

# EXCAVATIONS AT CIHUATECPAN

AN AZTEC VILLAGE IN THE  
TEOTIHUACAN VALLEY

Edited by

Susan T. Evans

with contributions by

Elliot M. Abrams

Susan T. Evans

and

Bruce Gregory McCoy

Copyright

Vanderbilt University

Publications in Anthropology

NO. 36

NASHVILLE, TENNESSEE

1988



# EXCAVATIONS AT CIHUATECPAN

AN AZTEC VILLAGE IN THE  
TEOTIHUACAN VALLEY

Edited by

Susan T. Evans

with contributions by

Elliot M. Abrams

Susan T. Evans

and

Bruce Gregory McCoy

Vanderbilt University

Publications in Anthropology

NO. 36

NASHVILLE, TENNESSEE

1983

VANDERBILT UNIVERSITY PUBLICATIONS IN ANTHROPOLOGY

Vanderbilt University Publications in Anthropology are published by the Department of Anthropology, Vanderbilt University, Nashville, Tennessee. This is a consecutively numbered series devoted to the dissemination of the results of scholarly research in the field of Anthropology but without specific restriction as to content or theoretical orientation of research, geographical concentration, or institutional affiliation of the author.

Ronald M. Spores, Series Editor  
William R. Fowler, Associate Editor  
John D. Monaghan, Associate Editor

## TABLE OF CONTENTS

	Page
LIST OF FIGURES .....	iv
LIST OF PLATES .....	iv
LIST OF TABLES .....	v
PREFACE AND ACKNOWLEDGEMENTS .....	vi
1. CIHUATECPAN: THE VILLAGE IN ITS ECOLOGICAL AND HISTORICAL CONTEXT	
by Susan T. Evans .....	1
Introduction .....	1
Background .....	5
Environment, Setting, and Local Resources .....	9
Culture History of the Teotihuacan Valley and Cerro San Lucas Area .....	11
Cihuatecpan Architecture and Artifacts .....	20
2. ARCHAEOLOGY AT THE AZTEC PERIOD VILLAGE OF CIHUATECPAN, MEXICO: METHODS AND RESULTS OF THE 1984 FIELD SEASON	
by Susan T. Evans and Elliot M. Abrams .....	50
Introduction .....	50
Methods of Investigation .....	52
Field Operations .....	53
Operation 1 .....	58
Operation 2 .....	72
Operation 3 .....	84
Operation 4 .....	87
Operation 5 .....	109
Operation 6 .....	118
Operation 7 .....	182
Operation 9 .....	193
Operation 10 .....	211
Operation 11-24 .....	228
3. INVESTIGATION OF AN OBSIDIAN MIDDEN AT CIHUATECPAN, MEXICO	
by Elliot M. Abrams .....	235
4. PRELIMINARY DESCRIPTION OF FLOTATION SAMPLE MATERIALS FROM CIHUATECPAN, MEXICO	
by Bruce Gregory McCoy and Susan T. Evans .....	239
5. AFTERWORD	
by Susan T. Evans .....	246
BIBLIOGRAPHY .....	247
PROYECTO ARQUEOLOGICO CIHUATECPAN: RESUMEN .....	260

## LIST OF FIGURES

Figure		Page
1.1.	Cerro San Lucas and the Village of Cihuatecpan.....	3
1.2.	Teotihuacan Valley Settlement Pattern, ca. A.D. 1500.....	4
1.3.	Map of the Central Highlands of Mexico.....	7
1.4.	Housemound Density on Cerro San Lucas, by Hectare.....	22
1.5.	Comparison of Structures Excavated at Cihuatecpan.....	25
1.6.	Comparison of Size and Functional Diversity of Structures.....	29
1.7.	Black on Orange Ceramics.....	41
1.8.	Black on Orange Ceramics.....	42
2.1.	Housemounds on the South Slope of Cerro San Lucas.....	51
2.2.	Cihuatecpan and Cerro San Lucas.....	55
2.3.	Cihuatecpan, Structure 1.....	59
2.4.	Cihuatecpan, Structure 2.....	73
2.5.	Cihuatecpan, Operation 3 (Probable Jaguey).....	85
2.6.	Cihuatecpan, Structure 4.....	88
2.7.	Cihuatecpan, Structure 5.....	110
2.8.	Cihuatecpan, Structure 6.....	119
2.9.	Cihuatecpan, Structure 7.....	183
2.10.	Cihuatecpan, Structure 9.....	194
2.11.	Cihuatecpan, Structure 10.....	212

