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**Archaeological Investigations at Medias Aguas, Veracruz, México**

*Translation of the Spanish by Alex Lomónaco*



**Research Year:** 2004

**Culture:** Undetermined

**Chronology:** Classic

**Location:** Veracruz, México

**Site:** Medias Aguas

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## **Abstract**

Prior to undertaking our excavations at the Medias Aguas site in southern Veracruz, there were a number of discrepancies concerning the typology of the ceramics which mark the Classic Period of Mesoamerica in this region. In addition, the information related to absolute dating was scarce.

Both the excavations and the topographic survey carried out at the Medias Aguas site have provided relevant data about both the sociopolitical complexity and the time extension of the Late and Terminal Classic Period in the region.

The work done during the 2004 field season by the project "Archaeological Investigations at Medias Aguas, Veracruz, México", funded by the Foundation for the Advancement of Mesoamerican Studies, Inc. (FAMSI), enabled the researchers to analyze the remarkable ceramic samples found on the surface as well as the materials discovered in burials.

The findings have been identified in a preliminary phase as pertaining to the Early Villa Alta (ca. 700-800 A.D.) and Late Villa Alta (ca. 800-1,000 A.D.) phases respectively, according to the chronology proposed by Symonds *et. al.* (2002) for the sites dated as Late, featuring monumental architecture arranged in plazas in the nearby region of San Lorenzo Tenochtitlán.

The radiocarbon 14 (charred materials) samples gathered, together with the collagen obtained from bone remains which may be accurately dated, will allow us to confirm the temporality of the burials and the occupational surface.

Further archaeological research at the Medias Aguas site will provide a better understanding of the populating dynamics in the prehispanic settlements from the area of the Mexican isthmus.

## **Resumen**

Ante la escasez de fechamientos absolutos y de las discrepancias en las tipologías cerámicas que distinguen al periodo Clásico mesoamericano en el sur de Veracruz, el primer levantamiento topográfico y las primeras excavaciones arqueológicas efectuadas en el sitio de Medias Aguas, han arrojado información sobre la complejidad socio-política y la extensión temporal de los periodos Clásico Tardío y Terminal en la región de estudio.

Con base en los tipos cerámicos diagnósticos presentes en las superficies ocupacionales y los contextos de entierros excavados durante la temporada de campo 2004 del proyecto "Investigaciones Arqueológicas en Medias Aguas, Veracruz, México", financiado por la Fundación para el Avance de Estudios Mesoamericanos, Inc. (FAMSI); estos hallazgos han sido identificados de forma preliminar correspondientes a las fases Villa Alta Temprana (*circa* 700-800 d.C.) y Villa Alta Tardía (*circa* 800-1,000 d.C.) de los periodos citados respectivamente, de acuerdo con la cronología propuesta por Symonds *et. al.* (2002) para los sitios fechados como tardíos caracterizados con arquitectura monumental organizada en plazas en la región vecina de San Lorenzo Tenochtitlán.

Con la obtención de muestras carbonizadas y la obtención de colágeno de los restos óseos que puedan ser fechadas absolutamente, confirmaremos la temporalidad de los entierros y de las superficies ocupacionales.

La importancia de futuras investigaciones arqueológicas en la región de Medias Aguas, Veracruz, permitirán comprender mejor la dinámica poblacional de los asentamientos prehispánicos en la zona istmeña de México.

## Introduction

The Medias Aguas Archaeological Project (*Proyecto Arqueológico Medias Aguas, PAMA*), was focused on the study of the settlement patterns in the region. The project complements and widens the macro-regional scope by becoming integrated with other studies carried out in southern Veracruz, such as Kruger (1996); Borstein (2001); Symonds *et. al.* (2002); and Alonso (2003). It includes a study area of 200 square km, of which 160 square km have been intensively surveyed, and 124 archaeological sites recorded since the 1999, 2000, and 2003 field seasons.

The identified sites show a variety of architectural characteristics and occupational components that may be dated from the Ojochi-Bajío phases (*circa* 1,200-900/800 B.C.) of the Lower Preclassic Period, to the Late Villa Alta phase (*circa* 800-1000 A.D.) of the Terminal Classic Period, according to the chronology proposed by Symonds *et. al.* (*op. cit.*) for the neighboring region of San Lorenzo Tenochtitlán, located 30 km away in a straight line towards the northeast.

The Medias Aguas region extends within the municipal boundaries of Sayula de Alemán, in the Isthmus of Veracruz ([Figure 1](#), below). It is located in the Sotavento plains, nearby the Mexican Gulf Coast.

