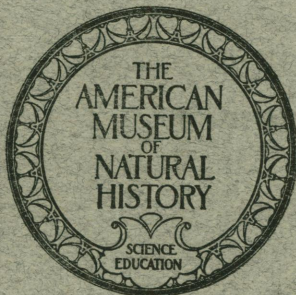


ANTHROPOLOGICAL PAPERS
OF
THE AMERICAN MUSEUM OF NATURAL HISTORY

VOLUME XXXV, PART I

EXCAVATIONS AT GUALUPITA

BY SUZANNAH B. AND GEORGE C. VAILLANT



BY ORDER OF THE TRUSTEES
OF
THE AMERICAN MUSEUM OF NATURAL HISTORY
NEW YORK CITY
1934

THE AMERICAN MUSEUM OF NATURAL HISTORY

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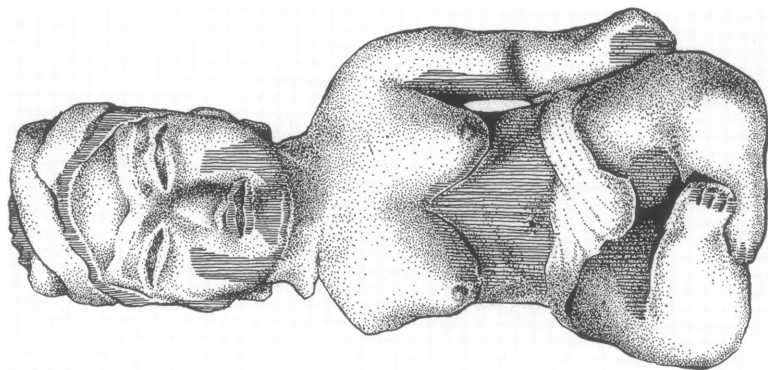
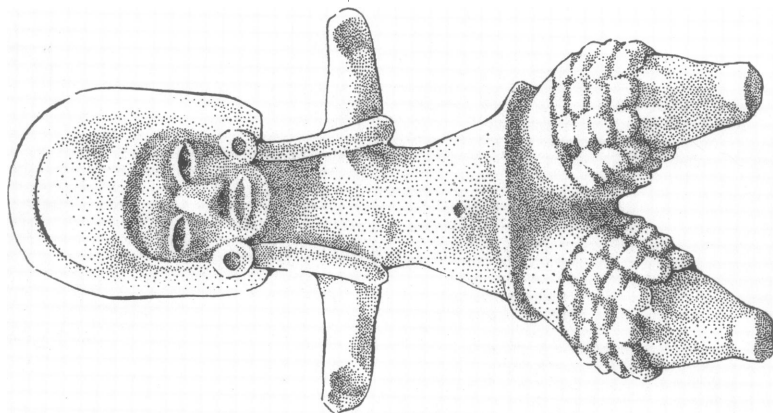
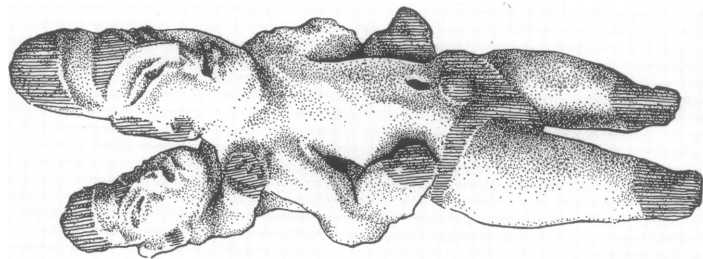
In 1906 the present series of Anthropological Papers was authorized by the Trustees of the Museum to record the results of research conducted by the Department of Anthropology. The series comprises octavo volumes of about 350 pages each, issued in parts at irregular intervals. Previous to 1906 articles devoted to anthropological subjects appeared as occasional papers in the Bulletin and also in the Memoir series of the Museum. Of the Anthropological Papers 32 volumes have been completed and 3 volumes have been issued in part. A complete list of these publications with prices will be furnished when requested. All communications should be addressed to the Librarian of the Museum.

The current volume is:—

VOLUME XXXV

1. Excavations at Gualupita. By Suzannah B. and George C. Vaillant.
Pp. 1-135, and 35 text figures. 1934. Price \$1.25.

II. (In preparation.)



Figurines, Type Di and D-K

1. Figurine, Type Di, H. 10.3 cm., Skeleton 9, Trench C, Cut VI (30.1-2829)
2. Figurine, Type D-K, H. 13.2 cm., Bourgeois Collection
3. Figurine, Type Di, H. 11.5 cm., Skeleton 9, Trench C, Cut VI (30.1-2828)

(See Fig. 7)

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FOREWORD

Thanks are due in these pages to the people who made them possible. The Misses Bourgeois of Mexico City and Amatitlan, Cuernavaca, the discoverers of the site, lent the authors every aid in their research, not only allowing them free access to a fine collection and presenting them with several important pieces, but also recommending them to the owner of the site. That owner, Señor Domingo Gutierrez, graciously permitted the excavations and provided reliable workmen. Mr. Eman L. Beck financed the project, and the officials of the Dirección de Monumentos Prehispánicos permitted, inspected, and supervised the work with their usual courtesy. To all these the authors are indebted and extend their gratitude. They also wish to express their deep obligation to Mr. H. B. Rice who photographed the specimens now in the Museum, to Mr. E. Grom who drew up the plans and cross-sections of the trenches, and to Miss Mildred Conner who, by generously donating her services to the Museum, made possible the preparation of the drawings which illustrate the ceramic types.

Just as these pages went to press, the writers received Professor Byron Cummings's *Cuicuilco and the Archaic Culture of Mexico*, University of Arizona Bulletin, vol. IV, No. 8 (Social Science Bulletin No. 4), Tucson, 1933, wherein Professor Cummings sets forth his final conclusions on his work at Cuicuilco in 1922 and 1924-1925. He gives a full description of the architectural details of the huge truncated cone and shows figurines illustrating a three period stratigraphy at the site.

The figurines on p. 47 from the third period are quite definitely to be tied in with the Late Ticoman type, Hiva. The figurines illustrated on pp. 44-45 from the second period are not to be paralleled at Ticoman or Gualupita, but on p. 45 Professor Cummings describes a seated type, specimens of which in the Museo Nacional belong to Type G, of Intermediate Ticoman. The specimens from the lowest layer, or first period, resemble those Ticoman types designated as J and M. On p. 48 is shown a series of earplugs that can be readily fitted into the Ticoman series. In short, this publication confirms the estimate in Vaillant, (1931, 338), that Ticoman and Cuicuilco were contemporaneous and had an ethnic affinity, but not identity. Professor Cummings's estimate of the age of Cuicuilco seems excessive, for the reasons set forth on pp. 121-127 of this paper.

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INTRODUCTION

The excavations at Gualupita, Cuernavaca, Morelos, from January 11 to 26, 1932, formed part of the fifth season of the stratigraphical research on the archaeology of the Valley of Mexico, carried on by the American Museum of Natural History. The first season was spent in reconnaissance. The results of the second, at Zacatenco, and the third, at Ticoman, have been published as Volume XXXII of this series. A report of the fourth season's work at El Arbolillo is still in preparation, and a digest of the outcome of this, the fifth, season's researches at Gualupita and Teotihuacan has appeared in the *Proceedings of the National Academy of Sciences*.¹

The net result of this program has been to expand the sequence of cultures laid down by the researches of Boas,² Gamio,³ and Spinden,⁴ all of whom showed that the most recent culture in the Valley of Mexico was the Aztec which succeeded that of San Juan Teotihuacan, sometimes loosely called Toltec, and that below these layers were products of an earlier culture, known as the Archaic. Concentrating on this "Archaic" culture, we found that actually it was not one, but two cultures, which we called after their type sites, Zacatenco and Ticoman, and that successive periods could be discerned in each, through changes in the styles of the figurines and pottery. Thus the periods were defined as:—

- I. Early Zacatenco
- II. Middle Zacatenco
- III. Late Zacatenco—Early Ticoman
- IV. Intermediate Ticoman
- V. Late Ticoman⁵

The immediate object of the fifth season of research was to study the chronological and cultural relationships between Late Ticoman and the civilization of Teotihuacan which presumably succeeded it.

However, during a recreational visit to Cuernavaca, the authors were given the opportunity to examine a very interesting archaeological collection gathered over a period of three years by the Misses Bourgeois of Mexico City and Amatitlan. We observed that some of the pieces were identical with specimens recovered from Ticoman while others, although different in type, were qualitatively similar. Most of the objects of special interest came from La Tejeria Vieja, a brickyard in Gualupita, a *barrio* (ward) of Cuernavaca, where the workmen, digging

¹Vol. 18, No. 7, pp. 587–590, July, 1932.

²Boas, 1911–1912, 1913.

³Gamio, 1913, 1920, 1924.

⁴Spinden, 1928.

⁵Vaillant, 1931.

clay for bricks, uncovered them from day to day in the high banks of constantly receding earth. It was only at the request of Miss Julia Bourgeois that the objects were not discarded, and she deserves the credit not only for discovering the site but for preventing these, in some cases, unique specimens from being tossed into a rubbish heap.

A visit to this brickyard made us realize at once that here was an opportunity to make a stratigraphical study of a culture almost certainly related to the early cultures previously encountered in the Valley of Mexico. Here also were scientific data rapidly being destroyed; for although Miss Bourgeois was preserving the actual material found, the workmen could not be expected to remember the relative positions of the pieces. Many specimens also were unnecessarily broken in their removal from the ground, since they were a by-product of the brick industry and never a primary consideration. As Señor Gutierrez was doing a thriving business, many meters of earth were disappearing daily and only a small part of the richest belt where burials occurred remained.

We therefore determined to set to work at once. No time was lost in obtaining the necessary permission from Señor Gutierrez, the owner of the brickyard, and from the Department of Historical Monuments of the Mexican Government, or in hiring workmen to carry on the excavations, for apart from the documentary research of such scholars as Orozco y Berra,¹ Plancarte,² and Bancroft,³ little formal archaeological work has been done in the State of Morelos. Certain students have made external observations on the principal ruins such as Tepoztlan and Xochicalco,⁴ and more recently, the Direccion de Monumentos Prehispanicos has cleared these sites and that of Teopanzalco at Cuernavaca as well.⁵

The most notable collection from the State of Morelos is that of Bishop Francisco Plancarte y Navarrete, formerly kept in the Bishop's palace at Cuernavaca. After his death a small portion was retained by his heirs and the greater part removed to Mexico for safe keeping in the National Museum. A number of these pieces were published by him in his book, *Tamoanchan*,⁶ and another large group of specimens was photographed and the prints distributed. There is very little material from Morelos in the American Museum: a few figurines and pottery gathered in Niven's first expedition in 1894, and in Spinden's collections one or two pieces from caves near Cuernavaca, and a group of speci-

¹Orozco y Berra, 1864, 1880.

²Plancarte, 1911.

³Bancroft, 1883.

⁴Saville, 1896, 1928 (which contains the bibliography of Xochicalco); Noguera, 1929.

⁵Ceballos Novelo, 1929; Palacios, 1930.

⁶Plancarte, 1911.

mens entered in the catalogue as "brickyard, Cuernavaca." This last group is similar to our own collection and a conversation with Doctor Spinden leads us to suppose that our brickyard, or one adjoining it, was the source of his material.¹ The pots from Morelos listed as archaic in his *Handbook*² must also have come from this general region, as well as the Cuernavaca specimens in the Plancarte photographs. Other examples from Yautepec, Mazatepec, etc., in the Bishop's collection, show that the same culture existed in other localities nearby, for there are a number of specimens typologically identical with pieces we found.

¹Vaillant, 1930, 137, middle row, No. 5.

²Spinden, 1928, 59, Fig. 18.

PHYSICAL COMPOSITION OF GUALUPITA

DESCRIPTION OF SITE

Cuernavaca, the capital of the State of Morelos, lies fifty miles to the south of Mexico City in a semi-tropical valley which early records tell us was thickly populated at the time of the Spanish Conquest. Evidence of this is seen today on the right of the road as one enters Cuernavaca from Mexico City, in a pueblo called Tlaltenango, where there are three small mounds as yet unexplored, known as the Cerritos de Santa Maria. Miss Julia Bourgeois collected the Teotihuacan heads on Fig. 16, a few kilometers from these mounds, but there is as yet no valid basis for supposing that the mounds and the figurines are contemporaneous. The Aztec pyramid of Teopanzalco¹ lies on the opposite side of Cuernavaca, beyond the *barranca* or gully that hems in the old town on its northeast (Fig. 1).

La Tejeria Vieja, the site of our excavations, lies at the edge of the *barrio* of Gualupita, beyond this *barranca*, and immediately east of the Casino Hotel (under construction at the present writing) on the Tepoztlan road, just northeast of its junction with the Calzada de la Estacion. The site is thus almost due west of the Teopanzalco pyramid and northwest of the railroad station. It is the first of a series of brickyards along the Tepoztlan road, most of which are like ours, on the west side of it, and almost all of which yield a certain amount of prehistoric material. The original archaeological site must have extended over several acres in a locality distinctly favorable for occupation. The hills rise steeply to the north, protecting it from the cold winds, while the ground rolls gradually to the *barranca* at the south, affording easy access to water. This situation contrasts strongly with the dominating positions occupied by Teopanzalco and the Cerritos de Santa Maria.

The place selected was not the brickyard proper, but an irregularly shaped pit, walled in on the south and west by banks of earth about three meters high, and on the north and east by piles of discarded stones and rubbish. A road used by the workmen to transport the clay suitable for bricks ran down from the north past a stone structure consisting of an angle between two stubs of sloping walls, such as are often used in the substructures of prehispanic buildings. These walls we designated as Structure I, while a similar fragment encountered at the extreme south of the pit at the angle formed by the Tepoztlan road and a modern house foundation, we called Structure II (Figs. 2 and 3).

¹Ceballos Novelo, 1929.

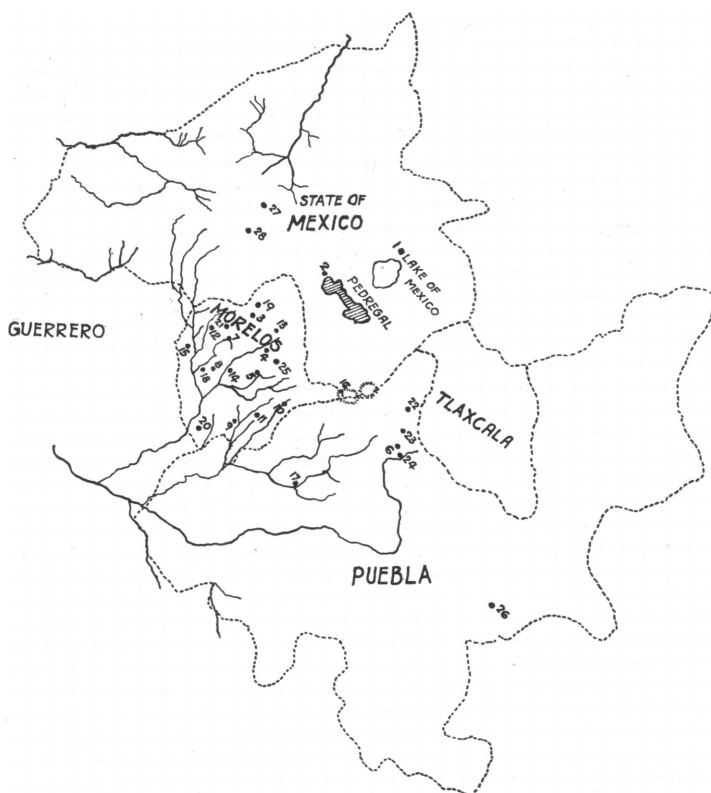


Fig. 1. Reference Map of Archaeological Sites in the State of Morelos

- | | |
|----------------------|-------------------------------|
| 1. Zacatenco—Ticomán | 15. Amacuzac |
| 2. Cuicuilco | 16. Popocatepetl Volcano |
| 3. Cuernavaca | 17. Matamoros Izucar |
| 4. Yautepec | 18. Jojutla |
| 5. Cuautla | 19. Cerros de las Tres Marias |
| 6. Cholula | 20. Chimalacatlan |
| 7. Xochitepec | 21. Xochicalco |
| 8. Tlaquilténango | 22. San Cristóbal |
| 9. Tepalcingo | 23. Santa María Zacatepec |
| 10. Zacualpan | 24. San José Sicaltepec |
| 11. Tenango, Morelos | 25. Huaxtepec |
| 12. Mazatepec | 26. Jalapazco |
| 13. Tepoztlán | 27. Toluca |
| 14. Tlaltizapan | 28. Tenango, State of Mexico |

The top of the page is west.

To the west of the pit the banks were blackish gray and showed many sherds. Beyond lay a field, apparently undisturbed, except by light ploughing for tuberoses and potatoes. This seemed the ideal place to make a stratigraphical study and here we opened one trench, A, exactly five meters square. Later we added nearby a second trench, D, a little further east, to check on the results in Trench A, and to avoid if possible the mass of stones that impeded and after three meters completely stopped our progress there. Trench D was five meters long, but

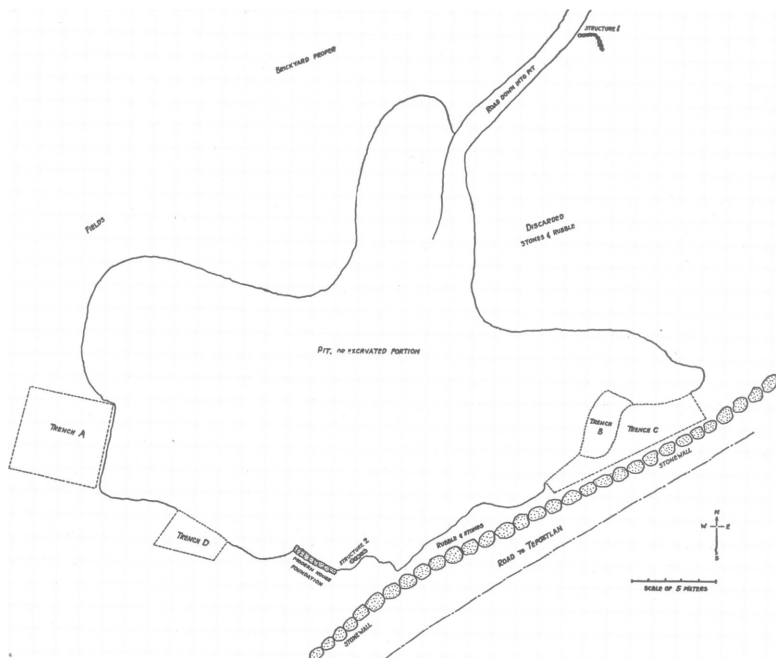


Fig. 2. Map of Site.

varied in width, due to the irregularity of the bank into which it was dug (Fig. 4).

In both these trenches we found a superposition of two distinct cultures. The earlier one yielded figurines of Types K, O, and D (Figs. 6-9), with a simple pottery which must have been contemporaneous with them. This material was called Gualupita I. The later culture was sub-Aztec in character, with spindle whorls, few or no figurines, a pendant of rock crystal (Fig. 7, No. 3), and a great quantity of pottery with such distinctive characteristics as flattish bowls supported on painted

tripod legs, but completely lacking in that black-on-orange ware which one associates with fully developed Aztec ceramics (Figs. 19, 27). This culture had no relation to the first and we called it Gualupita III.

In neither Trench A nor D were we fortunate enough to find burials, but on the southeast side of the pit, nearest the Tepoztlan road, there remained a narrow strip which the workmen assured us would contain skeletons. In the bank we could see quite plainly the yellow layer of earth in which the burials occurred, a layer which began about two meters below the surface and continued down to the floor of the pit and probably below it. At one point the top layers of a gray and black earth had

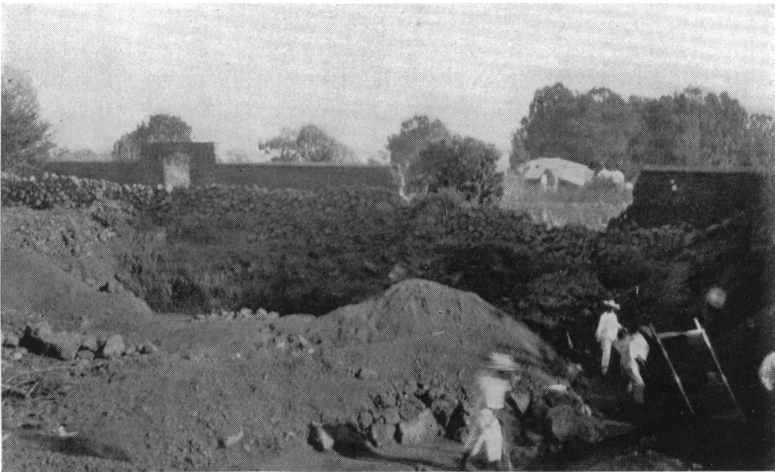


Fig. 3. Photograph of Site looking Southeast.

already been removed by the workmen, leaving a strip roughly four meters by two, which became our Trench B and was rich in burials as predicted (Figs. 2, 5).

Anxious to know what these upper black strata contained, and to relate the burials to a definite culture complex, if possible, we later dug the remaining strip behind Trench B, which was ten meters long but very irregular in width. This we called Trench C. Here we were rewarded, not only by burials, but by a superposition of three cultural layers. The earliest and latest we had already encountered in Trenches A and D and designated Gualupita I and III. The middle stratum, absent in those trenches, contained pottery and figurines very closely

related to Ticoman and we designated the period as Gualupita II (Figs. 5, 11-12).

Desultory digging around Structures I and II revealed only sherds of the late period, Gualupita III (Fig. 2).

SECTIONS OF TRENCHES

It will be seen by a glance at the accompanying cross-sections (Fig. 4) that Trench A went down in six even fifty centimeter cuts, each shorter than the other, because the stones that were piled in almost solid on the south side, encroached more and more, until finally, the floor of the trench was composed of solid lava boulders, and it was impossible to proceed any further. Yet, until we reached this solid rock layer, we continued to find fragments of pottery, figurines, and metates. This fact suggests that we were in contact here with the foundations of some structure or revetment, since one would not expect sherds to penetrate so unyielding a mass, were it natural. Conceivably we were dealing with the hearting of a building represented by the wall faces, Structures I and II.

Cut I (Fig. 4) was composed of churned surface soil containing many sherds of the late period, an earplug, and one half of a spindle whorl. Cut II had black clayey loam at the south side as contrasted with dry lighter earth at the north, so the sherds were kept separate; but later examination showed no appreciable difference, except that the quantity was greater at the north, where we got also an earplug and a fine quartz arrowhead (Fig. 32, No. 4). Cut III yielded the same number of sherds on both sides and now the earth was full of stones all the way across. In this cut we got our richest yield, apparently a mixture of Gualupita I and III, a crude figurine head, Type O (Fig. 8, No. 1), two fragments of hollow Diii figurines, a D head (Fig. 6, No. 6), two Type K heads (Fig. 8, No. 15), a stone ax, all indicating Gualupita I, and several spindle whorls emanating from the later period. Rough stones tools and obsidian blades occurred sporadically. Cut IV was more barren in sherds and very rocky, but it did yield a large Type K head (Fig. 8, No. 21) and more fragments of hollow faces (cf. Fig. 6, Nos. 10-13). This cut was definitely of the early period. Cut V, where the earth was distinctly yellower, was still very full of stones, and yielded so few sherds that we continued working only in the hope that a burial belt lay below. Cut VI was completely barren so the trench was abandoned.

Trench D (Fig. 4), designed to confirm and expand the results in Trench A, was dug in seven cuts of uneven depth in an attempt to follow

the changes in soil. Cuts I and II were both black earth, but divided by a thin line of yellowish clay, visible in the outer bank. They yielded late sherds, spindle whorls (Fig. 30, No. 10), a worked sherd (Fig. 30, No. 5), some broken bone and obsidian, as well as fragments of Early figurine bodies and one Hiv head (Fig. 11, No. 11). The sherd content was mixed Gualupita I and III. Cut III was black and somewhat stony on the east side, though nothing like the corresponding layer in Trench A. Here we found four Gualupita I figurine heads. From the back dirt of this and previous cuts came an earplug, several spindle whorls, and a small pottery pendant (Fig. 29, No. 4). We did not remove the stones at the east side of Cut III since they suggested a structure, but proceeded to slice off Cut IV, a thin layer of brownish earth. This layer yielded a few sherds of the early period, traces of bones, a figurine leg, the fragment of a hollow face (Fig. 6, No. 13), and a variant of Type Cix (Fig. 10, No. 3). This cut corresponded to the one just above the burial belt in Trenches B-C (Fig. 5). Cut V was noticeably yellower and made us hopeful of burials, especially as the stones ceased on the side where we were working. But apart from some fragments of hollow faces and scattering sherds, this cut yielded nothing until the bottom, where we found a complete Type O figurine (Fig. 8, No. 2), a Type K head (Fig. 8, No. 19), a fragment of a metate, and larger sherds. Cut VI ran down to the level of the pit and contained many very much broken sherds. A Type K figurine head (Fig. 8, No. 17) came out here, as well as some hollow Diii fragments (Fig. 6, No. 10), and charcoal. It was typical refuse of the Gualupita I period. Cut VII yielded at its surface a celt, a complete Type K figurine (Fig. 8, No. 20), a small flint arrowhead (Fig. 32, No. 2), and miscellaneous fragments. But the earth grew quickly barren and when we struck stones at a depth of 3.10 m., the trench was abandoned.

Roughly speaking, then, Trenches A and D yielded in their upper half late, and in their lower half early *débris*. Trenches B and C, however, were far more complicated (Fig. 5). Trench B was designed to explore the clean yellow subsoil for burials. The upper strata had been removed by the contractor to make brick so that, in spite of some accumulations of his rubbish, we were able to probe this yellow layer at once.

Cut I of Trench B was a meter thick and contained two burials, Skeletons I and 2 (Fig. 35, No. 1), each with a pot (Fig. 19, Nos. 6, 9), and one with a soapstone bead (Fig. 7, No. 5). We found two isolated pots (Fig. 21, No. 5; Fig. 22, No. 5), and two large figurines (Fig. 14, No. 1; Fig. 15, No. 3) which, although we could not associate them with

burials, probably belonged to skeletons previously removed by the workmen. It was in this cut too that an employee of the brickyard found at the south end of the trench, a group of three large seated figurines, one of a tiger unslipped and fragmentary, one of a type we called "baby face," white slipped (Fig. 14, No. 3), and a big unclassifiable figurine with a white slip showing traces of red and black paint (Fig. 15, No. 2). In this cut also we found a figurine head Type Hiv (Fig. 11, No. 3), an Aztec figurine head (Fig. 12, No. 14) which must have slipped down from the gray earth above, and many fragments of bodies and pottery objects. The sherds in this cut were a mixture of all periods, owing to the slumping of débris from the sides of the adobe pit.

In its upper third Cut II produced two burials, Skeletons 3 and 4, each with a pot, some fragments of a burned bone tool, three small stone celts (Fig. 33, No. 5) and a deer antler (Fig. 33, No. 1), and lower down at the south end a pocket of large sherds of the early variety. Below that the earth was yellow and barren, and Cut III, which was nearly a meter and a half deep, yielded nothing but stones. Despairing of ever finding rock bottom or tepetate, we abandoned this trench and turned to our richest and most complicated trench, C (Fig. 5).

The rubbish on the surface of the new trench was cleaned off before beginning Cut I and yielded entirely Gualupita III sherds and many earplugs and spindle whorls (Fig. 30, Nos. 11, 12, 15, 16). Cut I, which due to a depression in the surface, did not run across the trench but only for a meter at the east and eight meters at the southwest, yielded an Hivc head (Fig. 11, No. 13) as well as spindle whorls and bodies. Cut II, which evened off the surface to one plane contained an earplug (Fig. 30, No. 1), a few pottery objects (Fig. 29, Nos. 6, 9), and three figurine heads, two Hi (Fig. 11, Nos. 1-2) and one Cix (Fig. 10, No. 4), as well as some body fragments. Cut III cleared off the last of the black earth and here we found three heads, a Type Eiii (Fig. 12, No. 8), a Type Dii (Fig. 6, No. 7), and a Type K (Fig. 8, No. 14), a pottery ball (Fig. 29, No. 2), and many pot legs of Gualupita II type. In Cut IV we got more sherds of this culture, two figurine heads, one Cix (Fig. 10, No. 2), the other Hivd (Fig. 11, No. 16), a whistle in the form of a bird (Fig. 29, No. 10), a jade bead (Fig. 31, No. 4) and celt and one burial, that of Skeleton 6, who had some beads (Fig. 31, Nos. 3, 5, 6; Fig. 7, Nos. 4, 6) at his hips, and probably a "lost color" bowl (Fig. 26e). Presumably this burial, which was above the yellow earth, was made from well above, and belonged to the middle culture, Gualupita II.

The burial of Skeleton 5, accompanied by a pot (Fig. 22, No. 6) and a large C variant figurine (Fig. 14, No. 2) made of red clay, began at the

bottom of Cut IV and extended below into Cut V; it also must be of the middle period. Cut V yielded in addition three other skeletons, 7, with a blade (Fig. 32, No. 16), 8, with no furniture, and 12 perhaps with an isolated pot (Fig. 21, No. 9). There were also found three figurine heads, Cix (Fig. 10, No. 4), K (Fig. 8, No. 16), and a Diii fragment, more pot legs of the middle period, and sherds. Cut VI yielded in débris only rough stone fragments and sherds mainly of the Gualupita I period. The three burials in this cut, Skeleton 9 with eight pots (Fig. 19, No. 4; Fig. 21, Nos. 1-4, 8; Fig. 22, No. 1; Fig. 23, No. 3), a large ball of cinnabar and four small, but complete, figurines (Fig. 7, Nos. 1, 2, 7, 8). Skeleton 10, with a solitary pot (Fig. 19, No. 7), and Skeleton 11 with five pots (Fig. 21, No. 6; Fig. 23, Nos. 1, 2, 4) at his pelvis, may possibly belong to the early period or Gualupita I. Cut VII yielded a broken cajete and increasingly few sherds, and Cut VIII was quite barren of all save stones.

CONCLUSIONS ON THE PHYSICAL COMPOSITION OF GUALUPITA

An analysis of the depositions of débris at Gualupita is fraught with serious perplexities. The amount of dirt moved during the excavations was too small to sample the entire area of the site (Fig. 2). The ground had been disturbed, and in many cases removed, during years of digging adobe for bricks (Fig. 3). Erosion, as everywhere else on the barren hills of Mexico, had performed its destructive work.

Our four excavations separated themselves into two divisions, Trenches A-D (Fig. 4) and Trenches B-C (Fig. 5). Trenches A and D were characterized by a black loamy earth, free of ash lenses (Fig. 4). The top meter or so of each of these trenches contained the sophisticated sherds of the Gualupita III pottery. In Trench A, the lower layers were thickly interlarded with large stones; fragments of manos and metates, together with potsherds, showed the accumulation to be of human agency, more probably a redeposit, than a primary one. Where human occupation ended there was a solid mass of irregular boulders, presumably of natural origin. In Trench D, except on the southern or road side of the excavation, there were few stones. Below the Gualupita III layer, the earth was black and sherds were plentiful, with no ash lenses present. The bottom cut was in fine earth which rested on the same layer of irregular boulders that terminated Trench A.

In Trenches B-C, a different situation prevailed (Fig. 5). In Trench C there was the same upper meter of Gualupita III material, but not bedded down so firmly as in Trenches A and D. Through Cuts III-

V we found laminations of gray earth, indicative of ash beds, which were pierced by burials and interspersed with sherds of fair size, some of which were of Ticoman type. Below this layer the earth became yellow and fine-grained, as if it were granulated tepetate. Burials were abundant, but the sherds lacked Ticoman elements and followed the styles found in the lower cuts of Trenches A and D. Underneath this early layer, Cuts VI-VII, was a sterile strip of fine-grained yellow earth resting on boulders. Conditions in Trench B were the same as in Cuts VI and VII of Trench C (Fig. 5). The layer corresponding to Cuts I-V had been cut away by the workmen in the brickyard.

In Trench C we had a readily detectable stratification of three periods. Gualupita III, the top layer of sophisticated polychrome tripod pottery, occupied Cuts I-II. Cuts II to V yielded a series of wares containing strong elements from Ticoman, Gualupita II; but in Cut VI-VII, the pottery lacked the Ticoman elements, and was thus classed as Gualupita I. The same type of material underlay the Gualupita III layers in Trenches A-D, without an intervening layer of Gualupita II, nor was there a single burial. Yet the upper beds of Gualupita I in Trenches A-D were on the same level with Gualupita II layers in Trench C.

This contrast between the A-D and the B-C trenches is difficult to explain, but the most probable answer is given by the fragment of wall called Structure II, which lies between the two trench systems (Fig. 2). This wall was founded on rock and faced southeast toward the B-C trench system. Between this face and the edge of Trench D were several meters of rocky fill. It seems probable that this wall is a revetment, built to level off the normal southward slope of the ground. Rubbish was dumped behind this rock, and in Trench A we found evidence of another series of rock and rubbish packing. While the second packing may be connected with Structure I and be part of a second terrace (Fig. 2), it is also possible that the two wall fragments are part of the same system, and the fill, alternations of rock and earth. Since we find solely Gualupita I débris in the fill, the construction would seem to be best dated as Gualupita II. It seems unlikely that it could be Gualupita III, for the Gualupita II beds outside the wall are undisturbed and full of burials.

In front of the wall was the sandy mound which composed the bottom cuts of Trenches B-C and which was doubtless formed by soil eroded from the rocky hillsides above. Such an accumulation was ideal for burial, for the rocky character of the general sub-soil would have

made grave-digging extremely difficult. It is probable that the softness of the soil rendered this zone unsuitable for the retaining walls, Structures I and II, described in the preceding paragraph. Since respect for the dead after interment is not a characteristic of these early cultures, it would have had little influence on the builders of the revetments.

Moreover, it is completely in keeping with our discoveries at Ticomán that the Gualupita II people should throw their débris over the wall they had built and should continue to utilize the same useful burial place as their ancestors in Gualupita I. Thus the face of the wall would eventually be hidden by these accumulations and by the end of the Gualupita II period there must have been a general leveling of the contours of this portion of the site. Consequently, the Gualupita III refuse tended to accumulate in a wide horizontal belt.