## LIST OF PLATES

Plate		Page
1.1.	Cerro San Lucas, from the southwest.....	viii
1.2.	Temple Model Roof and Plaster-Daubed Construction Cone.....	viii

## LIST OF TABLES

Table		Page
1.1.	Comparison of Structures at Cihuatecpán .....	26
1.2.	Operations 1 through 24: Artifact Summary .....	37
1.3.	Operations 1 through 24: Fine Ceramics .....	38
1.4.	Operations 1 through 24: Utility Ceramics .....	39
2.1.	Operation 1: Artifact Summary .....	66
2.2.	Operation 1: Fine Ceramics .....	68
2.3.	Operation 1: Utility Ceramics .....	70
2.4.	Operation 2: Artifact Summary .....	78
2.5.	Operation 2: Fine Ceramics .....	80
2.6.	Operation 2: Utility Ceramics .....	82
2.7.	Operation 3: Artifact Summary .....	86
2.8.	Operation 3: Fine Ceramics .....	86
2.9.	Operation 3: Utility Ceramics .....	86
2.10.	Operation 4: Artifact Summary .....	97
2.11.	Operation 4: Fine Ceramics .....	101
2.12.	Operation 4: Utility Ceramics .....	105
2.13.	Operation 5: Artifact Summary .....	112
2.14.	Operation 5: Fine Ceramics .....	114
2.15.	Operation 5: Utility Ceramics .....	116
2.16.	Operation 6: Artifact Summary .....	134
2.17.	Operation 6: Fine Ceramics .....	150
2.18.	Operation 6: Utility Ceramics .....	166
2.19.	Operation 7: Artifact Summary .....	187
2.20.	Operation 7: Fine Ceramics .....	189
2.21.	Operation 7: Utility Ceramics .....	191
2.22.	Operation 9: Artifact Summary .....	199
2.23.	Operation 9: Fine Ceramics .....	203
2.24.	Operation 9: Utility Ceramics .....	207
2.25.	Operation 10: Artifact Summary .....	216
2.26.	Operation 10: Fine Ceramics .....	220
2.27.	Operation 10: Utility Ceramics .....	224
2.28.	Operation 11 - 24: Artifact Summary .....	229
2.29.	Operation 11 - 24: Fine Ceramics .....	231
2.30.	Operation 11 - 24: Utility Ceramics .....	233
3.1.	Operation 8: Artifact Summary .....	238
3.2.	Operation 8: Fine Ceramics .....	238
3.3.	Operation 8: Utility Ceramics .....	238
4.1.	Floral Materials from Flotation Samples .....	242
4.2.	Faunal Materials from Flotation Samples .....	243
4.3.	Lithic Materials from Flotation Samples .....	244
4.4.	Compound Materials from Flotation Samples .....	245

## PREFACE AND ACKNOWLEDGMENTS

---

Research at Cerro San Lucas was undertaken to expand our knowledge of the lifeways of the peasantry of the Aztec period. At the beginning of the sixteenth century, the Basin of Mexico was the core of a vast tribute domain, and the Aztecs were the last ethnic group in the fully indigenous cultural sequence to extend their effective dominance over much of Mesoamerica. Although our understanding of the life of the elites in this society is fairly sound, we know little of the country people whose labor fueled the whole cultural system.

The lack of archaeological investigations focusing on the Aztec period peasantry can be explained by a number of factors: rural village sites are generally less culturally visible and imposing than are the monumental sites that capture public attention; their very homeliness militates against their having the attractive glamor of rich and exotic settings. Furthermore, the rural sites of the Aztec period in the Basin of Mexico have been so numerous that their commonness argued against a high priority of investigation in a research setting of limited means and many goals. The richness of ethnohistoric data sources has also acted to instill a sense of complacency with regard to excavations of rural sites, since, through the many accounts, a vivid general sense of the culture has been gained.

Yet, important research problems bearing on Aztec period culture history and process could not be addressed without information about lifeways of the peasant villagers, information of the type supplied by excavation. Parsons recently pointed out a number of issues that remain to be resolved about central Mexico in the Postclassic period, including the nature of inter- and intraregional political relations, demographic trends, and economic organization (Parsons 1987:28-36). Clearly, important features of Aztec period society could be elucidated through archaeological research focused on one particular village.