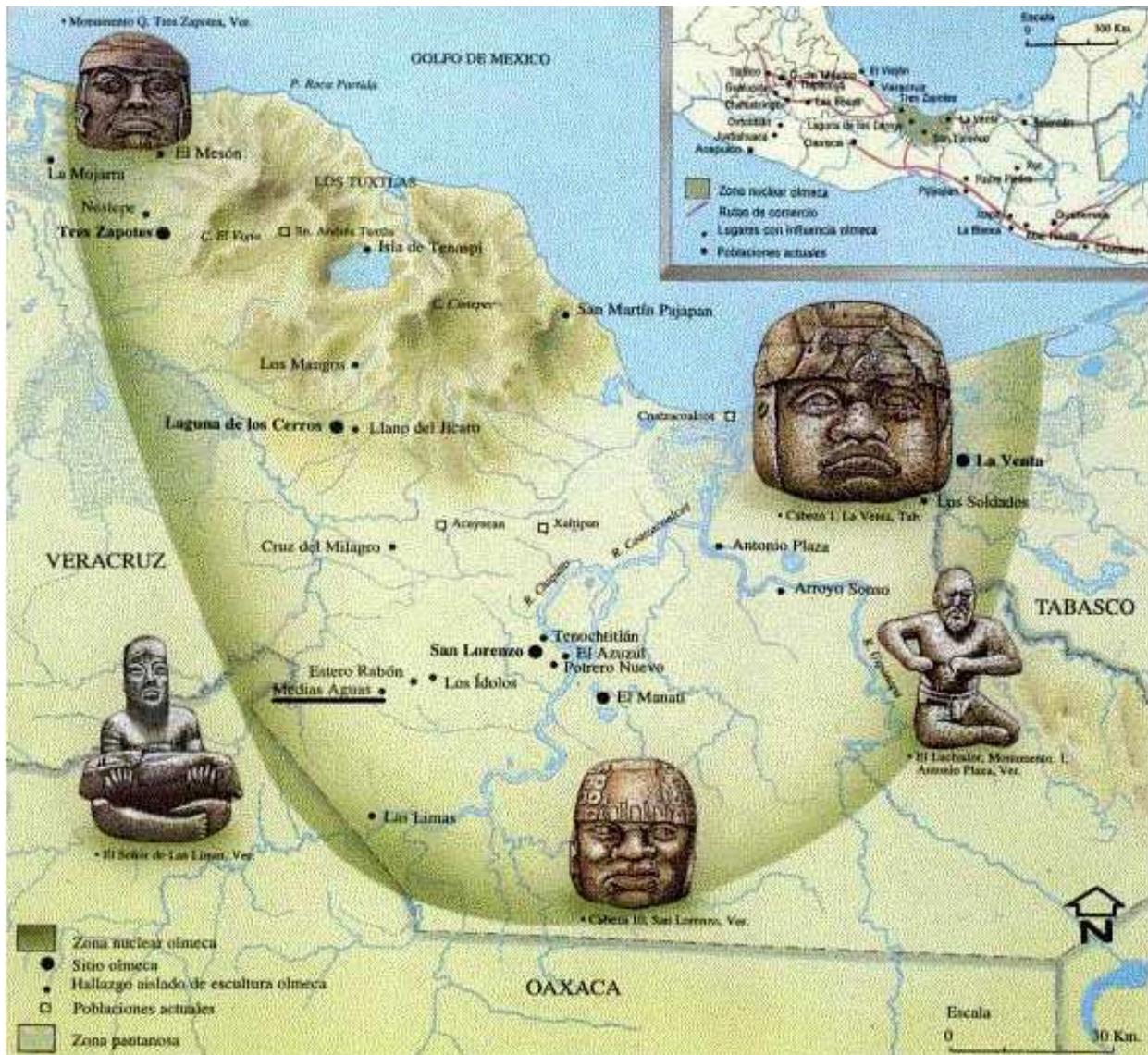
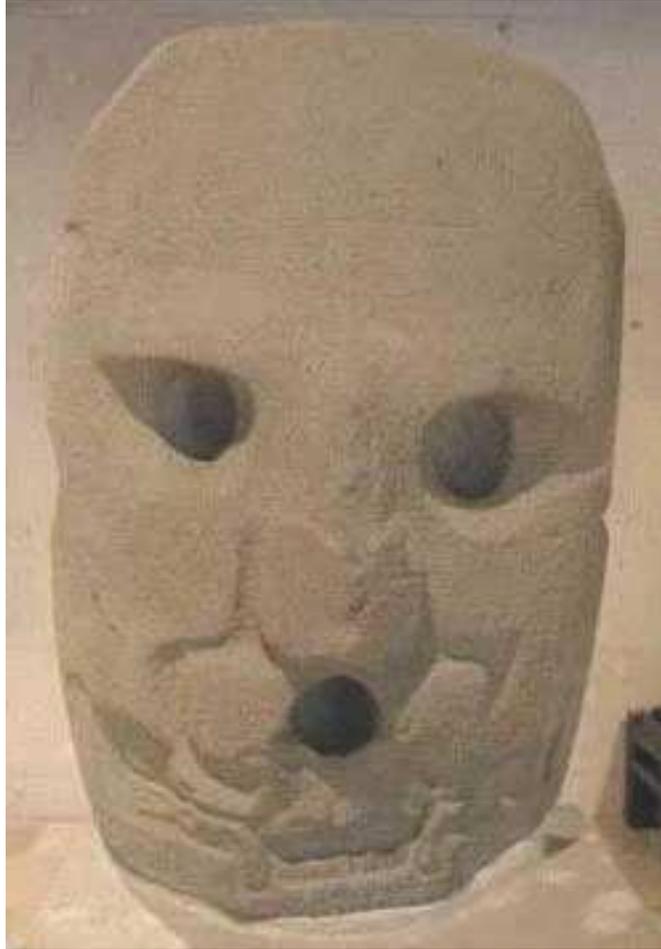


Figure 1. Location of Medias Aguas, Veracruz. (Taken from Arqueología Mexicana, 1995).

The site of Medias Aguas is located on some sort of terraced peninsula at elevation 53 above sea level, visible at a distance, and situated at UTM coordinates: E 2 82 400 and N 19 57 400.

In the archaeological literature, the site is known for its basalt carved monument denominated "The Medias Aguas Mask", uncovered in the 1940s of the past century by local people ([Figure 2](#), below).



**Figure 2. The Medias Aguas Mask. (Photo: Hirokazu Kotegawa).**

It was Alfonso Medellín Zenil who initially reported the site when he moved the monument to the Anthropology Museum at Xalapa, in 1959; a few years later, Hernando Gómez Rueda made a surface collection of materials, and a sketch of the site; during Medellín Zenil's (1960, 1971) and Gómez Rueda's (1996) explorations, no excavations were carried out that may have supported the dating of the site proposed by the authors, which was estimated on the basis of surface collection of materials only. Furthermore, the sketch of the site presented by Gómez Rueda (*op. cit.*) did not reflect the totality and complexity of the surface architecture.

The site of Medias Aguas is characterized by a monumental architecture arranged in plazas ([Figure 3](#), below), (Gómez *op. cit.*; Lunagómez 2002), similar to that of other sites in the region of southern Veracruz, namely: Laguna de los Cerros (Medellín *op. cit.*; Bové 1978); Estero Rabón-San Isidro (Borstein *op. cit.*); Quiamolapan (Beverido 1974); San Lorenzo, Tenochtitlán (Coe & Diehl 1980; Symonds *et. al. op. cit.*); Ahuatepec (Symonds *et. al. op. cit.*); Las Galeras (O'Rourke 2002); La Patagonia, El Salado, El Mixe (Alonso *op. cit.*); El Edén-Los Canseco (Beverido 1986; Cobean 1996); and Las Limas (Yadeum & Pastrana 1978; Gómez *op. cit.*), among several others.



**Figure 3. Main Plaza, Medias Aguas.**

The similarities evidenced by this architectural pattern (plaza) from sites in southern Veracruz with La Venta, Tabasco, has propitiated its assignation to the Preclassic Period (Drucker & Contreras 1953; Bové *op. cit.*; Santley & Arnold 1996; Stark & Arnold 1997); however, recent studies suggest that they could pertain to later temporalities such as the Late and/or Terminal Classic periods (Lunagómez *op. cit.*; Symonds *et. al. op. cit.*).