Such would seem to be the history of the terrain. Should we have mistaken the character of the accretions and the buildings, the stratigraphic character of the site is not invalidated. The top layer is always Gualupita III. In Trench C, Gualupita II overlies Gualupita I and even were there not that narrow bed of refuse, Gualupita II would be, in all probability, later than the low deposits in Trenches A-D, according to a paraphrase of Kidder's formula,

If A (Gualupita I) objects are found in B (Gualupita II) sites, but B objects never in A sites, A may be safely considered older than B.¹

The following list will give the periods in relation to the trenches and cuts wherein they are represented.

	Trench A	Trench D	Trench C	Trench B
Gualupita III	Cuts I-III	Cuts I-II	Cuts I	Destroyed
Gualupita II	Absent	Absent	Cuts III-V	Destroyed
Gualupita I	Cuts III-IV	Cuts III-VII	Cuts VI-VII	Cuts I-II

¹Guernsey and Kidder, 1921, 115.

ARCHAEOLOGICAL COMPOSITION OF GUALUPITA

FIGURINES

INTRODUCTION

Human figurines of baked clay are a characteristic feature of the Gualupita culture. They fall into several groups, according to their chronological position and their technical composition. Since the heads of the figurines received the most attention in the depiction of features and ornament, they are more reliable than the bodies for purposes of classification. The number of variations results in a bewildering array of types and sub-types when the ancient sculptor's art in Mexico is considered as a whole, but in working out a chronology or an ethnographical comparison of sites this diversity is most useful. Therefore to simplify this typology by slurring over details would suppress not only actual definitions of time and tribe but also potential leads to fresh determinations.

The system used in this and previous publications is that originally evolved by Clarence L. Hay in 1919-1920, expanded and modified to suit the material unearthed during the stratigraphical digging by the Museum during the seasons of 1928-1932. Letters are used to designate major types and supplementary numbers in Roman numeration indicate the sub-types formed by minor stylistic variation, sometimes ethnographically and sometimes chronologically significant. Considerable legitimate criticism may be brought to bear on this method of nomenclature as being too elaborate and too difficult to remember. But the use of regional or type site names would be even more confusing, for several types often occur at the same site. Thus the letter and numeral system of classification lends itself to exacter reference. The underlying idea is not to classify in an arbitrary manner, but to present to students the kinds of figurines found at different levels and at different places. At the same time, it is desirable to have a classification sufficiently elastic to include the expansions made necessary by fresh research.

The reports on the stratigraphical work in Mexico appearing in this series are designed to supplement each other, not to be individual units. Therefore constant reference to preceding papers will be necessary and these citations are here designated by the year of the publication and the page. Thus *Excavations at Zacatenco* is referred to as 1930 and *Excavations at Ticoman* as 1931.

The identity of certain types of pottery and figurines at Gualupita with those of the Early Cultures in the Valley of Mexico shows that we

are dealing with material of the same period and the same culture plane. Differences in many other forms suggest that we are dealing with entities which are politically distinct. Before passing to a consideration of the Gualupita figurines let us list the figurine types found during excavations in the Valley of Mexico, collected from parts of the Valley of Mexico, excavated from Gualupita, and observed in the Bourgeois Collection from Gualupita and the photographs of the Plancarte Collection from Morelos.

ZACATENCO TYPES

EARLY PERIOD

Type Ci (1930, 98-101)

Type Cii (1930, 102-103)

Type Ciii (1930, 104-105)

Type Di (1930, 114-117)

Type F, early (1930, 128-129, top row Nos. 1-3).

MIDDLE PERIOD

Type A (1930, 120-121)

Type B (1930, 122-128)

Type B-C, a transition from Type C to Type B (1930, 108-109 top and second rows Nos. 1-3)

Type F (1930, 128-129)

Types A and B were designated by the first letters of the alphabet because they were the first figurines of the Early Cultures observed under conditions of indisputable antiquity beneath the lava flow at Copilco, D. F. Mr. Hay utilized these as his basis in working out the typology of Early Cultures figurines.

LATE PERIOD

The Late Period at Zacatenco is the same as the Early Period at Ticoman (see below). Type Dii (1930, 118-119) was assigned to the Late Period at Zacatenco, but as it did not occur at Ticoman, it is quite probable that chronologically it is to be classed with Middle Zacatenco. The type is rare in the Valley.

TICOMAN TYPES

EARLY PERIOD (LATE ZACATENCO)

Type Ei (1931, 344-345, upper row)

Type Eii (1931, 346-347)

Type Eiii (1931, 344-345, bottom row)

General E types (1930, 130-131)

Type Iiii (1931, 352-353, top row Nos. 1-3, bottom row No. 1).

INTERMEDIATE PERIOD

Type Gi (1931, 348-349)

Type Gii (1931, 350-351)

General G types (1930, 132-133)

Type Ii (1931, 352-353, top row Nos. 4-5, middle row)

Type Iii (1931, 352-353, bottom row Nos. 2-5)

General I types (1930, 138-139)

Type L (1930, 140-141; 1931, 354-355)

Probably falling into this phase are:—

Type Eiv (1931, 366–367, top row Nos. 1–3)

Type J (1930, 112–113, top row Nos. 2–9; 1931, 366–367, bottom row Nos. 3–6)

Type M (1931, 366–367, top row Nos. 4–6)

Type N (1931, 366–367, bottom row Nos. 1–2).

LATE PERIOD

Type Hi (1930, 134–135, top rows; 1931, 356–357, top row)

Type Hii (1930, 134–135, bottom rows; 1931, 356–357, middle and bottom rows)

Type Hiii (1930, 136–137, bottom row; 1931, 360–361)

Type Hiv (1930, 136–137, top rows; 1931, 362–363)

Type Hv (1931, 364–365).

Such are the types encountered in the excavations at Zacatenco and Ticoman listed in a chronological series. At other points in the Valley a number of additional sub-types of the C group were observed, and a new type, K. These other types found in the Valley are:—

Type Civ (1930, 106–107)

Type Cv (1930, 108–109)

Type Cvi (1930, 110–111, top row)

Type Cvii (1930, 110–111, middle row)

Type Cviii (1930, 112–113, middle row)

Type K (1930, 112–113, bottom row).

Type Cv occurred in association with Types A and B at Copilco and therefore may be chronologically assignable to Middle Zacatenco. Type Civ seemed to be a local type centering around the south and east of the Valley, but Types Cvi–viii were so rare in the Valley as to suggest that they are trade specimens. Type K occurred fairly commonly in the west of the Valley.

In the digging at Gualupita we found three periods, two of which are assignable to the Early Cultures group. The range of figurines covers the whole of the five periods established for the Valley. Unfortunately, the conditions of the terrain were such that only two periods appeared at Gualupita, Gualupita I, corresponding to Early-Middle Zacatenco, and Gualupita II, covering the period Early-Late Ticoman.

Supplementing the list of specimens excavated by us at Gualupita is the very full collection made by the Misses Bourgeois through purchase at the same site. For the whole area of Morelos there are the photographs of Bishop Plancarte's collection.

GUALUPITA TYPES

GUALUPITA I

Type Di (Fig. 6, Nos. 1–2; Fig. 7, Nos. 1–2, 7–8); Type Dii (Fig. 6, Nos. 3–9);

Type Diii (Fig. 6, Nos. 10–13; 1930, 144–145, bottom row Nos. 1–2)

Type K (Fig. 7, Nos. 8–21)

Type O (Fig. 7, Nos. 1–7)

Type Ciii, rare (Fig. 10, Nos. 12-13)

Type A, rare (Fig. 12, No. 10)

Type F, rare (Fig. 12, No. 9)

Type Cv, rare (Fig. 12, No. 11)

GUALUPITA II

Type Cix (Fig. 10, Nos. 1-10)

Type Eiii (Fig. 12, Nos. 7-8)

Type Eiv (Fig. 12, Nos. 4-5)

Type Gi (Fig. 12, No. 1)

Type Iii (Fig. 12, No. 2)

Type Hi (Fig. 11, Nos. 1-2)

Type Hiii (Fig. 12, Nos. 3, 6)

Type Hiva (Fig. 11, Nos. 3-7); Type Hive (Fig. 11, Nos. 12-15); Type Hivd (Fig. 11, Nos. 16-19)

Large hollow figurines of individual craftsmanship (Figs. 8-9)

Teotihuacan bodies (Fig. 12, No. 12; Fig. 13, No. 9; Fig. 16)

This reduced list which contains several sub-types distinct from the Valley like Types Diii, O, Cix, Hive, and Hivd, was supplemented by the following types in the Bourgeois Collection:—

Type B (of doubtful provenience), Ei (rare), Eii, Hii.

When we examine the photographs of the Plancarte Collection we find the same general pattern as in the Bourgeois Collection and our own from Gualupita, namely, a predominance of Types D, K, Cix, Hiv, and scattering representation of other classes. At Tenango, in eastern Morelos, however, we find a strong representation of Type Cviii, which seems there to be a regional type.

The number of types and sub-types does not seem quite so formidable, when these are listed site by site and period by period. With the above list for reference, it will be possible to embark upon a description and analysis of the various types found at Gualupita.

In the captions to the photographs in the following pages specimens in the Museo Nacional may be distinguished by the Field Catalogue serial number, F.N., those in the Museum by the serial number 30.0 or 30.1.

GUALUPITA I TYPES

Types Di, Dii, and Diii. Type D is strongly developed at Gualupita, and for ease in reference has been classified in three subdivisions. Type Di is best represented by the four figurines found with Skeleton 9 in Trench C, Cut VI (Fig. 7 and Frontispiece). A similar head (Fig. 6, No. 2) was purchased, and bodies (Fig. 9, Nos. 9, 11) were found in Gualupita I débris. The type is characterized by a delicacy of face model-

ing, elongated bodies with swollen hips (Fig. 9, Nos. 9, 11), and a peculiar forward tilt to the head. Type Di occurs rarely in the Early Period at Zacatenco, only once at El Arbolillo, and commonly in the Azcapotzalco gravels (1930, 114–115). It is well known in the Cuernavaca region, twelve specimens occurring in the Bourgeois Collection. It is probably a diagnostic of Gualupita I, due to its early chronological position in the Valley.

Type Dii (Fig. 6, Nos. 3–9) is more common to the general digging than Di. The type is characterized by a flat circular head, elongated filleted eyes grooved in their long axis, and filleted eyebrows. This style of Type D is closely allied to Type K (cf. Nos. 4–7 with Fig. 8, Nos. 18–21). The commonest occurrence of Type Dii seems to be in the Gualupita I deposits, but whether it is later than Di we have not sufficient data to decide. At Zacatenco our impression was that Dii was later than Di (1930, 116–119), but such a conclusion is most uncertain. There are enough specimens in the Plancarte and Bourgeois collections to insure the type as primarily from Morelos.

Type Diii (Nos. 10–13) is a subdivision formed to distinguish the hollow specimens of Type D from the solid figurines discussed above. The filleting is reduced and the majority of fragments are slipped in polished red. An example was purchased at Zacatenco (1930, 118, top row No. 6), another occurred in the Dorenberg Collection from Puebla (1931, 144–145), several from Puebla are described in the catalogue of the Madrid Exposition of 1892,¹ and specimens from the Plancarte Collection are shown by Seler (1915, Figs. 40–43). A variant of Diii (No. 9) is perhaps paralleled by the figure from the Plancarte Collection shown by Seler (1915, Fig. 40a).

There are so many Diii specimens from the Bourgeois and Plancarte collections that this type also seems a Morelos trait. There is undoubtedly a relationship between this hollow D type and large hollow figurines found by Mr. Hay near Los Remedios in the Valley, as well as the hollow figurines shown in Figs. 14–15. Yet they are too individualized to be, strictly speaking, classifiable under this head. Possibly the virtuosity of their execution freed them from the bonds of rigid cult practice. These hollow specimens are discussed more fully on pp. 50–53.

The four figurines in Fig. 7 were found under the skull of Skeleton 9. They are all covered with a fine white slip and were painted in red and black before firing. All belong to Type Di and may be attributed probably to the earliest period of Gualupita I. The slip, however, is a

¹del Paso y Troncoso, 1892, 386–388.

trait foreign to the Valley types of Di, but it correlates with the Di figurines shown on Fig. 6, No. 2, and Fig. 9, Nos. 9, 11. The little warrior, Fig. 7, may be compared with the warrior's head (Fig. 6, No. 2) and the head with a helmet, shown in 1930, 110, second row No. 7.¹

The crystal pendant at the top of the page was the only ornament in our digging that did not come from the burial layer. It was found in Cut III of Trench A thus suggesting a Gualupita I date, but its perfect workmanship and unusual beauty and the fact that it came high in the cut would lead one to attribute it to the late period, Gualupita III. The jade pendant and button were found at the hips of Skeleton 6 with the ornaments illustrated in Fig. 31, Nos. 1, 3, 5, 6. The soapstone bead (No. 5) was in the mouth of Skeleton 2. Although these ornaments are too crude for very specific comparisons, they may well have come originally from Guerrero. For other ornaments see pp. 103-104.

¹Compare this use of helmets with the figurines found by Joyce at Lubaantun, Joyce, 1933, Pl. 7.

Figure 6

1. Head, Type Di, variant, Trench A, back dirt (30.1-2570)
2. Head, Type Di, white slip, Trench B, Cut 1 (30.1-2573)
3. Head, Type Dii, variant, purchased (30.1-2532)
4. Head, Type Dii, purchased (F.N. 2063)
5. Head, Type Dii, purchased (F.N. 2062)
6. Head, Type Dii, Trench A, Cut III (30.1-2556)
7. Head, Type Dii, Trench C, Cut III (30.1-2597)
8. Head, Type Dii, Trench B, Cut II (30.1-2585)
9. Head with horns or burden, Type Dii, red slip, purchased (30.1-2530)
10. Cheek, Type Dii, red slip, Trench D, Cut VI (30.1-2646)
11. Head, Type Diii, purchased (F.N. 2097a)
12. Cheek, Type Diii, red slip, Trench B, Cut I (30.1-2584)
13. Cheek, Type Diii, red slip, Trench D, Cut IV (30.1-2630)

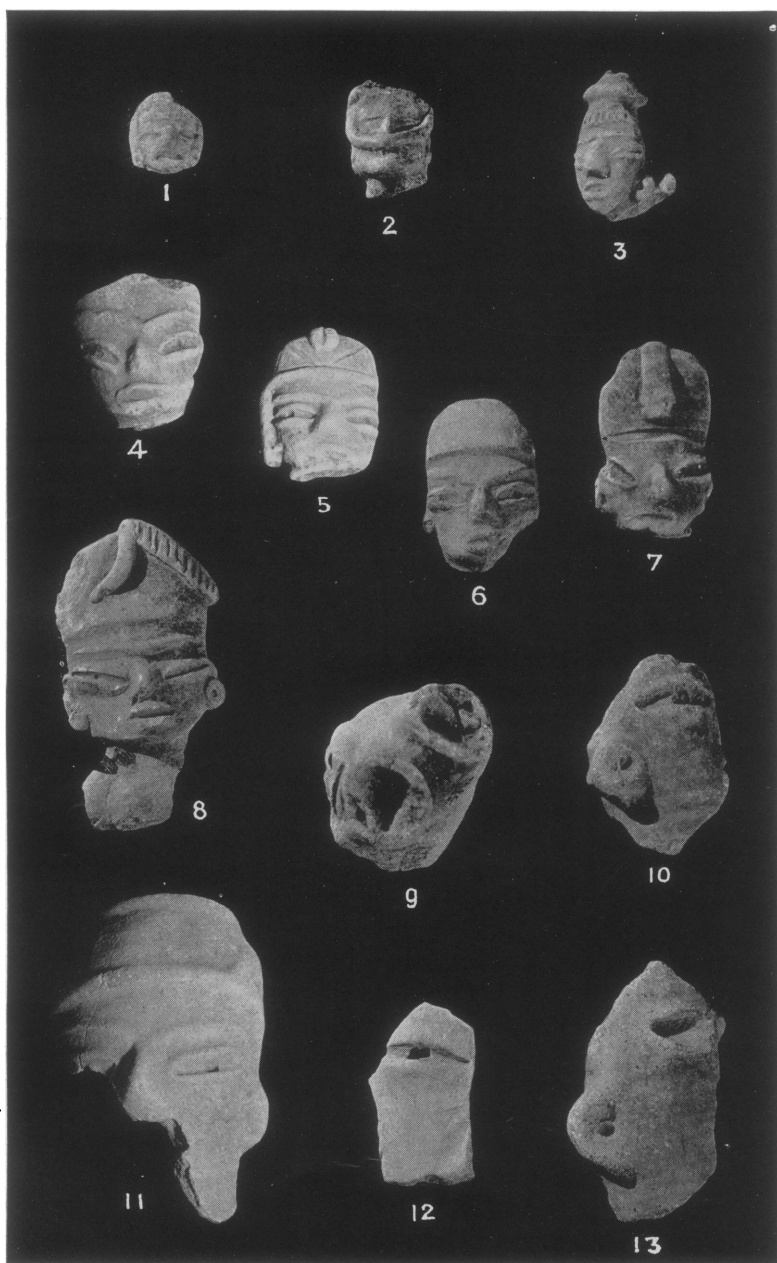


Fig. 6. Figurines, Types Di, Dii, Diii.

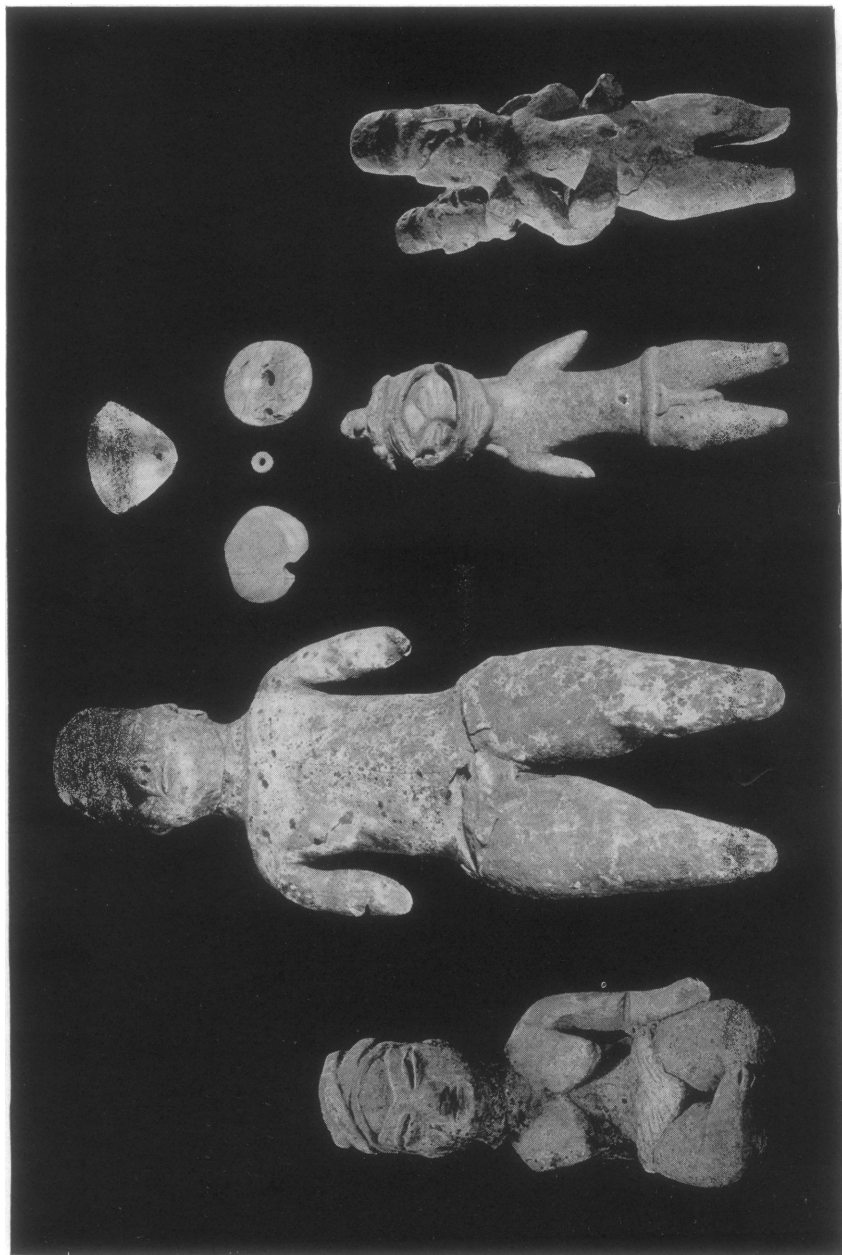


Fig. 7. Figurines, Type Di and Stone Ornaments.

Figure 7

1. Figurine, seated woman, Type Di, H. 11.5 cm. Skeleton 9, Trench C, Cut VI (30.1-2828)
2. Figurine, male, Type Di, H. 19.5 cm. Skeleton 9, Trench C, Cut VI (F.N. 2566a)
3. Crystal pendant, Trench A, Cut III (F.N. 2175)
4. Jade pendant, Skeleton 6, Trench C, Cut VI (F.N. 2544)
5. Soapstone bead, Skeleton 2, Trench B, Cut I (F.N. 2538)
6. Jade "button," Skeleton 6, Trench C, Cut VI (F.N. 2555)
7. Figurine, warrior, Type Di, H. 11 cm. Skeleton 9, Trench C, Cut VI (F.N. 2566)
8. Figurine, mother and baby, Type Di, H. 10.3 cm. Skeleton 9, Trench C, Cut VI (30.1-2829)
See Frontispiece

Types O and K. Two characteristic Gualupita I figurine types are O and K. Type O (Fig. 8, Nos. 1-7) is characterized by gross crudeness in the modeling of the unslipped body and by rough filleting to indicate crudely conventional features centered in the middle of the face plane. Although the common occurrence of Type O in the Bourgeois Collection and our own, makes it evident that at Gualupita, we are dealing with a distinct style; a single specimen found elsewhere might well be an individual degeneration of another type. Mr. Robert Weitlaner has collected twenty-three examples of Type O at Tetelpan, out of a total of 740 heads. At Coatepec, in the southeast of the Valley, he found nine of this class with filleted and eight with perforated eyes, in a total of 230 heads. We encountered scattered specimens at Tlaltengo and Tlapacoya in the same region. Type O consequently makes a link between the Valley and Gualupita, as well as being a reliable time-bearer for Gualupita I. However, Type O is of somewhat doubtful ethnographic use, because of the likelihood of its confusion, in isolated cases, with degenerate or badly made examples of other styles.

Figurines of Type K are shown by Nos. 8-21 of Fig. 8. They are characterized by disc-shaped heads, filleted eyes, and mouths made by two broad gouges separated by a vertical incision. Headdresses are simple and the turban concept is sparingly used. The net result is a frog-faced appearance in the more typical examples, but many specimens merge imperceptibly into Type Dii (Fig. 6, Frontispiece, No. 2).

Type K is a safe diagnostic for Gualupita I. Out of ten examples, seven appeared in Gualupita I cuts, one was washed out on the surface; of the two in Gualupita II débris, one (No. 14) is so variable as to be barely included in the group. It is very common throughout Morelos,

Figure 8

1. Head, Type O, Trench A, Cut III (30.1-2561)
2. Head, Type O, Trench D, Cut V (30.1-2640)
3. Head, Type O, east face of Structure I (30.1-2664)
4. Head, Type O, gift of Miss Bourgeois (F.N. 2123)
5. Head, Type O, gift of Miss Bourgeois (F.N. 2122)
6. Head, Type O, purchase (F.N. 2049)
7. Head, Type O, purchase (F.N. 2046)
8. Head, Type K, gift of Miss Bourgeois (F.N. 2121)
9. Head, Type K, purchase (F.N. 2095)
10. Head, Type K, purchase (F.N. 2060)
11. Head, Type K, variant (Type Cvii ?), purchase (F.N. 2077)
12. Head and torso, Type K, purchased (F.N. 2066)
13. Head, Type K, late type (?), gift of Miss Bourgeois (F.N. 2120)
14. Head, Type K, variant (?), Trench C, Cut III (30.1-2598)
15. Head, Type K, Trench A, Cut III (30.1-2557)
16. Head, Type K, Trench C, Cut V (30.1-2612)
17. Head, Type K, Trench D, Cut VI (30.1-2644)
18. Head, Type K, purchase (30.1-2545)
19. Head, Type K, Trench D, Cut V (30.1-2642)
20. Head, Type K, Trench D, Cut VII (30.1-2650)
21. Head, Type K, Trench A, Cut IV (30.1-2567)

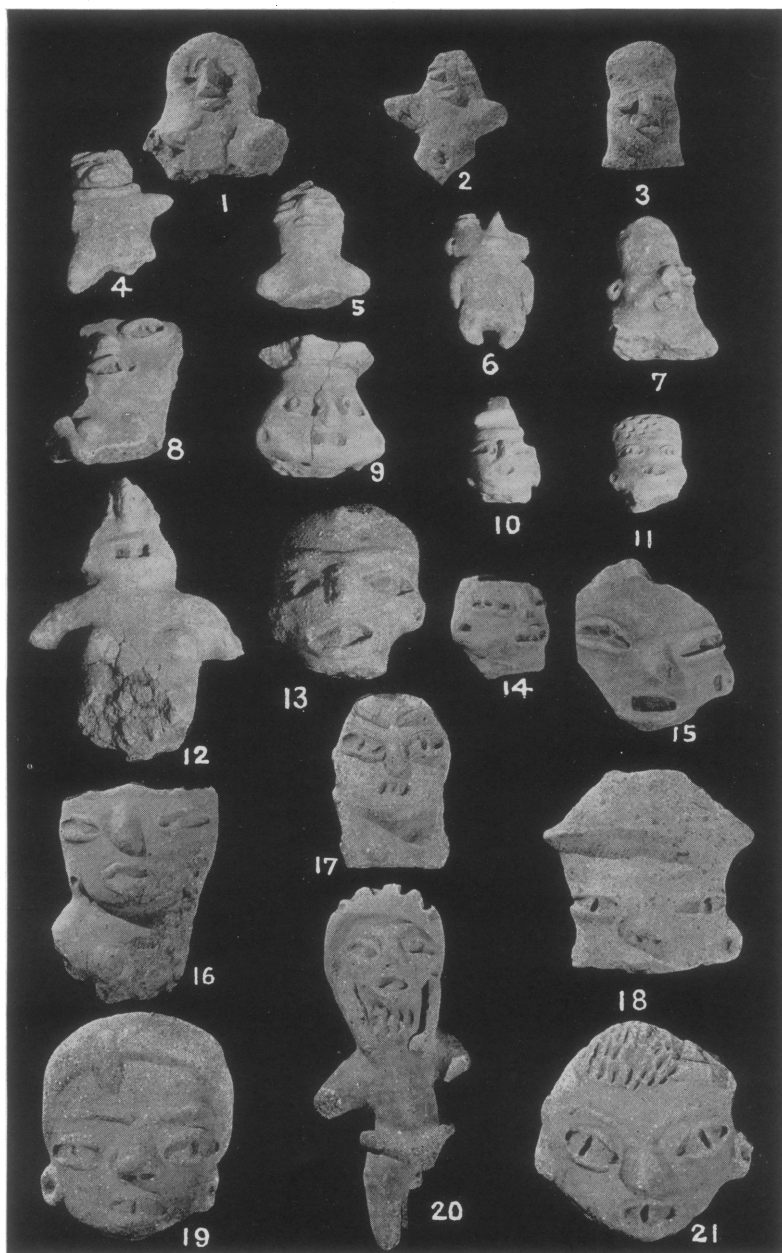


Fig. 8. Figurines, Type O and K.

to judge from the Plancarte Collection. Examples come from the southern and western part of the Valley (1930, 112–113), but are absent at Zacatenco and El Arbolillo. A few examples of Type K appeared at Cuicuilco, according to Mr. Hay, and there is in the Peabody Museum of Harvard University a slipped variety (C-9517, 9597) extremely stylized, that might well belong to the Ticoman-Gualupita II horizon. Thus it is very possible that Type K may have to be subdivided into an early and a late type.

In view of the close connection between Types K and D (Fig. 6), and the common occurrence of these types in Morelos, K, certainly, and D, probably, are regional types.

Bodies of Figurines. There is not the same variation in figurine bodies that there is in heads. However, we have included in Fig. 9 a fairly representative series. Type O bodies (Fig. 9, Nos. 1 and 2) are readily distinguishable by their squat crudeness of execution. Type K bodies, identifiable through the photographs of complete specimens in the Plancarte Collection, are represented by Nos. 3–6. These are shown wearing skirts, a rare characteristic, but known to the Valley of Mexico (1930, 126, 153; Boas, 1911–1912, Plate 46). No. 5 has the curious detail of supplementary breasts along the thighs.

Nos. 7–8 are representations of a pottery vessel and a basket of flowers. A figure carrying a pot, from the Plancarte Collection, is illustrated in Seler, 1915 (Fig. 40). Fig. 6, No. 9 is perhaps a similar presentation.

Type Di is the type of head associated with bodies like Nos. 9 and 11, as a glance at the white slipped figurines in Fig. 7 will prove. No. 10 cannot be precisely classified in relation to a type, although it most probably belongs to the K group.

Figure 9

1. Body, Type C, purchase (30.1–2529)
2. Body, Type C, Trench D, Cut IV (30.1–2628)
3. Body, Type K (?), purchase (30.1–2536)
4. Body, Type K, Trench A, Cut III (30.1–2559a)
5. Body, Type K (?), Trench A, Cut IV (30.1–2639)
6. Body, Type K (?), Trench A, Cut IV (30.1–2565)
7. Flower pot, from figurine, purchase (30.1–2527)
8. Olla from back of figurine, purchase (30.1–2656)
9. Body, Type Di, white slip, Trench B, Cut I (30.1–2865)
10. Body, Type K (?), Trench A, Cut III (30.1–2559b)
11. Legs, Type Di, white slip, Trench C, Cut V (30.1–2815)

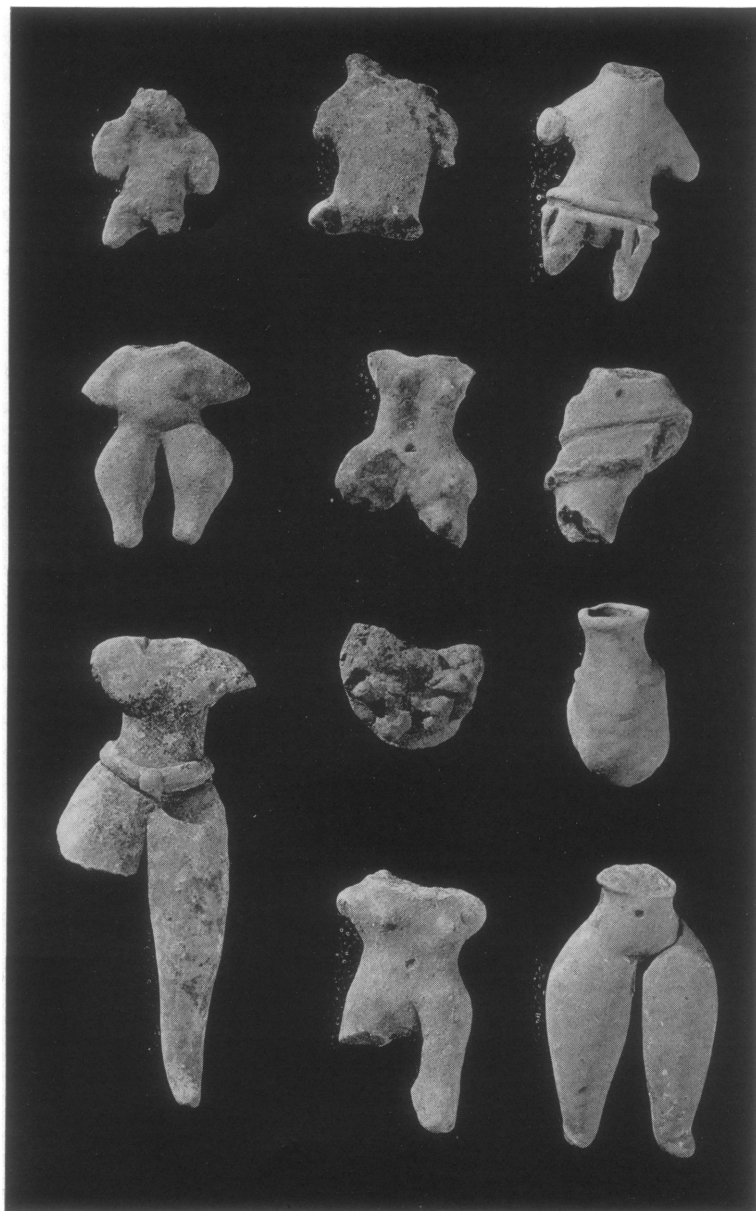


Fig. 9. Bodies of Figurines, Types D, O, and K.

GUALUPITA II TYPES

Types Cix and Ciii. Type Cix is represented by Nos. 1-10 of Fig. 10. These figurines, although not duplicated in the collections from the Valley of Mexico, are so definitely in the Type C tradition that there is no hesitation in pronouncing them a sub-type of that group (1930, 98-113). The filleting technique of the classic C type is reduced to a minimum and incision is used to emphasize details of feature and ornament. The elongated head and tasseled turban are further diagnostic traits.

The occurrence of four examples of this type in Gualupita II débris, as opposed to one in Trench D, Cut IV confines its occurrence to the later period. The Gualupita I head, No. 3, is a variant, and particularly in the welding of the neck to the body shows affinities to Type D. Two examples of Type Cix are in the Plancarte Collection from Xochitepec, Morelos. There is a vague connection between Cix and the large figurines illustrated on Fig. 14, especially Nos. 1, 2, and Fig. 15, No. 3, but there is no such connection to its nearest parallel in the Valley, Civ (1930, 106-107). Type Cix may then be considered a legitimate time-bearer for Gualupita II, and a culture diagnostic as well.