With these thoughts in mind I began doing intensive research on an Aztec village on the south slope of Cerro Gordo, just behind the Classic city of Teotihuacan. The first step was to locate and plot the size and distribution of the mounds in this fairly well-preserved stretch of terraced settlement (Evans 1985). Next, I proposed to excavate certain of the housemounds, attempting to assess possible special function structures, as well as investigating domestic settings. The proposed research gained the support of the National Science Foundation, and the approval of the Instituto Nacional de Antropología e Historia of Mexico, and this report would have been a description of the excavation of the Cerro Gordo site, if that site had not rather suddenly and unexpectedly been destroyed, along with many others, by extensive bulldozing over the ancient terrace systems of the Teotihuacan Valley and Texcoco region. In a program designed to establish profitable nopal and maguey plantations on marginal lands (thus strengthening the economic base of rural areas), heavy equipment was used to remove topsoil and break up the underlying *tepetate* (calcified compacted volcanic ash; culturally sterile), and the loose soil was shoved to the sides of the new orchards. The archaeological remains of the Cerro Gordo site's nearly two hundred houses, which had survived nearly half a millennium of neglect, lay heaped with soil and rubble in a long tidy pile. This situation was echoed all over the valley, and the common villages of the common Aztecs were now members of an endangered archaeological species.

Using a survey map of Aztec period settlement locations made by the Teotihuacan Valley Project, Abrams and I immediately began to investigate other alternatives. Although the destruction was widespread, we found that T.A. 81, a fairly large and complex site surrounding Cerro San Lucas, was relatively undamaged by bulldozer action. We shifted our research focus, and with the encouragement of our sponsoring institutions began to implement our adjusted research plans. The spring of 1984 was a very busy and productive time, with the excavation of more than eight structures at T.A. 81, the village of Cihuatecpan. We also began the work of preliminary data analyses, and are continuing to analyze particular artifact assemblages in detail. The success of this project owes much to those who helped us through that first exhilarating and stressful season of research, and we are particularly grateful to David Webster, Tom Charlton, and John Yellen for their encouragement during that critical time. Mike Davis, en route between projects at Copán, Honduras, and Cayonu, Turkey, stopped in Mexico and lent us a hand. Pedro Baños and Cefarino Ortega of the Teotihuacan Mapping Project were a great help both in the field and the laboratory.

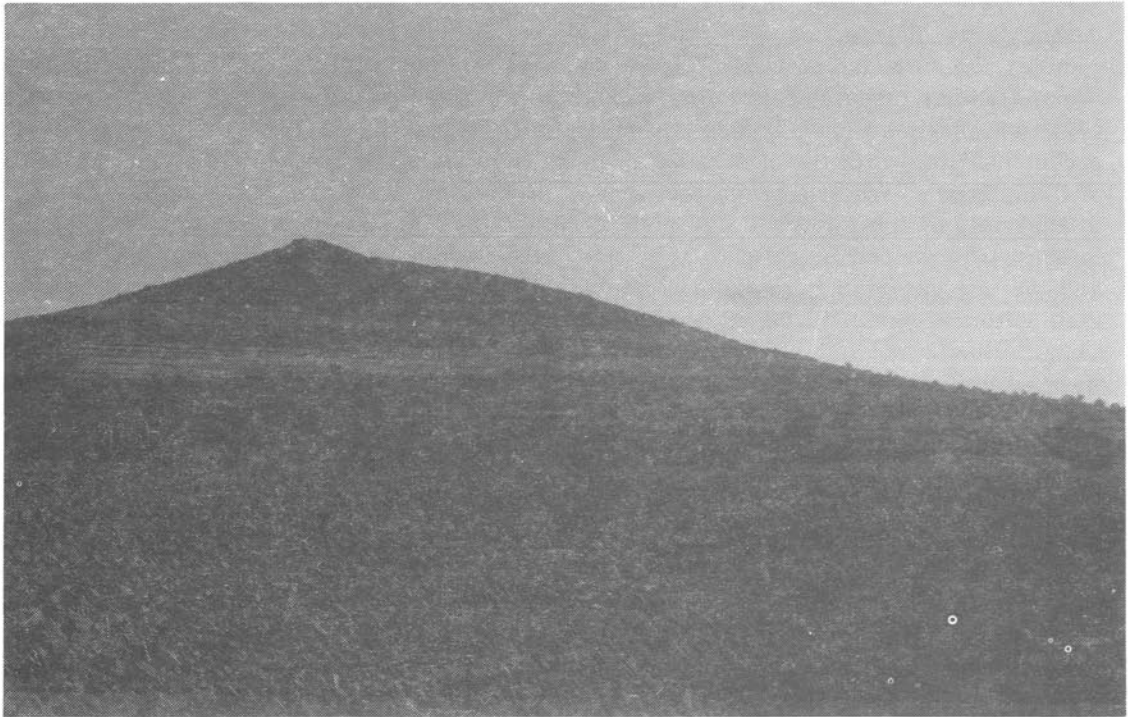
Many other people helped us with equipment, advice, and interpretations. We wish to thank Carmen Aguilera, Patty Anawalt, Frances Berdan, John Bierhorst, Elizabeth Boone, Beth Chambers, Charles and Annetta Cheek, Phyllis Chock, George Cowgill, AnnCorinne Freter, Joaquin García-Bárcena, Bill Gardner, Kim Goldsmith, Peter Gould, Herb Harvey, Dan Healan, Mary Hopkins, Cecilia Klein, Jack Mallory, Scotty MacNeish, Alva Millian, René Millon, George Milner, Jeff Parsons, Evelyn Rattray, Chuck Redman, Santiago Reyes, Robert Santley, Jim Sheehy, Mike Smith, Mike Spence, Felipe Solis, Rebecca Storey, Bob Verrey, Dolph Widmer, and Gordon Willey. The project is conceived as an outgrowth of the larger Teotihuacan Valley Project, directed by Bill Sanders, and Abrams and I continue to draw intellectual strength from our association with Sanders. The success of the project owed much to our crew: Jorge Angeles, Carlos Baños, Moises Baños, Victor Baños, Sabino García, Mario de Lucio, Ramiro de Lucio, Rogelio de Lucio, Luis Ramirez Franco, and Javier Sanchez. Work could not have proceeded without the permission of the landowner, Venancio Ramirez, the support of the Municipio of Otumba and its president, C. Carlos Plata Fernandez, and the officials of the Comisariado Ejidal of San Marcos, Guillermo A. Franco Espinosa, Fidel Ramirez Gallegos, and Gerónimo Corona Roldan. We hope the project contributes to the historical documentation of the Otumba and Axapusco areas, and appreciate the interest of Ernesto Gomez Aco (Cronista of Otumba) and Felipe Pascual Pastrana M. (Cronista of Axapusco).