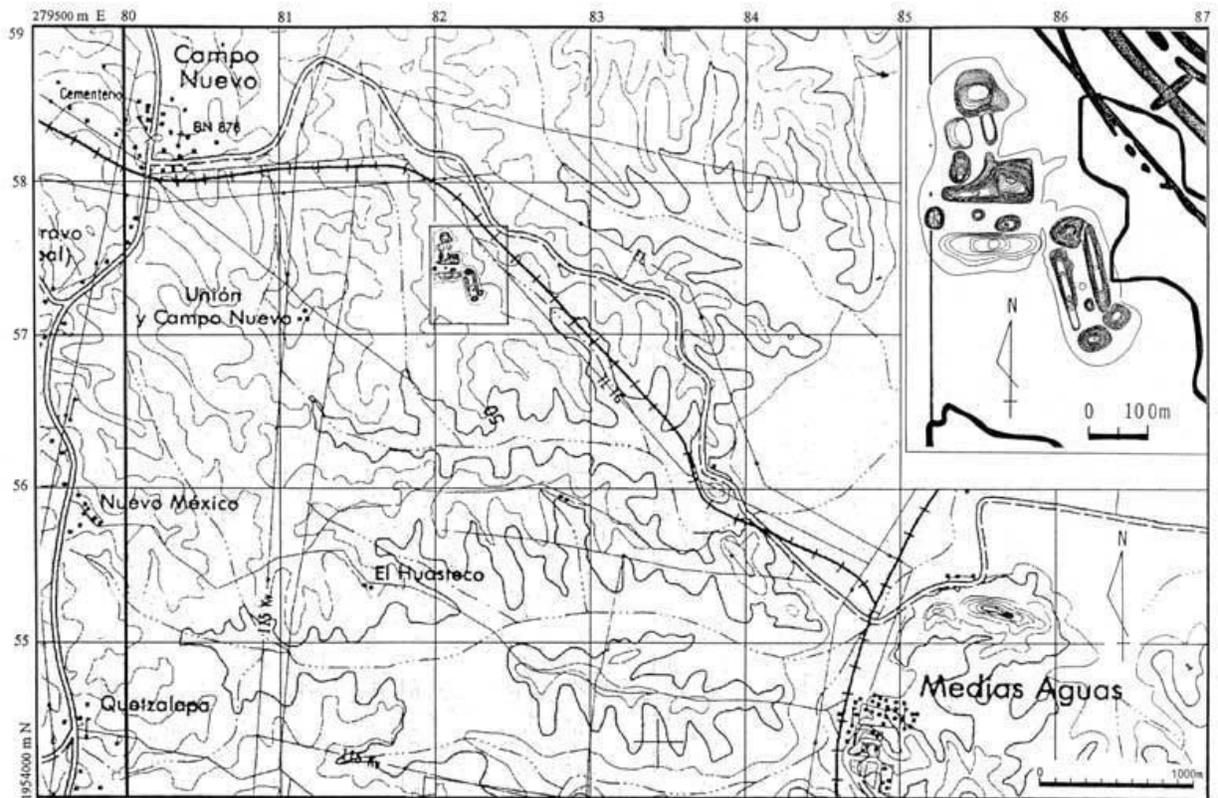
The 2004 field season of the project "Archaeological Investigations at Medias Aguas, Veracruz, México", took place during the months of January, February, March, the last week of November, and the first week of December, 2004.

The field work included the first topographic survey and the first archaeological excavations ever carried out at the site, aimed at examining the occupational sequence and the ceramic chronology which will lead us to interpret the role played by the site of Medias Aguas in the region of southern Veracruz in prehispanic times.

The following is a description of the field activities and works undertaken at the laboratory.

### **Topographic Survey (by Mitsuru Kurosaki)**

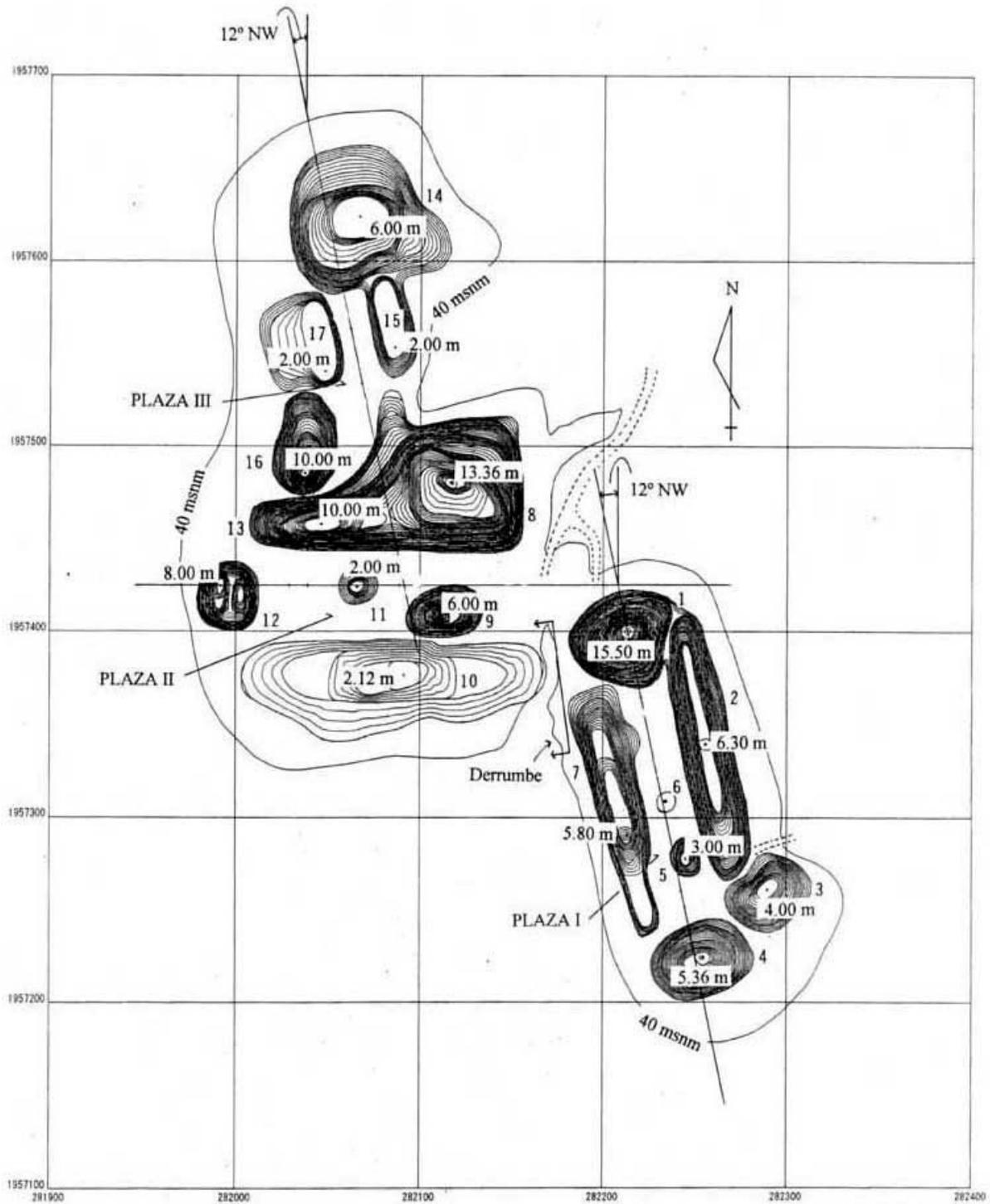
The first topographic survey at the site of Medias Aguas was carried out during the months of January and February, 2004; the work was accomplished with the support of a total station (TOPCON GTS3-320F, EB1390 Type) and the software program "Site System IV" for processing the field data. This survey has been included in the INEGI's topographic chart: E:15C23-EI Paraíso ([Figure 4](#)).



