where we had to

close a pit early due to wall instability caused by extensive rains. All of the soil removed from the pits was then passed through ¼" screen to look for additional archaeological material that may have been overlooked in the original excavations.

The placement of the pits was carefully selected at each site. (See [Figure 3](#), [Figure 4](#), and [Figure 5](#) for pit locations.) We attempted to excavate in various areas of each site that may have been used for different functions, such as ceremonial or domestic zones. Many were placed in open plazas or patios to one side of large structures to look for construction debris or other deep deposits. In general, I had good luck with this excavation strategy, although a few pits were not as productive as I would have desired. In each case, however, I did find at least one pit at each site that reached over 2 m in depth, with abundant sherds and sufficient carbon samples for radiocarbon analyses.

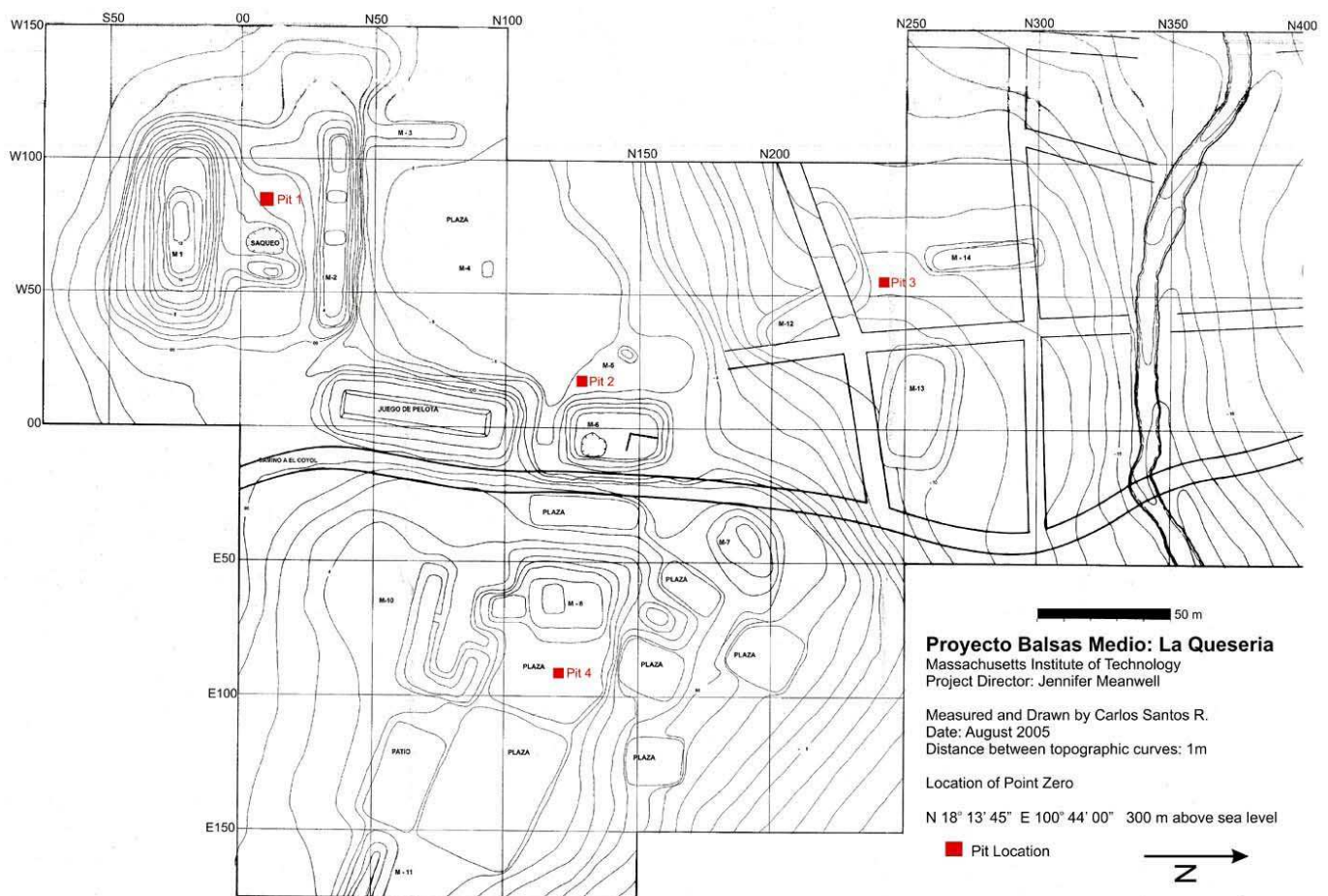


Figure 4. Map of La Quesería showing the location of the excavated test pits.