No. 11 is an unclassifiable example which, due to its incomplete condition, cannot justifiably be assigned to any category. Nos. 12-13 seem to fall into the Ciii section as defined and presented in 1930, 104-105, where a large hollow rattle from Tlapacoya D. F. is shown. Another vaguely related head (1930, 157, bottom row No. 4) is closely similar to a specimen from Yautepec in the Plancarte Collection. Yet in these specimens, the method of presentation suggests a fictitious cohesion, not corroborated by stylistic details. The magnificent example of modeling found with Skeleton 5 (Fig. 14, No. 2) bears an elusive resemblance to the above examples. Since the former is of Gualupita II date, and Nos. 12-13 come from Trench A, a Gualupita I deposit, the chronological factor militates against a close lineal connection.

Figure 10

1. Head, Type Cix, Trench C, Cut II (30.1-2594)
2. Head, Type Cix, Trench C, Cut IV (30.1-2602)
3. Head, Type Cix, variant (?), Trench D, Cut IV (30.1-2634)
4. Head, Type Cix, Trench C, Cut V (30.1-2610)
5. Head, Type Cix, variant, purchased (F.N. 2075)
6. Head, Type Cix, purchased (F.N. 2078)
7. Head, Type Cix, purchased (F.N. 2054)
8. Head, Type Cix, purchased (F.N. 2094)
9. Head, Type Cix, gift of Miss Bourgeois (F.N. 2118)
10. Head, Type Cix, gift of Miss Bourgeois (F.N. 2119)
11. Head, unclassifiable, purchase (F.N. 2065)
12. Head, Type Ciii, hollow variant, Trench A, Cut III (30.1-2558)
13. Head, Type Ciii, hollow variant, Trench A, Cut IV (F.N. 2185)

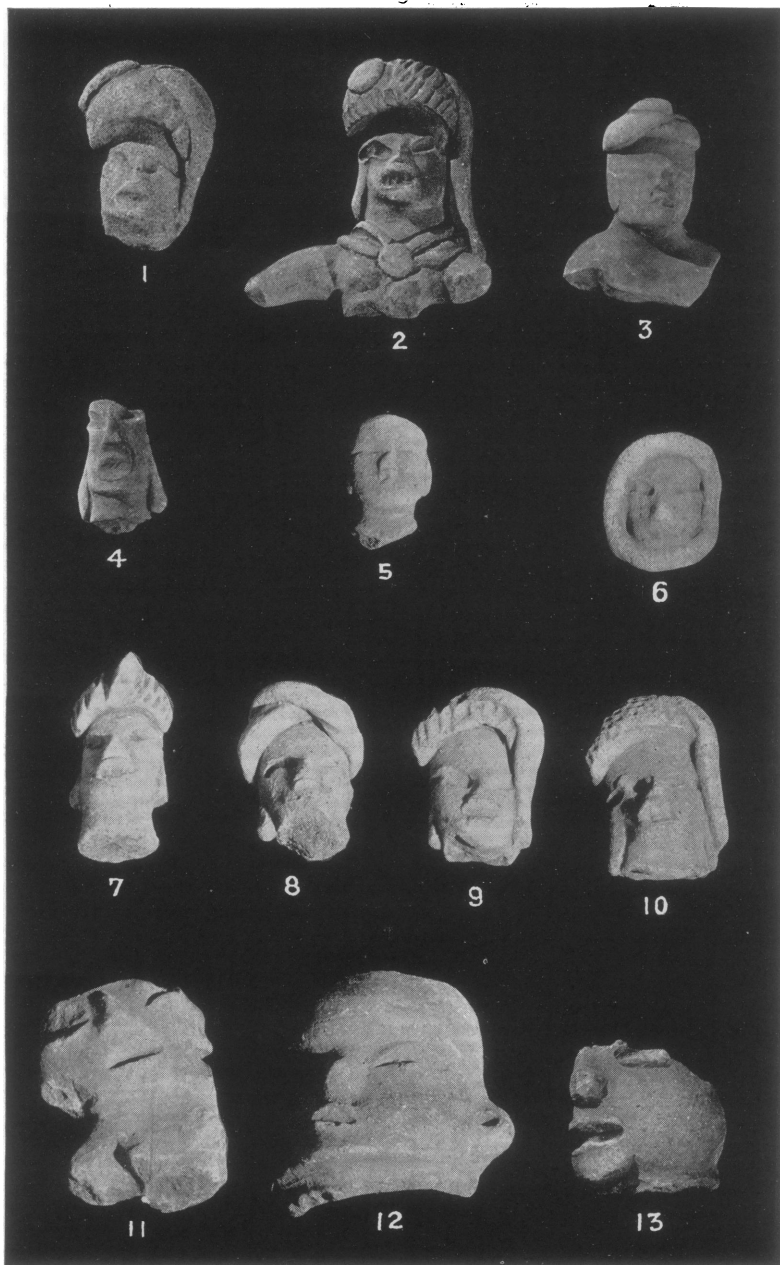


Fig. 10. Figurines, Types Cix and Ciii.

Type H. The H group of figurines is important in the history of the Valley of Mexico, as dating the Late Period at Ticoman. It is well represented at Gualupita.

Fig. 11, Nos. 1-2, are examples of the diagnostic late Ticoman group Hi. Weathering has destroyed the characteristic burnish, but they are distinctive samples of this common Valley type (1930, 134-135; 1931, 356-357). Types Hi and Hii are rare in our collection, proportionately so among the Bourgeois figurines, and only one specimen comes from the Plancarte Collection. One appeared in Gualupita II débris, another 30 cms. below the surface, and that situation, combined with its known Late position at Ticoman, makes this type a reliable diagnostic for Gualupita II even should it be a traded style.

Type Hiv occurs under Late conditions at Ticoman and Cuicuilco in the Valley of Mexico, and by its close connection with the figurines of Chupicuaro, Gto.,¹ has strong ethnographical significance (1930, 136-137; 1931, 362-363). Nos. 3-7 illustrate the "classic" form of this type now distinguished as Hiva. A curious variant, Hivb, is represented by Nos. 8-11. This style combines the absence of slip and filleting technique of Hiva with the simple lack of detail of Types Hi and Hii. It is rare both in Morelos and in the Valley of Mexico. Hivb is probably Late Ticoman as no specimens were acquired from Early or Intermediate deposits there. One example only (No. 11), and that a doubtful one, came from our Gualupita excavations. These specimens, however, are included to show the relationship between the "classical" Hiva type and the figurines grouped in this illustration as Hivc.

Sub-type Hivc (Nos. 12-15), like Hiva and b, is characterized by a lavish use of filleting for features. It differs from them in that a red clay is used and the filleting is more integral with the body elements. Yet the elongated features suggest that there is a kind of harmony between Hivb and Hivc, sufficient to include them in the same plastic family. One Hivc head came from Trench C, in Gualupita II, and the other excavated specimen was found in the back dirt from Trench A. The external evidence from Ticoman indicates a Gualupita II dating.

A fourth group of figurines, Hivd (Nos. 16-19), seems to be derived from Hivc. These heads are of larger size than the preceding and the filleting on of features and adornments is combined with secondary treatment by incision and modeling. The one excavated example of this sub-type (No. 16) came from Gualupita II débris. A similar piece excavated at Cuicuilco is of considerable importance in cross-dating Gualupita II

¹Mena and Aguirre, 1927, 62; Noguera, 1930, Figs. 42-44; Vaillant, 1931, 362-363.

and Cuicuilco (Cummings, 1923, 209). But in some details this peculiar sub-type resembles Type Cv (Fig. 12, No. 11; 1930, 108-109) which is found at the Middle Zacatenco sites of Copilco and San Juanico, as well as in certain parts of Morelos. Yet in view of the Gualupita II date of Hivd, it might represent a merging of the C and Hiv plastic methods, particularly since Cv figurines, if perhaps not indigenous, were certainly traded in quantity to Morelos.

There is a possibility that the evolution of the Hiv group may run counter to the sequence expressed by the letters designating the sub-types; that is, Cv > Hivd > Hivc > Hivb > Hiva. But opposed to this hypothesis is the close association between Hiii and Hiva (Fig. 12, Nos. 3, 6; 1930, 136-137) and the strong implications at Ticoman that Type Hiv is later than Hi-ii-iii (1931, 261-264, 331-332, 356-365). Yet it is not beyond the bounds of possibility that Type Hiv was evolved in a separate tradition like that outlined above, and joins the H group through amalgamation and not evolution. No connections exist between Types Hiv and O, except through the similarities created by bad workmanship. We have dwelt at length on the ramifications of the H group, because it is not only an important cultural diagnostic, but it also affords the best plastic connection between the Early Cultures and the "Tarascan" group of cultures like that of Chupicuaro, Gto., and others in Western Mexico. Thus, it has seemed best to list the potentialities of development even though we have not yet discovered the true evolutionary trend.

Figure 11

1. Head, Type Hi, Trench C, Cut II (30.1-2595)
2. Head, Type Hi, near surface, northwest of Trench System (30.1-2546)
3. Head, Type Hiva, Trench B, Cut I (30.1-2577)
4. Head, Type Hiva, purchased (F.N. 2071)
5. Head, Type Hiva, purchased (F.N. 2074)
6. Head, Type Hiva, purchased (F.N. 2073)
7. Head, Type Hiva-c, transitional, purchased (F.N. 2072)
8. Head, Type Hivb, purchased at Ticoman (30.1-2357)
9. Head, Type Hivb, purchased at Ticoman (30.0-9545)
10. Head, Type Hivb, purchased at Ticoman (30.1-9546)
11. Head, Type Hivb, Trench D, Cut I-II (30.1-2620)
12. Head, Type Hive, Trench A, back dirt (30.1-2569)
13. Head, Type Hive, Trench C, Cut I (30.1-2592)
14. Head, Type Hive, purchased (F.N. 2047)
15. Head, Type Hive, purchased (30.1-2528)
16. Head, Type Hivd, Trench C, Cut IV (F.N. 2338)
17. Head, Type Hivd, gift of Miss Bourgeois (F.N. 2116)
18. Head, Type Hivd, gift of Miss Bourgeois (30.1-2547)
19. Head, Type Hivd, purchased (30.1-2548)

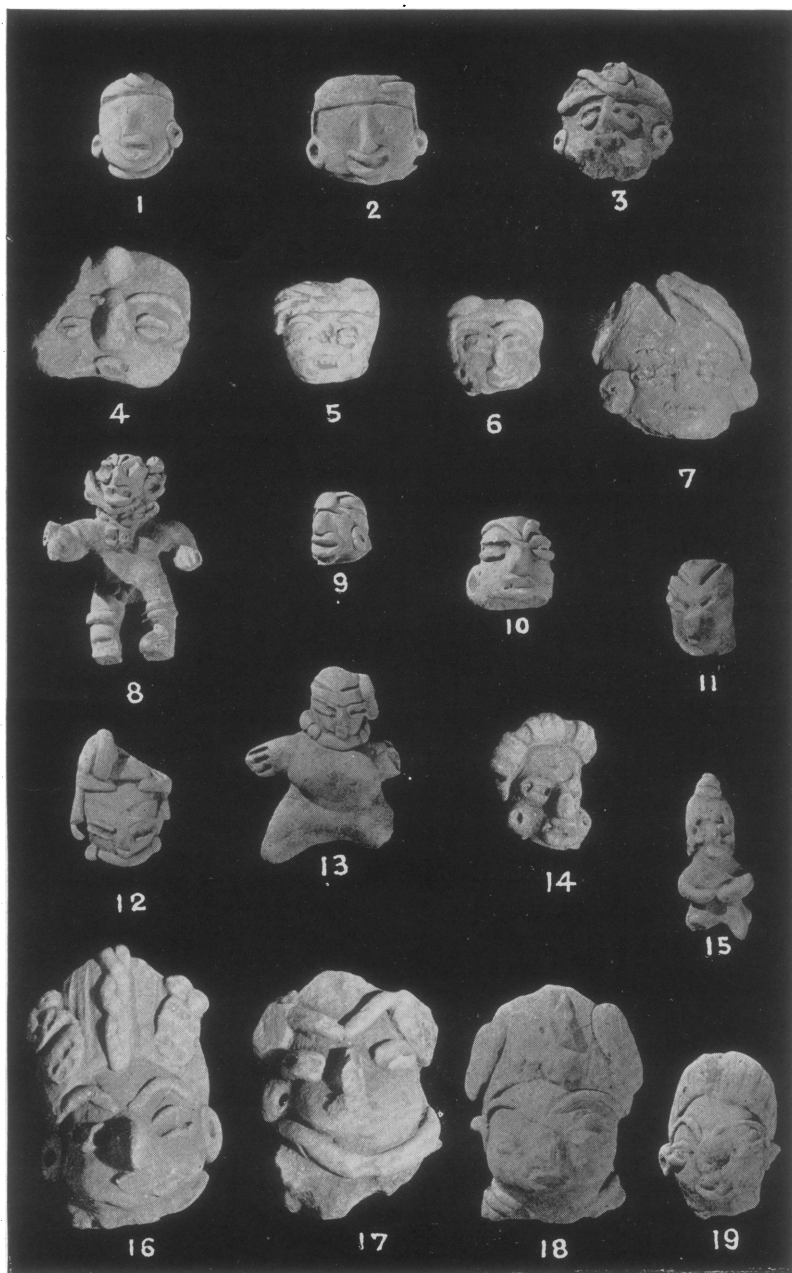


Fig. 11. Figurines, Type H.

TRADE FIGURINES

A number of figurines were found or purchased at Gualupita that, although common in the Valley, occur at this site in insufficient quantity to be considered as local types. Fig. 12, No. 1, is a battered example of Type Gi, a diagnostic of the Intermediate Period at Ticoman (1930, 132-133; 1931, 348-351). This type was rare in the Bourgeois Collection and absent from the Plancarte photographs. It must therefore be considered as a trade specimen. No. 2 falls into the Iii category and is likewise of the Intermediate Period at Ticoman (1930, 138-139; 1931, 352-353). An example of an earlier sub-type, Ii, occurs in the Bourgeois Collection, but none is shown among the Plancarte specimens. Two specimens, Nos. 4-5, of another Intermediate Ticoman type, Eiv (1931, 366-367) were purchased at Gualupita. Two other examples, Nos. 7-8, of the Early Ticoman style, Eiii, (1931, 344-345) were respectively excavated from Gualupita II débris and purchased. In the Bourgeois Collection, these types were absent, but there was a large representation of the more common varieties of Type Ei and Eii. It is difficult to see how these E group figurines could have been evolved at Gualupita; the most rational explanation is that they were imported as part of the Ticoman complex of Gualupita II.

Nos. 9-11, F, A, and Cv, are rare examples of Middle Zacatenco-Copilco types, most probably associable with Gualupita I (cf. 1930, 128-129, 120-121, 108-109). None of these three specimens comes from a securely dated provenience. Such scanty comparable material of the standard Middle Zacatenco Types, A, B, F, exists in the Bourgeois Collection, with none at all in the Plancarte, that origin by trade is the most satisfactory means of accounting for their presence. It will be noted that the Type A head (No. 10) is atypical (cf. 1930, 121), but the body (Fig. 13, No. 10) is directly in the tradition. Type Cv, on the other hand, has a large representation in the Plancarte Collection and may actually have been a locally manufactured Morelos type.

No. 12 is a Teotihuacan type head and the body (Fig. 13, No. 9) is doubtless in the same style. The occurrence of these fragments, together with the sherds in Fig. 26a-d, suggest contemporaneity between Gualupita II and some aspects of Teotihuacan. The presence of two heads in the Bourgeois Collection and the subsequent discoveries of additional

Teotihuacan material (Fig. 16) also give evidence of possible contemporaneity between Gualupita II and the Valley site.

Nos. 13-14 are Aztec figurines, undoubtedly associable with the Gualupita III-Tlahuica horizon. Unfortunately, no typology has been created for the ethnography and chronology of Aztec figurines.

Figure 12

1. Figurine, Type Gi, Trench B, Cut I (30.1-2572)
2. Head, Type Iii, purchased (F.N. 2096)
3. Head, Type Hiii-iv, purchased (F.N. 2070)
4. Head, Type Eiv, purchased (F.N. 2055)
5. Head, Type Eiv, purchased (F.N. 2056)
6. Head, Type Hiii, purchased (F.N. 2069)
7. Head, Type Eiii, purchased (F.N. 2076)
8. Head, Type Eiii, Trench C, Cut III (F.N. 2321)
9. Head, Type F, purchased (30.1-2654)
10. Head, Type A, variant, purchased (30.1-2657)
11. Head, Type Cv, Trench B, Cut I (30.1-2571)
12. Head, Teotihuacan type, purchased (F.N. 2092)
13. Figurine, Aztec, mould-made, purchased (30.1-2533)
14. Head, Aztec, mould-made, Trench B, Cut I (30.1-2578)

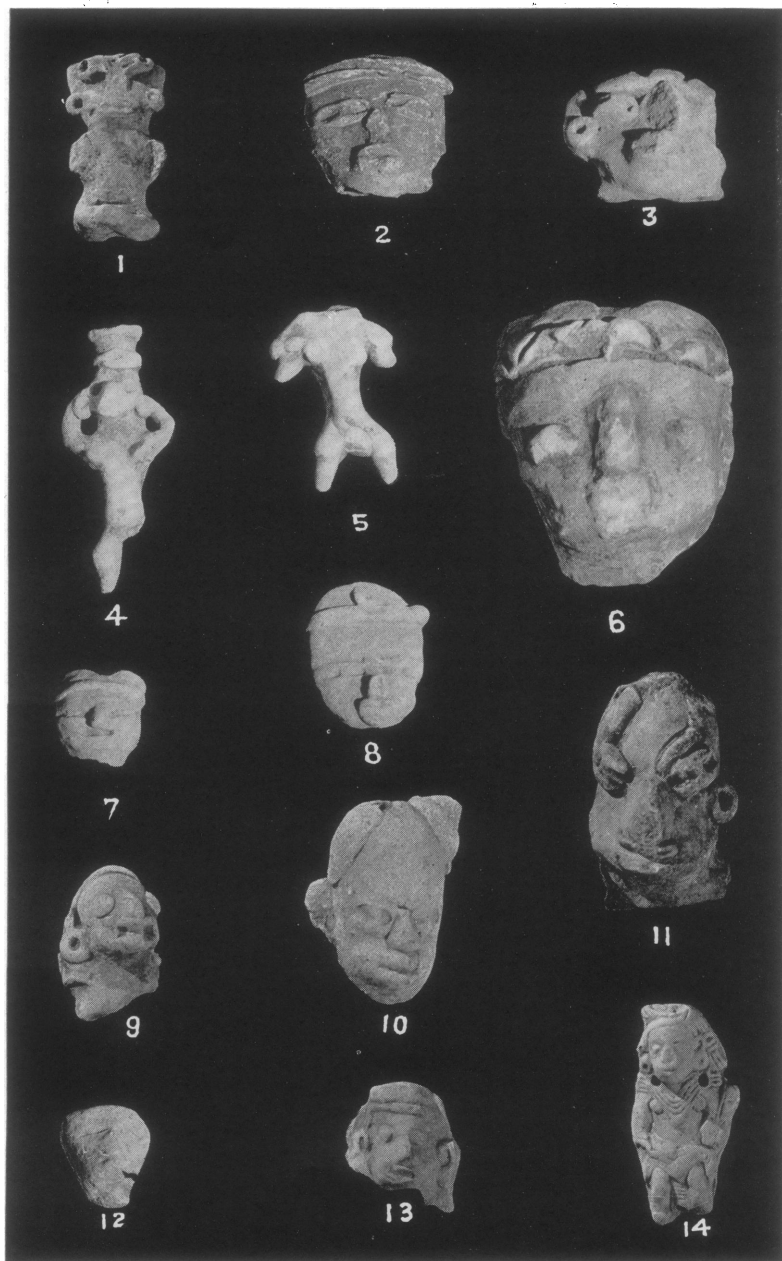


Fig. 12. Figurines, Foreign Types.

BODIES OF FIGURINES

Bodies of figurines of the Gualupita II period are collected in Fig. 13. Nos. 1 and 3 are quite obviously associated with the Hi-ii group, as a comparison with 1931, 357-358, will indicate. No. 2 is less susceptible to classification, although according to 1930, 133, there are affinities with Type G.

Type Cix bodies are represented by Nos. 4-5. Yet, the generalized quality of figurine bodies is well brought out by No. 6, where a Gualupita I torso, most probably Type K, bears all the characteristics of the Gualupita II Cix torsos.

No Hivd figurines were found intact, but Nos. 7-8 may well represent the torsos of this curiously stylized group. Their plastic has passed into a different form from the Cix torsos illustrated in the row above.

It is hard to classify the flat torso, No. 9, except as Teotihuacan. Type A is quite clearly represented by No. 10 and comparison with 1930, 121, gives abundant proof for the identification. No. 11, a seated torso wearing a gee string, is more difficult. It may well fall into the same category as the large figurine on Fig. 15, No. 3.

Figure 13

1. Body, Type Hi-ii, Trench C, Cut IV (30.1-2604)
2. Body, Type Hivc, purchase (30.1-2541)
3. Seated body, Type Hi-ii, purchase (30.1-2540)
4. Torso, Type Cix, purchase (30.1-2542)
5. Torso, Type Cix, Trench C, Cut IV (30.1-2603)
6. Body, Type Cix-K, Trench A, Cut IV (30.1-2568)
7. Body, Type Hivd (?), Trench C, surface (30.1-2591)
8. Body, Type Hivd (?), south of Structure I (30.1-2660)
9. Body, Teotihuacan type (?), Trench C, Cut V (30.1-2613)
10. Body, Type A, purchase (30.1-2538)
11. Seated body, Type Civ (?), purchase (30.1-2537)

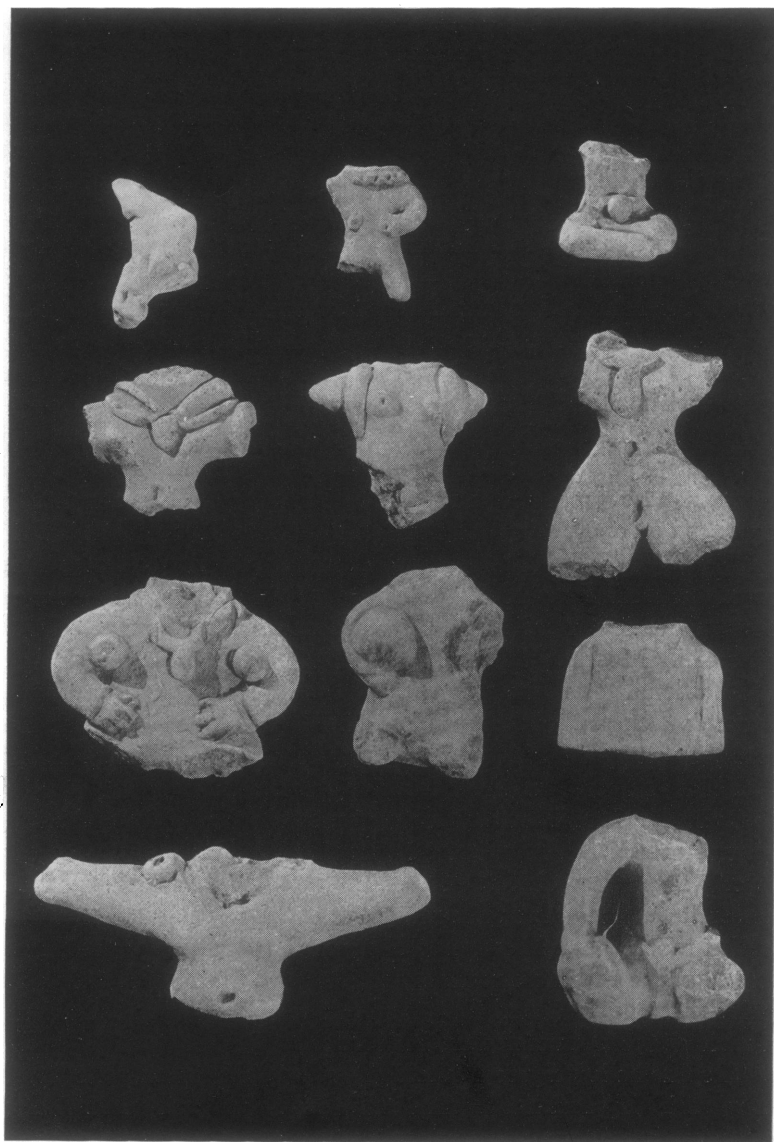


Fig. 13. Bodies of Figurines, Foreign Types.

BURIAL FIGURINES

The six figurines illustrated in Figs. 14 and 15 defy exact categorization because of their individuality. Yet they bear some relation to the standardized groups of small figurines discussed in the preceding pages.

The three examples shown in Fig. 14 are probably all associated with burials, although the large hollow seated figure in the center is the only one which actually accompanied a skeleton. This figure is of red clay, unslipped, and is so similar in headdress and presentation to the Cix variant head (Fig. 10, No. 3) that it might be called a hollow Cix. On the other hand, it is too specialized for direct inclusion in that class. It was found, deliberately broken, between the legs of Skeleton 5.

The two-horned figure at the left is also hollow. Its features are identical with those of the Cix head (Fig. 10, No. 2) so that although at first sight so different from its neighbor, we would class it as belonging to the same type. The peculiar hollow horns, however, place it in a class apart, which is represented in the Museo Nacional by two examples from the slopes of Popocatepetl, and in the Plancarte photographs by three specimens,—one from Yautepec, one from Tlaquiltenango, and one from Cuernavaca. All have the deep eyes, the high bridged nose, and the open mouth of our specimen. Another two-horned example from Jalisco in the Peabody Museum of Harvard University is in a different art style.

Additional occurrences of two-horned hollow figurines are at Esmeraldas, according to Professor M. H. Saville, and at Tehuacan, Puebla,¹ but it by no means follows that there are any lineal connections between such types and the Gualupita specimens.

Although this figure was not actually found with a skeleton, its position in the burial layer (Fig. 5), its size, and relative completeness, as well as the fact that the head was neatly broken off and buried between its legs, lead one to suppose that it was associated with a burial. It might indeed have belonged to Skeleton 2, though it appeared a good distance above it. More probably it goes with Skeleton 1, the position of which was never determined, for it was near enough to the skull to have lain at the feet which were not found.

The fine hollow figure at the right, so woefully incomplete, is made of a whitish clay and has a white slip. Its remarkable resemblance to the "baby face" type of sculpture forces us to place it with the large head at the left in Fig. 15 in a class by themselves (Vaillant, 1932*b*). It suggests also vague connections with Type Iiii (1931, 352–353) and is strikingly similar to a hollow clay figure found in the vicinity of Tonalá,

¹Seler, 1902–1915, vol. 2, 322.



Fig. 14. Burial Figurines in Museum Collection.

1. Hollow two-horned figurine, Type Cix, H. 22.5 cm., Trench B, Cut I (30.1-2576)
2. Hollow figurine, Type Cix variant, Skeleton 5, H. 29 cm., Trench C, Cut V, (30.1-2812)
3. Hollow "baby face" figurine, H. 25 cm., outside Trench B, Cut I (30.1-2847)



Fig. 15. Burial Figurines in Museo Nacional, Mexico.

Vera Cruz (Joyce, 1931). The realistic modeling of each feature, the rounded cheeks, the open mouth with even the teeth indicated, is unsurpassed in all the early cultures of Mexico. Perhaps some local Michael Angelo, developing his own peculiar technique from the hollow C's and D's of the period, is responsible for it as well as for Nos. 1 and 2 of Fig. 15.

The figure (No. 3) shown in this illustration, as well as the central figurine on Fig. 15, and a badly broken and imperfectly fired figure representing a tiger, were found in the yellow earth just outside the boundaries of Trench B, Cut I. It could therefore easily have been associated with some skeleton previously removed by the workmen.

The three specimens illustrated in Fig. 15 are now in the Museo Nacional in Mexico. The large face at the left, the gift of Miss Bourgeois, is perhaps the finest piece of clay sculpture known from the Early Cultures in Mexico. With the hollow figure shown in Fig. 14, No. 3, it belongs in a class apart. Perhaps the large seated figure (No. 2) was an earlier effort of the same local artist. It has certain traits that we associate with Types Dii and Diii and also suggests a hollow Type C. This figure, like the small Di's shown in Fig. 7, is slipped in white and painted red and black after firing. It was found, with the "baby face," above mentioned, outside the boundaries of Trench B, Cut I.

The figure on the right is unlike all the other large figurines in our collection, for it is solid. It is made of red clay and shows traces of white paint. The turban and features place it as a Type Ciii (1930, 104-105). This figurine, as well as the others discussed, was doubtless associated with a burial. It is complete and was buried with its head broken off and laid beside the body. It was near enough to the skull of Skeleton 3 to have been at its feet. The elusiveness of classification in the case of these large figures is well borne out, for this Ciii figurine could be developed into the large hollow example (Fig. 14, No. 2), just as well as could Cix specimens which we previously suggested as possible prototypes.

TEOTIHUACAN FIGURINES NEAR GUALUPITA

Miss Julia Bourgeois acquired most important material in the vicinity of Santa Maria, near Tlaltenango, consisting of the heads of Teotihuacan type shown in Fig. 16. It will be observed that most of these heads (Nos. 4-13) are of the same general "slit-eye" type as the

Figure 15

1. Figurine head, baby face type, H. 16 cm., gift of Miss Bourgeois (F.N. 2115)
2. Figurine, hollow, Type C-D, H. 24 cm., outside Trench B, Cut I (F.N. 2199)
3. Figurine, solid, Type Ciii, H. 17 cm., Trench B, Cut II (F.N. 2210)

fragments encountered in the Gualupita digging (Fig. 12, No. 12; Fig. 13, No. 9). Nos. 1-3 follow the same general style in presentation of the features, save that a ball of clay is used instead of a slit for the eye. No. 13 is a grotesque, vaguely suggestive of the usual depictions of the god Xipe.

Their presence in Morelos is quite significant, in view of the hitherto relatively restricted distribution of the Teotihuacan culture in its pure manifestation to the States of Mexico and Puebla. Moreover, according to our present data (Vaillant, 1932*a*) there are three periods discernible at Teotihuacan, and these heads from Santa Maria tie in with the second of them, Teotihuacan II, which is associable with the first great building period at the Teotihuacan site. Heads of the earliest period are figured in Gamio, 1922 (Pl. 100, a-h) and the latest "portrait" types in Gamio, 1922 (Pl. 89, e-j) and Seler, 1915 (Pl. XLII). The elaborate mould-made heads (Seler, 1915, Pls. XXIII-XXVIII) are rare at the actual site of Teotihuacan and are commonest at Azcapotzalco. This class may well represent a fourth period.

Of all the types of Valley figurines, Type Eii approaches nearest to the Teotihuacan style (1931, 346-347). At Jalapazco in Puebla, Type Eii and Teotihuacan heads were found in the same immediate neighborhood (Seler, 1915, Pl. XXII). The stone Fire God at Ticoman is hard to account for without an overlap between Ticoman and Teotihuacan (1931, 392-393). A Teotihuacan sherd was found at Ticoman (1931, 381, h) and at Gualupita we have considered two fragments of Teotihuacan bodies (Fig. 12, No. 12; Fig. 13, No. 9) besides several sherds (Fig. 26b-d) which suggest a partial contemporaneity of the two cultures. Finally, at Santa Maria, Gualupita II vessel legs were found apparently along with these Teotihuacan II heads.

Consequently, the evidence is accumulating that the Ticoman-Gualupita II and the Teotihuacan cultures are partially contemporaneous; but that they both originated from the same trunk is a less tenable hypothesis. Such questions of origin cannot be answered before scores of excavations have been made, but until they are, it seems justifiable to point out certain avenues of potential research.

Figure 16

1. Head, Teotihuacan II type, filleted eyes, Santa Maria (30.1-5080)
2. Head, Teotihuacan II type, filleted eyes, Santa Maria (30.1-5081)
3. Head, Teotihuacan II type, filleted eyes, Santa Maria (30.1-5079)
4. Head, Teotihuacan II type, slit eyes, flat head, Santa Maria (30.1-5067)
5. Head, Teotihuacan II type, slit eyes, flat head, Santa Maria (30.1-5072)
6. Head, Teotihuacan II type, slit eyes, round head, Santa Maria (30.1-5076)
7. Head, Teotihuacan II type, slit eyes, round head, Santa Maria (30.1-5077)
8. Head, Teotihuacan II type, slit eyes, flat head, Santa Maria (30.1-5070)
9. Head, Teotihuacan II type, slit eyes, flat head, Santa Maria (30.1-5069)
10. Head, Teotihuacan II type, slit eyes, flat head, Santa Maria (30.1-5064)
11. Head, Teotihuacan II type, slit eyes, flat head, Santa Maria (30.1-5075)
12. Head, Teotihuacan II type, slit eyes, flat head, Santa Maria (30.1-5074)
13. Head, Teotihuacan II type, grotesque, Santa Maria (30.1-5078)



Fig. 16. Figurines, Teotihuacan Type.

GUERRERO FIGURINES

The investigations of Mr. William Spratling in the region about San Geronimo, Guerrero, brought to light interesting types of figurines, recognizable by their extremely sophisticated conventionalization. We know nothing of the chronology of these specimens which we judge to be late, since much experimentation and refinement in technique must have preceded the evolution of these forms. Classification of these specimens according to the Hay-Vaillant system is impracticable since not only are they unconnected with the types found about the Valley of Mexico, but also a complete series is lacking.

The round-faced type (Fig. 17, Nos. 9-15) represents more completely the spirit of Valley and Morelos styles, and we have designated them as San Geronimo Group I. On purely impressionistic grounds we should judge these to be earlier than Nos. 1-7, the flat type, which we have called San Geronimo Group II, the sophistication and variation suggesting a later date. No. 8 seems to be a transition between the two types.

The only conceivable connection with the Valley would be via Type Cviii (1930, 112-113), but such vague theorizing is out of place in a specific analysis of styles, like this study of Gualupita. The series is included to give a background to our Morelos figurines by showing hitherto unpublished material from the adjacent State of Guerrero.

Figure 17

1. Head, Group II, San Geronimo (30.1-2450)
2. Head, Group II, San Geronimo (30.1-2411)
3. Head, Group II, San Geronimo (30.1-2412)
4. Head, Group II, San Geronimo (30.1-2415)
5. Complete figure, Group II, San Geronimo (30.1-2418)
6. Head and torso, Group II, San Geronimo (30.1-2408)
7. Head, Group II, San Geronimo (30.1-2407)
8. Head, Group II, San Geronimo (30.1-2423)
9. Head, Group I, San Geronimo (30.1-2434)
10. Head, Group I, San Geronimo (30.1-2435)
11. Head, Group I, San Geronimo (30.1-2440)
12. Head, Group I, San Geronimo (30.1-2416)
13. Head, Group I, San Geronimo (30.1-2429)
14. Head, Group I, San Geronimo (30.1-2428)
15. Head, Group I, San Geronimo (30.1-2431)



Fig: 17. Figurines, Guerrero Types.