La ubicación del sitio en el mapa de región Medias Aguas  
 (Reubicado en el mapa de INEGI 1988: Carta topográfica E15C23, El Paraiso, Veracruz)

**Figure 4. Location of Medias Aguas (by Mitsuru Kurosaki).**

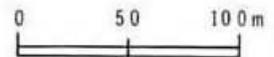
With the site sketch elaborated during the 2003 field season ([Figure 5](#)), three extended plazas were located (Plaza I, II, and III), together with 17 mounds (the tallest one, Number 1, is 15 m high and the smaller one, Number 6, is 1 m high from the level of the respective plaza.) Probably, plazas I and III share a similar central axis, with an orientation inclined 12° towards the northwest.



EQUIDISTANCIA ENTRE CURVAS DE NIVEL: 0.25 m  
 La altitud de cada uno de montículos fue medida desde el nivel de plaza.

ESCALA: 1/ 4000

PROYECTO ARQUEOLÓGICO MEDIAS AGUAS 2003  
 SITIO 8 MEDIAS AGUAS  
 LEVANTAMIENTO TOPOGRÁFICO: Mitsuru KUROSAKI MAEKAWA



Croquis del sitio Medias Aguas (El mapa del sitio con el programa de "SITE IV")

Figure 5. Sketch of Medias Aguas (by Mitsuru Kurosaki).

It has also been observed that Plaza II's orientation (West) follows an axis of 90° to the northwest of the major mound (Number 1). Due to time restraints, the working area in the field was circumscribed to these three plazas and their surroundings (approximately 15 hectares).

However, the full extension of the site was not surveyed, which could cover an area of 40 hectares where other plazas and mound groups were visible, southeast and northeast of Plaza I. In the northeastern portion of the Plaza I group, a stratigraphic cut resulting from a collapse is shown.

Besides, the topographic survey of the site ([Figure 6](#)) has located, three-dimensionally, the 13 excavated units (sections, test pits, and pits), while their geographic situation was verified in geographic coordinates (latitude and longitude), in UTM coordinates, and in altitudes above sea level (masl) by means of a Geographical Positioning System (GPS) using a satellite geo-positioning device (GARMIN Etrex-Venture).

We may also mention that the possible location of the unique stone monument of the site ([Figure 6](#)), the so-called "Medias Aguas Mask" ([Figure 2](#)) was confirmed, with the assistance of one of the discoverers of the monument (don Rafael Terrón, personal communication).

In short, during the 2004 season we concentrated on the completion of the topographic survey of the southeastern area and the northeastern portion of the site, with the purpose of defining the architectural planning of Plaza I and the location of the archaeological excavations (sections, test units, and pits).

1957900 N El Mapa del sitio Medias Aguas Número 8, Temporada 2004

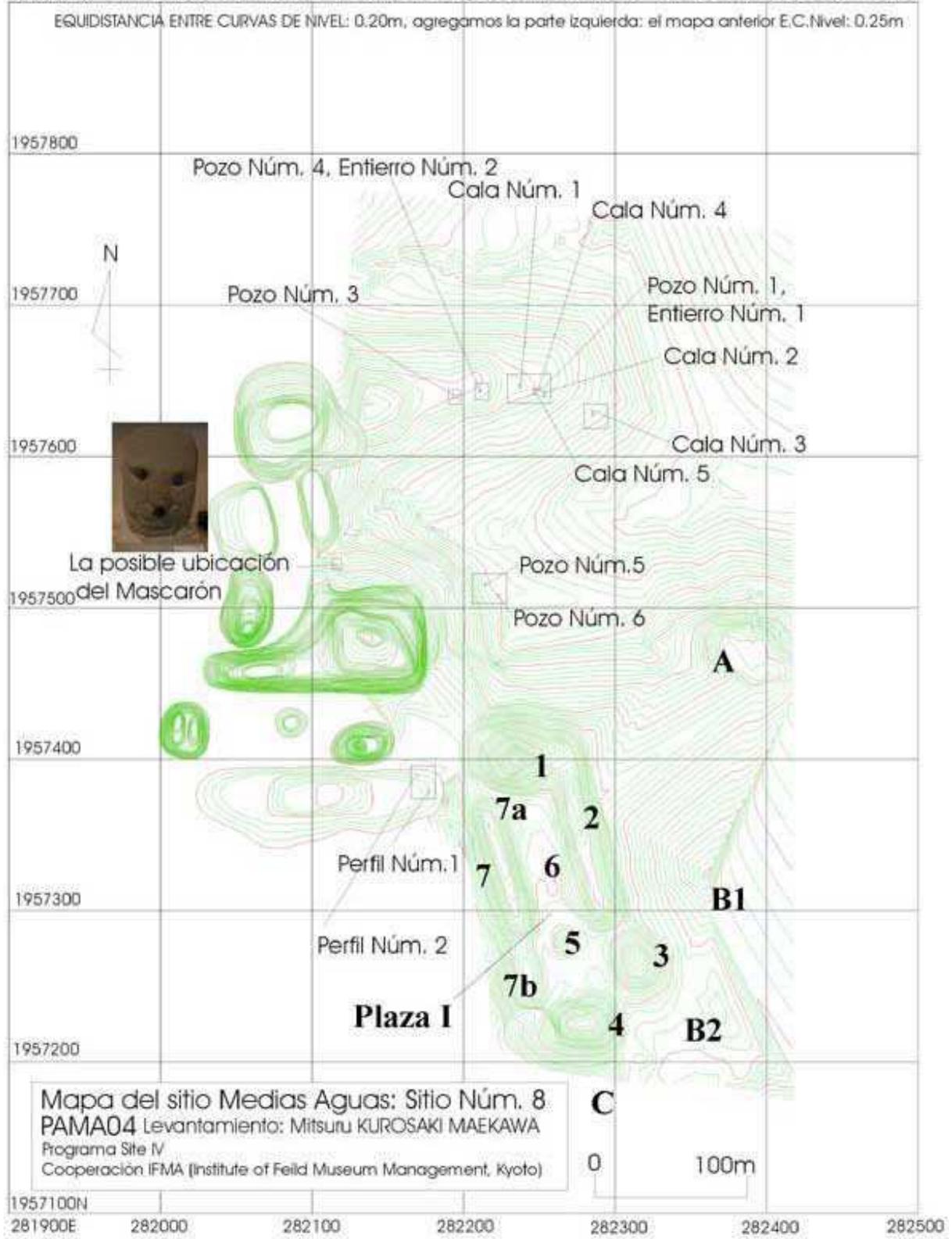


Figure 6. Topographic survey of Medias Aguas (by Mitsuru Kurosaki).