Four pits were excavated at Itzímbaro and Quesería, while only three pits were excavated at Mexiquito. The three pits excavated at Mexiquito provided sufficient information to be compatible with that coming from the other two sites, and due to the

start of the rainy season and the problems with cave-ins we had with the third pit, we decided to stop after three test pits.

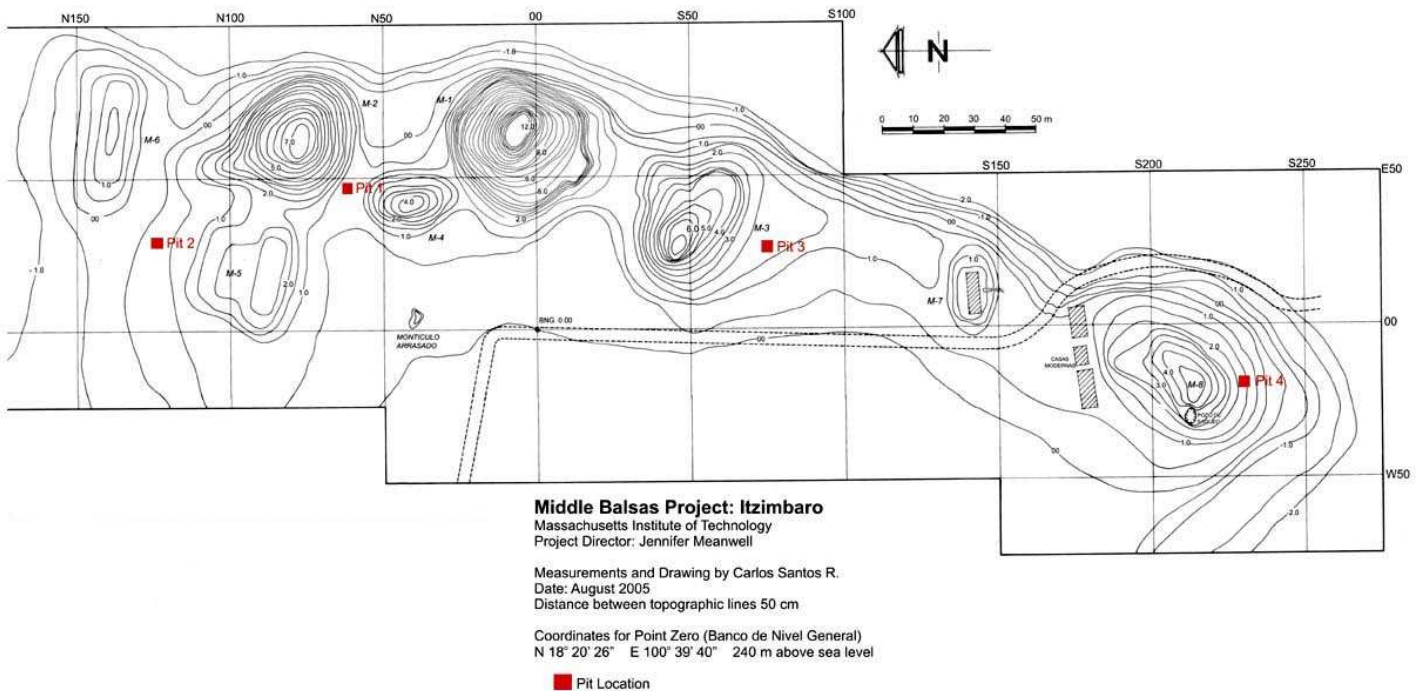


Figure 5. Map of Itzimbaro showing the location of the excavated test pits.