CONCLUSION

The appraisal of the Gualupita and Morelos figurines brings one face to face with the problem of classifying the local variations of material that on the whole is grossly similar. While advantage has been taken of the existing categories, sub-types have been created to indicate local styles.

The Gualupita I figurines present a distinctively regional appearance and comprise chiefly Types D, K, and O (Figs. 6-9). Type Di (Fig. 7 and Frontispiece) is rare, being represented by a few broken fragments and the complete specimens with Skeleton 9. Although the plastic follows the same formulae as the Early Zacatenco specimens from the Valley, the Gualupita Di figurines differ in the important respect of the use of a white slip. Type Dii is far more common at Gualupita and in the Bourgeois and Plancarte collections than in the Valley. It merges much more closely with Type K (Fig. 8) than we had supposed from our examination of the styles in the Valley. In fact, Types Dii and K must have been evolved simultaneously in the Morelos region. A third division, Type Diii (Fig. 6), is a hollow development from the Dii style, usually slipped in red. Both Types Diii and Dii seem to be commonly distributed chiefly in the States of Morelos and Puebla.

Type K (Fig. 8), which in the Gualupita specimens is almost indistinguishable from Dii, is especially characteristic of Morelos. It is also found in the south and west of the Valley, but did not appear in the digging at Zacatenco and El Arbolillo. However, in the Valley there are a number of burnished examples with the frog-like features accentuated, so that it is probable that Type K extends through more than one period. The D and K plastic tradition has the same fundamental basis for sculptural development at Gualupita as Type C has in the Valley of Mexico.

Type O (Fig. 8) is another Gualupita I type, the crudeness of which makes it unreliable for comparison or distribution. While at Gualupita there are sufficient examples to show that the style was made intentionally and is a time-bearer, an isolated example at another locality might be a mere childish effort at imitating another style.

Our basal premise in assigning unexcavated types to Gualupita periods was the definite equation in time of Gualupita II with the Ticoman occupation. Therefore, styles of figurines anterior to Ticoman in the Valley, when found in collections and not excavated from deposits of known period, would fall into Gualupita I.

In spite of the overwhelming proportion of local types, a few Valley styles are present in Gualupita, so that a means is afforded of dating

Gualupita I in respect to the Valley sequence. The presence of Di figurines gives some connection with Early Zacatenco and a more tenuous link is through hollow figurines assignable to Type Ciii (Figs. 10, 15). Since these hollow specimens are atypical variants, they must be discounted somewhat. The large Ciii figure from Trench B (Fig. 15) is similarly unreliable.

The affiliations with Middle Zacatenco are stronger. Type Dii is best assignable to this period, since it was not found at Ticoman nor in the Early Zacatenco deposits. Moreover, in Gualupita I deposits were found a few specimens of Types A and F (Fig. 12), which are diagnostic of the Middle Zacatenco period and doubtless reached Gualupita through trade. Yet why there should have been trade in such intimate and intensely localized ceremonial objects is a mystery as yet unelucidated. Type Cv (Fig. 12) which is found at the Middle Zacatenco sites of Copileo and San Juanico (1930, 108-109), is represented by abundant examples in the Plancarte and Bourgeois collections and by one specimen from Gualupita. It is common enough in the collections made both in Morelos and the Valley and is of considerable importance as possibly being a prototype of Hive and Hivd (Fig. 11).

The Gualupita II figurines evolve in part indigenously and in part seem to have been introduced from an external source, the homeland of the Ticoman culture. Type Cix (Fig. 10), by its position in the C plastic, may not have been evolved directly from Types D and K. Yet we are without data as to the exact C sub-type which may have been its source. The large hollow figurines in Figs. 14-15 have strong affiliations with the D group, as well as with an evanescent C background which, except for Type Cv (Fig. 12) and doubtfully Type Ciii (Fig. 10), is absent from Gualupita I. A more specific resemblance is to be found between two of the specimens (Fig. 14, No. 3; Fig. 15, No. 1) to the "baby face" style of sculpture in Southern Mexico. But the intense individuality of all these specimens precludes other close ethnographic correlation, except for the two-horned figure (Fig. 14) which has been found on the slopes of Popocatepetl and at various localities in Morelos. Mr. Hay found hollow figurines near the Rancho Echegaray, near Remedios, D.F.,¹ but while these specimens faintly recall group D prototypes, they do not resemble the Gualupita specimens in the least. Other hollow figurines have been found at Atalo, near San Joaquin Cocalco in the same district.² However, similar pottery types occurred in both Gualupita and the Remedios

¹Boas and Tozzer, 1915, 393.

²del Paso y Troncoso, 1887, 336-337; 1892, 383; Plancarte, 1911, 6-7.

section (pp. 74-76). In view of the rarity of hollow figurines in the Early Horizon and the relative contiguity of the two regions, the making of hollow figurines of large size, however dissimilar, might be considered a culture trait. But insufficient data are at hand to answer this question one way or the other.

The types of Gualupita II which we considered as brought in from the outside and not originating in Gualupita I, represent, in varying number, almost the entire series of Ticoman figurines for all periods. While the actual digging at Gualupita only produced the rarer sub-types Eiii and Eiv of the Early Ticoman time-bearer E (Fig. 12), the Bourgeois Collection contained a rich representation of the standard styles Ei and Eii. The Intermediate Ticoman period was scantily represented, only sporadic examples of Types G and I appearing (Fig. 12), but the Late Period was present in force, all the sub-types of the H group (Fig. 11) occurring, except the specialized and rare Hv.

A curious development centers around the sub-type Hiv (Fig. 11). The form known at Ticoman as Hiv and after the Gualupita digging as Hiva was considered of great historical importance as giving a lead into the archaeology of Western Mexico (1931, 362-363). A number of examples of this style occurred in our own digging at Gualupita and also in the Bourgeois, Plancarte, and Spinden collections, but these were supplemented by two groups of specimens, Hivc and Hivd (Fig. 11), that, although related to the Ticoman style, could not be classified directly with it. Through the recognition of an intermediate Ticoman sub-type Hivb (Fig. 11, Nos. 8-11), we were able possibly to link the main Ticoman style, Hiva (Fig. 11, Nos. 3-7) to the specialized Gualupita sub-type Hivc (Fig. 11, Nos. 12-15) and Hivc led in turn to the fourth group, Hivd (Fig. 11, Nos. 16-19). In comparing the extremes of this Hiv series, Hiva with Hivd, however, we find very slight resemblance, Hivd seeming to fit in more with Type Cv (Fig. 12, No. 11). As suggested in the preceding text (pp. 40-43) Hivd may be a transitional form between the C types and this branch of the H group, while Hiva may represent an amalgamation between this evolution and the Sub-types Hi, ii, iii, v, which are derived from Types G, I, and L (1931, 348-365). There is little doubt that further investigation of Type Hiv will be of the greatest utility in tracing the ramifications of time and tribe among the more primitive cultures of the Valley.

The combination of Ticoman figurine types in the quantity and range of form that they have at Gualupita with pottery shapes also present at the site, must represent a much more potent influence than

trade, probably the amalgamation of two ethnic groups. If one group had replaced another, then there would be no trace of Gualupita I plastic influence in the figurines of Gualupita II as in the case of Type Cix. On the other hand, there is too little of Gualupita I plastic method in the Gualupita II complex to admit of a direct evolution. Therefore the idea of a fusion between a foreign and an indigenous strain seems likely.

Not all the State of Morelos was dominated by the early styles of figurines noted at Gualupita. At Tenango there are a number of Cviii figurines (1930, 112-113), observed very infrequently in the Valley of Mexico. Whether this type evolved into the remarkable San Geronimo Guerrero figurines (Fig. 17) is a matter of conjecture, based solely on a method of presenting the eye and the eyebrow by incision. Yet, the historical examination of these ceremonially unspecialized cultures of Western Mexico, and their relation to the early cultures of the Valley would offer an interesting study.

The presence in the Gualupita collections of a Teotihuacan head and body (Figs. 12, 13) offered a highly significant historical lead into the possible contemporaneity of the Gualupita II—Ticomán horizon with some phase of the Teotihuacan civilization. The discovery by Miss Julia Bourgeois of a series of the "slit-eye" Teotihuacan heads, associable with the Teotihuacan II period, at a short distance north of Gualupita shows that there was a Teotihuacan occupation in Morelos (Fig. 16). The question of the contemporaneity of the Teotihuacan heads with those of Gualupita II cannot as yet be definitely answered, but the probabilities of their being coeval are quite strong.

Comment on the Aztec heads (Fig. 12) found in association with Gualupita III must be perfunctory, since nothing is known of them chronologically or ethnographically, beyond their attribution to a period of known historical duration.

To sum up, there were several early culture groups of figurines in the State of Morelos. Of these the Gualupita sequence seems to have followed in its earliest period an autochthonous evolution, uninfluenced by sporadic imports of Valley and other styles. In Gualupita II the influx of the same culture as that found at Ticomán changed this orderly evolution, although a number of figurines were made in forms derived, if not from Gualupita I direct, at least from indigenous Morelos styles. During this period or shortly after, Teotihuacan II styles were made in Morelos, probably by colonists from Teotihuacan; but, from the evidence at hand, this occupation was of short duration. The Tlaluican

period Gualupita III has apparently no figurine styles directly associable, but during that time figurines of the Valley Aztec were either imported or brought in by the invading Aztec.

The following chart sums up the spread of types in the Plancarte, Bourgeois, purchased, and excavated collections.

TABLE 1
DISTRIBUTION OF FIGURINES IN THE STATE OF MORELOS

Figurine Types	Gualupita (Excavation)	Gualupita (Purchase)	Bourgeois Collection	Cuernavaca (Plancarte)	Zacualpan (Plancarte)	Xochitepec (Plancarte)	Mazatepec (Plancarte)	Tepoztlan (Plancarte)	Cuautla (Plancarte)	Yautepec (Plancarte)	Matamoros Izucar (Plancarte)	Tepalzingo (Plancarte)	Tenango (Plancarte)	Tlaltizapan (Plancarte)	Jojutla (Plancarte)	Tlaquilttenango (Plancarte)	Amacuzac (Plancarte)	Alpuyeca (Plancarte)
Di	7	2	13	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dii	4	6	25	2	..	12	..	..	..	1	1	1	..	..	3	15	..	..
Diii	10	1	2	2	..	1	..	..	..	1	..	..	..	..	..	1	..	..
K	11	3	13	1	1	..	1	..	..	2	..	..	..	..	1	5	..	..
O	5	4	19	2	1	..	..	..	..	..	..	..	..	..	..	1	..	..
Ciii	3*	..	1	..	..	..	..	..	..	1*	..	..	..	..	..	1	..	..
Cv	..	..	4	..	..	1	..	..	..	..	..	..	..	..	3	3	1	..
Cvi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cviii	..	..	..	..	..	..	..	..	..	..	..	2	12	1	..	..	..	..
A	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
B	..	..	3†	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
F	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cix	5	..	13	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..
E	1	3	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
G	1	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
I	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hi-iii	1	2	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hiva	1	3	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hivb	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hivc	2	2	..	..	..	..	..	8*	..	..	..	..	..	..	..	..	..	..
Hivd	2	2	9	..	..	..	1*	..	..	..	..	..	..	1*	..	..	..	..
Unclassifiable	..	..	..	5	..	..	2	..	..	..	1	1	..	..	..	..	..	..
Teotihuacan	..	..	1*	3*	..	..	..	..	..	..	..	..	..	..	..	..	1	..

*Atypical

†Doubtful provenience.

TABLE 2
PERCENTAGE OF POTTERY TYPES

	TLAHUICA Gualupita III				Gualupita II				Gualupita I							
	A I	A II	D I	D II	C II	C III	C IV	C V	C VI	C VII	D II	D III	D IV	D V	D VI	D VII
Total Sherds from Cut	445	1163	240	2084	681	316	1164	927	348	423	508	866	874	1973	1208	216
Total Decorated and Rim Sherds on which Percentages are based	121	666	115	551	241	119	421	351	112	73	107	194	194	408	326	34
TLAHUICA STYLES																
Storage Wares																
Brown olla necks	11.57	2.55	7.20	16.05	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White olla necks	1.65	10.81	6.40	2.72	.42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White cajetes	.....	13.36	.....	6.53	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brown cajetes	8.26	.....	14.40	6.72	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brown bowls	8.26	4.95	.....	.73	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brown handles	.82	.....	.....	.36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White handles	2.48	2.25	4.80	1.81	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tortilla plates	.....	8.56	5.60	5.63	.....	.....	.....	.....	.....	.....	.93(?)	.....	.....	.....	.62(?)	.....
Incensarios	.....	.30	.....	.73	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Service Wares																
Black-on-red	.....	8.41	5.60	10.33	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hard black-on-red	.....	1.80	.80	.54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Polished red	3.30	11.91	5.60	11.79	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hard polished red	.82	.30	12.00	2.18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Black lacquer	.82	7.66	4.00	4.17	.....	.....	.....	.....	.....	.....	.....	8.76*	.....	.25*	.....	.....
Hard black	4.96	.....	3.20	5.08	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Polychrome	4.13	15.61	3.20	6.72	.....	.....	.....	.....	.....	.....	.....	6.18*	.....	.....	1.23(?)	.....
Legs																
Spider legs	2.48	2.40	6.40	.91	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cylindrical legs	.82	.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous																
Modern sherds	32.23	7.80	.80	.18	.....	.....	.....	.....	.....	.....	.....	1.03*	.....	.....	.....	.....
GUALUPITA I-II																
Storage Wares																
Vague olla necks	.....	.....	.....	.....	.83	2.52	2.85	.85	5.36	16.44	10.28	3.09	6.70	2.45	3.37	2.94
Curved olla necks	.....	.....	.....	.....	19.91	9.24	4.75	11.11	.89	2.74	.....	4.64	4.64	1.98	9.20	.....
Olla handles	.....	.....	.....	.....	.....	.....	.71	.85	.89	.....	.93	1.03	.52	.74	.....	.....
Cajetes	.....	.....	.....	.....	15.77	26.05	20.90	13.39	14.28	31.51	29.91	.....	2.06	4.66	5.25	.....
Service Wares																
Black-Brown Wares																
Brown bowls, early and Ticoman styles	.82+	.....	.....	1.63+	4.15	.....	10.21	12.54	11.61	12.33	9.34	20.67	18.04	25.73	13.80	17.65
Incised and channeled brown bowls	4.13+	.....	.....	.....	1.24	.....	3.81	4.27	4.46	8.22	2.80	4.12	5.67	9.31	3.07	11.72
Brown bowls with appliqué	.....	.....	.....	.54+	.....	.84	.....	.....	.89	.....	.93	1.03	1.55	.25	.....	.....
Black ware, early and Ticoman styles	.....	.....	.....	.....	13.69	14.29	19.48	14.25	22.32	2.74	17.76	2.58	7.73	15.44	12.27	11.71
Incised black ware	.....	.....	.....	.....	.42	1.68	.....	1.14	1.79	.....	.....	.....	.52	1.47	.31	.....
Brown bottles	.....	.....	.....	.....	.....	.....	.....	.....	8.93	.....	2.80	.....	.....	.....	3.37	.....
Incised brown bottles	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.37	.93	.52	1.03	1.22	.....	.....
Corrugated bottles	.....	.....	.....	.....	.....	.....	.....	3.13	.....	.....	.....	.....	.....	.....	.....	.....
Gadrooned bottles	.....	.....	.....	.....	.....	5.88	.....	.28	.....	1.37	.....	.....	.52	.....	2.76	23.44
Red-on-Brown Wares																
Early red-on-brown	.....	.....	.....	.....	.42	.....	1.66	.85	1.78	.....	6.54	.52	1.55	4.41	.....	.....
Channeled red-on-brown	.....	.60+	5.60+	.....	.....	.....	.95	.57	.89	.....	.93	.....	.52	.....	.....	.....
RED-ON-YELLOW TICOMAN STYLE	.....	.....	.....	.18+	5.39	5.04	5.94	6.84	.....	.....	.....	.....	.....	.....	.62(?)	.....
Red-on-brown bottles	.....	.....	.....	.....	.....	.....	3.56	.....	.....	1.37	.....	.....	1.03	6.86	2.45	.....
Gadrooned red-on-brown bottles	.....	.....	1.60+	.....	.....	.....	1.90	.....	2.68	.....	.....	.....	.52	1.96	.....	.....
Red Wares																
Early polished red bowls	.....	.....	.....	.18+	4.56	1.68	7.13	6.27	4.46	10.96	7.48	9.79	14.95	10.78	7.67	11.72
Channeled polished red bowls	.....	.....	.....	.....	.42	.....	.....	.....	.....	.....	.....	1.55	.....	.49	.92	2.94
POLISHED RED TICOMAN STYLE	.....	.....	.....	.....	1.65	4.20	.....	.57	.....	.....	.....	.....	.....	.....	.....	.....
Polished red olla	.....	.....	.....	.....	2.49	3.36	2.14	4.84	7.04	4.11	.....	8.25	12.37	5.64	1.23	.....
Dull red olla	.....	.....	.....	.....	2.49	.....	.95	.....	.....	.....	.....	.....	.....	.....	20.55	2.94
Dull red cajete	.....	.....	.....	.....	2.07	.....	.24	2.85	.....	.....	.....	.52	.....	1.47	1.53	5.85
White Wares																
White ware	2.48+	.....	.....	.....	.....	.....	1.90	2.28	4.46	5.48	2.80	1.03	5.67	4.89	.....	.....
Red-on-white	.....	.....	.....	.....	.....	.....	.24	.....	.....	.....	.93	.....	.....	.25	.....	.....
Granular white	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.07	.....
White-on-brown	.....	.....	.....	.....	.42	.....	.48	.57	1.79	1.37	.....	.....	.....	.....	.....	.....
Legs																
Annular base	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.25	.....	.....
Solid leg	.....	.30+	.....	.....	.....	.34	.....	.....	.....	.....	.93	.....	.52	.49	.....	2.94
Ball leg	1.65+	.....	.....	.36+	2.90	3.36	.71	1.99	1.78	.....	.93	.....	.....	.25	2.45	2.94
Swollen leg	.....	.....	.80+	.....	.83	.84	.71	.85	.....	.....	.....	.....	.....	.....	.....	.....
Elongated leg	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Foot leg	.....	.....	.....	.54	.42	3.36	1.1	1.70	.89	.....	.....	.52	.....	.....	.....	.....
Miscellaneous																
Unclassified worn wares	8.26+	.....	12.00+	12.89+	11.20	8.40	1.66	2.28	.....	.....	.....	21.13	12.37	.....	.....	.....
Black lacquer incised	.....	.....	.....	.....	.42	.....	.24	.57	.89	.....	.....	1.03	.....	.....	.....	.....
Lost color	.....	.....	.....	.....	4.98	.....	.48	1.14	.....	.....	.....	.....	.....	.....	.....	.....
Black-on-red	.....	.....	.....	.....	.....	.....	.24	.57	.....	.....	.....	.....	.....	.....	.....	.....
Teotihuacan	.....	.....	.....	.....	.42	.....	.24	.....	.....	.....	.....	.....	.52(?)	.....	.....	.....
Trade	.....	.....	.....	.....	.....	.....	.....	.....	.89	.....	.93	.....	.....	.....	.....	.....
Ladles	.....	.....	.....	.....	.42	1.68	.48	1.71	.....	.....	1.87	.52	1.03	.....	1.84	2.94
Early incensarios	.....	.....	.....	.....	2.07	6.72	4.28	1.71	.89	.....	.....	1.55	.....	.....	2.15	.....

POTTERY

INTRODUCTION

A number of grave handicaps attended the study of the ceramics of Gualupita. The disturbance of the soil due not only to burials in the Gualupita II débris, but also to leveling operations in the Gualupita I refuse, broke the sherds into minute fragments. Consequently the angle of olla rim shapes became most difficult to determine. Furthermore, the proportion of decorated to undecorated pottery is almost impossible to compute from sherds alone, since the design zone of a decorated vessel is small in comparison with the total area. Humic acid, so common to hot countries has also done its destructive work in eating away slips and dulling burnishes. The writers consequently were forced into a more interpretative analysis of the significance of the Gualupita pottery than would be customary in a less involved site and accordingly graphic presentation has not been used for the numerical frequency of wares in the different periods, although in Table 2 will be found the percentages derived from the sorting of fragments.

As in previous papers, we have followed the method of subtracting olla body sherds from the total number of fragments and using the remainder as a basis of computing per cents. By this means the small quantities of the various decorated wares appear less minute. However, the number of the olla body sherds and their percentage of the grand total has been calculated.

GUALUPITA I-II POTTERY

The pottery of Gualupita falls into three ethnic divisions, the local Gualupita I-II pottery, the Gualupita II pottery in the Ticoman tradition, and the Gualupita III ceramic complex. Several wares are divisible into sub-groups through differentiation in decorative technique. Before entering into the discussion and description of the pottery types of Gualupita I and II, let us list them in order:—

Gualupita I-II

Storage Vessels (Figs. 18-19)

Ollas with vague necks (Fig. 18a, c-d, f-j, v)

Ollas with restricted necks (Fig. 18k-q, s)

Ollas with handles (Fig. 18f', j'; Fig. 19, No. 6)

Cajetes (large storage bowls) (Fig. 18t-w; Fig. 19, Nos. 4-5)

Service Vessels

Black-Brown Ware (Figs. 19-23)

Undecorated bowls, (Fig. 20d, y-z; Fig. 21, Nos. 4, 6, 9; Fig. 27c)

Bowls with channeled or incised decoration (Fig. 20c, e-k, n-o, q; Fig. 21,

Nos. 1, 5, 7-8)

- Bowls with appliqué decoration (Fig. 20a-b)
- Plain black bowls (Fig. 20 l)
- Incised black bowls (Fig. 20m, p; Fig. 23, Nos. 5-6)
- Undecorated bottles (Fig. 19, Nos. 8-9; Fig. 20s)
- Bottles with incised gadrooned or grooved decoration (Fig. 20b'; Fig. 22, Nos. 1-5)
- Gualupita II—Ticoman styles (Fig. 20r, t-x, a')
- Red-on-Brown Ware (Figs. 18, 19, 21, 22, 24)
 - Red-on-brown bowls (Fig. 24f)
 - Red-on-brown bowls, channeled or incised (Fig. 21, No. 2; Fig. 24a-e)
 - Red-on-yellow, Ticoman style (Fig. 20a'; Fig. 24g-k)
 - Red-on-brown bottles (Fig. 19, No. 7)
 - Red-on-brown bottles, gadrooned or incised (Fig. 18r; Fig. 22, Nos. 6-7)
- Red Wares (Figs. 18, 21, 24)
 - Early polished red bowls (Fig. 21, No. 3; Fig. 24l-n)
 - Channeled polished red bowls (Fig. 21a-e)
 - Polished red, Ticoman style (Fig. 24s-y)
 - Polished red bottles (Fig. 24o-p)
 - Polished red olla (Fig. 24 q-r)
 - Dull red olla (Fig. 18b, e, y)
 - Dull red cajete (Fig. 18g')
- White Wares (Figs. 23, 25)
 - Early white (Fig. 25a-e)
 - Granular white (Fig. 23, Nos. 1-4; Fig. 25f-h)
 - Unclassified worn wares (Fig. 25q)
 - Red-on-white (Fig. 26a)
 - White-on-brown (Fig. 25i-k)
- Vessel Supports (Figs. 20, 24-26, 28)
 - Solid leg (1931, 386c)
 - Ball leg (Fig. 26g-j)
 - Annular base (Fig. 28c)
 - Swollen leg (Fig. 20r, u, a'; Fig. 24y; Fig. 25p; Fig. 26k-l)
 - Naturalistic leg (Fig. 26b, m-o)
- Miscellaneous Wares (Figs. 20, 25-26)
 - Shiny black lacquer bowls incised (Fig. 25l-n)
 - Lost color bowls (Fig. 25o-p; Fig. 26b)
 - Black-on-red bowls (Fig. 25o-p)
- Trade Wares (Fig. 20m; Fig. 26a, c)
 - Teotihuacan styles (Fig. 26d-f)

Storage Wares

The storage wares at Gualupita (Fig. 18) are made of coarsely tempered roughly kneaded clay and are covered on the outside with a thin wash or slip which is then burnished. Usually the inner side of the neck of the vessel receives the same treatment. There are no data available on the exact method of building up the pots. Their color is variable, ranging from the bay noted as so characteristic of the Valley of Mexico to dun and gray tones.

There are two main forms, the olla (jar with restricted neck) and the cajete (wide-mouthed storage bowl). The olla is usually globular (Fig. 18y), but considerable variation exists in the rims. Two main divisions are discerned (Fig. 18a-j, v), one wherein the shoulder of the pot merges gradually into the constrictions of the neck, leaving a wide mouth, the other (Fig. 18k-s) where the termination is abrupt and the mouth relatively narrow. The first style resembles the "vague" type of neck of Early and Middle Zacatenco (1930, 80-81, 84-85) and exists in varying proportions during Gualupita I, although very rare in Gualupita II. The constricted necks show infinite variation so that satisfactory subdivisions like those of Ticoman (1931, 270-275, 372-373) cannot be achieved. Yet, although such necks are common to both the Gualupita I and Gualupita II débris, those of Gualupita II are more formalized and approach the "flat" and "roll-lip" shapes of Ticoman (cf. Fig. 18k-s with 1931, 373, a-w).

Handles, common to both Gualupita I and II débris, are very rare and not subject to period stylization (Fig. 18j', f'; Fig. 19, No. 6).

Cajetes (Fig. 18t-u, w; Fig. 19, No. 5), except where the fragments are large, are very difficult to distinguish, since the slipped inner portion of an olla neck may well be confused for the slipped inner surface of a bowl. In direct antithesis to our experience in the Valley, where cajetes are rare at Ticoman (1931, Table II) but common at Zacatenco (1930, Table II), cajete necks seem to be more numerous in Gualupita II than in Gualupita I (Table 2). Yet they are commonest of all in the Gualupita I Cuts of B II, and CVII, where the sherds are largest and therefore least disturbed. This preponderance of cajete forms in Gualupita II nonetheless cannot be entirely explained away by faulty identification of the fragments.

However, several legitimate conclusions may be drawn about the storage wares (Table 2). As in the Early Cultures of the Valley, there is a gradual increase in the proportion of service to storage wares with the passage of time. There is also a tendency for olla necks to become more complicated and stylized during Gualupita II than in Gualupita I. The general variety of shapes is quite in the tradition of the Valley of Mexico, but the service forms lack the sharp differentiation between the period types that we have noted in the Valley. Therefore we have not been able to classify the storage vessels as precisely as in the Valley and they do not serve as reliable time-bearers at Gualupita.

Figure 18

(Size $\frac{1}{4}$ unless otherwise designated)

- a. Section, olla neck, Trench A, Cut V (30.1-4591)
- b. Section, olla neck, dull orange slip, Trench D, Cut VI (30.1-4567)
- c. Section, olla neck, Trench C, Cut VII (30.1-4583)
- d. Section, olla neck, Trench C, Cut VII (30.1-4590)
- e. Section, olla neck, dull orange, Trench C, Cut VII (30.1-4582)
- f. Section, olla neck, Trench D, Cut VII (30.1-4568)
- g. Section, olla neck, Trench C, Cut IV (30.1-4588)
- h. Section, olla wall, Trench C, Cut V (30.1-4581)
- i. Section, olla neck, Trench D, Cut VI (30.1-4565)
- j. Section, olla neck, Trench D, Cut VI (30.1-4566)
- k. Section, olla neck, Trench C, Cut II (30.1-4577)
- l. Section, olla neck, Trench C, Cut V (30.1-4589)
- m. Section, olla neck, Trench D, Cut VI (30.1-4564)
- n. Section, olla neck, Trench C, Cut II (30.1-4575)
- o. Section, olla neck, Trench C, Cut II (30.1-4576)
- p. Section, olla neck, Trench C, Cut IV (30.1-4578)
- q. Section, olla neck, Trench C, Cut IV (30.1-4579)
- r. Section, bottle neck, red-on-brown ware, Trench C, Cut V (30.1-4592)
- s. Section, olla wall, Trench C, Cut V (30.1-4580)
- t. Section, cajete rim, Trench C, Cut VII (30.1-4584)
- u. Section, cajete rim, Trench B, Cut II (30.1-4586)
- v. Bottle neck, Trench C, Cut VII (30.1-2844)
- w. Section, cajete rim, Trench B, Cut II (30.1-4585)
- x. Handle, horizontal, white ware cajete, Trench B, Cut II, mixed débris, (30.1-4574)
- y. Reconstruction, olla, dull red ware, gift of Miss Bourgeois, $\frac{3}{4}$ (30.1-2853)
- z. Sherd, olla, textured body, Trench D, Cut II (30.1-4569)
- a'. Section, olla neck, Trench A, Cut III north (30.1-4561)
- b'. Section, olla neck, Trench D, Cut II (30.1-4559)
- c'. Reconstruction, cajete, dull red interior, white exterior, Trench D, Cut II (30.1-4560)
- d'. Section, cajete, orange interior, white exterior, Trench A, Cut II (30.1-4562)
- e'. Handle, twisted, white ware, Trench A, Cut III, north (30.1-4573)
- f'. Handle, olla, Trench D, Cut V (30.1-4571)
- g'. Handle, cajete, dull red ware, interior and exterior, Trench A, Cut III north (30.1-4570)
- h'. Handle, cajete, white ware, Trench D, Cut II (30.1-4563)
- i'. Handle, unslipped ware, Trench D, Cut II (30.1-4587)
- j'. Handle, in form of arm, Trench D, Cut III, $\frac{1}{2}$ (30.1-4572)

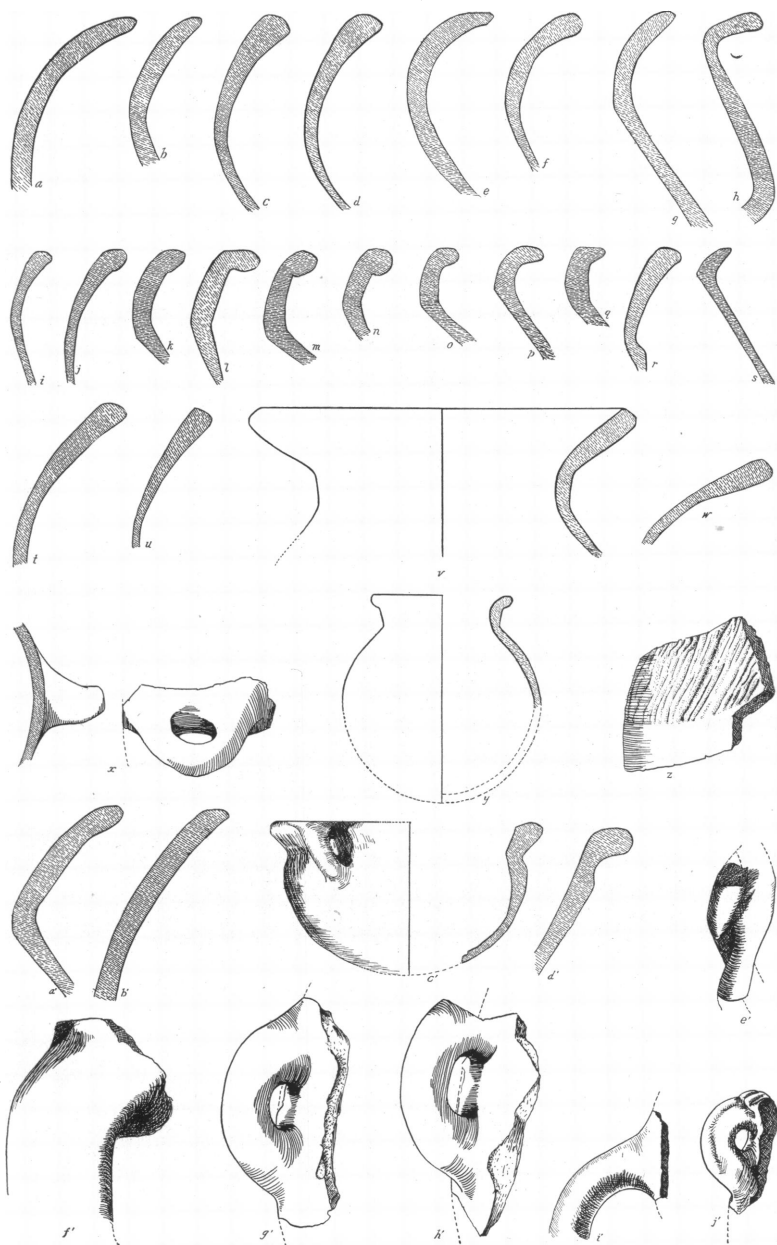


Fig. 18. Storage Wares.



Fig. 19. Coarse Brown and Tlahuica Bowls.

1. Tripod bowl, polychrome, Gualupita III style, G.D. 21.5 cm., Tlacotepec, State of Mexico (30.0-100)
2. Tripod bowl, polychrome, Gualupita III style, G.D. 20.6 cm., Atlatlauca, State of Mexico (30.0-111)
3. Tripod bowl, polychrome, Gualupita III style, G.D. 19.6 cm., Capotitlan, State of Mexico (30.0-79)
4. Jar, coarse brown ware, H. 13.5 cm., Pot A, Skeleton 9, Trench C, Cut VI (F.N. 2561)
5. Reconstructed cajete, brown ware, with skeleton (?), H. 15 cm., Trench B, Cut II (30.1-2845)
6. Olla with handles, brown ware, H. 11 cm., Skeleton 2, Trench B, Cut I (F.N. 2537)
7. Bottle, red-on-brown ware, H. 11 cm., Skeleton 19, Trench C, Cut VI (F.N. 2574)
8. Bottle, brown ware, H. 13.5 cm., Skeleton 4, Trench B, Cut II (30.1-2811)
9. Bottle, brown ware, H. 16 cm., Skeleton 1, Trench B, Cut I (F.N. 2536)

Service Wares

Brown Wares. The principal ware composing vessels for the service of food is made of a coarsely kneaded, finely tempered, clay. A wash, really a slip, of a more carefully prepared brown mixture is applied to the exterior and interior of the bowls (Figs. 19-22). By the addition of red paint as a decorative element and as a slip, two other categories, classed as wares, are evolved, red-on-brown and polished red (Fig. 24). These groups will be considered separately.