## **The Excavation Program**

Based on collections made during the surface surveys carried out during the field seasons 1999, 2000, and 2003 (Lunagómez 1999, 2000, 2003), we now know that some site areas include materials that are representative of different periods and phases, and that therefore could contain unaltered stratified deposits. Particularly the area located north of the major mound (Number 1), composed by some sort of extended peninsula that runs in an east-west direction, on which slight elevations are observed which increase their height in the direction already mentioned, was selected as an excavation area due to the heavy occurrence of ceramic materials, derived from the excavation of wire-fences posts for the cattle.

The excavations were focused on the completion of 13 test units at the site ([Figure 6](#)).

In the excavation of the 11 test units: test pits 1-5 (1×3 m and 1×4.5 m) and pits 1-6 (1×1 m, 1×2 m and 2×3 m), a rigorous control of stratigraphy was implemented to control the 20 cm deep metric levels within the layers or strata. Besides, two sections were cleaned, thus taking advantage of the modern collapse which made it possible that the cultural and geological stratigraphy of the site were studied.

Carbon samples were taken for RC14 analysis with the purpose of obtaining absolute datings, together with samples for paleobotanical flotation analysis.

We shall now describe each excavation unit:

### ***East Section - Plaza II (West)***

Dimensions: 2.50 m (long).

The stratigraphy resulted as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

The consistency of the layer was tight, with a sandy texture.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

Bottom line: 145 cm.

Findings: Materials found included ceramics (sherds) and lithics (obsidian), ([Figure 7](#), below).



**Figure 7. East Section - West Plaza.**

***East Section - Mound 10 - Plaza II (West)***

Dimensions: 3 m (long).

The stratigraphy resulted as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

The ceramic materials from the collapse were collected. This layer contained ceramic material only (sherds).

Bottom line: 25 cm.

Layer II: Black clay. Munsell Color Chart: 10 YR 4/3 Brown.

Excavations continued at the northern half to reveal the extension of an intrusion. This layer contained ceramic materials (sherds), lithics (obsidian) and shell.

Bottom line: 60 cm.

Layer III: Orange clay with gray streaks. Munsell Color Chart: 2.5 Y 6/8 Olive Yellow.

Archaeological material was collected, basically ceramics and lithic objects.

End of excavation: 2.34 m.

Findings: a number of special ceramic fragments were recovered (fragments of partial vessels), as also shell ([Figure 8](#), below).



**Figure 8. East Section - Mound 10 - West Plaza.**

### ***Test Unit 1***

Dimensions: 3×1 m.

In this unit the stratigraphy resulted as follows:

Layer 1: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown

The consistency of the soil in this layers was tight, with a sandy texture. It presented abundant inclusions of organic materials such as plant roots and micro fauna (insects).

This layer contained ceramic materials only (sherds).

Bottom line: 14 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

The texture of the soil was clayish (extremely plastic mud)); its consistency was very tight and it still showed inclusions of organic materiales, such as roots.

Bottom line: 30 cm.

Layer III: Orange clay with gray streaks. Munsell Color Chart: 2.5 Y 6/8 Olive Yellow.

The texture of the soil in this layer was clay mixed with sand; the consistency was that of a very dense clay resulting from deposition; inclusions were present in the form of large gray streaks within the orange clay; the color of such streaks according to the Munsell Chart was as follows: 2.5 Y 5/2 Grayish brown; in addition, it also presented inclusions of calcium carbonate (Pierre Masson, personal communication). Perhaps this layer represented the final part of the cultural deposits.

This layer was very poor in archaeological materials in regard to ceramics (sherds) and lithics (obsidian). In the final 20 cm of this layer, the presence of ceramic was almost inexistent.

End of excavation: 70 cm.

Findings: A small carbon sample was recovered, and number of ceramics (sherds), lithic objects (obsidian) and a ceramic seal.

## ***Test Unit 2***

Dimensions: 3×1 m.

The stratigraphy in this excavation presented the following layers or strata:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

The soil was dark brown, its consistency was tight and it showed inclusions of organic materials. Walls were profiled, and at 43 cm a change of layer occurred.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

With a clayish texture and a tight consistency, showing inclusions of calcium carbonate and roots.

This layer produced a small amount of ceramics and obsidian; a plan drawing was completed due to the occurrence, at 52.5 cm, of an intense yellow patch with a clayish texture and a tight consistency, which was identified as a part of a natural formation.

Excavation continued, new levels were reached, but no change of layer occurred.

The excavation of this test unit was finished at 103 cm, and a window measuring 1×1 m was opened in the southern portion of test unit 2, with the purpose of reaching layer III: however, layer II still continued.

The N, W, S, and E walls were drawn, and a drawing of the final plan view was completed.

End of excavation: 103 cm.

Findings: Ceramics and obsidian were found, together with a partial vessel which was drawn in a plan view.

## ***Test Unit 3***

Dimensions: 3×1 m.

The stratigraphy included the following layers:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

A layer of tight soil and sandy texture, with a grayish-brown color. No inclusions were found.

Bottom line: 20 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

It was characterized by a compact soil with a clayish texture that revealed inclusions of organic materials (roots). At a depth of 60 cm in the north side of the test unit, an orange soil appeared (Layer III) but due to the inclination of the test unit, this soil did not

occur at the south side, and excavations continued to a depth of 91 cm on this side only. Layer III never appeared in full on the test unit surface, in a way that we might say that at a depth of 60 cm, layers II and III were mixed.

End of excavation: 91 cm.

Findings: A great variety and a remarkable presence of materials such as: ceramics (sherds) and special ceramics (partial vessels), figurines, special artifacts (ceramic flute), lithics (obsidian), red pigment, bone and shell ([Figure 9](#), below).



**Figure 9. Excavation process, Test Unit 3.**

#### ***Test Unit 4***

Dimensions: 3×1 m.

The stratigraphy in this layer was as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

The consistency of the soil in this layer was tight with a sandy texture. It presented abundant inclusions of organic materials such as roots and micro fauna.

Bottom line: 20 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

The texture of the soil in this layer was clayish (highly plastic mud), the consistency was very tight and inclusions of organic materials, such as roots, were present. Large amounts of archaeological materials were recovered such as ceramics and lithic

objects, and a small green stone: also, vessel fragments -placed in bags- and a small prismatic blade marked as elements 1 and 2 of the corresponding test unit were recovered, at a depth of 32 cm; below these two elements there was a large concentration of ceramics, at an initial depth of 32 cm and down to 34 cm. Vessel fragments were collected, as also a seemingly whole vessel in a block; this cluster of vessels had a maximum depth of 44 cm.

Layer III: Orange clay with gray streaks. Munsell Color Chart: 2.5 Y 6/8 Olive Yellow.

The soil texture in this layer was clayish and/or sandy; the consistency was that of a very tight clay as a result of depositions; inclusions were represented by large gray streaks within the orange clay, and the color of the streaks according to the Munsell Color Chart, was 2.5 Y 5/2 Grayish brown; in addition, inclusions of calcium carbonate were present. Perhaps this layer represented the end of cultural depositions.