Radiocarbon Analyses

I used a portion of the funding for this fieldwork project for the analysis of radiocarbon samples from each site. This forms a preliminary study of the absolute age of this occupational period in the Middle Balsas region. Due to the funding limitations, I chose to analyze a total of five samples, with two samples each coming from Quesería and Itzimbaro, and one from Mexiquito. Multiple samples were chosen from the same pit, although from different levels, to attempt to determine the length of occupation within a single pit. The pits chosen were generally the deepest at each site, and/or the pit that had the largest and most reliable carbon samples. The samples were sent for analysis at Beta Analytic in November of 2006. A table showing each sample and its results follows in the Preliminary Results section ([Table 1](#)).

Preliminary Results

Radiocarbon Analyses

Although these radiocarbon results are just a pilot study, they suggest that the three sites I investigated do fit into the Classic and Postclassic periods. All three sites seem to

have an overlapping occupation in the Late Classic period around A.D. 700-800. Based on the radiocarbon, figurine, and pottery analyses, it seems that Quesería was occupied first, possibly as early as the Late Preclassic, although the length of occupation is still unclear. I did not recover any markers of the Postclassic, such as spindle whorls (*malacates*) or polychrome pottery sherds at La Quesería. In contrast, Itzímbaro was probably first occupied in the Classic period, and the occupation extended into the Epiclassic and Early Postclassic, while Mexiquito seems to have been occupied by the Classic period, with an occupation extending through the Postclassic period. I did not uncover any evidence of an earlier occupation at Mexiquito. A table showing the exact radiocarbon data follows.

Site	Pit	Bag	Level	Conventional Radiocarbon Age	2 Sigma Calendrical Calibration
Quesería	1	67	140-160 cm	1350 ± 50 BP	Cal AD 620-770
Quesería	1	115	200-220 cm	1900 ± 50 BP	Cal AD 10-230
Itzímbaro	3	31	80-100 cm	1260 ± 50 BP	Cal AD 660-890
Itzímbaro	3	82	180-200 cm	1510 ± 40 BP	Cal AD 440-640
Mexiquito	3	45	160-180 cm	1270 ± 50 BP	Cal AD 660-880

Pottery

As has been noted by several researchers, the basic utilitarian pottery in the Middle Balsas region is red and exists in both a coarse ware and fine ware. Lister calls this ware "Balsas *rojo*" in his first analysis of the region (Lister 1947:72). Other pottery analyses focus more specifically on the earliest and latest occupations in the region, but generally note that the pottery is very monochromatic, with the only polychrome pottery types appearing in the Postclassic (e.g., Silverstein 2000; Paradis 1974). These results correlate well to my analyses of the pottery from the three Middle Balsas sites.