By far the commonest form comprises bowls of simple silhouette with mouths measuring slightly less than the greatest diameter of the vessel (Fig. 20a-k; Fig. 21). Occasionally bowls with relatively straight bodies occur (Fig. 20m-q). These simple forms obtain during Gualupita I, but in Gualupita II, one finds strongly incurved and recurved rims surmounting deep bowls (Fig. 20h). At the same time occur the plate-like forms with thickened rims so characteristic of Ticoman (cf. Fig. 20r-u, with 1931, 382-383).

Figure 20

(Size $\frac{3}{4}$ unless otherwise designated)

- a. Section, bowl, brown ware, applied decoration, Trench C, Cut III (30.1-4520)
- b. Section, bowl, brown ware, applied and incised decoration, Trench D, Cut IV (30.1-4513)
- c. Section, bowl, brown ware, punctate decoration, Trench D, Cut V (30.1-4522)
- d. Section, bowl, brown ware, thickened rim, (intrusive) Trench D, Cut VI (30.1-4504)
- e. Section, bowl, brown ware, incurved rim, incised decoration, Trench C, Cut V (30.1-4503)
- f. Section, bowl, brown ware, incurved rim, incised decoration, Trench A, Cut III, north (30.1-5035)
- g. Section, bowl, brown ware, incurved rim, incised decoration, Trench C, Cut II (30.1-4525)
- h. Section, bowl, brown ware, channeled decoration, Trench C, Cut VI (30.1-4506)
- i. Section, bowl, brown ware, incurved rim, incised decoration, Trench C, Cut V (30.1-4512)
- j. Section, bowl, brown ware, incurved rim, incised decoration, Trench D, Cut V (30.1-4518)
- k. Section, bowl, brown ware, incurved rim, incised decoration, Trench C, Cut V (30.1-4519)
- l. Section, bowl, black-brown ware, Trench D, Cut IV (30.1-4517)
- m. Section, bowl, incised black ware, Middle Zacatenco style, Trench D, Cut III (30.1-4514)
- n. Section, bowl, brown ware, vertical walls, grooved decoration, Trench D, Cut VII (30.1-4510)
- o. Section, bowl, brown ware, sloping wall, grooved decoration, flange at mid-section, gift of Miss Bourgeois (30.1-2861)
- p. Section, bowl, black-brown ware, straight wall, grooved decoration, Trench D, Cut III (30.1-4505)
- q. Reconstructed bowl, brown ware, grooved decoration, from fragments, Trench C, Cut VII, Trench B, Cut I (30.1-4509)
- r. Reconstructed tripod bowl, brown ware, $\frac{1}{4}$, near Structure II (30.1-4502)
- s. Section, jar neck, black-brown ware, Trench C, Cut IV (30.1-4521)
- t. Section, tripod bowl, black-brown ware, incised decoration, Trench C, Cut V (30.1-4516)
- u. Section, tripod bowl, black-brown ware, Trench C, Cut II (30.1-4507)
- v. Section, tripod bowl, black-brown ware, Trench C, Cut II (30.1-4524)
- w. Section, tripod bowl, black-brown ware, Trench C, Cut II (30.1-4523)
- x. Section, bowl, brown ware, Trench A, Cut III north (30.1-4508)
- y. Section, bowl, heavy brown ware, Trench C, Cut IV (30.1-4511)
- z. Section, bowl, vertical wall, brown ware, Trench C, Cut IV (30.1-4515)
- a'. Section, tripod bowl, brown ware, red legs, gift of Miss Bourgeois (30.1-2856)
- b'. Fragment, bottle with vertical ridges, black-brown ware, Trench A, Cut III, north (30.1-5036)



Fig. 20. Incised Brown Wares.

Decoration is simple. Occasionally the rims are beveled or reinforced by a thin strip of clay indented before firing (Fig. 20a-c). Incision (Fig. 20e-g) is the most common method of decoration and is carried out by means of simple clusters of lines used in panels separated by undecorated zones (Fig. 21, Nos. 1, 5, 7, 8). Sometimes these lines are made with blunt instruments so that an effect of channeling is achieved (Fig. 20g-j, o). In Gualupita II a transition is made into modeling by means of wide grooves which evolve eventually into the recurving of rims (Fig. 20h). A consecutive incised pattern is very rare (Fig. 20q).

A variant of this ware, brown ware Ticoman style, occurs only in the Gualupita II débris (Fig. 20r-a'). The shapes are wide-mouthed plates with thickened rims and occasionally bowls with incurved and recurved rims. These vessels are almost always supported by legs, either swollen or elongated. However, as it is not always possible to associate the legs of vessels exactly with the ware of the bowls they support, we shall defer their consideration until the close of this section (pp. 84-86).

Figure 21

1. Bowl, incised brown ware, H. 12.5 cm., Pot J, Skeleton 9, Trench C, Cut VI (30.1-2833)
2. Fragment, bowl, incised red-on-brown ware, H. 17 cm. (computed), Pot L, Skeleton 9, Trench C, Cut VI (30.1-2833)
3. Bowl, red ware, incurved rim, H. 10 cm., Pot D, Skeleton 9, Trench C, Cut VI (F.N. 2564)
4. Bowl, brown ware, incurved rim, H. 11.5 cm., Pot C, Skeleton 9, Trench C, Cut VI (F.N. 2563)
5. Bowl, incised brown ware, incurved rim, H. 8 cm., with Skeleton (?), Trench B, Cut I (F.N. 2539)
6. Bowl, brown ware, H. 4 cm., Pot D, Skeleton 11, Trench C, Cut VI (30.1-2839)
7. Bowl, incised brown ware, H. 5 cm., Trench C, Cut VII (30.1-4501)
8. Bowl, incised brown ware, H. 8 cm., Pot K, Skeleton 9, Trench C, Cut VI (30.1-2834)
9. Bowl, brown ware, H. 5 cm., Skeleton 12 (?), Trench C, Cut V (30.1-2843)

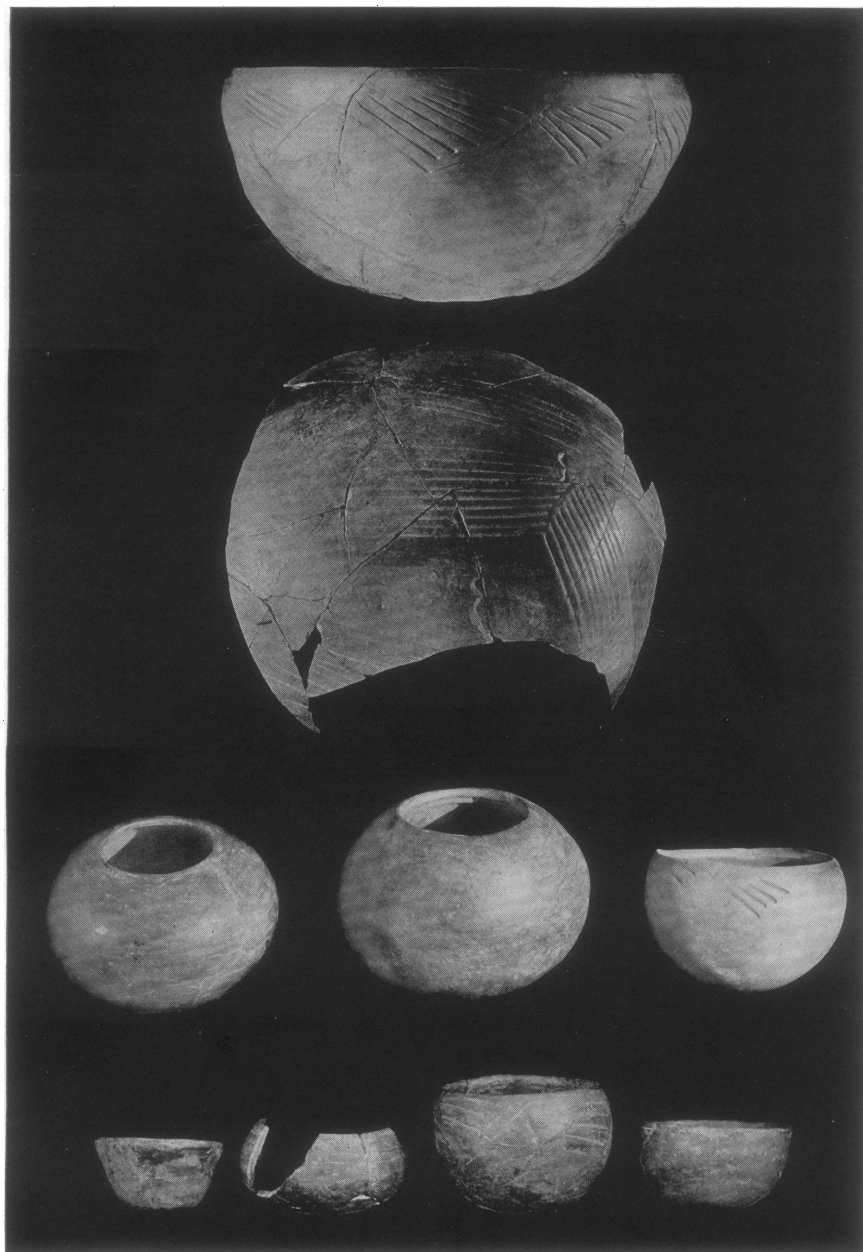


Fig. 21. Incised Brown Bowls.

As we mentioned in the introductory paragraphs of this section, percentages at Gualupita are very deceptive, owing to the small size of the sherds (Table 2). Thus in the case of incised brown ware, sherds from the undecorated zones would fall into one group while the decorated sherds would be classed in another. Yet brown ware bowls, plain, incised, and channeled, are vastly more numerous in Gualupita I than in Gualupita II when Ticoman forms appear. The old shapes persist, however, in gradually lessening quantity.

Brown ware is not confined solely to bowl forms. It is used also for the manufacture of bottles with squat, flat-bottomed bodies, and tall cylindrical necks (Fig. 19, Nos. 8-9; Fig. 22). Occasionally a pear-shaped type occurs (Fig. 19, No. 9). The color ranges from black to brown. The bodies are often left smooth, but simple vertical incisions are employed for decoration. Sometimes the body is channeled vertically, giving a gadrooned or melon-shaped effect (Fig. 22, Nos. 1, 2, 4). Another decorative method is to groove the body of the bottle with closely parallel spirals, not unlike the threading of a screw (Fig. 22, Nos. 3, 5). Fig. 20b' is a very rare specimen involving the use of vertical ridges.

Figure 22

1. Bottle, gadrooned brown ware, H. 12 cm., Pot B, Skeleton, 9, Trench C, Cut VI (30.1-2826)
2. Bottle, gadrooned brown ware, H. 12 cm., gift of Miss Bourgeois (30.1-2848)
3. Bottle, fluted brown ware, H. 13.5 cm., purchased with large figurines, with Skeleton (?), near Trench B (F.N. 2000)
4. Bottle, gadrooned brown ware, H. 13.5 cm., gift of Miss Bourgeois (F.N. 2113)
5. Bottle, fluted brown ware, H. 10.5 cm., with Skeleton (?), Trench B, Cut I (30.1-2842)
6. Bottle, gadrooned red-on-brown ware, H. 16.3 cm., Skeleton 5, Trench C, Cut IV (30.1-2813)
7. Bottle, gadrooned red-on-brown ware, H. 17 cm., Skeleton 3, Trench B (30.1-2810)



Fig. 22. Black-Brown Bottles.

The chronological aspects of bottles are very involved (Table 2). The spirally grooved specimens are associable with Gualupita II and the incised examples come solely from Gualupita I deposits. Smooth bottles are absent from all Gualupita I deposits save Cut VI in Trench C, where a number of burials, presumably Gualupita II, were found. Our two excavated examples (Fig. 19, Nos. 8-9) from burials in Trench B are almost certainly Gualupita II. Gadrooned bottles were found in three of the five Gualupita I cuts in Trench D, and also in Cut VII of Trench C. An example of this type was buried with Skeleton 19 which had four Di figurines as funeral furniture. But for sheer quantity, most of the sherds of this type come from the Gualupita II deposit in Trench C, Cut III. Possibly the gadrooned bottle, like so many other types of pottery at Gualupita, persisted from Gualupita I into Gualupita II. Ethnographically the bottle is interesting in that it is absent from Zacatenco, El Arbolillo, and Ticoman, and occurs, apparently, only in the Remedios region in the Valley.¹

Black wares are closely related to brown wares, save that vessels so made are subjected to the carbonization caused in a slow smoky fire. The ware is too common for such a condition to occur accidentally. The shapes are chiefly simple silhouette bowls (Fig. 20, 1), but there are a few straight wall and shallow base composite bowls (Fig. 20p; Fig. 23, Nos. 5-6). Decoration is rare and when present consists mostly in incision. In the Gualupita II period the shapes switch over into those of the Ticoman tradition.

The frequency of black ware is contrary to the run of the local tradition, for it increases sharply in Gualupita II (Table 2, Fig. 20s-w). In the bottom cut of Trench C and the top cuts of Trench D there is an inexplicable decrease, not balanced by a corresponding rise in brown ware, a situation which would result were the sorting faulty. It is as if a decline in the popularity of black ware in Gualupita I were followed by a sudden burst of interest in this ware in Gualupita II. Such a condition is quite conceivable, for at Ticoman the potters did not distinguish between their black and brown bowls, the colors of which merge imperceptibly from one to the other. At Gualupita the bowls fall distinctly into black or brown groups, but the bottles have a tendency to merge in shade.

Red-on-Brown Wares. Red-on-brown wares (Fig. 21, No. 2; Fig. 22, Nos. 6-7; Fig. 24a-k) are no different in composition of clay from the brown ware considered in the preceding section. The shapes fall into the categories discussed for brown ware, bowls with simple silhouettes, either hemispherical or with slightly constricted mouths (Fig.

¹Hay, 1923, 271.

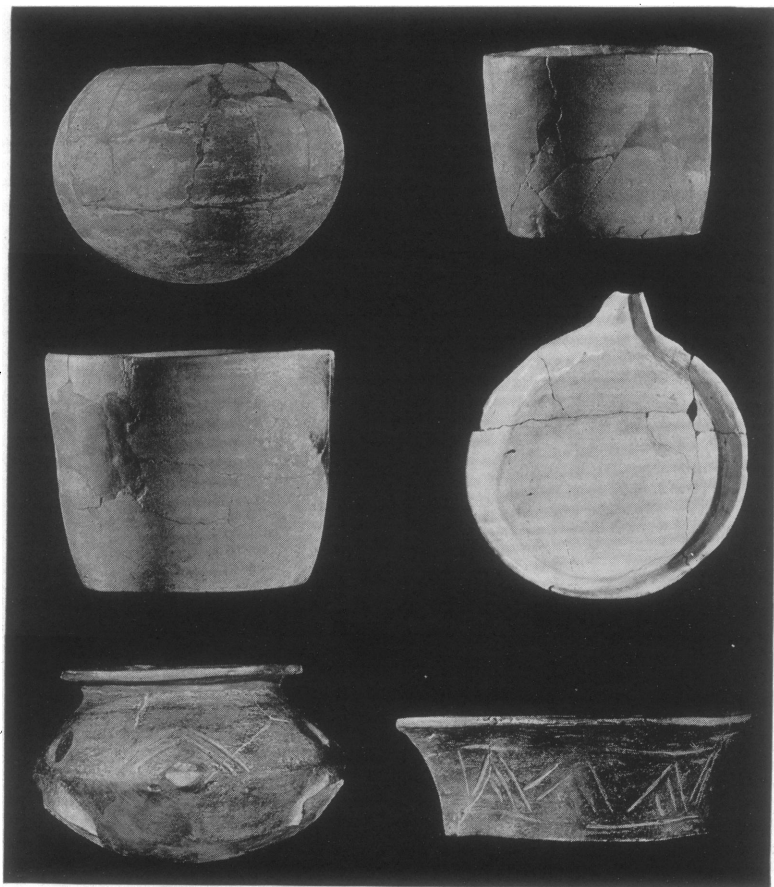


Fig. 23. White and Incised Black Bowls.

1. Restored bowl, incurved rim, white ware, H. 11.5 cm., Pot B, Skeleton 11, Trench C, Cut VI (30.1-2837)
2. Restored jar, cylindrical, white ware, H. 10 cm., Pot A, Skeleton 11, Trench C, Cut VI (30.1-2836)
3. Restored jar, cylindrical, white ware, H. 12.5 cm., Pot E, Skeleton 9, Trench C, Cut VI (30.1-2827)
4. Skillet, white ware, G.D. 27.5 cm., Pot E, Skeleton 11, Trench C, Cut VI (F.N. 2579)
5. Restored bowl, black ware, effigy decoration, tripod support, gift of Miss Bourgeois (30.1-2850)
6. Restored bowl, incised black ware, gift of Miss Bourgeois (30.1-2849)

24a, c-f). A rare form has straight walls (Fig. 24b). Decoration is grossly crude and consists either of simple triangles which are usually on the inside of the bowl (Fig. 24i) or broad bands on the exterior (Fig. 24a-f). Incised or channeled designs are rare (Fig. 21, No. 2).

A distinct variety of red-on-brown occurs solely in Gualupita II débris (Fig. 24g-k). This type is the same as the characteristic Early Ticoman ware, red-on-yellow incised (1931, Pl. LXX, a-i). It is characterized in shape by dishes with flaring thickened walls. Decoration is carried out by means of simple patterns in red paint. However, as this ware had a tendency to blur in the burnishing and firing, lines intended to define the original design were incised after firing. Unlike the Ticoman style, however, these vessels are sometimes supported by elaborate feet.

Red-on-brown bowls are found most frequently in the Gualupita I deposits; a lacuna in Cuts VI-VII of Trench D is attributable to small sherds which were classified under polished red ware. The channeled red-on-brown bowls tend to occur most consistently in Gualupita II. The red-on-yellow incised is a characteristic time-bearer for Gualupita II, although after the introduction of this style the manufacture of local red-on-brown still continued.

Bottles decorated with red paint are found most commonly in Gualupita I (Fig. 19, No. 7). There is also a handsome form of gadrooned red-on-brown bottle where the red is used to fill the channels (Fig. 22, Nos. 6-7). This type is undoubtedly a persistence, since whole bottles are found in the upper layer of burials in Gualupita II débris, and sherds occurred in the Gualupita I layers of Trench D.

Figure 24
(Size $\frac{1}{4}$ unless otherwise designated)

- a. Section, bowl, incised red-on-brown ware, Trench C, Cut V (30.1-4527)
- b. Section, bowl, incised red-on-brown ware, Trench C, Cut V (30.1-4529)
- c. Section, bowl, red-on-brown ware, Surface (30.1-4528)
- d. Section, bowl, incised red-on-brown ware exterior, red interior, Trench D, Cut VI (30.1-4530)
- e. Section, bowl, incised red-on-brown ware, Trench D, Cut VI (30.1-4526)
- f. Section, bowl, red-on-brown ware, Trench C, Cut VI (30.1-4531)
- g. Design and section, incised red-on-brown ware, $\frac{1}{16}$, gift of Miss Bourgeois (30.1-2862)
- h. Design and section, incised red-on-brown ware, $\frac{1}{16}$, gift of Miss Bourgeois (30.1-2851)
- i. Section, bowl, red-on-brown ware, Trench C, Cut IV (30.1-4535)
- j. Section, bowl, incised red-on-brown ware, Trench C, Cut II (30.1-4534)
- k. Section, bowl, incised red-on-brown ware, Trench C, Cut IV (30.1-4536)
- l. Section, bowl, red ware, Trench C, Cut VII (30.1-4538)
- m. Section, bowl, red ware, Trench C, Cut IV (30.1-4539)
- n. Section, bowl, red ware, Trench C, Cut VI (30.1-4537)
- o. Section, bottle, red ware, across road (30.1-5037)
- p. Fragment, bottle, incised red ware, near Structure I (30.1-5038)
- q. Section, bottle, red ware, Trench C, Cut VI (30.1-4532)
- r. Section, bottle, red ware, Trench C, Cut VI (30.1-4533)
- s. Section, bowl, red ware, Trench C, Cut II (30.1-4540)
- t. Section, bowl, red ware, Trench C, Cut II (30.1-4541)
- u. Section, bowl, reinforced rim, red ware, Trench C, Cut III (30.1-4543)
- v. Section, jar, polished red ware, gift of Miss Bourgeois (30.1-2859)
- w. Section, bowl, reinforced rim, red ware, Trench C, Cut II (30.1-4542)
- x. Section, bowl, polished red ware, gift of Miss Bourgeois (30.1-2858a)
- y. Section, bowl, polished red ware, gift of Miss Bourgeois (30.1-2858b)

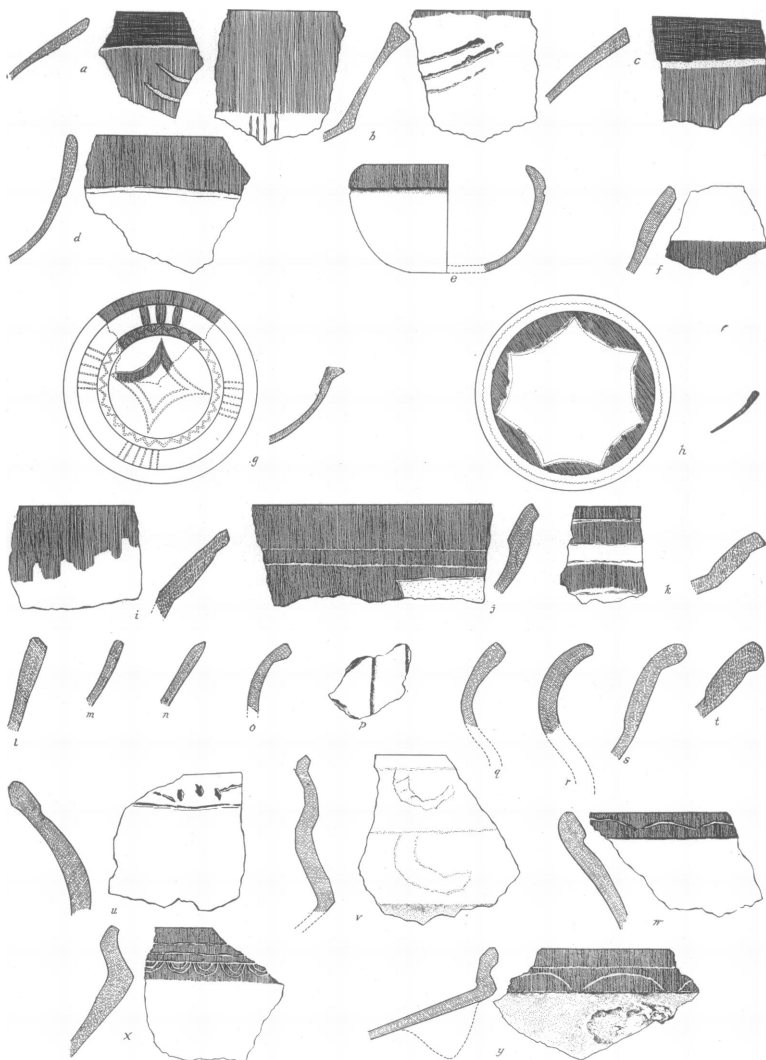


Fig. 24. Red and Red-on-Brown Wares.

Red Wares. Even as red-on-brown ware is brown ware plus a red decorative paint, so red ware (Fig. 24 l-r) is a derivative of red-on-brown, wherein the red paint is used as a slip or wash. The forms are usually hemispherical or with slightly incurved rims (Fig. 24 l-n; Fig. 21, No. 3). Occasionally one finds a composite silhouette bowl, with an out-thrust wall and a reduced bottom element. Decoration is achieved usually through covering the exterior with red paint and adorning the inner side of the lip with a broad red band. Much less commonly, channeled lines divide off painted from unpainted zones or are arranged in simple groupings as panels. Yet, as a glance at Fig. 24a-d will show, the emphasis in treatment is the chief distinction between red and red-on-brown wares.

In the upper cuts of the Gualupita II débris in Trench C are found sherds of polished red ware Ticoman style (Fig. 24 s-y). The slip usually falls on the outer wall and the entire interior of the bowl. It is thicker than in the local wares. The characteristic shapes, deep bodies with walls so reduced as to function as recurved rims, are in the same tradition as at Ticoman (1931, 284-286, 380-381).

Like brown ware, polished red is more common in the Gualupita I period, tending to decrease in frequency during Gualupita II (Table 2). On the other hand, the ware is common enough during the Gualupita II period to have been in general use, like the other types of pottery which we have described as persistent. The channeled bowls seem to be more numerous in Gualupita II, but the diagnostic for Gualupita II is the polished red Ticoman style.

Small bottles are also made in this ware (Fig. 24 o-r; Fig. 18r), but we found no examples of the cylindrical-necked forms so common to brown and red-on-brown wares. The high frequencies of red ware bottles center consistently around the Gualupita I period.

A variant of red ware has a coarse, soft, and flaky interior, slipped in thin red, sometimes ranging to orange (Fig. 18b, e, y). The color may have been intentional or may have been caused by certain chemical changes in the firing. It is used chiefly for large ollas. It seems most common in the bottom cuts of the Gualupita I débris of Trench D, but scattering sherds are also found in Gualupita II deposits.

White Wares. The regional white ware of Gualupita varies in thickness, utilizing a coarsely-ground porous clay, tempered with coarse micaceous particles over which a thin slip of chalky white is run (Figs. 23, 25). The slip is so soft, that at times it appears to be laid on after firing. At all events, it is very fragile and many pieces grouped as granu-

lar white and unclassified worn wares, doubtless represent white ware with the slip destroyed (Fig. 18i').

The shapes comprise wide-mouthed dishes (Fig. 25), cylindrical jars (Fig. 23, Nos. 2-3; Fig. 25h), simple silhouette bowls (Fig. 23, No. 1; Fig. 25, f-g), and bottles (Fig. 18c'; Fig. 25d). A very strange form was found with Burial No. 11, a shallow pan with an open spout like a pitcher (Fig. 23, No. 4). The very fine hollow figurines in Figs. 14 and 15 seem to be made from this clay and are also slipped in white. A thicker use of slip on coarser body paste is the same ware as that found at Zacatenco (cf. Fig. 25a-d with 1930, 82b, e, f). This ware is found consistently in Gualupita deposits, and may be merely a variant of the other style.

The decoration is simple, being confined mainly to incision. A few examples of painting exist. Twice, red paint is used, and one cylindrical vessel has a pattern in black (Fig. 25h). One or two sherds occurred of a variant of white ware. In these the body paste is of the same flaky composition as noted above, but the slip is almost a salmon color (Fig. 26a). Decoration of the interior is carried out in broad red stripes, while random streaks of the same color adorn the exterior. However, this salmon color may be due to the staining of the slip by the decorative pigment.

A curious variation of the use of a white slip lies in white-on-red-brown ware (Fig. 25i-k). These are bowls of the same general composition as white ware, but they are smoothed on the exterior and slipped on the interior. The white is used on the inner side of the lip as a decorative band, through which incisions are made. Sometimes the inner portion of the bowl is painted red, but this color is not used as a design carrier.

The chronological position of white wares is hard to determine because of the irregular frequencies of the sherds (Table 2) but they seem to occur chiefly late in Gualupita I.

Miscellaneous Wares. Several sherds and the fragments of a complete bowl from Gualupita II débris seem to be decorated by the "lost-color" process (Fig. 26b). They are composed of the tough brown ware of the Gualupita II period. Vessel shapes show the thickened everted rims of the Ticoman style in that period. The black paint falls usually on the interior of the bowl and is used in connection with a red decorative pigment. A few sherds of a type of red-on-yellow incised ware have been found which show the red decorative paint overlaid with black (Fig. 25o-p). Either these vessels are very successful examples of lost-

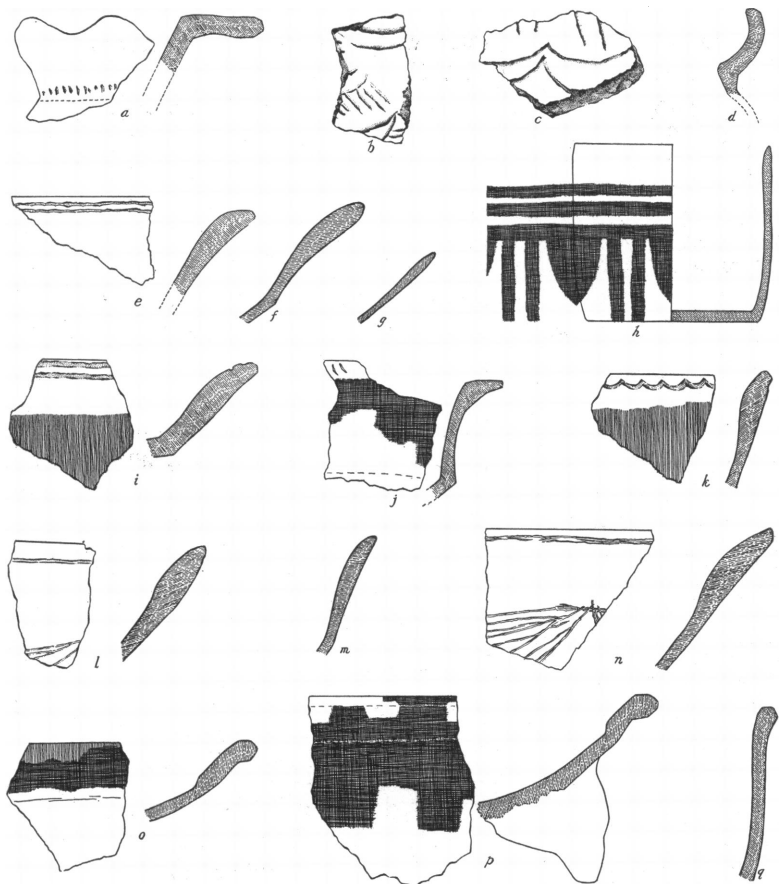


Fig. 25. White, Incised Lacquer, and Black-on-Red Wares.

(Size $\frac{1}{16}$)

- a. Section, bowl, incised white ware, Trench A, Cut I (30.1-4546)
- b. Fragment, bowl, incised white ware, Trench B, Cut II (30.1-4545)
- c. Fragment, bowl, incised white ware, Trench C, Cut VI (30.1-4547)
- d. Section, bottle neck, white ware, Trench C, Cut V (30.1-4548)
- e. Section, bowl, white ware, Trench A, Cut III, north (30.1-4544)
- f. Section, bowl, porous yellow white ware, Trench D, Cut IV (30.1-4553)
- g. Section, bowl, porous yellow white ware, Trench C, Cut IV (30.1-4554)
- h. Vase, white ware, black paint, Pot C, Skeleton 11, Trench C, Cut VI (30.1-2838)
- i. Section, bowl, white-on-red-brown ware, Trench C, Cut IV (30.1-4550)
- j. Section, bowl, white-on-red-brown ware, apparently unintentional blackening, Trench C, Cut VII (30.1-4549)
- k. Section, bowl, white-on-red-brown ware, Trench C, Cut VI (30.1-4551)
- l. Section, bowl, incised black lacquer, Trench C, Cut V (30.1-4555)
- m. Section, bowl, black lacquer, Trench D, Cut III (30.1-4552)
- n. Section, bowl, incised black lacquer, Trench C, Cut VI (30.1-4556)
- o. Section, bowl, black-on-red ware, Trench C, Cut IV (30.1-4557)
- p. Section, bowl, black-on-red ware, gift of Miss Bourgeois (30.1-2856)
- q. Section, jar, unslipped coarse ware, Trench D, Cut III (30.1-4558)

color painting wherein the outlines are kept firm and clear, or else they are imitations in direct painting of the lost color technique, a trait noted by Lothrop¹ on the sophisticated designs of Nicoya pottery.

The first appearance of "lost-color" pottery in the Valley is on the Ticoman horizon (1931, 290, 374r, 386i). It also occurs within the adobes composing the Pyramid of the Sun at Teotihuacan. It has been found at Tula, Hidalgo, Michoacan and in Northern Jalisco. Yet this style of ornamentation was never a major decorative trait of the Central Mexican region. It would be folly to make any far-reaching conjectures about the source or significance of this decorative style, but it is well to note, from the evidence at Ticoman, Gualupita, and Teotihuacan, that it seems to arrive at the time when culture traits in Central Mexico were crystallizing into the elements of specialized civilizations.²

Shiny black lacquer ware is found in very small quantities, usually in Gualupita II refuse. The basal clay is soft and flaky, but the slip is extremely hard (Fig. 251-n). Thus the relationship between basal clay and slip is equivalent to that found in Peten wares,³ but the two types are distinctly different. Shapes are usually wide-mouthed bowls with thickened rims. The slip is a blackish brown color. A crude decoration is achieved by narrow incisions made after firing.

This pottery may well be a trade ware, since its quantity is so small. The same ware occurs in Middle Zacatenco (1930, 90-91) where its rarity indicates its probable importation. We have no data on its source.

Trade Wares. A very curious sherd appeared in Trench B, Cut II (Fig. 26c). It is very thick, made of a coarse hard clay, slipped in brown, and the interior is painted red. The shape of the bowl tends towards the rectangular; the wall is nearly vertical and the bottom flat. Along the lip runs a deep channel. The vessel stood apparently on four low solid legs. Such a form is out of the Valley tradition, but vessels in this shape have been recovered from Chupicuaro, Gto.

A sherd from a thick-walled bowl was found in Trench D, Cut IV (Fig. 26f). It has a flattened bottom and a straight outward sloping wall. The interior and exterior are both slipped in brown, but the outside is burnished. Designs in red are painted on the exterior and the pattern is outlined by incisions cut through the slip, after sun-drying. The sherd suggests Teotihuacan, but it does not seem to be identical with any collected there.

¹Lothrop, 1927, 198.

²Merwin and Vaillant, 1932, 71.

³Merwin and Vaillant, 1932, 61.