In this layer abundant archaeological material was found, including ceramics (sherds) and also lithics (obsidian); the feature in test unit 5 corresponds to fragments of vessels collected in bags at a minimum depth of 34 cm and a maximum depth of 55 cm.

End of excavation: 70 cm.

Findings: Ceramics (sherds), lithics (obsidian), shell, special ceramic, 2 whole vessels, one green stone fragment, and one complete prismatic blade.

### ***Test Unit 5***

Dimensions: 3×1 m.

The stratigraphy of this excavations included the following layers:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

Texture was compact, bags of ceramics were collected as also bags of obsidian artifacts.

Bottom line: 20 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

With a clayish texture, this layer produced bags of ceramics and obsidian; the central and west portions of the test unit presented the largest concentration of materials; in the middle section, large amounts of charred mud patches were found, which began at 22 cm and ended at a 40 cm depth.

Bottom line: 60 cm.

Layer III: Orange clay with gray streaks. Munsell Color Chart: 2.5 Y 6/8 Olive Yellow.

With a clayish texture, this was a sterile layer where no archaeological material were found. A 1×1 m window was opened from the center to the east wall, to check whether any material was found within the following level.

End of excavation: 63 cm.

Findings: Ceramics (sherds) and lithics (obsidian).

## ***Pit 1***

Dimensions: 1×1 m.

The stratigraphy in this unit appeared as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

The soil was dark brown, with a compact consistency and a sandy texture.

Bottom line: 21 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

Very compact consistency (with a great plasticity).

The excavation of Layer II was finished at 36 cm. The soil changed its color and its consistency was clayish and yellow.

Bottom line: 36 cm.

Layer III: Orange clay with gray streaks. Munsell Color Chart: 2.5 Y 6/8 Olive Yellow.

The soil is an orange clay with gray streaks. Its consistency is clayish and/or sandy, and presents inclusions of large gray streaks within the orange clay, with occasional small inclusions of calcium carbonate, the possible ending of cultural depositions.

Excavation continued and at 44 cm the rim of another large vessel was found; therefore, an extension to the east of 1×1 m was undertaken. A drawing of the eastern wall was made. This layer included ceramics and gray obsidian.

End of excavation: 44 cm.

Findings: One decorated vessel, of which a plan view drawing was made.

## ***Pit 1 - Eastern extensión***

Dimensions: 1×1.5 m.

Stratigraphy in this unit was as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

We went down initially on the eastern extension to find a large obsidian fragment and ceramic fragments.

Bottom line: 27.5 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

On our way down, the border of the eastern extension produced large fragments of the second vessel, of which a plan view was drawn up; further down the soil changed to a clayish yellow, and at 38 cm additional fragments were found of which a drawing was made.

Bottom line: 38 cm.

Layer III: Orange clay with gray streaks. Munsell Color Chart: 2.5 Y 6/8 Olive Yellow.

Furthering the excavation, the soil showed a yellowish gray color and a plastic texture. A N-S and E-W axis was established for the drawing of Vessel 2, and the excavation continued in quadrants of 44 cm; the northeastern quadrant was liberated and there,

bone remains were found (Burial 1); the corresponding drawing was made, measures were taken, and the second vessel was covered with plastic.

Bottom line: 44 cm.

The second vessel was excavated on its E-W-S sides to a depth of 70 cm; then it was carefully packed with its entire matrix. The vessel was extracted on a double screen bed with sacks, the N-S axis was marked, and it was wrapped-up with self-adhesive plastic and aluminum paper.

The excavation continued and the profiles of Walls N, E, and W were drawn; the texture of the soil did not change, and we began to mark the northeastern direction with a thread to complete a new extension.

End of excavation: 90 cm.

Findings: One large vessel containing Burial 1 ([Figure 10](#), below).

### ***Pit 1 - Northern extensión***

Dimensions: 1.5×1.5 m.

The stratigraphy in this unit was as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

This layer included some ceramic fragments and gray obsidian.

Bottom line: 20 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

In this layer a red polished stone was found, which was marked as special.

A topographic drawing of the unit's plan view was made.

Bottom line: 45 cm.

No material whatsoever was found as we proceeded with the excavation, with the exception of an oblong feature with characteristics similar to those of Layer I. Samples for flotation analysis were taken, and a number of ceramic fragments were obtained. A window was opened at the NE corner of the excavation unit.

Bottom line: 82 cm.

Layer III: Orange clay with gray streaks. Munsell Color Chart: 2.5 Y 6/8 Olive Yellow.

We proceeded with the excavation and completed a drawing with the plan view of the unit.

End of excavation: 104 cm.

Within the excavation units Pit 1 and Pit 4, two human burials were found which will be described at the end of this section.

Findings: Burials 1 and 2, ceramics (sherds), lithics (obsidian) and polished lithics.



Figure 10. Vessel with Burial 1, Pit 1.

## **Pit 2**

Dimensions: 1.5×1 m.

The stratigraphy in this unit was as follows:

Layer I: Humus. Munsell Table Chart: 7.5 YR 2.5/1 Black. Dark brown.

This layer contained ceramic fragments and fragments of green and black obsidian, as well as charred mud.

Bottom line: 21 cm.

Layer II: Brown clay. Munsell Table Chart: 10 YR 4/3 Brown.

Further in the excavation the soil changed to a grayish color, and fragments of black obsidian were recovered.

Bottom line: 40 cm.

Layer III: Orange clay with gray streaks. Munsell Table Chart: 2.5 Y 6/8 Olive Yellow.

This layer presented small white dots (calcium carbonate) and a clayish compact intense yellow patch, similar to the one found in Test Unit 2. This layer included organic materials and micro fauna. A drawing of the patch was made.

End of excavation: 44 cm.

Findings: charred mud, ceramics (sherds) and lithics (black and green obsidian).

### ***Pit 3***

Dimensions: 2×3 m.

In this unit the stratigraphy was as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

It contained root inclusions and a small amount of red pigment. A large amount of ceramics was found, as also a number of cut stone fragments (obsidian).

Depth level: 20 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

It consisted of some sort of yellowish, clayish soil with a muddy texture.

End of excavation: 60 cm.

Findings: Ceramic material (sherds), lithics (obsidian), figurines, a grinding stone (metate), red pigment, charred mud, evidence of a midden, baking stains, two complete projectile heads (Tula Point) and whole vessels ([Figure 11](#), below).



**Figure 11. Excavation process, Pit 3. (Photo: Hirokazu Kotegawa).**

## **Pit 4**

*(by Mitsuru Kurosaki)*

Dimensions: 1×1 m.

In this unit the stratigraphy was as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

Depth level: 20 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

Bone remains and a ceramic fragment were found at a short depth on the north wall of the pit, approximately 40 cm below the surface. We extended the pit 1 m north to observe the extension of Burial 2. While extending the surroundings of this burial, at a depth level of 60 cm, a gray-colored frame occurred. Digging deeper, we found a 1×1 m tomb in an approximate N-S and E-W direction, 40 cm thick. Inside the tomb, bone fragments were found, and one obsidian fragment; the burial was more clearly revealed, and the remains of the skull were exposed. The texture of the soil was clayish, of a greenish-gray color, and heavily compacted, with no natural inclusions. The texture of the soil was very thin and contained no artifacts.