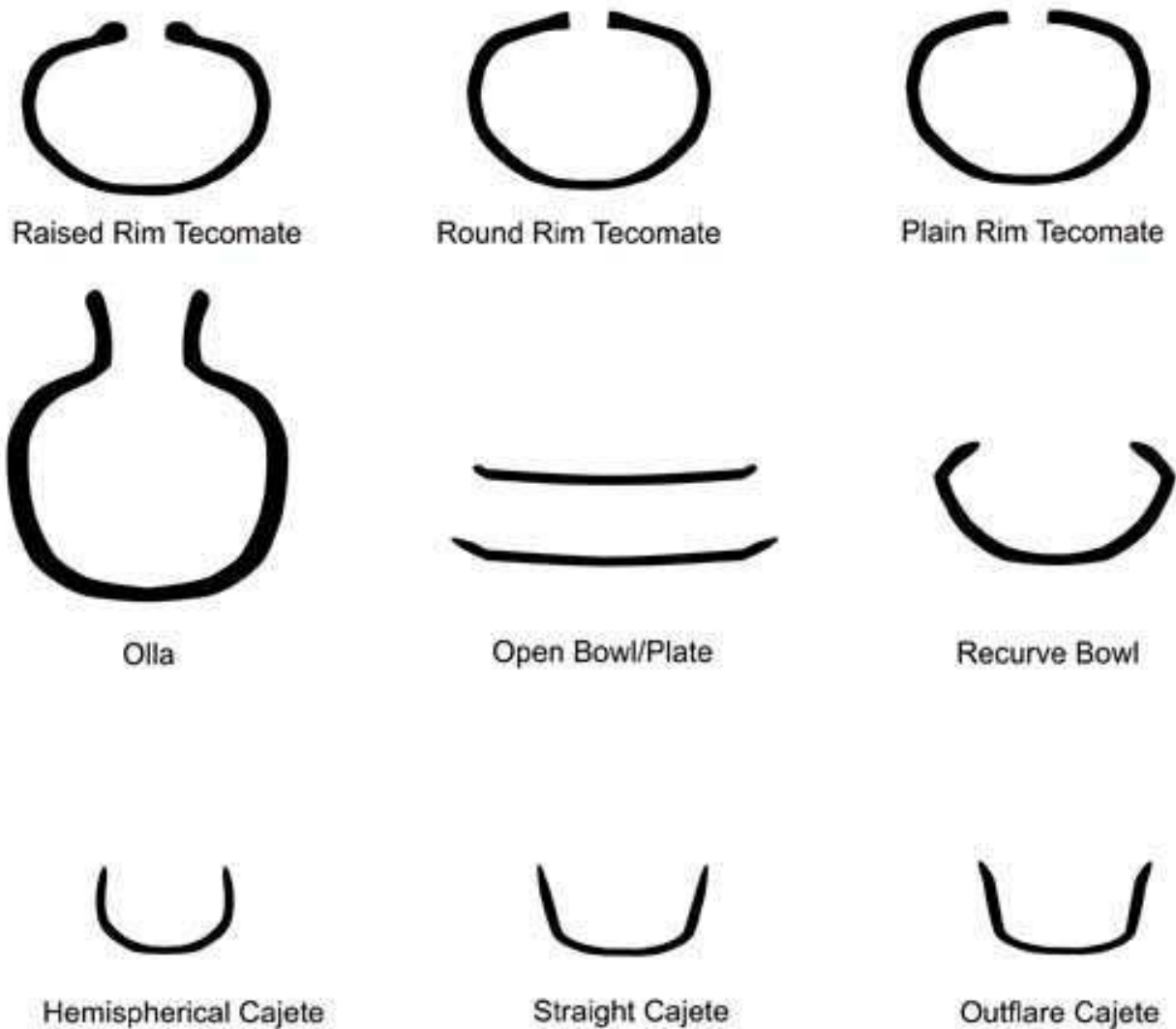


Figure 6. Major shape categories for Middle Balsas pottery.

The Middle Balsas pottery assemblage divides into five major formal types. These forms include the *cajete* (bowl), the *olla* (necked jar), the *tecomate* (globular vessel), the open bowl or plate, and the recurve bowl. Two types, the *cajete* and the *tecomate*, also exhibit subtypes, where differences between the subtypes are related to minor differences in the rim style or the angle of the vessel walls. The major types and subtypes are shown in [Figure 6](#), above. While *cajetes* and *ollas* seem to have been popular throughout the occupational period covered by the three sites, *tecomates* and recurve bowls are only found in large numbers at Itzímbaro and Quesería, the two earlier sites.

Both the coarse and fine wares in this region are primarily monochromatic, although it seems that the potters were deliberately producing various colors of fine wares, including red, buff, black, grey, and brown. Lister notes a fine and burnished black ware

he calls "Cútzeo Polished Black" (1947:72-73). During my analysis, this ware appears to be particularly common at La Quesería, although it also appeared at Itzímbaro. Some vessels exhibit minor color variations, probably due to firing conditions. One light grey ware that had a slightly blue tinge (Munsell color 10B 5/1) was only found at La Quesería, and it may have been an early type or a purely local ware.

A large majority of the vessels, including the coarser ware utilitarian forms, were slipped and well-smoothed or burnished on the visible surface, usually the exterior. The interior of vessels was often smoothed, but not slipped or burnished, except where visible, such as an *olla* neck. A major exception is that of *cajetes*, which were often burnished on both sides. Although I did find a fair number of coarse wares without surface treatments in the surface collected sample, few examples of plain coarse wares without the surface slip and smoothing exist in the excavated sample. I suggest that the surface collected wares had their finish eroded away in many cases. The monochromatic wares generally do not show much surface decoration variation among sites or levels, and seem to have been produced over a long period of time.