I also appreciate the encouragement of Paula McNutt and Ron Spores of Vanderbilt University Publications in Anthropology during the final stages of editing and writing. Candace Levy of Levy Copy Editing Services was instrumental in setting up the manuscript.

My co-contributors in this monograph were enthusiastic and hard-working. Bruce McCoy brings to his work on Cihuatecpan materials a far-reaching interest in Latin America in general, and Aztec culture in particular. Without Elliot Abrams' skillful direction of field operations and indefatigable processing of artifact material the goals of the field season in Mexico could not have been reached.

Susan Toby Evans  
Department of Anthropology  
The Pennsylvania State University





**Plate 1.1. CERRO SAN LUCAS FROM THE SOUTHWEST**



**Plate 1.2 TEMPLE MODEL ROOF AND PLASTER-DAUBED CONSTRUCTION CONE**

# 1. CIHUATECPAN: THE VILLAGE IN ITS ECOLOGICAL AND HISTORICAL CONTEXT

by

Susan T. Evans

---

## INTRODUCTION

We need an excavation that will tell us how the great mass of the people lived: what sort of houses they built; what household pottery and implements they used; how their villages were assembled, whether or not they had boundary walls, storehouses, sweatbaths, concrete water tanks; whether each household was a self-sustaining unit or whether there were community trades as revealed by tanneries, salt ovens, and so on (Wauchope 1938:153).

Wauchope's landmark work on Maya houses focused on the ekistics of the rural village. There, the lives of the people of the land are played out, and there, the food that fuels the whole society is produced. Wauchope's suggestions for future areas of archaeological research underscore the traditionally top-heavy nature of the range of the archaeological data set, resulting from a natural tendency in the pioneering efforts of the discipline to excavate the most complex sites possible (Paredes 1986:221). Since 1938, numerous research projects in Mesoamerica have focused on rural settlements and settlement patterns, and the data gathered by these excavations and surveys have increased our knowledge of past lifeways beyond that of the view from the top.