The tomb's refill was square in shape, it consisted of very loose earth, and included materials such as ceramics and obsidian. Around this stain, an additional square-shaped mark was visible: the soil was very fine and sandy in texture, the texture was very tight and no materials were found.

A small trench was opened inside the tomb, on the south and west sides of Burial 2, and we proceeded down to check the depth of this layer. The layer began to be clearly seen at a depth of 68 cm, it included no ceramics, and its texture was sticky.

We began to descend to level IV (61-80 cm) where we observed a charcoal stain that proceeded to the bottom of the tomb.

In this section, we took five charcoal samples and recovered two ceramic sherds and obsidian. Apparently, Burial 2 was tossed from above in this interment tomb.

On the south side of the tomb we proceeded down to a depth of 80 cm, and found vessel fragments. Outside the tomb and beginning in level V (81-100 cm), there was a sandy layer that reached the level of a very sandy, brown layer.

Layer III: Orange clay with gray streaks. Munsell Color Chart: 2.5 Y 6/8 Olive Yellow.

End of excavation: 100 cm.

Findings: ceramic (sherds), lithics (obsidian), Burial 2 and whole vessels.

## **Pit 5**

Dimensions: 1×1 m.

In this unit the stratigraphy was as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

Within this layer, level 1 was completely excavated; we began with a topographic drawing of the surface, we recorded every point below level 0 and we placed them in the rod, northeast of the unit. At the time of concluding level 1, layer 1 still continued; in this level we found coarse and very damaged ceramic material, in small fragments and with no type uniformity. There was little lithic material, a concentration of charred mud with sherds, and superficial, very abundant charcoal. We proceeded to level 2, still within layer 1, but layer II began immediately, at a depth of 22 cm.

Layer II: Brown clay. Munsell Color Chart: 10 YR 4/3 Brown.

Level 2 was completely excavated, with the finding of different types of pottery, two figurines, scarce lithic material, while the concentration of charred mud present in layer 1 was excavated. We made a plan view drawing at a 23 cm depth, and samples were taken for RC14.

Finally, drawings were made of the N and W walls, and the excavation unit was closed at the end of level 2.

Observations: The amount of materials recovered was very poor for the proposed stratigraphic objectives: therefore, the decision was made to conclude the excavation at the end of level 2. The data obtained from Pit 5 confirm both the typology and the stratigraphy observed in the other units excavated during the season.

## ***Pit 6***

Dimensions: 1×1 m.

The stratigraphy resulted as follows:

Layer I: Humus. Munsell Color Chart: 7.5 YR 2.5/1 Black. Dark brown.

The first layer ended at a depth of 20 cm, and it consisted of a compact soil with a sandy texture. It presented some inclusions of organic materials, such as roots. The collection of archaeological materials consisted basically of ceramics (sherds) and lithics (obsidian); as they began to gradually decrease, the pit was closed.

End of excavation: 20 cm.

Observations: The amount of material obtained was very scarce for achieving the proposed stratigraphic goals; therefore, the decision was made to conclude the excavation.

## **The Burials**

The excavation of the first five prehispanic burials found at the site of Medias Aguas represented a meticulous and detailed process that involved the use of odontological/surgical instruments and the best possible sterile conditions that included the use of discardable gloves and chin straps to avoid the contamination of bone remains. Our goal was to have the opportunity to carry out different analysis of the burials, like collagen tests, RC14 for datings, and DNA tests for the ethnical comparison with other sites and regions, and to obtain samples for paleo-ethnobotanical analysis.

## ***Burial 1***

Pit 1, where Burial 1 was found, was located north of the main mound of the site—Number 1 ([Figure 6](#)), and the initial dimensions of this excavation unit were 1×1 m; shortly after the unit was expanded as a consequence of the finding.

The excavation was carried out by identifying natural layers controlled by metric levels 20 cm deep. At Level 4-Layer III, a vessel was resting in a vertical position; because of its location at the pit's corner, we had to expand the pit to the east, an additional 1×1 m.

In the process of liberating the vessel and due to its large size, the outline of its axis was considered as necessary for the better control of the contents; in the northwestern quadrant of the vessel, there were human bone fragments with the possible characteristics of a secondary burial.

Due to the acidity of the land, typical in the region of southern Veracruz, the bones presented a poor state of preservation.

As a consequence of the fragmentary state of the vessel and the condition of the bone remains, it was decided to remove the vessel and take it in a block within the soil matrix where it was deposited, for a better protection and conservation considering the materials it contained, for the further excavation of the vessel's interior at the laboratory.

Burial 1 corresponds to the direct secondary type; it was placed in a flexed position on the right lateral decubitus, in a north-south direction and was possibly an infant. It includes the remains of the skull, the bones of the upper limbs (arms) and lower limbs (legs) and fragments of the collar bone. It was deposited inside a large vessel accompanied by a spout vessel, a flat-bottom bowl and a bust-type figurine with evidence of movable joints, as an offering ([Figure 12](#), below).



**Figure 12. Burial 1 deposited inside vessel, at the Laboratory.**

## ***Burial 2***

*(by Mitsuru Kurosaki, Xóchitl León and Nelly Núñez)*

Approximately 37 m west of Pit 1 where Burial 1 was located, a unit measuring 1×1 m was defined and denominated Pit 4 ([Figure 6](#)). Pit 4 was placed on a small mound, also north of the main mound of the site (Number 1).

When excavation at Level 3 was initiated, a bone fragment was found which was cleaned with small instruments, revealing that it belonged to a human skull. As the excavation proceeded, a larger concentration of bone material was observed, and therefore the decision was made to expand the pit in a north direction in order to achieve a larger perspective of the burial. With this expansion, the dimensions of the pit changed from 1×1 m to 2×1 m. As the excavation proceeded, a change in the color and consistency of the soil became evident; this was a darker soil, with a very loose consistency, as if it had been removed. Inside this intrusion, additional bone remains were found, a fact that led us to think that this was a part of the interment tomb ([Figure 13](#), below).



**Figure 13. Burial 2 and vessels from Pit 4. (Photo: Mitsuru Kurosaki).**

This finding was denominated Burial 2, it was of the direct primary type and had been placed in a seated, flexed position with a north direction; the bone remains were in a rather satisfactory state of preservation, in spite of the humid and acid characteristics of the soils in the region.

Inside the unit, towards the southwest corner and at a depth of 79 and 85 cm, the fragments of three vessels were uncovered.

After an *in situ*, excavation, the burial was removed as an earthen block to be taken to the laboratory, for its better handling and care.