Another sherd from Gualupita II débris in Trench C, Cut IV, does seem to be a Teotihuacan type (Fig. 26e). This is a vertical-walled vase rim with a lustrous black interior and polished red exterior. Further embellishment is carried out by incisions which do not penetrate the slip and which were made before burnishing. Its shape is quite like a polished red ware sherd excavated at Ticoman (1931, 381h) that also suggested a Teotihuacan attribution. Another sherd suggesting Teotihuacan is from a cylindrical jar, painted red on a brown slip, found in Trench C, Cut II (Fig. 26d). In view of the Teotihuacan figurine heads in the Bourgeois Collection, the presence of these sherds is significant as an indicator of Teotihuacan trade.

Vessel Supports. So many legs of vessels were left unslipped that they could not be assigned surely to the various wares of Gualupita I and II that we have been discussing. Yet, with the exception of white ware, all the other service groups are composed in part of bowls supported by tripods. The forms of the legs composing these tripods show considerable variety, and possess for the student not a little utility in diagnosing time. The five types of legs have been listed previously (p. 64).

Stubby solid legs are perhaps the simplest forms (cf. 1931, 386c). They have been noted in four Gualupita I cuts and only one Gualupita II layer. They therefore seem to belong to the Gualupita I period. Hollow ball legs were observed in five of the eight Gualupita I cuts and were constantly in use during Gualupita II (Fig. 26g-j). This shape of leg would seem to be a satisfactory form retained in use throughout all

Figure 26

(Size $\frac{1}{4}$ unless otherwise designated)

- a. Section, bowl, red on salmon ware, Trench C, Cut VI (30.1-5033)
- b. Design and section, polychrome "lost-color" bowl, $\frac{1}{8}$, Skeleton 6, Trench C, Cut IV (30.1-2819)
- c. Fragment of quadrate bowl, brown ware, with red over paint, Chupicuaro (?), style, Trench B, Cut II (30.1-5029)
- d. Section, bowl, red-on-brown ware, Teotihuacan (?) style, Trench C, Cut II (30.1-5030)
- e. Section, bowl, incised red ware, Teotihuacan (?) style, Trench C, Cut IV (30.1-5031)
- f. Section, bowl, incised red-on-yellow ware, Teotihuacan (?) style, Trench D, Cut IV (30.1-5032)
- g. Ball leg, brown ware, Trench D, Cut VI (30.1-5018)
- h. Ball leg, brown ware, Trench A, Cut III north (30.1-5016)
- i. Ball leg, constricted neck, brown ware, surface (30.1-5014)
- j. Ball leg, black-brown ware, Trench C, Cut II (30.1-5013)
- k. Swollen leg, brown ware, Trench B, Cut II, mixed débris (30.1-5015)
- l. Swollen leg, red ware, Trench A, Cut III north (30.1-5017)
- m. Naturalistic leg, brown ware, $\frac{1}{8}$, gift of Miss Bourgeois (30.1-2855a)
- n. Naturalistic leg, brown ware, $\frac{1}{8}$, gift of Miss Bourgeois (30.1-2855b)
- o. Naturalistic leg, brown ware, gift of Miss Bourgeois (30.1-2857)
- p. Leg, red-on-brown, Mazapan style, surface (30.1-4595)
- q. Section, bowl, black or orange, Aztec II-III style, gift of Miss Bourgeois (30.1-2863)
- r. Cylindrical leg, red on white on brown ware, Tlahuica style, Surface (30.1-4593)
- s. Spider leg, polychrome, Tlahuica style, Trench D, Cut I (30.1-5004)
- t. Spider leg, polychrome, Tlahuica style, Surface (30.1-5003)



Fig. 26. Vessel Supports and Trade Wares.

periods. However, when we consider legs with a hollow upper portion reduced to a solid cusp at the base, we find this swollen type confined to the Gualupita II débris (Fig. 20a'; Fig. 26k-l). In the same period are found naturalistic legs, often painted red, made to represent the human foot conventionally (Fig. 26b, m-o). They are known at Ticoman (1931, 385s-u, w, y) and before this in Morelos.¹ Fragments of upper parts in this same style might conceivably have had simple terminations like the elongated leg shown in 1931, 385z, but no complete specimens were found. On the resultant swell crude designs are carved and modeled, usually abstract, but once in a while crudely depicting the human face.

The chronological aspect of tripod vessel supports is quite significant. As a whole they are more common to Gualupita II than Gualupita I. Solid and ball legs are found in Gualupita I, and the latter type persist into Gualupita II. Swollen, elongated, and naturalistic legs occur only in Gualupita II and are therefore diagnostic of the period.

SUMMARY OF THE WARES OF GUALUPITA I-II

The pottery of Gualupita I differs from the decorative traditions of the Early and Middle Zacatenco periods of the Valley of Mexico in that contrasting surface colors are used as embellishment, instead of the painting of designs, and incised patterns are set in panels instead of continuous bands. Tripod support is also more common in Gualupita I than in Early and Middle Zacatenco. Morphologically, Gualupita I pottery is also foreign to the Zacatenco tradition since the standard form is a simple silhouette in place of the contrast between body and wall elements. In Gualupita II the earlier styles continue in use, but there are added tripod bowls, the rims of which are defined and developed in the manner of Ticoman. The absence of transitions between the two groups of shapes indicates a culture fusion or a heavy commerce with Ticoman, but not an evolution.

GUALUPITA III POTTERY

Introduction

The pottery of Gualupita III differs completely from the local types of Gualupita I and the Ticoman elements so characteristic of Gualupita II. There is not available for this group a published corpus of comparative material like the pottery of the Early Cultures of the Valley which we have used in the preceding section of Gualupita I-II ceramics. On the other hand, the various museums exhibit much material for the

¹Spinden, 1928, 59, Fig. 18 shows several vessels from Morelos with this type of support.

same general time period, comprising several of the Valley ceramic families of the Aztec horizon if not the specific ceramic group represented by Gualupita III.

The vicious action of humic acid wrought great damage, destroying the paint and slips of the Gualupita III sherds, so that details of design can only be shown by reconstruction. Human activity in the cultivation of gardens and the construction of walls did equal harm to the Gualupita III deposits. Yet the shapes are distinct enough to make a fair presentation of the nature of this highly significant historical period.

Gualupita III Pottery

Storage Wares

- Bay ollas (Fig. 18z-b')
- Brown bowls (Fig. 27e)
- White ollas (Fig. 18e'-f')
- Cajetes (Fig. 18c'-d, 'h')

Cooking Wares

- Tortilla plates (Fig. 27a-b)

Service Wares

- Polished red Gualupita III style (Fig. 27d, f-j)
- Hard polished red variant (cf. Fig. 27h)
- Black-on-red Aztec style (Fig. 27g, j)
- Hard black-on-red variant (Fig. 27i, m)
- Black, white-on-red Aztec III style (Fig. 27k, l)
- Polychrome Gualupita III style (Fig. 19, Nos. 1-3; Fig. 27n-p, r-s)
- Black lacquer Gualupita III style
- Hard black variant (Fig. 27o)

Vessel Supports

- Spider legs (Fig. 26s-t)
- Cylindrical legs (Fig. 26r)
- Slab legs (Fig. 27s)

Aztec Black-on-Orange (Fig. 26q)

Trade Wares (Fig. 27m, p, q)

Modern Sherds

Storage Wares

Ollas of Gualupita III are of considerable size and are made of a flaky, ill-kneaded clay tempered with large pebbles (Fig. 18a'-b'). Often a white slip is applied (Fig. 18e'-f'), but more frequently a brown wash is used. The bodies are not well enough preserved to give certain data as to the shape, but they seem to have been roughly globular. Rims are characteristically high and flaring. The common occurrence of handles leads to the conclusion that all ollas were so equipped. A few sherds of ollas with a striated surface were found (Fig. 18z).

The cajete or large storage bowl is much in evidence. The usual shape is roughly hemispherical with a constriction below the lip. Handles are a customary part of the equipment (Fig. 18c'-d', h'). The clay is generally a coarse white substance and a wash of the same nature is applied to the whole surface of the bowl. Certain variable specimens have a red slip on the interior and, rarely, the exterior. Occasionally the color is applied so thinly that an orange tone results. A single sherd of a large grater-bowl (Fig. 28b) was found.

In the Gualupita III cuts, there occurs a small but constant number of brown bowls (Fig. 27c) such as those we have considered in the section on the ceramics of Gualupita I-II. Since a number of Gualupita I-II sherds appear in the Gualupita III cuts, it is safer to account for the presence of brown bowl sherds through wash and natural mixture of débris, than to assume that these wares persisted into Gualupita III times. Some examples like Fig. 27e are so distinct from Gualupita I-II styles that they are undoubtedly attributable to this latest horizon.

"Tortilla plates," broad flat discs of clay for cooking tortillas, belong, strictly speaking, neither in the storage nor the service groups (Fig. 27a-b). Because of the coarse composition of their clay, however, they are considered here. The upper surfaces are slipped and polished in brown and the bottoms of the plates have thickened ridges corresponding to rims. The bottoms proper are neither slipped nor smoothed, but are left rough, the better to absorb the heat of the fire. Similar vessels are in use in Mexico today. These "tortilla-plates" do not occur in the early cultures of the Valley or Gualupita, nor do they appear in the ceramics of Teotihuacan. On the other hand, the shape has been found in sites of the post-Teotihuacan-pre-Aztec Mazapan culture, and in Aztec sites like Culhuacan. This distribution of the "tortilla-plate" in the Valley has at present no lineal connection with the Antillean-north-eastern-South American occurrence of the similarly shaped cassava plate.¹

Service Wares

Polished Red Ware. Gualupita III Style. A great many sherds are found of a polished red ware made usually in the form of hemispherical bowls (Fig. 27d, f, h). The basal clay is coarsely tempered with crystalline fragments, and the firing is usually very uneven. A pale wash is applied within and without over the entire surface. Then over the interior and usually the upper part of the exterior a red slip is applied and this is highly burnished.

¹Krieger, 1931, 104.

Due to the action of the soil the slip has a tendency to dull and to disintegrate in most cases. However a small percentage of sherds retain their luster and these seem to be composed of a harder clay (Fig. 27h, Table 2). These fragments have been grouped as a hard polished red variant, and although possibly made by local potters more skilful than the rest, these bowls possibly may have been traded from one of the Aztec cities in the Valley. On the other hand, the accident of preservation might have caused some sherds to seem more lustrous than others.

Black-on-Red Ware—Aztec Style. The basal paste is the same as polished red ware, and has the same hard variant (Fig. 27i-m). A simple decoration in black is disposed on the interior and the exterior of the bowl (Fig. 27j), but most commonly the outer decoration is a broad band about the lip (Fig. 27g). A few examples were found of a graphite paint in use on the harder ware (Fig. 27m). Sometimes the design is reinforced by incision after firing, and this decoration also is confined to the hard varieties (Fig. 27i). A third decorative style involves the use of white paint to define the design in black (Fig. 27l) and in a number of examples, independent elements of the decorative pattern are carried out in this color (Fig. 27k). This white paint has a tendency to disappear during firing, a characteristic of most of the white decorative paints used in the Valley of Mexico.

Polished red, black-on-red, incised black-on-red, and black and white-on-red wares are all found in quantity at Aztec sites. Moreover, the decorative patterns are the same¹, although we were unable to distinguish the characteristic annular base so common to the Valley. These wares were made in such quantity that they could not be entirely imported. Furthermore, there was found only a single sherd of the standard Aztec black-on-orange pottery, which, had there been trade to the extent of the importation of entire wares, one would expect to find in quantity at Gualupita. Therefore this red ware was probably made locally, but of its origin and spread we know nothing as yet.

In shape and in decoration this polished red ware has a close affinity to wares of the same class found in Aztec sites in the Valley of Mexico.

¹Noguera, 1930, Pl. XXXII, Figs. 16-20.

Figure 27
(Size 1/4)

- a. Section, "tortilla-plate," black interior, Trench D, Cut II (30.1-5009)
- b. Section, "tortilla-plate," Surface (30.1-5008)
- c. Bowl, brown ware, Trench C, Cut V (30.1-5034)
- d. Bowl, red ware, Trench A, Cut II (30.1-5011)
- e. Bowl, brown ware, Trench A, Cut II (30.1-5040)
- f. Dish, red ware, Trench A, Cut V (probably intrusive) (30.1-5039)
- g. Section, bowl, red ware, slipped interior, Trench A, Cut II (30.1-4598)
- h. Bowl, red ware, slipped interior, gift of Miss Bourgeois (30.1-2852)
- i. Section, incised black-on-red ware, slipped all over, Trench A, Cut II (30.1-5007)
- j. Section, bowl, black-on-red ware, Trench D, Cut II (30.1-5005)
- k. Section, bowl, black, white, on red ware, interior slipped, and exterior partially, Trench D, Cut I (30.1-5000)
- l. Section, bowl, black, white, on red ware, exterior slipped red, interior black, Trench D, Cut I (30.1-5006)
- m. Section, bowl, graphite black-on-red ware, exterior slipped and interior partially, Surface (30.1-4599)
- n. Section, bowl, polychrome ware, interior slipped black, Surface (30.1-4597)
- o. Section, bowl, polychrome ware, interior slipped black, Trench A, Cut II (30.1-5001)
- p. Section, tripod plate, Cholula (?) polychrome ware, Surface, (30.1-5002)
- q. Section, bowl, red-on-cream, black interior, Matlatzinca (?) style, Surface (30.1-4596)
- r. Section, jar, polychrome ware, Trench D, Cut I (30.1-4594)
- s. Bowl, polychrome, slab feet, gift of Miss Bourgeois (30.1-2854)

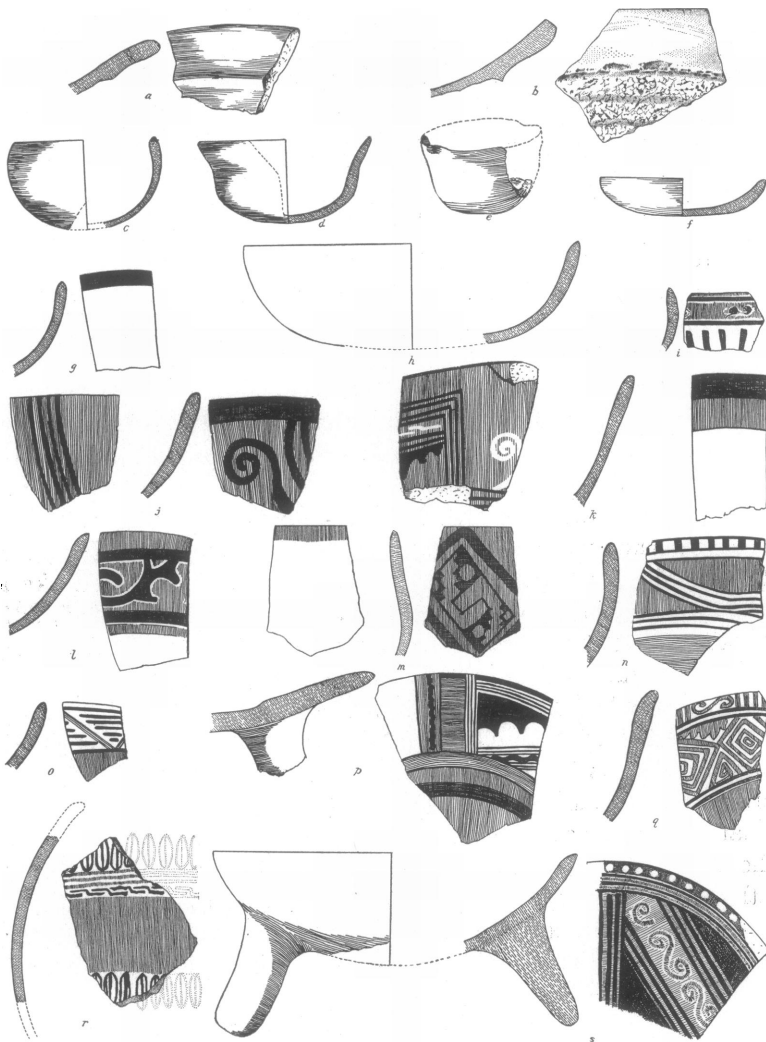


Fig. 27. Gualupita III Wares.

Polychrome Wares. A very important branch of Gualupita III ceramics consists in polychrome wares (Fig. 19, Nos. 1-3; Fig. 27n-s). The paste of the vessels is the same as that composing polished red ware, a coarsely kneaded clay with crystalline particles as a temper, covered by a thin wash of light-colored clay. The predominating forms are shallow plates set on tripods (Fig. 27p), but not uncommonly the hemispherical bowl form occurs (Fig. 27o) and jars and bottles are also made (Fig. 27r). The field to be decorated is covered with a thin slip of white that has little tendency toward adhesion. Designs of most complex character are painted in red and black on this field. Very rarely an orange tone suggestive of "Cholula" ware is used (Fig. 27p). In the case of hemispherical bowls the decorative field is on the exterior (Fig. 27o), but plates are decorated on the wide rim of the interior (Fig. 27p) and on the exterior in a band just outside the outer circumference of the legs which sometimes receive similar decorative treatment (Fig. 19, Nos. 1-3). Occasionally the interior of a vessel is slipped red, but the exterior is adorned with a polychrome band.

Polychrome plates are almost always supported by legs, but polychrome bowls and polished red ware vessels usually rest directly on their bottoms. The commonest type of leg is solid and is shaped like an elongated cone, the "spider" leg referred to in 1931, 284-285, 381g, 390a (Fig. 26s-t). Several examples exist of hollow cylindrical legs (Fig. 26r), irregular hollow or "cusped" legs, (Fig. 26o), and very rarely broad thick quadrate legs (Fig. 27s).

The affinities of Gualupita III polychrome pottery are extremely significant, for plates with red interiors, polychrome decorative bands on the exterior, and "spider" or "cusped-elongated" legs have been found associated with vessels of the Matlatzinca type in the southern portion of the Valley of Toluca, at such localities as Tenango, Tlacotepec, and Atlatlauca (Fig. 19, Nos. 1-3). It seems probable that we have here a decorative tradition persisting in at least two ceramic families, even as we have the Coyotlatelco style in the Valley of Mexico found at Aztec and Teotihuacan sites.¹

Black Wares. A small but constant percentage of the sherds from Gualupita III consists of a very characteristic black ware. The ordinary body paste and the customary light-toned wash of the service wares is used. Over the interior, however, is spread a thin slip of lustrous black, which has a distinctive "wooden" feel. In some bowls this interior slip is the only embellishment, but it is also used in connection with polychrome pottery, and one "tortilla-plate" is thus treated (Fig. 27a).

¹Tozzer, 1921, Pls. 18-19; Ceballos Novelo, 1932, Pl. XX, Nos. 2-3.

Trade Wares. A few sherds of Aztec black-on-orange in the Bourgeois Collection were the only Aztec trade pieces definitely associable with Gualupita III. None of these sherds came from our digging (Fig. 26p).

One sherd, of a red-on-buff ware (Fig. 27q), may be a variation of Gualupita III polychrome, although it suggests quite strongly one of the Matlatzinca wares in the Valley of Toluca. A bulbous leg decorated in red-on-brown (Fig. 26p) also might be assignable to the same complex. A similar ware is also found in the Mazapan ceramics of the Valley of Mexico. Another sherd, polychrome in decoration, has one of the decorative panels painted orange (Fig. 27p). Such a color is characteristic of Cholula and Chalco polychrome, but it may also be a variation of the regular Gualupita III polychrome.

Modern Sherds. A considerable quantity of unglazed tiles and modern glazed pottery was found. The quantities of these sherds have been noted in the percentage tables to give an idea of how much modern activities have affected the site.

SUMMARY OF GUALUPITA III POTTERY

The presence in the top cuts at Gualupita of a complex of shapes and forms totally distinct from that in the lower layers makes a strong argument for an invasion or fresh occupation of the site by a new people. Although sherds of Gualupita I-II wares were found in the Gualupita III levels, it is more probable, in view of the contrast between the two styles, that the association was brought about by natural causes like erosion, than by the contemporaneous occupation of the site by two ethnic groups.

The affinities of Gualupita III are best traced in the polychrome pottery. Noguera describes the "Tlahuica" pottery of Teopanzalco which overlooks the Gualupita site as

a whitish or cream slip, of opaque aspect, on which are traced parallel lines black and sometimes red in color. It presents a similarity with Matlatzinca in reference to the presence of geometric motives and their position, but the technique of presenting them is distinctive.¹

In this Museum there are several vessels of Gualupita III polychrome which came from localities yielding Matlatzinca pottery in the southern part of the Valley of Toluca (Fig. 19, Nos. 1-3). Their presence there may well be ascribed to trade.

Since our digging yielded no Aztec sherds and the Bourgeois Collection contains so few, it seems probable that the Gualupita III pottery

¹Noguera, 1932, 17.

immediately antedates the Aztec conquest of Cuernavaca. The Teopanzalco temple contains strong Aztec elements, and may date from—if it does not precede—the Mexican conquest over the Tlahuica. Moreover, the Gualupita III pottery tallies with Noguera's description of the non-Aztec wares at Teopanzalco. All the authorities agree that it was the Tlahuica who occupied Morelos. Therefore it seems justifiable to identify Gualupita III, the latest element in our culture sequence, with the historical ethnic unit, the Tlahuica.

IMPLEMENTS AND ORNAMENTS OF CLAY

INCENSE BOWLS AND LADLES

Incensarios and ladles (Fig. 28) constitute a transition between pottery vessels and pottery tools. Incensarios, or incense burners, are found most commonly in the upper cuts of Trench C (a-e, l-o). Although the fragments are too small for reconstruction, they suggest modification of an hourglass shape. The vessels are unslipped and adornment is achieved usually by means of bosses (l-o). Sometimes ribbons of clay are laid on, and a few fragments of this type were encountered low down in Trench D (Fig. 28a). Yet in view of its rarity in Gualupita I deposits and the fact that a Tlahuica sherd was found in the same level, one cannot affirm that the incensario is a definite culture trait of the Early period, since the fragments may be intrusive. Another type of incense bowl is smooth on the exterior and is perforated (c-e). While the shapes are dissimilar, this kind of utensil has been found at Ticoman (1931, 382-383, 392-393). The first type of incensario, that with bosses, has a tremendously wide distribution from Venezuela northward, but it does not seem to be common in the Valley before Teotihuacan times at the earliest. The mixture of the layers at Gualupita makes it difficult to date this type, but from our present evidence it is most probably Gualupita II, with a possibility that it extended over into Gualupita III.

Ladles occur at all levels in Gualupita (f-j). They are usually of rugged construction, having a thick solid handle often with a trough and a shallow circular bowl. They are of brown ware and are slipped and burnished. Utensils for a similar function occur in Middle Zacatenco and at Ticoman (1930, 47, 63; Table I; 1931, 215, 218, 293, 394-395). In Gualupita II is found a combination ladle and incensario made of unslipped gray clay of light weight (h-i). The ladles proper are probably for daily use and have no ceremonial importance, but they do afford another connection between the early Valley cultures and those of Gualupita.

Figure 28

(Size $\frac{1}{8}$)

- a. Top of incensario, with filleted decoration, Trench C, Surface (30.1-2864)
- b. Fragment of grater, with handles, dull red ware, in front of Structure I (30.1-5019)
- c. Base of incensario, Trench C, Cut II (30.1-5025)
- d. Fragment of incensario, incised and perforated, Trench D, Cut II (30.1-5010)
- e. Fragment of perforated incensario, Trench C, Surface (30.1-5025)
- f. Handle of incense ladle, Trench A, Cut III, north (30.1-5041)
- g. Handle of incense ladle, Trench D, Cut VI (30.1-5042)
- h. Bowl of incense ladle, perforated, Trench C, Surface (30.1-5026)
- i. Bowl of incense ladle, perforated, Trench C, Cut V (30.1-5028)
- j. Handle of incense ladle, Trench C, Cut IV (30.1-5043)
- k. Section and handle of incense ladle, Trench A, Cut III, north (30.1-5017)
- l. Bowl of incensario, with bosses, Trench A, Cut III, north (30.1-5022)
- m. Bowl of incensario, with bosses, Trench C, Cut V (30.1-5023)
- n. Base of incensario, with bosses, Trench A, Cut III, north (30.1-5021)
- o. Bowl of incensario, with bosses, in front of Structure I (30.1-5024)

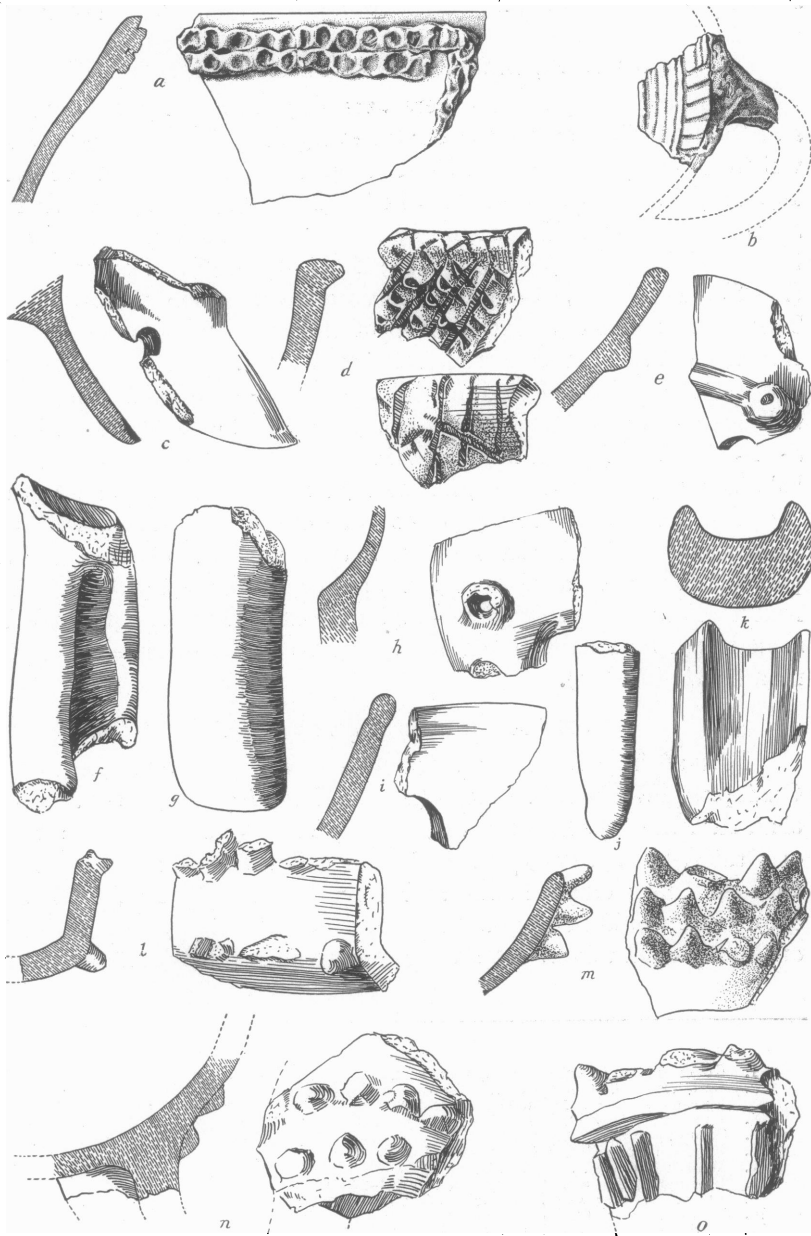


Fig. 28. Incensarios and Ladles.

WHISTLES, BALLS, AND MINOR CLAY OBJECTS

Of other pottery objects there were very few. Fragments of ladles and their handles occurred in almost every cut. There were only two whistles, both presumably of the Gualupita II period (Fig. 29, Nos. 7, 10), but the four bird and animal heads (Nos. 8-9, 11-12) are probably adornments of whistles. Such objects have been found both at Zacatenco and Ticoman (1930, 154-159; 1931, 394-395). The only rattle (No. 8) is a crude object of unfired clay which might occur in any culture. The little animal cover at the top of the page reminds one of some specimens in this Museum from Western Mexico.¹ The ball in the next row was the only one found, a curious divergence from Ticoman, since balls are so very common at that site (1931, 396-397). Professor M. H. Saville and Mr. Miguel Mendizabal have both reported the use of clay balls in blowguns in Oaxaca, but such balls are much smaller than the Ticoman specimens. The pipestem was one of two (1930, 154-155). Very interesting is the third specimen in the same row, a carefully grooved pendant perforated at the neck. It, and the stamp shaped like a foot, next to it, are probably of Gualupita II date. The stamp shows the same rough workmanship previously observed on specimens from Ticoman (1931, 400-401).

ORNAMENTS AND SPINDLE WHORLS

Pottery implements and ornaments were not very plentiful at Gualupita. We found earplugs (Fig. 30, Nos. 1-8) of the solid type so characteristic of the Late Zacatenco-Early Ticoman cultures in the Valley of Mexico, but not one of the incised or hollow ring forms that came in with the Intermediate Period at Ticoman (1930, 152-153; 1931, 398-399). One would be tempted to class these, therefore, with the period of Gualupita II were it not that they were most plentiful at the surface

Figure 29

1. Cover of pot (?), animal form, Trench D, Cut III ? (30.1-2517)
2. Ball, Trench C, Cut III (30.1-2527)
3. Pipestem, Trench D, Cut II (30.1-2523)
4. Pendant, Trench D, Cut II (30.1-2524)
5. Stamp, purchase (30.1-2515)
6. Rattle, Trench C, Cut II (30.1-2514)
7. Whistle, Trench B, Cut I (30.1-2513)
8. Bird head, from whistle (?), purchase (30.1-2534)
9. Animal head for whistle, Trench C, Cut III (30.1-2600)
10. Whistle, Trench C, Cut IV (30.1-2522)
11. Bird head, from whistle (?), Surface (30.1-2535)
12. Bird head, from whistle (?), south of Structure I (30.1-2661)

¹Nos. 30-2251, 2381, 8092, 11463, Lumholtz 1902, vol. II, 395, Pepper, 1916, Pl. I, Figs. a, c.



Fig. 29. Clay Whistles and Balls.

and (apart from No. 2) occurred below the second cut only in Trench D where two were found with two spindle whorls in the back dirt of Cuts III and IV. If our analysis of the pottery is correct, there should be little or nothing of the Gualupita II layer in Trench D, and thus both earplugs and spindle whorls would be assumed to belong to the period of Gualupita III. This is the more probable in the case of the spindle whorls, as these (except in the form of perforated sherds) are completely unknown in the early cultures of the Valley of Mexico, while the Gualupita specimens range through a great variety of shapes from the simplest hemisphere (No. 11) to very complicated three-tiered affairs (Nos. 14-15) and incised truncated cones like Nos. 18-21, the last of which has a shiny red slip.

There are, however, certain differences in the occurrence of earplugs and spindle whorls. First, although both are more plentiful on the surface than in the digging, the number of spindle whorls here is much greater, whereas in the actual digging earplugs and spindle whorls occur in equal number. Furthermore, in Trenches A, B, and C the earplugs appeared one cut below the lowest level of the spindle whorls, and even in Trench D, where two of each came out of the back dirt of Cuts III-IV, one earplug occurred *in situ* in Cut III, but no whorl. It is therefore possible that the earplugs belong to Gualupita II, and that the lack of other contemporary material in Trenches A and D may be accounted for by erosion.

Of perforated sherds there were none, and we found only two of the plain discs so common at most early sites (Nos. 5, 8). A third very interestingly worked fragment (No. 9) seems to have been shaped like a spool, possibly by re-working a sherd. The specimen has no slip.

Figure 30

1. Earplug, Trench C, Cut II (30.1-2500)
2. Earplug, Trench C, Cut V (30.1-2501)
3. Earplug, Trench B, Cut I (30.1-2498)
4. Earplug, Trench D, back dirt, Cut III-IV (30.1-2505)
5. Sherd worked as disc, Trench D, Cut I (30.1-2512)
6. Earplug, south of Structure I (30.1-2506)
7. Earplug, purchase (30.1-2510)
8. Sherd worked as disc, Surface, Trench B (30.1-2511)
9. Sherd worked as spool?, Trench D, Cut III (30.1-2525)
10. Spindle whorl, Trench D, Cut I (30.1-2481)
11. Spindle whorl, Surface, Trench C (30.1-2474)
12. Spindle whorl, Surface, Trench C (30.1-2475)
13. Spindle whorl, Surface, Trench B (30.1-2466)
14. Spindle whorl, Trench D, back dirt (30.1-2485)
15. Spindle whorl, Surface, Trench C (30.1-2472)
16. Spindle whorl, Surface, Trench C (30.1-2476)
17. Spindle whorl, Trench C, Cut I (30.1-2479)
18. Half of carved spindle whorl, east face, Structure II (30.1-2487)
19. Carved spindle whorl, Trench C, Cut I (30.1-2479)
20. Carved spindle whorl, Trench B, surface (30.1-2468)
21. Half of carved spindle whorl, polished red slip, Trench D, back dirt, Cut III or IV (30.1-2486)

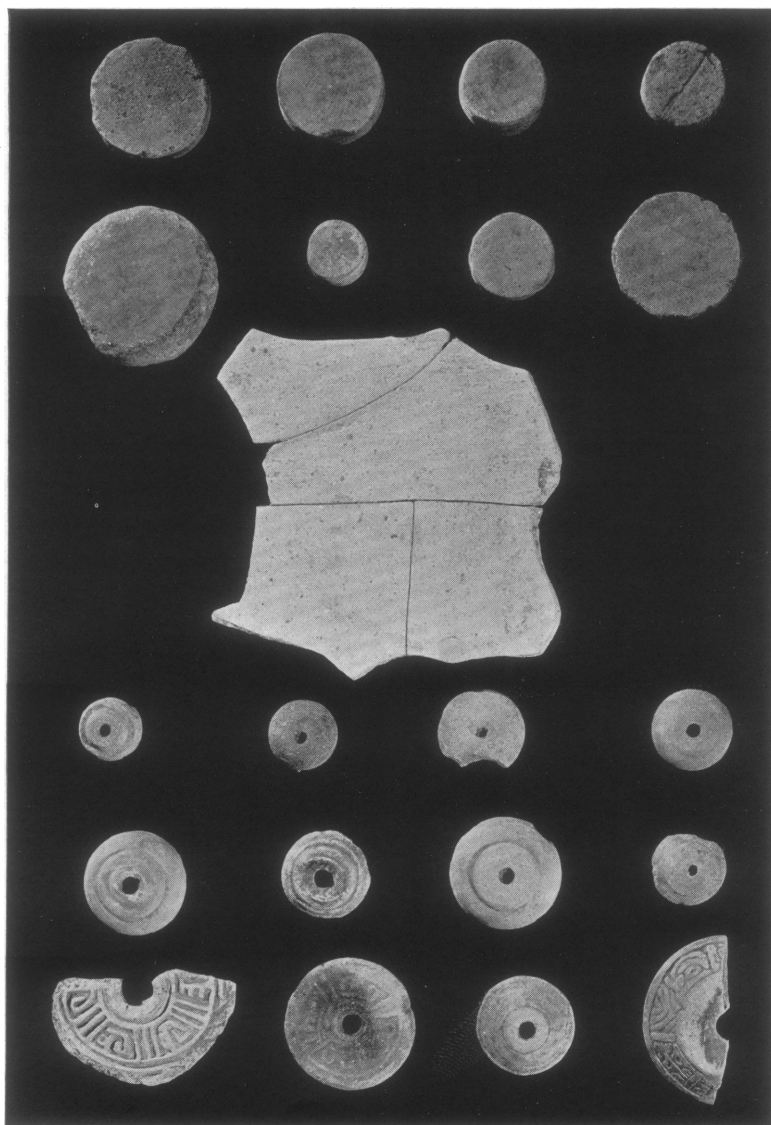


Fig. 30. Clay Ornaments and Spindle Whorls.