The project herein described stands in this tradition of rural settlement studies, and had the goal of gathering information about life in a rural village of the Aztec period<sup>1</sup> in the Teotihuacan Valley of the Basin of Mexico. The case under study is Cihuatecpán, a village of about 200 families whose houses ringed the base of Cerro San Lucas (Figure 1.1), in the eastern end of the Teotihuacan Valley (Figure 1.2). The village, a fairly large settlement, flourished during the fifteenth and sixteenth centuries, and the prosperity of these farmer-craftsmen was broad-based, derived from the village's agricultural resources (nopal and maguey cactus, beans, maize, and other grains, other crops) and its varied craft industries (obsidian biface production and textile production foremost among them). The village's location was, no doubt, a factor in its prosperity: it was situated beside a major route linking the Basin of Mexico with the Valley of Puebla (the Otumba to Apam route), and, ultimately, the Gulf Coast.

---

<sup>1</sup>Mesoamericanists studying the time period running from the fourteenth through the sixteenth centuries must wrestle with the problem of what to call this last great completely indigenous cultural horizon, which encompasses the rise, hegemony, and decline/transformation of Nahuatl culture over much of Mesoamerica. The most popular name is *Aztec period*, after a group of migrants into the Basin of Mexico (see Davies 1977:xii for a discussion of the use of the term Aztec) in the twelfth and thirteenth centuries (Calnek 1982; Smith 1984:176). The term is also associated with one of those migrant groups in particular, the Mexica, who became the most aggressive and territorially expansive of all, from the mid-fifteenth century to the time of the Spanish Conquest. In a sense the conquest event does not end the "Aztec period," for the continuity of the cultural tradition was very strong, and "Aztec" material remains, as well as organizational forms, are found throughout the sixteenth century in the Teotihuacan Valley (Charlton

Most of our information about this village was gathered in the course of field research in Spring 1984, when the site was completely mapped, and some of its archaeological features tested. The goals of this field season included the investigation of particular aspects of life in this village (such as wealth differentials and specialized economic activities), so as to gain general knowledge about rural village life at the time of the Aztecs, since sites of this particular type have not been subject to many intensive investigations, and are threatened with extinction by the rapid and inexorable expansion of Mexico City.

The particular type of rural site under investigation here is the "dispersed terrace village," first described in the reports of the surveys of the Teotihuacan Valley Project as a settlement of widely dispersed houses, extending in a wide horizontal band along the lower and middle piedmont zones, just above the alluvial plain<sup>2</sup> (Sanders 1965, Sanders *et al.* 1979). Mostly dating from the fifteenth and sixteenth centuries, these villages are archaeologically visible as extended, dispersed groups of low mounds (with some stone rubble, and diagnostic artifact concentrations). The villages are distinguished from each other, each forming a loose cluster of mounds (with a central focus of several somewhat larger mounds), usually a near major downslope outwash.

Research at Cihuatecpan in 1984 was designed to provide information about such issues as the patterning of mounds and the functions of the structures they represent, extrapolating from these data the economic basis of life, social class and intravillage social differentials, and ideological practices. The research strategy began with determining the site's layout, by mapping the distribution of structures over a continuous area of settlement. Next, a sample of these remains came under more intensive scrutiny, by excavation, so as to determine architectural patterns and associated artifact assemblages. With this information, generalizations could be made about socioeconomic variation within the village as well as about this settlement's administrative and ideological organization, and the place of the village in its larger cultural sphere.

---

1972a, Gibson 1964, Parsons 1966) and elsewhere in the Basin of Mexico. The period ends with the firm establishment of a new, Spanish Colonial emphasis on large land holdings, an administrative system which replaced the old citystate tribute network which the Spanish had used in the decades after Conquest. Depopulation (by disease and exploitation) of the Nahuatl culturebearers themselves played a major role in the demise of the "Aztec period."

The "Aztec period" is also known as the Late Horizon (*ca.* 1350 to 1520; Price 1976, Sanders *et al.* 1979), encompassing the Basin of Mexico ceramic phases Aztec III and IV, (Tenochtitlan and Tlateloco phases, from Vaillant 1966); the phase names for the Teotihuacan Valley are Chimalpa and Teacalco, with Teacalco persisting throughout the sixteenth century (Blanton and Parsons 1971, Charlton 1972b, Parsons 1966:131).

The frustrations engendered by use of the term were well expressed by Nicholson (1973:93): "[a]lthough I am fully cognizant that the term 'Aztec' is a very unsatisfactory one, it has become so sanctioned by intensive usage that an attempt to jettison it now would probably prove to be impracticable."