The remains of the skull, femur, rotula, tibia and fibula, possibly of a youth, were uncovered. Inside the interment tomb there was a variety of charred materials. We are still uncertain if the three vessels -a tripod bowl with button supports ([Figure 14](#), below), a vase and a large pot decorated with red paint, were, or were not, deposited as an offering. Close to this group and on the south wall of the excavation unit (Pit 4), there was a human femur, corresponding to Burial 3.



Figure 14. Tripod bowl, Pit 4. (Photo: Mitsuru Kurosaki).

### **Burial 3**

*(by Xóchitl León and Nelly Núñez)*

It was located on the south wall of the excavation unit or Pit 4, making it necessary to define its outline and to expand the excavation 1 m×50 cm. This was a direct burial in a full seated position, located at an approximate depth of 80 cm in its deeper part. Because of the size and thickness of the long bones (which would correspond to the lower limbs of the legs and the upper limbs of the arms) this could have been an adult individual. Similar to Burials 4 and 5, the skull and the maxillary bones were in a good state of preservation. Below this burial and on the SW corner, a bowl was uncovered, with a 20 cm diameter, short and flat walls, and an orange fine paste, arranged as an offering for the individual ([Figure 15](#), below).



**Figure 15. Burial 3 with a vessel, Pit 4.**

## **Burial 4**

*(by Xóchitl León and Nelly Núñez)*

It was found at the excavation unit Pit 4-W extension, located north of the main mound (Number 1), at an approximate depth of 58 cm, according to the surface datum-rod by total station. This is a secondary burial deposited in a seated position inside a globular vessel. The burial was composed of long bones (possible fémurs, tibias, fibulas, radiuses, and cubitus), the skull, the maxillary bones and teeth. The offering observed included at least 3 tripod vessels and a miniature jug, besides a drill and a projectile point elaborated in black and streaked gray obsidian, respectively. A spindle, a clay bead and remains of red pigment in association to the bone remains were also found ([Figure 16](#), below).



**Figure 16. Skull from Burial 4.**

## **Burial 5**

*(by Xóchitl León and Nelly Núñez)*

Burial 5 was found at the beginning of the excavation at level IV in the W extension of the unit-Pit 4. The burial corresponds to the secondary type, and was deposited inside a large vessel of approximately 56 cm in diameter. This burial includes long bones (possible the upper limbs of the arms and the lower limbs of the legs), ribs, phalanxes, skull, lower maxillary bone (mandible) and upper maxillary bone, with the corresponding teeth. It is worth noting that the bone material is in a favorable state of preservation. The skull was found at a depth of 64 cm, while one rotula and one femur were the remains found nearer the surface, at a depth of 49 cm. The fragments of the large vessel began at 79 cm and continued to a depth of 84 cm. This vessel was found together with several small other vessels and a globular vessel, all arranged as an offering for the individual ([Figure 17](#), below). In the north section, an additional burial occurred (Burial 6), which was not excavated due to time restraints.



**Figure 17. Burials 3 and 5 with vessels, Pit 4.**

## Laboratory Work

The analysis of archaeological materials has consisted in the typological classification of sherds by excavation levels, the cleaning and consolidation of the vessels, ceramic figurines and other artifacts, tasks that were all carried out by students of the Archaeology Career at the "Mtro. Alfonso Medellín Zenil" Laboratory, School of Anthropology, the University of Veracruz at Xalapa.

The burials are being treated for their conservation and restoration, and for their sampling. Furthermore, a micro-excavation is being carried out for the stratigraphic control of each of the blocks containing a burial, according to the methodology used by Lara & Guevara (2002), with the purpose of recovering the archaeological bone and/or botanical materials that may have been a part of the offering associated with each burial. The purpose was also to recover samples for absolute datings, such as RC14, collagen, and/or for the paleoethnobotanical of pollen, phytolites and flotation, according to the guidelines provided by Limón (1989); Pijoan (1981); Ubelaker (1999) and White & Folkens (1991), with the overall goal of more accurately establishing the age, sex, possible pathologies and lifestyles of the buried individuals (Malvido, Pereira & Tiesler 1997).

The micro-excavation process was initiated with the liberation of the vessel from its earthen matrix and its contents ([Figure 18](#), below). The first step consisted in stabilizing the earthen block that contained the vessel, which was initially covered with an adherent plastic and then fixed with an expandable polyurethane foam inside a plastic container; later, a grid was outlined with the four cardinal points (N, E, S and W) and the threads were marked each 2 cm for a more accurate control of the micro-excavation. The metric level to carry out the excavation was 5 cm deep. Each quadrant was assigned a letter for the control of the material to be found, and surgical/odontological instruments were used.

Due to the state of the artifacts and the bone remains, they had to be hydrated periodically, in an attempt to carry out a careful excavation so that the contents would not collapse, thus providing a wider vision, and the closest possible one, to the original funerary arrangement.



Figure 18. Micro-excavation process at the Laboratory.

### Preliminary Interpretations

The first topographic survey and the first archaeological excavations carried out at the site of Medias Aguas, have yielded information on the social complexity and the temporal extension of the Late and Terminal Classic periods in the study region.

Based on the ceramic types identified in the occupational surfaces where the burials were found, they have been preliminary interpreted as corresponding to the phases Early Villa Alta (*circa* 700-800 A.D.) and Late Villa Alta (*circa* 800-1,000 A.D.) of the periods mentioned, respectively, according to the chronology proposed by Symonds *et. al.* (*op. cit.*) for the sites dated as early characterized with monumental architecture arranged in plazas in the neighbor region of San Lorenzo Tenochtitlán.

With the obtention of charred samples and the obtention of collagen from the bone remains, fit to provide absolute datings, the temporality of the burials and of the occupational surfaces will be confirmed.

In the past, the archaeological investigation of southern Veracruz was focused mainly on the so-called Olmec phenomenon, and research on later occupations from the Classic and the Post-Classic periods has received little interest. Fortunately, in recent investigations (Stark & Arnold *op. cit.*; Borstein *op. cit.*; Arellanos & Beauregard 2001; Domínguez 2001; Killion & Urcid 2001; Daneels 2002; Lunagómez *op. cit.*; Symonds *et. al. op. cit.*; Alonso *op. cit.*; Lira & Serrano 2004), the eyes of archaeologists have turned to different issues, for the benefit of the Coastal Mexican Gulf archaeology, as a whole.

Burials and occupational surfaces found during the excavations of the 2004 field season of the project "Archaeological Investigations at Medias Aguas, Veracruz, México", would suggest that this area of the site may have had a funerary function, with some kind of relationship with the amazing representations of fleshless faces in the ceramic figurines recovered during the excavations and the face known as "Mascarón", one of the few samples of monumental sculpture from southern Veracruz which does not reproduce the unmistakable "Olmec style".

The features exposed in burials and occupational surfaces from the site of Medias Aguas, may lead to think about a funerary system of which only one part has been excavated. The implications that further research at the site may yield will be of primary importance, as they will contribute to the better understanding of the dynamics related to settlement, migration, ethnic and/or linguistic filiation of the human societies that populated the isthmus region in México.

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