CONCLUSIONS

Objects of pottery were less numerous at Gualupita than at the Valley sites of Ticoman and Zacatenco, but, in general, the kinds of objects were about the same; earplugs, whistles, ladles, etc. Noteworthy exceptions however, were to be seen in the absence of clay balls and the small number of worked sherds, perhaps the commonest clay objects encountered at Ticoman.

The sporadic occurrence at Gualupita and at Ticoman and Late Zacatenco of seals and pipestems has no real ethnographic significance. The disc earplugs are best assignable to Gualupita II, in spite of their usual situation in the top layers. This trait, so common at Ticoman, but also found at Cuicuilco and in Puebla, is an important link in the establishment of a Puebla origin for Ticoman and the foreign element in Gualupita II.

The spindle whorls, in all probability, belong to Gualupita III, since they are not found at Ticoman and do not occur in the lower cuts of Trench C, the Gualupita II trench, so the Trench D specimens which come from the back dirt doubtless emanate from its Gualupita III layers. In shape the spindle whorls fall into two broad divisions, the carved and slipped style which resembles those forms from the Chalco region at the south of the Valley and the modified type which has parallels in Michoacan and Western Mexico (Caso, 1931).

STONE ORNAMENTS AND TOOLS

STONE ORNAMENTS

The only stone ball in our collection from Gualupita (Fig. 31, No. 10) is of jade, and was purchased, so that we have no idea of its provenience. It is beautiful enough to be classed as an ornament, though like the agate (No. 7) it was probably in actuality used as a lucky piece, or may even be a divining stone, like the *sastun* of the Maya.¹ The granite bead (No. 8) was also purchased, and there must be some significance in the fact that all the other ornaments in this series came from the lower levels of Trenches B and C within the burial layer. Indeed, the broken slate pendant (No. 1), the small soapstone bead (No. 3), and the two buttons (Nos. 5-6) constituted, with two more buttons (left to the museum in Mexico City and illustrated in Fig. 7, Nos. 4, 6), the funeral furniture of Skeleton 6. Other ornaments left in Mexico were a small bead from the mouth of Skeleton 2 (Fig. 7, No. 5) and a pendant of rock crystal of unusual beauty (Fig. 7, No. 3), which came out of Trench A, Cut III, and is presumably of the late Gualupita III period.

Ornaments in bone or shell, owing to the unfavorable conditions for their preservation were not found, but attention should be called here to the carved teeth of Skeleton 5 (Fig. 34). This trait has never been found before in a burial of the Early Cultures. Its distribution is wide, but confined to the higher stages of Middle American civilization.²

¹Morris, 1931, 187-188; Thompson, 1930, 127.

²Saville, 1913; Vaillant, 1932, 86-87.

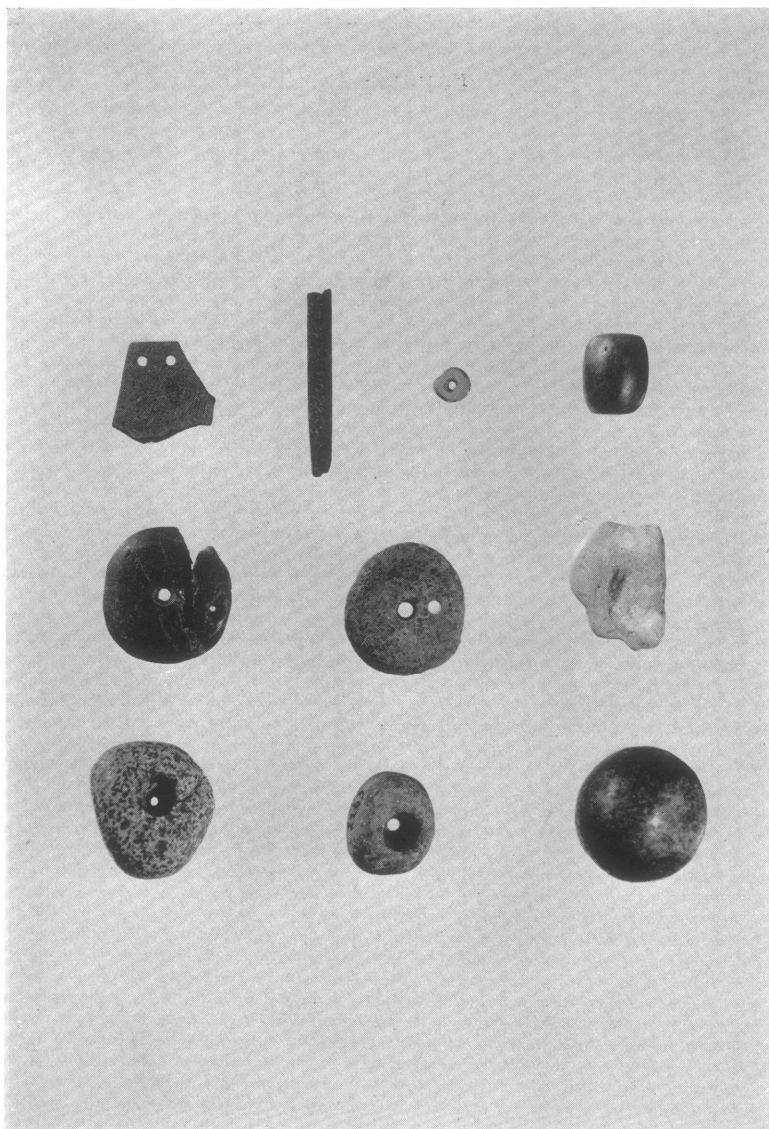


Fig. 31. Stone Ornaments.

1. Pendant of slate, Skeleton 6, Trench C, Cut IV (30.1-2821)
2. Pendant of slate, Trench C, Cut VI (30.1-2687)
3. Bead of soapstone, Skeleton 6, Trench C, Cut IV (30.1-2820)
4. Bead of jade, Trench C, Cut IV (30.1-2682)
5. Pendant or button of jade, Skeleton 6, Trench C, Cut IV (30.1-2822)
6. Pendant or button of granite, Skeleton 6, Trench C, Cut IV (30.1-2823)
7. Lucky stone, agate, Trench C, Cut VI (30.1-2688)
8. Bead, granite, purchase (30.1-2680)
9. Bead, quartz, Trench B, Cut II (30.1-2681)
10. Ball, jade, purchase (30.1-2686)

STONE TOOLS

Chipped tools of obsidian, such as spears and arrowheads, are very rare in the diggings at Gualupita and some fine examples in the Bourgeois Collection are probably all of the late period, Gualupita III. Two crude attempts at arrowheads (Fig. 32, Nos. 5-6), one finished point (No. 8), and a small drill (No. 9) constitute, with the scrapers (Nos. 7, 18) the only chipped obsidian in our collections, and though similar to Ticoman forms (1931, 406-407) contrast sharply in quantity with the lavish use of obsidian in the Valley (1930, 162-167; 1931, 404-411, 416-421). Blades and shapeless fragments, on the other hand, are found as low as Cut V of Trench D and Cut VI of Trench C (Nos. 10-16); and the discovery of three cores (No. 17), all in upper cuts, would seem to indicate that the blades were made on the spot by the people of the Gualupita II or III periods. As for color variety, there were twenty-two gray and twenty-four green-gold fragments of blades.

Other stone tools, on the contrary, are represented by the chert arrowhead (No. 1) and the fine chalcedony arrowhead (No. 4), both probably of the latest period, one chert scraper in Trench C, Cut VI, (No. 3), and a laurel leaf arrowhead of flint from the deepest cut of all, Cut VII of Trench D (No. 2) resembling Early Zacatenco shapes (1930, 162-163). Fragments of quartz tend to appear lower in all the trenches and are more numerous than fragments of obsidian. One might hazard the guess then that the earliest people, those of Gualupita I, had no obsidian at all, and used native stones as rough tools, and that the people of the middle period, Gualupita II, obtained obsidian in small quantities by trade and made blades themselves or imported them already in blade form, a condition which further suggests connections with Puebla and the Valley, where obsidian is utilized in quantity. The late people of Gualupita III chipped obsidian and made fine tools from it as well as from the native quartzes. By this time, however, trade on a large scale was apparently going on all over Mexico, and the presence of obsidian in far distant spots like Chichen Itza is a common occurrence.

Figure 32

1. Arrowhead, chert, gift of Miss Bourgeois (30.1-2685)
2. Arrowhead, flint, Trench D, Cut VII (30.1-2684)
3. Scraper, chert, Trench D, Cut VI (30.1-2832)
4. Arrowhead, chalcedony, Trench A, Cut II (30.1-2683)
5. Reject, obsidian, Trench D, Cut I (30.1-2761)
6. Crude arrowhead, obsidian, purchase (30.1-2727)
7. Scraper, obsidian, Trench A, Cut III (30.1-2732)
8. Arrowhead, obsidian, purchase (30.1-2726)
9. Drill, obsidian, Trench B, Cut II (30.1-2745)
10. Blade, obsidian, south of Structure I (30.1-2802)
11. Blade, obsidian, south of Structure I (30.1-2803)
12. Blade, obsidian, south of Structure I (30.1-2804)
13. Blade, obsidian, south of Structure I (30.1-2800)
14. Blade, obsidian, Trench D, Cut II (30.1-2772)
15. Blade, obsidian, Trench D, Cut IV (30.1-2781)
16. Blade, obsidian (in ribs of Skeleton 7), Trench C, Cut IV (30.1-2825)
17. Core, obsidian, Trench C, Cut III (30.1-2751)
18. Scraper, obsidian, Trench D, Cut V (30.1-2798)

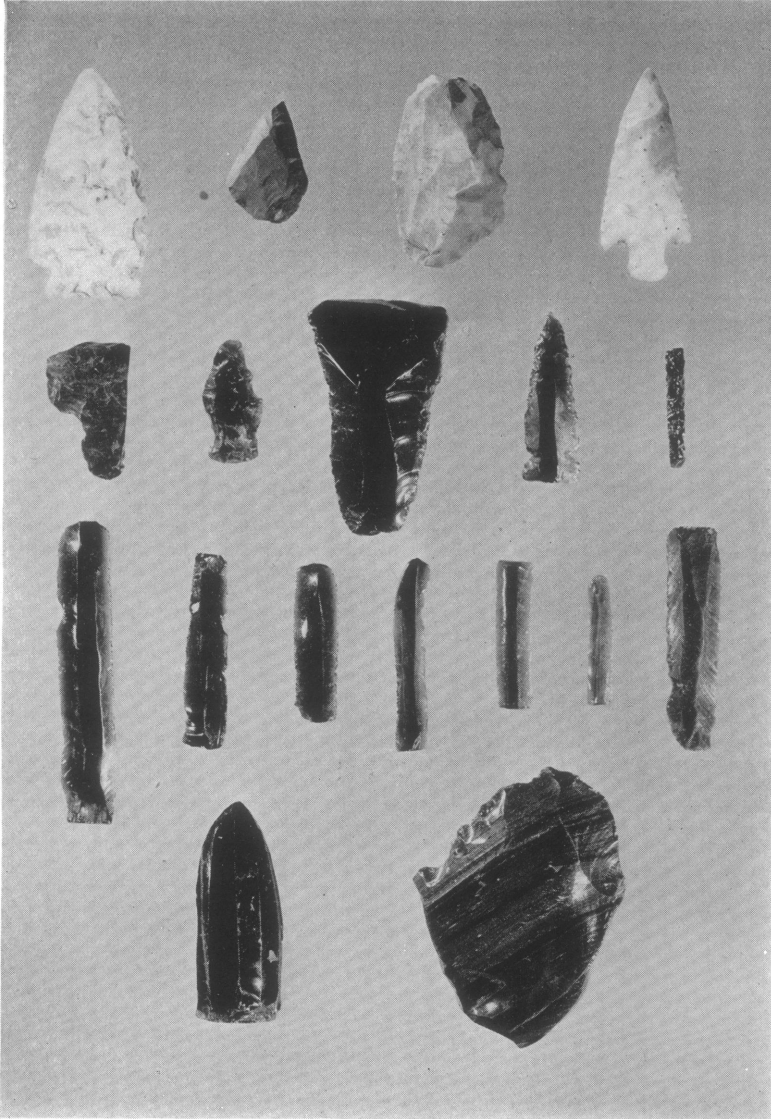


Fig. 32. Obsidian Points and Blades.

IMPLEMENTS OF HORN AND STONE

Apart from the human skeletons, which were all in bad condition, scattered animal fragments, and one or two burnt pieces that may be parts of a polished bone tool, the deer antler in Fig. 33, No. 1, and another with Skeleton 6 were the only examples of horn or bone that we recovered at Gualupita, although such tools are common in the Valley (1930, 174-177; 1931, 414-415). Whether this is due to the scarcity of its use at this site or, as appears more likely, to the destructive nature of the soil and the frequent rains, it is impossible to say.

Stone implements such as manos and metates of lava (Nos. 8-11) occurred with most frequency in Trench A, where they seem to have been used as part of the filling of the structure or revetment we encountered there. The metates tend to be circular or oval, are legless—as contrasted to the oblong metates with legs found in the Valley (1930, 170-171; 1931, 412-413)—and are probably of the early or Gualupita I period. Lava implements of any kind are absent from the upper cuts of Trenches C and D. Celts of green basalt, like Nos. 2, 5, 6 also tend to occur low in the Gualupita I and II layers. While in shape these specimens resemble the jade and porphyry celts found at Zacatenco and Ticoman (1930, 168-169; 1931, 410-411), which were thought to have been traded in from the Guerrero region, the use of a different stone, basalt, might possibly signify a different point of origin. Bark beaters like the one illustrated (No. 4) were very common on the surface, though we uncovered none in the digging. These are doubtless of the Gualupita III period. The sandstone object (No. 7) which suggests a ladle of some sort and the lava chili grinder (No. 3) are the only other stone tools we found. It is curious to note in comparison with other early sites that no stone balls occurred in the digging (1930, 168-169; 1931, 412-413).

Figure 33

1. Deer antler, Trench B, Cut II (30.1-2672)
2. Celt, basalt, purchase (30.1-2702)
3. Chili grinder, lava, Trench D, Cut V (30.1-2715)
4. Bark beater, sandstone, purchase (30.1-2707)
5. Celt, basalt, Trench B, Cut II (30.1-2703)
6. Celt, basalt, purchase (30.1-2701)
7. Object of sandstone (may be natural), Trench A, Cut II (30.1-2708)
8. Mano of metate, lava, Trench B, Cut II (30.1-2718)
9. Mano of metate, lava, east face of Structure II (30.1-2719)
10. Fragment of metate, lava, Trench A, general digging (30.1-2720)
11. Fragment of metate, lava, Trench C, Cut VI (30.1-2714)

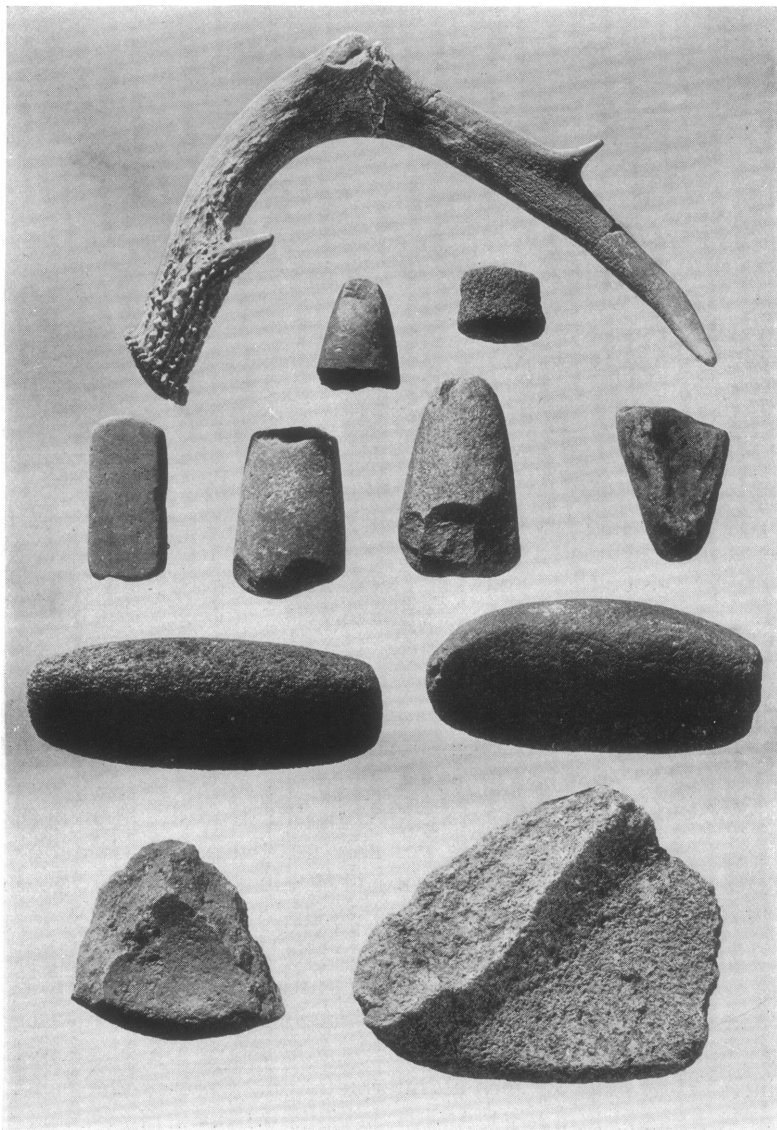


Fig. 33. Bone and Heavy Stone Tools.

CONCLUSIONS

Objects of bone were virtually absent from the digging at Gualupita. Possibly owing to the destructive nature of the soil, which disintegrated whole skeletons, all the tools, so varied in use and so common in number in the Valley, were destroyed.

Tools and ornaments of stone showed significant variation from the range of implements at Zacatenco and Ticoman. Although manos are so exactly adjusted to their functional purpose that regional differences in typology are unlikely, metates contrast sharply with Valley types in their absence of legs and circular shape. This type seems to have been utilized in all periods. Sling stones, a common characteristic of Early and Middle Zacatenco, and Early Ticoman, were conspicuously absent.

The inhabitants of Gualupita were apparently almost cut off from sources of an obsidian supply in the Early Period. However, in Gualupita II, with the influx of Ticoman culture elements, blades and fragments appear in greater quantity, suggesting that either from a point of origin in Puebla or else from the Valley a trade contact was established. But well-shaped tools are so rare and fragments so few that one is driven to the conclusion that points and blades were imported ready-made. By Gualupita III obsidian seems to have been received in quantity and conical cores were found at the site. This particular method of handling the raw product does not occur according to our present knowledge, anterior to the occupation of Teotihuacan (Table 3).

Quartz fragments outnumber those of obsidian in Gualupita I, but we observe the same lack of proficiency in working stone. A flint arrowhead from Gualupita I followed the Early Zacatenco tradition in shape, but the best-formed tools are probably associable with Gualupita III (Table 3). The scarcity of arrowheads of any stone implies the use of points made of bone or fire-hardened wood.

Trade with other regions is suggested by the simple celts of the same shape as those found in the Early Cultures of the Valley. However, they are made from basalt, instead of jade and porphyry, so that despite the impression that they came from southwestern Mexico there is no mineralogical basis for such an interpretation. On the other hand, the crystal pendant in Trench A and the jade ornaments found and purchased at the site give somewhat stronger evidence of relations with that area. The beads of other substances, while not of direct ethnographic significance, suggest the crude stone baubles of the Guerrero region.

TABLE 3
DISTRIBUTION OF CLAY AND STONE OBJECTS

	Pottery Objects								Stone							Figurines																				
																Gualupita II										Gualupita I										
																Teotihuacan	Cix	Hi	Hiv	Hivb	Hive	Hivd	Gi	Eiii	Eiv	Hollow	Di	Dii	Diii	O	K	Animal Effigies	C variant	Cv		
	Spindle Whorls	Earplugs	Ladles	Incensarios	Whistles	Rattles	Ornaments	Balls	Worked Sherds	Obsidian Tools	Obsidian Frags.	Quartz Tools	Quartz Frags.	Flint	Lava	Other Stone																				
Gualupita III (Tlahuica)																																				
Trench A, Cut I	1	1								1						1													1							
Trench A, Cut II		1	1	2						2	8					3																				
Trench C, Surface	9	2	2							2	2		4																							
Trench C, Cut I	2		4	6						1												1														
Trench D, Cut I	3	1							1	1	2		1																							
Trench D, Cut II	2	1		4			3†				7		7								1															
Totals	17	7	7	12		0	3†	0	1	7	19	0	12	0	4		0	0		0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	
Gualupita II																																				
Trench C, Cut II		1	2	5		1	1																													
Trench C, Cut III			3	8				1		1			2		1	3		1	1						1					1		1	1			
Trench C, Cut IV			3	18	1					1		2						2	1				1									2				
Trench C, Cut V		1	6	6						2	5	1					1	1												1		1				
Totals	0	2	14	37	1	1	1	1	0	4	5	0	3	0	1	3	1	4	2	0	0	0	1	0	1	0	0		1	1	0	4	1	0	0	
Gualupita I																																				
Trench D, Cut III	2*	3*	1	3					2		3		2																1			1	1			
Trench D, Cut IV			3								7		11					1†													1	2				
Trench D, Cut V			1							1	9		7		1															3	1	2				
Trench D, Cut VI			7	7									2		1												1			1		1				
Trench D, Cut VII			1											1		1														1		1				
Trench C, Cut VI					1						8	1				5	1											4								
Trench C, Cut VII																																				
Trench B, Cut II			4							1	5		2		1	4																				
Trench A, Cut IV-VI															2	6											1									
Totals	2*	3*	17	11	0	0	0	0	2	2	32	1	24	1	10	12	0	1†	0	0	0	0	0	0	0	0	0	1	5	1	1	7	4	7	1	1
Mixed Débris																																				
Trench A, Cut III				5	6					1			2		4	1														1	2	1	2		1	
Trench B, Surface and Cut I	3	1	7		1					4	3		2		2	1				1							1	1		4	2				1	
South of Structure I	1	4	6	4																																
South of Structure II	1																																1			
Totals	5	5	18	10	1	0	0	0	0	5	3	0	4	0	6	2	0	0	0	1	0	0	0	0	0	0	1	1	1	6	3	2	1	1	1	

*Fallen from Gualupita III layer.
†Washed from Gualupita I-II debris.
‡Archetype, see p. 38.

The most legitimate conclusion seems to be that lack of easily workable materials was responsible for the poor quality of the stone technique, rather than inferior cultural development.

BURIALS

Conditions of the soil at Gualupita almost completely destroyed any traces of skeletal material. Furthermore, there may have been considerable disturbance of earlier burials by later ones. Occasionally, only the presence of pots indicated that there had been an interment. However, in some cases it was possible to get an approximate idea of the position, but the diagnosis of sex or age was impracticable.

Chronology was not obvious, since the changes in ceramic styles, noticeable in great masses of sherds, could not be relied upon to date individual vessels, owing to the retention of Gualupita I styles in Gualupita II. Most of the burials were found in the Gualupita II *débris* heaps of Trench C, so that, as none of these layers produced Gualupita III material, they must be Gualupita II in date.

Three burials (Nos. 5, 9, 11) were found in Cut VI of Trench C, a layer composed of Gualupita I *débris*. Since the burials in a given layer are usually of a subsequent period, these interments would be most logically attributable to Gualupita II, were it not for the fact that with Skeleton 9 there were four Type Di figurines, an Early Zacatenco-Gualupita I culture diagnostic. The soft yellow soil, underlying Cuts VI-VII in Trench C, offered a splendid burying ground in contrast to the stony subsoil of much of the adjacent region, so that burials might have been made in virtually contemporaneous *débris*. Therefore, it does not seem unlikely that these two burials were of Gualupita I date, in spite of the possibility that the figurines held over from Gualupita I into Gualupita II times.

The ethnological background to the burial habits of the Gualupitans must be of necessity sketchy. In most cases pottery vessels were set in the graves, originally whole, without ceremonial breakage. The quantity of vessels interred is greater than in the Valley. Figurines were often placed in the graves like the four small ones with Skeleton 9 and the large ones with Skeletons 5 and 1. The figurine with Skeleton 5 seemed to have been deliberately broken, as the head was set between the legs. The trait of placing figurines in graves has been observed so far only once in the Early Cultures of the Valley. A woman at Ticoman (No. 53) had been buried with a Cv figurine head which had no doubt been inserted into the grave as a "lucky piece" (1931, 424-425). The

large figurines discovered near Los Remedios by Mr. Hay doubtless were found in a grave, but owing to the presence of fluted bottles we judged this material to have been made by colonists from the Morelos area.

In later cultures in the Valley the burial of figurines with the dead may be more common, for we noted at El Arbolillo a Teotihuacan burial which had two unfired Teotihuacan III figurines and two Type B specimens among the mortuary furniture. The human-headed pots found by us in a grave at Mazapan¹ do not fit precisely into the category of figurines.

It is in western Mexico that the inclusion of figurines in mortuary furniture approaches a real cultural trait. At Chupicuaro figurines are commonly found in graves (1931, 362-367). It would seem as if the large figurines from Tepic occasionally accompanied the dead,² but often in Colima they seem to have been set in caves.³ In eastern Mexico clay figurines have been found in the Huasteca,⁴ while according to Strebel at Ranchito de las Animas large figurines also occur.⁵ In the Uloa Valley of Honduras Mrs. Popenoe found figurines in graves.

Undoubtedly further research will bring to light many more cases of the burial of figurines with the dead. In fact, the remarkable thing is not that the Gualupita people followed this practice, but that the Zacatenco and Ticoman people did not. It would seem so reasonable, according to primitive ideas, to use these little objects of clay as servants or companions in the next world.

Another trait perhaps of potential significance is the finding of hematite with Burials 2, 9, and 11. This substance has been noted in the Valley at El Arbolillo (Burials 113, 131, 142) and in a Teotihuacan burial there (Nos. 100-101). This also tallies with ceremonial use of hematite and cinnabar in various widespread localities, hematite being found in burials at Xoxo, Oaxaca⁶, Northern Mexico,⁷ parts of North America,⁸ and especially the State of Maine,⁹ cinnabar at Ticoman¹⁰ Holmul,¹¹ and Copan.¹² A detailed study of the use of red paint in burials might reveal important ethnographic data, but it is beyond the scope of this paper to trace out a complete distribution.

¹Excavations at Teotihuacan during the season 1931-1932, still unpublished.

²Lumholtz, 1902, 300-315.

³Galindo, 1922, 168-169; Disseldorff, 1932.

⁴Joyce and Knox, 1931; Staub, 1921.

⁵Strebel, 1885, I, 58-75.

⁶Saville, 1899, 354, 361.

⁷Hrdlicka, 1901, 703.

⁸Hrdlicka, 1901, 714-715.

⁹Moorehead, 1922; Willoughby, 1898.

¹⁰Vaillant, 1931, 400-401.

¹¹Vaillant and Merwin, 30, 34.

¹²Gordon, 1898, 21, 24, 27.

We have already commented on the presence of a skeleton with carved teeth (p. 103), but it should be recalled here as a unique trait in the Early Cultures so far examined. The presence of burned offerings, doubtless food, with Skeletons 2, 9, and 11 is likewise of interest, as in the Valley we have not observed many instances of this phenomenon. The jade ornaments with Skeleton 6, although of common workmanship, added to the presence of jade in Middle Zacatenco (1930, 158-159), and at El Arbolillo, give additional evidence that the lithic industry in the jade-producing area was well advanced when the early cultures of Central Mexico were flourishing.

The noteworthy feature of the burial customs at Gualupita in contrast to those of the Valley was the lavish equipment of the dead with pottery vessels and the burial of figurines as a part of the mortuary ritual.

The list below will give the specific data for each of the burials and its equipment, followed by a résumé of "floating" objects that were, in all probability, associated with skeletons either completely disintegrated by natural causes or else destroyed by workmen. The location of skeletons too badly destroyed to be drawn on Fig. 35 may be found in Fig. 5.

- Skeleton 1. Individual, age, sex, and position indeterminate; thick brown bottle (Fig. 19, No. 9). Trench B, Cut I.
- Skeleton 2. Child, 6-8 years, extended supine, head west; possible occipital deformation, head in mouth (Fig. 7, No. 5); brown jar at left shoulder (Fig. 19, No. 6); hematite in grave. Trench B, Cut I (Fig. 35, No. 1).
- Skeleton 3. Individual, sex, age, and position indeterminate; small red-on-yellow grooved bottle near head, and another larger bottle of the same type near it (Fig. 22, No. 7); burned offering and hematite in grave. Trench B, Cut II.
- Skeleton 4. Individual, sex, age, and position indeterminate; thick black-brown bottle (Fig. 19, No. 8), hematite in grave. Trench B, Cut II.
- Skeleton 5. Adult, middle aged, extended, head northwest; carved incisors (Fig. 34); red-on-yellow grooved bottle (Fig. 22, No. 6) at left shoulder, C variant figurine (Fig. 14, No. 2) at lap, deliberately broken with head set between legs. Trench C, Cut IV (Fig. 35, No. 2).
- Skeleton 6. Adult, middle aged, extended, supine (?), head north; probably deformed head, very heavy supraorbital ridges; bowl near head (Fig. 26b), deer antler at waist, five beads (Fig. 7, Nos. 4, 6; Fig. 31,

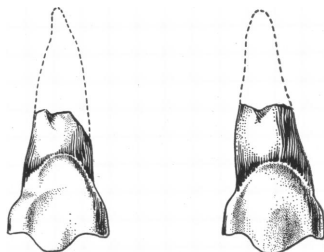


Fig. 34. Carved Teeth.

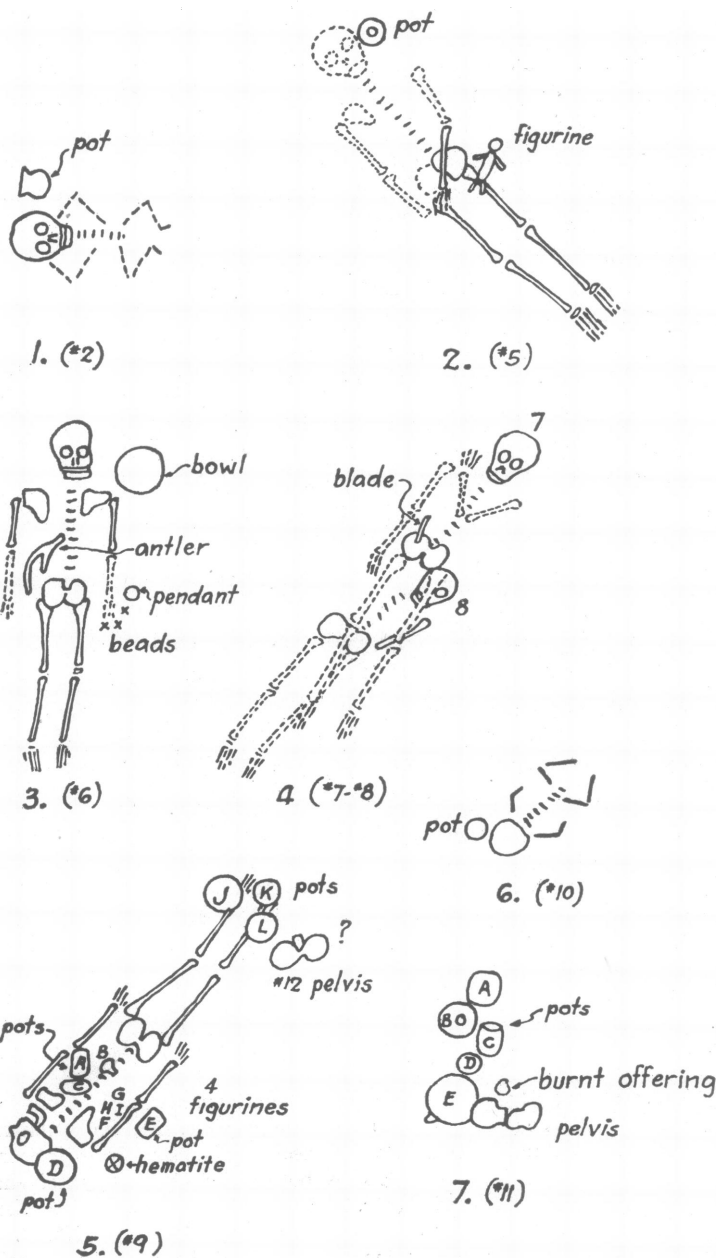


Fig. 35. Map of Burials.