The temper or natural inclusions in the monochromatic wares are mainly sandy, but include a variety of minerals, including feldspars, amphiboles, and volcanic ash; they are not purely quartz. Many sherds show very large rock fragments along the broken edges or visible on the surface, so the inclusion size does not seem to have been strictly controlled. Further analysis via petrography and chemical analyses will clarify any existing differences among these monochromatic wares.



Figure 7. Examples of the raised decorative band.

In general, the fine and coarse wares exhibit two main decorative schemes. One is a raised decorative band with incisions or finger tip impressions (see [Figure 7](#), above) and the second is incised geometric decorations. Both the raised decorative bands and the incised decorations seem to be traditions of long time depth in the region, as Muller (1979) notes these in her study beginning in the Middle Preclassic, and they continue into the Postclassic, according to Silverstein (2000). My investigation provides more support for Paradis' (1974) conclusions that these incised types have a time depth into the Classic period, rather than Silverstein's (2000) suggestion that these finely burnished and incised monochromatic wares are only a Postclassic phenomenon.

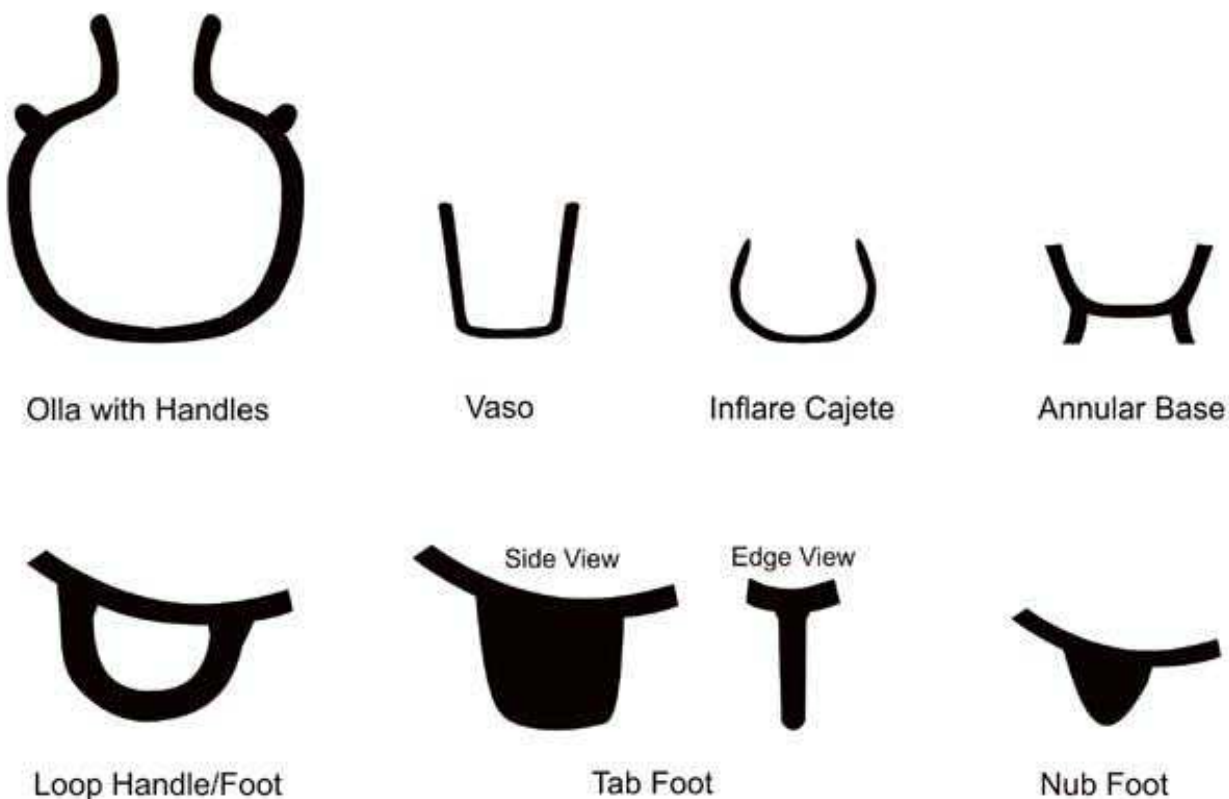


Figure 8. Unusual formal types and appendage shapes.