- Nos. 3, 5, 6), and pendant (Fig. 31, No. 1) at hips. Trench C, Cut IV (Fig. 35, No. 3).
- Skeleton 7. Adult, middle aged, male, extended, head northeast, possibly disturbed Skeleton 8; obsidian blade (Fig. 32, No. 16) in ribs, possibly accidental. Trench C, Cut V (Fig. 35, No. 4).
- Skeleton 8. Adult, middle aged, position indeterminate, head northeast under pelvis of Skeleton 7 which possibly disturbed it; no furniture. Trench C, Cut V. (Fig. 35, No. 4).
- Skeleton 9. Young adult, extended, head southeast; eight pots: A, a thick brown vase (Fig. 19, No. 4); B, a small black-brown grooved bottle (Fig. 22, No. 1); C, a constricted-mouth, brown bowl (Fig. 21, No. 4); D, a constricted-mouth polished red bowl (Fig. 21, No. 3); E, a cylindrical white ware vase (Fig. 23, No. 3); J, an incised brown-ware bowl (Fig. 21, No. 1); K, a small black-brown bowl incised (Fig. 21, No. 8); L, a bowl fragment, red-on-yellow incised (Fig. 21, No. 2). F-I, Four figurines Type Di (Fig. 7, Nos. 1-2, 7-8); items A-I near the head and J-L at the feet; also a large ball of hematite and fragments of burned offering. Trench B, Cut VI (Fig. 35, No. 5).
- Skeleton 10. Baby, 3-4 years, extended, prone, head southwest; red-on-yellow jar (Fig. 19, No. 7) at shoulder. Trench C, Cut VI (Fig. 35, No. 6).
- Skeleton 11. Pelvis of adult, sex and position indeterminate; probably disturbed by sinking of shaft for Skeleton 9; five pots: A, white ware vase (Fig. 23, No. 2); B, white ware bowl (Fig. 23, No. 1) containing hematite; C, white ware vase (Fig. 25h) containing hematite; D, brown ware bowl containing hematite (Fig. 26, No. 21); E, large white ware "skillet" (Fig. 23, No. 4). Trench C, Cut VI (Fig. 35, No. 7).
- Skeleton 12. Adult, sex and position indeterminate; perhaps brown bowl. Trench C, Cut V (Fig. 21, No. 9).

"Floating" Figurines and Pots probably Mortuary Offerings

These specimens were possibly associated with burials disintegrated or destroyed, or else through the poor preservation of human remains were part of the equipment of the graves listed above.

Trench B, Cut I

1. Figurines, two horns, hollow, hole in umbilicus, one arm lacking. Head broken off and came out between legs. Possibly associated with Skeleton 1 or 2 (Fig. 14, No. 1).
2. Group of three figurines, one a large seated D variant, white slip (Fig. 15, No. 2), another an incomplete seated baby face type (Fig. 14, No. 3), and the third a very incomplete and a seated tiger of unfired clay. Possibly associated with some skeleton previously removed.
3. Group of two pots, a dun bowl with indented design (Fig. 21, No. 5) and a small black fluted bottle (Fig. 22, No. 5). Possibly associated with some skeleton previously removed.

Trench B, Cut II

1. Seated figurine, large complete Type Ciii. Head broken off and buried separately, beside body. Possibly associated with Skeleton 3 (Fig. 15, No. 3).

2. Fragment of large brown bowl (Fig. 19, No. 5).

Trench C, Cut V

1. Small black-brown bowl possibly at the feet of Skeleton 12 (Fig. 21, No. 9).
 But as the legs never appeared, this is not certain. It was too far east
 in any case to be associated with Skeleton 8. See Skeleton 12.

CONCLUSIONS

The excavations at Gualupita raise the question whether the different local styles encountered in Early sites in Central Mexico belong to a culture divided into various local developments, or whether these local styles are actually separate culture groups having a superficial similarity owing to the lack of violent artistic variation found in the higher civilizations. In view of the paucity of our knowledge of early culture material outside of the Valley, it is perhaps better to beg the question and to consider these variations between sites as indicative of different tribes and peoples.

Nothing primitive has been found in the State of Morelos, a condition that is also true of all Mexico except Coahuila¹ and northern Sonora² and lower California.³ This apparent absence of early stages of cultural evolution is probably ascribable more to the lack of intensive archaeological investigation than to any inherent developmental peculiarity of the ancient Mexicans.⁴

Gualupita I indicates a people on a culture plane a little below that of Early Zacatenco. Although both groups possessed a pottery adequate for ordinary needs and a figurine cult which doubtless satisfied their modest aesthetic and theological requirements, in the matter of tools, particularly of stone, the Gualupita I people were far inferior to those of Early Zacatenco. As for the absence of implements of bone and shell, it may be said that faulty conditions of preservation caused this apparent lack in Gualupita I. However, stone tools are virtually indestructible and neither the finished tools nor flakes gave evidence of the skilful practice of stone working. Moreover, the few celts resembling those found in the Valley were doubtless imported from outside, possibly from Guerrero. An inability to procure suitable stone for chipping might explain this sag from the parallel cultural levels maintained in other respects by Gualupita I and Early Zacatenco.

There is no indication that Gualupita I, because of its lack of stone tools, is a cultural parent of Early Zacatenco which produced this industry in relative abundance. In the first place, the ceramic differentiation between the two culture groups is too distinct to be evolutionary. In the second place, examples of certain figurine styles have been found in both groups, indicating contemporaneity. Finally, Gualupita II

¹Amador, 1897; Studley, 1887.

²Amaden, 1928.

³Diguet, 1905.

⁴Mülleried, 1928, shows that the Campeche "palaeolithic" sites described by Engerrand and Urbina, 1909, and Engerrand, 1910, 1912, are recent. In all probability these sites are merely workshops.

possesses both figurine and ceramic types in common with Ticoman, so that not only is there every probability that Gualupita I is contemporaneous with Early Zacatenco, but also that it extends upward in time through the Middle Zacatenco period.

Ceramically the differences between Gualupita I and Early and Middle Zacatenco are great. Although olla shapes are very similar at the two sites, the service pottery varies distinctly. Simple silhouette forms are the rule at Gualupita, whereas the composite silhouette is in common use during Early and Middle Zacatenco. Design is the most common method of ornamentation in the earlier periods at Zacatenco, while surface burnish and contrasting areas of paint and slip are more usual at Gualupita. Furthermore, the long-necked bottles so common in the graves at Gualupita are not known at Zacatenco. Some wares, like incised white, suggest that Zacatenco and Gualupita had trade relations, if not direct, at least through a common intermediary.

The figurines bear out the same impression given by the ceramics. In Early Zacatenco the standard types are Ci-iii, early F, and quite rarely, Di, and in the Middle Period these styles are replaced by Types A, B, F, probably Dii, and the transitional style, B-C. In Gualupita I we find a rich and varied development through Types Di-iii, K, and O. The standard C styles of the Valley sites are completely lacking and only one or two examples of Types A and F are found. Moreover, the variation in presentation found in the D and K types suggests that these styles are to Morelos what the C styles are to the Valley; in other words, these are the standard regional plastic forms.

When the Gualupita II period dawns we find a convergence between the ceramic styles of Ticoman and Gualupita. The old wares of Gualupita I continue in use, but there is, in addition, the red-on-yellow incised ware of Ticoman. Many of the wares are transformed into shapes known to the Valley in Ticoman black-brown and Ticoman polished red. The styles of vessel supports at Ticoman are also duplicated by those of Gualupita II. There seems to be a closer relationship between Gualupita I and Gualupita II pottery, even including its Ticoman styles, than between Middle Zacatenco and Ticoman. However, in view of our present limited sources of information, it would be too arbitrary to derive the Ticoman styles from Gualupita I. It is perhaps more just to assign a common source to the Ticoman culture and those elements we have noted as *like* Ticoman in Gualupita II.

The close connections in the ceramics of Ticoman and Gualupita II are amply paralleled in the figurines. Type Cix appears as a local de-

rivative from the K-D tradition of Gualupita I. There is an extraordinary development of large hollow figurines which, although seemingly based on the Gualupita I-Diii figurines, are subjected to such great individuality of treatment that they constitute less a plastic type or class than a methodological practice of the Gualupita II people. Yet, probably more than half of the plastic examples from Gualupita II are figurines of the standard Ticoman Types E and H toward which no evolutionary steps are traceable in the Gualupita I plastic. This apparent importation of figurine art styles in Gualupita II would support the idea that the Ticoman elements in the pottery vessels were likewise adopted and not evolved.

Another distinctive Ticoman trait in Gualupita II is the use of disc-shaped earplugs. Worked sherds were found in both Gualupita I and II layers, and although usual in the Valley, constitute such a common practice in Middle America that they are not ethnologically significant. Manos follow a form dictated by function, but the Gualupita metates are crude affairs, without the quadrangle shape, legs, or smoothed outer surfaces of the Ticoman and Zacatenco types. Too few other stone tools were found to render analysis profitable.

The problem of relative chronology, although treated in the various sections on material culture, may well be summarized here. Gualupita II is directly equatable with Ticoman, although the nature of the Gualupita deposits prevented a division of the material into three periods as at Ticoman. The figurine Types E and H, together with the forms of bowls and vessel legs, cover the range of morphological development at Ticoman. Gualupita I, by preceding Gualupita II, appears then to coincide with Middle Zacatenco. The occurrence of sporadic examples of figurine Types A, B, Cv, and F, presents fairly definite factual evidence. On the other hand, Di figurines were found, and this type is characteristic of Early Zacatenco. Therefore it seems probable that the nature of the deposits at Gualupita prevented a division of Gualupita I into the two periods represented by Early and Middle Zacatenco, as well as obscured the separation of Gualupita II into the three Ticoman time periods.

The relationships of the Gualupita II culture to other parts of Mexico are significant, if scanty, for a wider geographical range is implied than the fairly close-knit connections between Gualupita I and the Valley. In *Excavations at Ticoman* (pp. 307-309, 338-339) attention has been called to the probability of a common origin, possibly in the State of Puebla, for the cultures found at Ticoman, Cuicuilco, and Jalapazco.

Therefore Gualupita II, through its close connections with Ticoman, would fit into the same complex. It would then be within the bounds of reason to assume a double thrust of peoples on the Valley of Mexico at the close of the Middle Zacatenco period, one from the south westward toward Cuicuilco and Azcapotzalco, and another from the east centering on Ticoman. Yet why these movements went toward the Valley instead of the south cannot yet be explained.

Examples of trade and of influences in other cultures occur. A sherd of west Mexico type was found at Gualupita II (Fig. 26f); another sherd probably from the same area was dug up at Ticoman (1931, 386-387). These trade pieces are counter checks on the indubitable relationship between the figurine Type Hiv and the styles of Guanajuato.¹ Then there is the peculiar distribution of hollow figurines found in Gualupita II, the slopes of the Volcanoes, Vera Cruz, and in the Remedios section of Azcapotzalco.² In the Remedios region Mr. Hay also found long-necked bottles,³ an occurrence suggesting a specific connection with Gualupita, since this vessel form has not been found at Ticoman.

The most puzzling suggestion of trade or influence is that with the Teotihuacan culture. At Ticoman, a sherd (1931, 380-381) and a stone Fire God (1931, 309) coupled with the clay incensarios from Cuicuilco⁴ suggested that the two cultures were contemporaneous. Added evidence was produced by the Teotihuacan sherds and the figurine body and heads from Gualupita. These figurine fragments were duplicated in the Teotihuacan II figurines excavated by Miss Bourgeois at Santa Maria, a few miles north of Gualupita. In view of the close relationship between Type Eii⁵ and the Teotihuacan I (*tipo de transicion*)⁶ figurines and the occurrence of both Teotihuacan and Ticoman styles at Jalapazco, Puebla,⁷ there is further support for the suggestion made in *Excavations at Ticoman* (338-339) that there may be an overlap between the Teotihuacan and the Ticoman-Gualupita II cultures. Further discussion of the Teotihuacan culture in relation to the archaeology of Morelos in general, will be found on pp. 122-125.

The Gualupita III culture level offers problems just as complex as those suggested by the Early Cultures remains, since we are brought into contact with the literary and traditional history of the Aztec.

¹1931, 263; Mena and Aguirre, 1927.

²Joyce and Knox, 1931; Paso y Troncoso, 1887, 336-337; 1892, 383; Plancarte, 1911, 6-7.

³Hay, 1923, 271.

⁴Cummings, 1923a, 210.

⁵Vaillant, 1931, 346-347.

⁶Gamio, 1922, Pl. 89, 91.

⁷Seler, 1915, Pl. XXII.

The pottery is composed of coarse storage wares, distinct from those of the earlier periods. A new shape, the "tortilla-plate" offers a link with the Aztec and pre-Aztec ceramic groups of Central Mexico. The chief service wares are simple highly polished red bowls, adorned in black, which, if possibly varying slightly in composition from Aztec wares, yet in shape, decoration, and burnish are so similar as to be identical. Characterizing the Gualupita III complex is a tripod pottery with polychrome decoration, arranged in sophisticated patterns on the outer or inner surfaces of shallow vessels. The cylindrical and spider legs are completely different from those of the preceding periods. The figurine cult is almost abandoned and the few examples of figurines are Aztec in type. The pottery spindle whorl in its stamped, carved, and modeled forms, is another definitive trait of Gualupita III which brings it into the later culture foci of the Valley. Aside from a rock-crystal pendant of doubtful association and an arrowhead or two, we have no data on the lithic industries of this period.

According to Noguera's analysis of the Pyramid site of Teopanzalco, the pottery there is the same as that of Gualupita III.¹ The pyramid of Teopanzalco is strongly influenced by Aztec architectural elements.² Moreover, under various reigns the Aztec conquered the Tlaluica who occupied the State of Morelos.³ Sporadic Aztec elements may be seen in various collections made in Morelos. It would seem logical to assume that the polychrome pottery of Gualupita III was the product of the Tlaluica.

A similar correlation between historical and archaeological data obtains in the Valley of Toluca where we read of the Aztec conquest of the Matlatzinca. Archaeologically, we find a thin stratum of Aztec remains, including the characteristic black-on-orange pottery, overlying a distinctive red-on-yellow type of regional ceramics.⁴ Moreover, at the south of the Valley of Toluca collections show a representation of both Matlatzinca and Gualupita III. At Cholula there is also a distinctive regional pottery⁵ overlaid by Aztec and a sherd of Cholula ware turned up at Gualupita. At Tenayuca two groups of regional pottery⁶ were encountered below the Aztec stratum, and in the region of Teotihuacan another ceramic group, that of Mazapan,⁷ overlies Teotihuacan and is, in turn, beneath the Aztec layer.

¹Noguera, 1932, 17.

²Ceballos Novelo, 1929.

³Aragon, 1931, 49, Acampichtli; 51, Itzcoatl; 53, Montezuma II.

⁴Leon, 1903; Noguera, 1932, 16-17.

⁵Noguera, 1932, 22; Noguera, 1930, Pl. XXXI, 298-300.

⁶Ceballos Novelo, 1932, 11-12.

⁷Vaillant, 1932a.

Carrying this suggestion of correlation between documentary and excavated history further, we have formulated the following table. This presents the tribes mentioned by various authorities as having journeyed toward Central Mexico, after their departure from the legendary centers, Aztlan and Chicomoztoc, and in the final column we have tabulated such ceramic groups as might be associated provisionally with these tribes. (Table 4.)

From examination of this table there seems to be evidence that a correlation may eventually be established between the ceramic groups of the archaeologists and the tribal entities of the historians. Yet the lack of agreement among the authors who list the constituents of the migrant groups is very striking, not only in the names of the tribes but in their number as well. This lack of factual evidence suggests that the set mythological formula listing the tribes as seven or eight has a rough basis in fact in that the names of the neighbors of the narrating group are selected as the migrants. The lines of field archaeology and documentary research are beginning to converge at this point in Mexican history.

Yet, in tabulating the order of occupation in Central Mexico, a far less significant picture is produced. The following table lists the sequence of peoples according to the chief documentary sources, the numerals indicating the order of arrival. (Table 5.)

The Maceguals are supposed to have been created by the gods and may be assumed to be completely mythological. The Quinames or Giants also may be ruled out as historically insignificant. If there is an ethnic foundation for their existence it is so blurred as to be quite indistinct for correlation with culture groups known from excavations.

The Toltec, on whom most of the early authorities concentrate the beginnings of civilization in Central Mexico, are likewise very unsatisfactory to identify. The older writers seem to have used the term to denote those peoples living in the Valley before the influx of the Nahuatl tribes. While Sahagun says they built the pyramids of Teotihuacan, others talk of their having lived at Cholula and having irradiated, on the downfall of their "Empire," south into Guatemala.¹ However, if the Toltec built Teotihuacan, then the artifacts found there must represent their culture. But the distribution of these Teotihuacan types is restricted to a much smaller area than that sketched by the commentators. Until we are certain that Toltec is not a generic term used by the Aztec groups for foreign peoples, like the Greek term *Barbaroi*, or the English Red Indians, it is better to use the site name Teotihuacan to distinguish

¹Sahagun, 1829, vol. III, 141, 144; Bancroft, 1883, vol. 5, 286-288, 540-567; Saville, 1930.

TABLE 4

MIGRANT NAHUA TRIBES, ACCORDING TO VARIOUS AUTHORITIES, COMPARED TO CERAMIC GROUPS IN CENTRAL MEXICO

	Histoire Mexicaine ¹	Codex of 1590 ²	Codex of 1576 ³	Cubas—vd. Muñoz Camargo ⁴	Historia de los Mexicanos ⁵	Codice Ramirez ⁶	Codex Boturini ⁷	Duran ⁸	Sahagun ⁹	Codex Telleriano Remensis ¹⁰	Codex Vaticanus A ¹¹	Clavigero ¹²	Motolina ¹³	Muñoz Camargo ¹⁴	de Mendieta ¹⁵	Suggested Correlation of Pottery Styles with Tribal Groups
Aztec	x	x	(x)†	—	x	x	(x)†	(x)†	(x)†	—	—	(x)†	x	—	x	Regulation Aztec of Tenochtitlan ¹⁶
Xochimilca	x	x	x	x	x	x	x	x	—	—	—	x	—	—	—	?
Tepaneca	x	x	x	x	x	x	x	x	x	—	—	x	—	(x)†	—	Tenayuca II (?) ¹⁷
Acolhua	—	x	—	—	[x]*	—	—	—	x	—	—	—	(x)†	(x)†	—	Mazapan ¹⁸
Culhua	—	—	—	x	x	x	—	x	—	—	—	x	—	(x)†	—	Culhuacan (like Aztec) ¹⁹
Cuitlahuaca	x	x ²⁰	x	—	—	—	x ²¹	—	—	—	—	—	—	—	—	?
Chalca	x	—	x	x	x	x	x	x	x	—	—	x	—	(x)†	—	Some styles resemble Cholula wares
Tlahuica	—	—	—	—	—	x	—	x	—	—	—	x	—	—	—	Gualupita III ²²
Tlaxcalteca	—	—	—	—	[x]*	x	—	x	x	—	—	x	(x)†	—	—	Some styles resemble Cholula wares ²³
Choluteca	—	x ²⁴	—	x	—	—	—	—	—	—	—	—	—	—	—	Cholula wares ²⁵
Huexotzinca	x	x	x	x	[x]*	—	x	—	x	—	—	—	—	—	—	?
Matlatzinca	x	—	x	x	—	—	x	—	—	—	—	—	—	—	—	Matlatzinca ²⁶
Malinalca	x	—	x	—	—	—	x	—	—	—	—	—	—	—	—	?
Quauhqueahollan-Xelhua	—	—	—	—	—	—	—	—	—	—	—	x	—	x	—	
Chichimeca	x	—	x	x	—	—	x	—	—	x	x	—	(x)†	—	—	?
Nonoalca	—	—	—	—	—	—	—	—	—	x	x	—	—	—	—	?
Michoaca	—	—	—	—	—	—	—	—	—	x	x	—	(x)†	—	—	?
Couixca	—	—	—	—	—	—	—	—	—	x	x	—	—	—	—	?
Totonaca	—	—	—	—	—	—	—	—	—	x	x	—	—	—	—	?
Cuexteca	—	—	—	—	—	—	—	—	—	x	x	—	—	—	—	?
Xicalanga-Olmeca	—	—	—	—	—	—	—	—	—	x	x	—	x	(x)†	x	?
Mixteca	—	—	—	—	—	—	—	—	—	—	—	—	x	—	x	
Otomi	—	—	—	—	—	—	—	—	—	—	—	—	x	—	x	

†Implied but not specifically listed.

*These people, say the Mexicans, and no more sallied forth, although those of Tescoco and Tlaxcala and Huexotzinca boast . . . that they too . . . are also of that land." Phillips, 1883, 625.

¹*Histoire Mexicaine*, Boban, 1891, Pl. 60.²Boban Codex of 1590, Pl. 24, Muñoz Camargo, 1892, 8, footnote.³Aubin, 1893, 4, both of text and translation.⁴Muñoz Camargo, 1892, 7. A footnote by Chavero gives a list taken from "Cuatro historico-jeroglífico de la peregrinacion de las tribus aztecas que poblaron el Valle de Mexico, No. 2," published in the *Atlas Geográfico* of Antonio Garcia Cubas, Mexico, 1858.⁵Phillips, 1883, 624-625. Forty tribes.⁶*Biblioteca Mexicana*, 1878, 18.⁷Radin, 1920, 33, Pl. I taken from Kingsborough, vol. I.⁸Duran, 1867, 10.⁹Sahagun, 1529, vol. III, 145.¹⁰Codex Telleriano Remensis, 1899, 34, Pl. 25.¹¹Codex Vaticanus A, 1900, Pl. 67.¹²Clavigero, 1917, 118-119.¹³Motolinia, 1914, 7-10.¹⁴Muñoz Camargo, 1892, 5-68. The list of tribes given under this authority has been extracted at random points from the text. Muñoz Camargo does not specify the list of migrants.¹⁵de Mendieta, 1870, 145.¹⁶Noguera, 1930, Pl. XXXII.¹⁷Ceballos Novelo, 1932, 11-12, Pl. XX, Figs. 2-3.¹⁸Vaillant, 1932a.¹⁹Boas, 1911-1912, Pls. 1-36; Castañeda, in Boas, 1912, 12; Brenner, 1931.²⁰Chavero, in Muñoz Camargo, 1892, 7, misreads this sign Cholula. cf. notes 20 and 21.²¹Radin, 1920, misreads this sign Cholula.²²This volume, Figs. 19, 27.²³Noguera, 1930, Pl. XXXI.²⁴Peñafiel, 1897, gives this sign as Cholula.²⁵Noguera, 1930, Pl. XXXI.²⁶Noguera, 1930, Pl. VI.

TABLE 5

SEQUENCE OF PEOPLES IN THE VALLEY OF MEXICO ACCORDING TO VARIOUS AUTHORITIES

	Phillips ¹	Ixtlilxochitl I ²	Ixtlilxochitl II ³	Veytia ⁴	Duran ⁵	Muñoz Camargo ⁶	Clavigero ⁷	Sahagun ⁸	de Jonghe ⁹	Mappa Tlotzin ¹⁰	Mappa Quinatzin ¹¹	Codex Xolotl ¹²	Motolinia ¹³	García Icazbalceta ¹⁴
Maceguales (created by Gods)	1	—	—	—	—	—	—	—	—	—	—	—	—	—
Quinames (Giants)	2	1	1	1	1	—	—	—	—	—	—	—	—	—
Tarasco	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Olmecca-Xicalanga	—	2	2	3	—	2	—	—	—	—	—	—	—	—
Zacateca	—	—	—	—	—	2	—	—	—	—	—	—	—	—
Toltec	4	3	3	4	—	—	1	1	—	—	—	—	—	—
Nomad Chichimec	3	4	4	2	—	—	2	—	1	1	1	1	1	1
Chichimec	—	—	—	5	2	3	—	2	—	—	—	—	—	—
Teo-Chichimec	—	—	—	—	—	4	—	2	—	—	—	—	—	—
Otomi	—	—	5	6	—	—	—	2	2	—	—	—	—	—
Acolhua I Tlailtoque	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chimalpanecs	—	5?	—	—	—	—	—	—	—	—	2	2	—	—
Chalco-Toltec	—	—	—	—	—	—	—	—	—	2	—	—	—	—
Acolhua II	—	6	5	6	—	3	3	—	(4)	3	—	—	2	2
Texcoco	—	—	—	—	3	—	—	3	3	—	—	—	—	—
7 Tribes	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tepanec	—	6	5	6	—	—	—	—	—	—	3	—	—	—
Culhua	—	5	—	—	—	—	—	—	—	—	3	—	—	—
Aztec	—	6	6	7	4	—	—	—	—	—	3	3	3	3
Huitznahua	—	6	—	—	—	—	—	—	—	—	3	—	—	—

¹Phillips, 1883, 618-619, 622-624.²Ixtlilxochitl, 1891, 17-21, 75-103.³Ixtlilxochitl, 1892, 21-45, 61-65, 69-71.⁴Veytia, 1836, vol. 1, 139-156; vol. 2, 3-10, 39-46, 87-101.⁵Duran, 1867, 10-14.⁶Muñoz Camargo, 1892, 5-116.⁷Clavigero, 1917, 93-136.⁸Sahagun, 1829, vol. III, 106, 116-117, 138-147.⁹de Jonghe, 1903, 8-20.¹⁰Aubin, 1885, 58-74.¹¹Aubin, 1885, 75-85.¹²Radin, 1920, 41-45.¹³Motolinia, 1914, 3-5.¹⁴García Icazbalceta, 1886-1892, vol. III, *Origen de los Mexicanos*, 283-292.

the culture, rather than the term Toltec, which has been confused by the interpretations of generations of historians who did not use the differentiations of material culture as a check on the early records.

Once the migration period is reached, the histories take on an orderly sequence. We notice, however, indications of two schools of thought: the Aztec pattern, shown in Table 4 which begins with the emergence of the migrant groups and the Texcocan pattern, shown by Table 5 on p. 123, wherein various tribes enter the Valley, and one after the other become gradually acculturated.

If we compare these two tables with Table 6 at the close of this paper, the paradoxical situation of Central Mexican history is very clearly set forth. The early stages of the past in Central Mexico are fairly well divided, according to time periods, on the basis of material culture, but the period following the migrations, which is defined by historical records, given tribe by tribe and almost year by year, has nothing correspondingly accurate in the divisions of culture sequence.

Diffuse as this discussion has been, it leads directly to the chronology of the State of Morelos, which, after all, depends on the historical sequences of the Valley of Mexico in that the latter are more fully developed than for any other section of Mexico. Our Cuernavaca sequence is very probably the most secure for Morelos. We have established contact through Gualupita I with Early and Middle Zacatenco, through Gualupita II with Early and Late Ticoman. Moreover from an examination of historical sources¹ it seems quite probable that Gualupita III can be correlated with the Tlahuica people, who held Morelos in historic times.

The discovery by Miss Julia Bourgeois of Teotihuacan material, a few miles north of Gualupita creates an interesting historical problem. The heads apparently belong to the Teotihuacan II period, that is, of the first great building phase. Teotihuacan II cannot be contemporaneous with Gualupita III, because it is overlaid by Mazapan material which equates chronologically, by way of Matlatzinca pottery, with Gualupita III. Furthermore at Cholula the standard regional ware associable with the great pyramid overlies Teotihuacan sherds, and a Cholula sherd was found in Gualupita III. Therefore Teotihuacan II must be anterior to this Tlahuica period, but the question obtrudes whether it is posterior or contemporaneous with Gualupita II.

¹Clavigero, 1917, 118; Duran, 1867, 12-13; Sahagun, 1869, vol. III, 134-135; Codice Ramirez in *Biblioteca Mexicana*, 20; Mazari, 1927.

We have previously commented at some length on the possibilities of contemporaneity of Teotihuacan II and Gualupita II. The presence of scattered sherds and a Teotihuacan II body suggests this at Gualupita, while at Ticoman a sherd and the crude stone incensario representing Huehuateotl give further support to this hypothesis. But if Teotihuacan ties in with Gualupita II, as the Teotihuacan material found at Gualupita and Ticoman suggests, then this phase of the Early or Archaic cultures must be relatively late in time. However, the lava-covered pyramid of Cuicuilco which is of the same period as Ticoman¹ will always be a bar to the recognition of contemporaneity of this culture and Teotihuacan, since a layer of geological formation gives an impression of great antiquity, whether or not the assumption be valid.

In view of the complexity of the archaeological periods preceding and following the Teotihuacan culture there is no reason to assume that this period was any simpler chronologically and culturally than the others or that the Teotihuacanos should have exerted an undisputed cultural hegemony over the Valley of Mexico and its environs. Consequently, the presence of Teotihuacan material in the vicinity of Cuernavaca should not be considered strange, for these Teotihuacanos might have brought an end to the Gualupita II occupation, even as they might have been the cause of the abandonment of Ticoman. Then they might have held the Cuernavaca territory until they, in turn, were displaced by the coming of the Gualupita III or Tlahuica people.

There are a number of cultural manifestations in Morelos which we cannot tie in with the Gualupita sequence. Probably occurring somewhere on the Gualupita I horizon are the Type Cviii heads collected by Plancarte at Tenango in the southeast of Morelos. Three specimens have been found at Tetelpan² in the Valley of Mexico and one under the lava at Copilco, which would corroborate the dating. But it is impossible to account for the occurrence of this type at such isolated points as Tenango and Tetelpan unless it be through trade or religious pilgrimage from outlying pueblos to a central spot.

Plancarte figures some pottery fragments from Temilpa in the south of Morelos³ that are better classifiable as Zapotec than late Teotihuacan. Xochicalco, although assigned by most students⁴ to an early Tlahuican phase, is as much of a problem culturally as it is chronologically. The style of carving of some of the figures reminds one of figures carved on

¹Vaillant, 1931, 338, index, 442.

²Vaillant, 1930, 73, 112; cf. Plancarte, 1911, 8, second row, Nos. 3-5.

³Plancarte, 1911, 155.

⁴Breton, 1906; Peñafiel, 1890, vol. I, 31-45, vol. II, Pls. 176-211; Noguera, 1929, 31-69; Saville, 1928.

pottery from the Maya region, that are of relatively late date, i.e., post Holmul V.¹ Curiously enough, such a dating corresponds very closely with that derived by Palacios from documentary data.²

It would be logical then to place Xochicalco after Teotihuacan II. Tepoztlan³ is doubtless later than Xochicalco, although probably built by the Tlāhuica, as were Teopanzalco,⁴ Huaxtepec⁵, and perchance Chimalacatlan.⁶ In spite of the many other ruins in Morelos on which speculation is futile with our scanty knowledge, mention must be made of the Cerros de las Tres Marias at Tlaltenango adjacent to Cuernavaca. That we know nothing of the ceramics of the builders of these mounds, leaves a broad gap in our knowledge of the history of the Cuernavaca region. This lacuna affects the elucidation of the Gualupita problems far more strongly than our inability to solve the cultural and chronological equation of Xochicalco. The history of Mexico, however, is contained in the fate of pueblos, and until we know the sequence of the local populations in the numerous valleys of Mexico we cannot plot with security the wider phases of cultural influence.

To sum up, then, our present data on Morelos, there is a basal early culture phase, Gualupita I, that is widely extended throughout Morelos and is apparently regional in type, although in contact with the Early and Middle Zacatenco phases of the Valley of Mexico. With this phase are amalgamated in Gualupita II elements of another culture probably based on the State of Puebla and represented in the Valley by the settlements of Ticoman, Cuicuilco, and parts of Azcapotzalco. During the same period, what seems to be a Gualupita II colony, was established at the Rancho Echegaray⁷ in the Remedios region near Azcapotzalco, and others located in the region of the two great volcanoes may account for the two horned figurines found there. An influx of people bearing the Teotihuacan culture may have brought an end to the Gualupita II period.

The earlier Gualupita phases are succeeded by Gualupita III, a totally distinct culture from the preceding, and probably attributable to the Tlāhuica. This complex is late in time and contemporaneous to the post-Teotihuacan—pre-Aztec cultures like the Matlatzinca, Mazapan, and Cholula. This period was brought to a close by the Aztec conquest, whereupon certain Aztec influences entered even when there was not a

¹Merwin and Vaillant, 1932, 79.

²Palacios, 1920.

³Saville, 1896; Ceballos Novelo, 1929, 10-14.

⁴Ceballos Novelo, 1929, 14-15.

⁵Palacios, 1930.

⁶Plancarte, 1911.

⁷Hay, 1923, 271; Boas and Tozzer, 1915, 393.

definite Aztec occupation. Teopanzalco and Huaxtepec belong, in all probability, to this Tlahuica phase or Tlahuica-Aztec. Yet the culture represented at Teopanzalco, Xochicalco, and perchance Chimalacatlan, may be an even earlier phase, or possibly, as the Temilpa material suggests, a phase of Zapotecan-Mixtec culture.

The following table sums up our conclusions on culture sequence at Gualupita, being a combination of Noguera's ceramic sequence of 1932¹ and our own of the same year.

TABLE 6
SEQUENCE OF CULTURES IN CENTRAL MEXICO, ACCORDING TO THE ARCHAEOLOGICAL EVIDENCE OF 1932

Valley of Mexico			Morelos
Tenayuca I ³	VII Period of Aztec Domination Tenochtitlan ² Texcoco ²		Teopanzalco ³
Tenayuca II ²	VI Late Migration Period Mazapan ³		Gualupita III (Tlahuica)
V Teotihuacan (Toltec) Period Tenayuca I ² Coyotlatelco ⁵	= Teotihuacan IV ⁴		
IV Late Period of Early Cultures (Archaic)	Teotihuacan III ⁴		Xochicalco (?)
Late Ticoman ⁶ Cuicuilco ⁹	Teotihuacan II ⁴		Teotihuacan II
Intermediate Ticoman ⁶ ↓ Early Ticoman-Late Zacatenco ⁶	Teotihuacan I ⁴		Gualupita II
III Middle Period of Early Culture (Archaic) Middle Zacatenco ⁷ —Copilco ⁸ —El Arbolillo II— San Juanico II			Gualupita I
II Early Period of Early Cultures (Archaic) Early Zacatenco ⁷ —El Arbolillo I—San Juanico I			
I Undiscovered Formative Stages Equivalent to Basket Maker I through Pueblo III ¹⁰			

¹Noguera, 1932.

²Ceballos Novelo, 1932.

³Noguera, 1930, 1932.

⁴Vaillant, 1932a.

⁵Toszer, 1921.

⁶Vaillant, 1930; Vaillant, 1931.

⁷Vaillant, 1931.

⁸Gamio, 1920.

⁹Cummings, 1932a, b; Vaillant, 1931.

¹⁰Kidder, 1924; Roberts, 1929, 208.

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