There are also examples of a variety of supports and handles from the region, and hemispherical loops (see [Figure 8](#), above) are the most common type. These loops are used both as handles and as feet in the Middle Balsas region. In addition to the loop appendages, I noted tab feet, nub feet, annular bases, and a variety of rarer formal and appendage types, which are shown in [Figure 8](#).

A number of polychrome wares were also recovered from the Middle Balsas region, most of which likely date to the Postclassic. The large majority come from Mexiquito, although one two-color ware seems to exist at Itzímbaro. The Itzímbaro ware is characterized by a red slip on the visible surfaces with a wide (3-5 cm) black band along

the rim on the exterior. I only found this ware at Itzímbaro, but it may be similar to a ware described by Muller from the Infiernillo dam project in the Lower Balsas region (Muller 1979:23). This red and black ware has been found in a variety of vessel forms, including *ollas*, recurve bowls, *cajetes*, and *tecomates*.

Additionally, I found a ware that exhibits black painted geometric patterns on a white background. Few examples were recovered, but this ware seems similar to the Yestla-Naranjo ware from the Mezcala region of Guerrero to the east (e.g., Schmidt 1990; Barlow 1947, 1948; Weitlaner and Barlow 1944) or to the "Zimatepec Black-on-White" of Lister (1947:72-73), which Silverstein (2000:417) believes are the same ware. Two additional polychrome wares have black decorations on a solid background. One is slipped and painted a deep red color (Munsell color 10R 4/6), with thin black lines. This ware possibly shows links to what Silverstein calls Guinda ceramics (Silverstein 2000:418-419). A second is a slightly more orange color (Munsell color 2.5YR 4/6) with fine dots and lines of black paint visible. This type possibly shows links to the Aztec black on orange wares of the Late Postclassic (Silverstein 2000:419-420). The final polychrome type is painted on both surfaces with wide lines of geometric designs in white, orange, and red.

Other Materials

A number of other categories of artifacts were found at the three sites, including ground stone (*manos* and *metates*), obsidian, shell, bone, and figurines. Although detailed study of these materials has not been performed, I can suggest a few basic conclusions about these materials that relate to possible trade or other contact with various parts of Mesoamerica or the chronology of Middle Balsas occupation.

The obsidian from the three sites is visually separable into three distinct color types: green, grey, and black. The green obsidian is a small percentage of the assemblage at each site (less than 5%), but likely comes from Michoacán or possibly from as far as Pachuca. The grey and black types, based on relative color and luster, probably come from at least two distinct sources each, but I cannot yet suggest a source. The obsidian is found in blades, projectile points, and smaller fragments.

The figurine data analyzed in the Middle Balsas project comes exclusively from Itzímbaro and Quesería, as less than five tiny fragments of figurine were found at Mexiquito. The figurines are a combination of mold-made and hand-modeled manufacturing techniques. The majority are human figures, although we also found several birds and what look to have been animal heads, possibly deer and jaguars. The human figurines show some links to figurine types found along the coast of Guerrero (Brush 1968), but other types are probably local. I did not find any examples of the Olmec-type baby-face figurines common in Guerrero at Preclassic sites.

Summary

Although analysis of the material recovered by the Middle Balsas Project will continue for several years, the basic information recovered so far sheds light on the chronology of the region and its role in the greater Mesoamerican system. It seems that the Middle Balsas region was densely occupied during the Classic and Postclassic periods of Mesoamerica, especially along the river systems (Armillas 1945:77). The culture that developed in the Middle Balsas region, while obviously influenced by surrounding peoples, is distinct from its neighbors and displays distinctive characteristics in its architecture, figurines, and pottery. Further investigation into this important region will continue to offer information on how the Middle Balsas people developed and interacted with the rest of Mesoamerica.

Acknowledgements

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