<sup>2</sup>These patterns of distribution of mounds are generally described in Sanders 1965 and Sanders *et al.* 1979. The Cerro Gordo site, discussed in the preface, is of this type (Evans 1985). In addition to having been documented by surveys, this site type has also been tested archaeologically as part of the original project (Parsons 1966) and in Charlton's work in the upper Teotihuacan Valley (Charlton 1972a, 1972b). Tolstoy's survey work located many sites in the northern Basin of Mexico, but the area under survey did not extend east of Otumba (Tolstoy 1958).

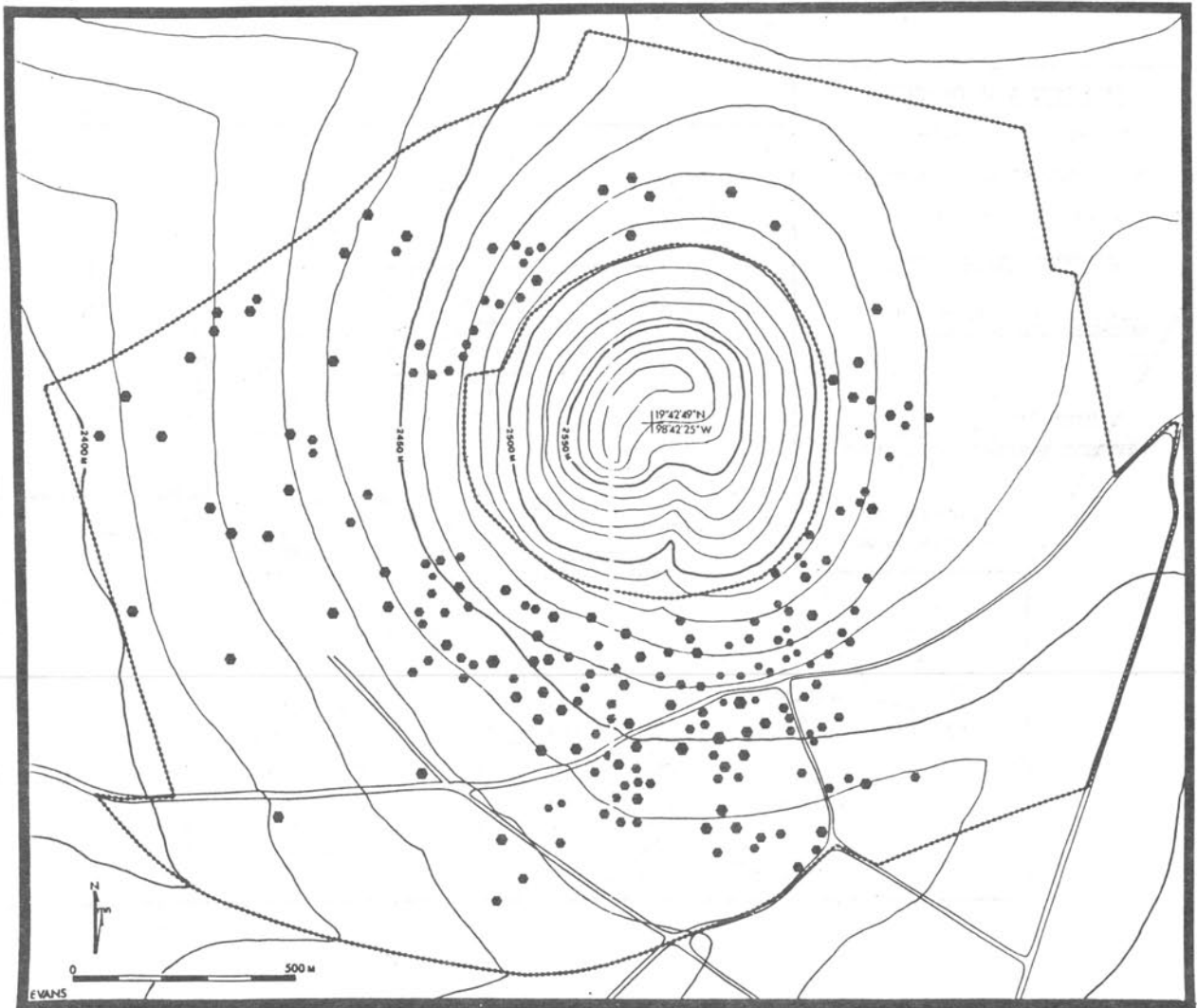


Figure 1.1

CERRO SAN LUCAS AND THE AZTEC PERIOD VILLAGE OF CHUATECPAN  
Hexagons indicate housemounds.

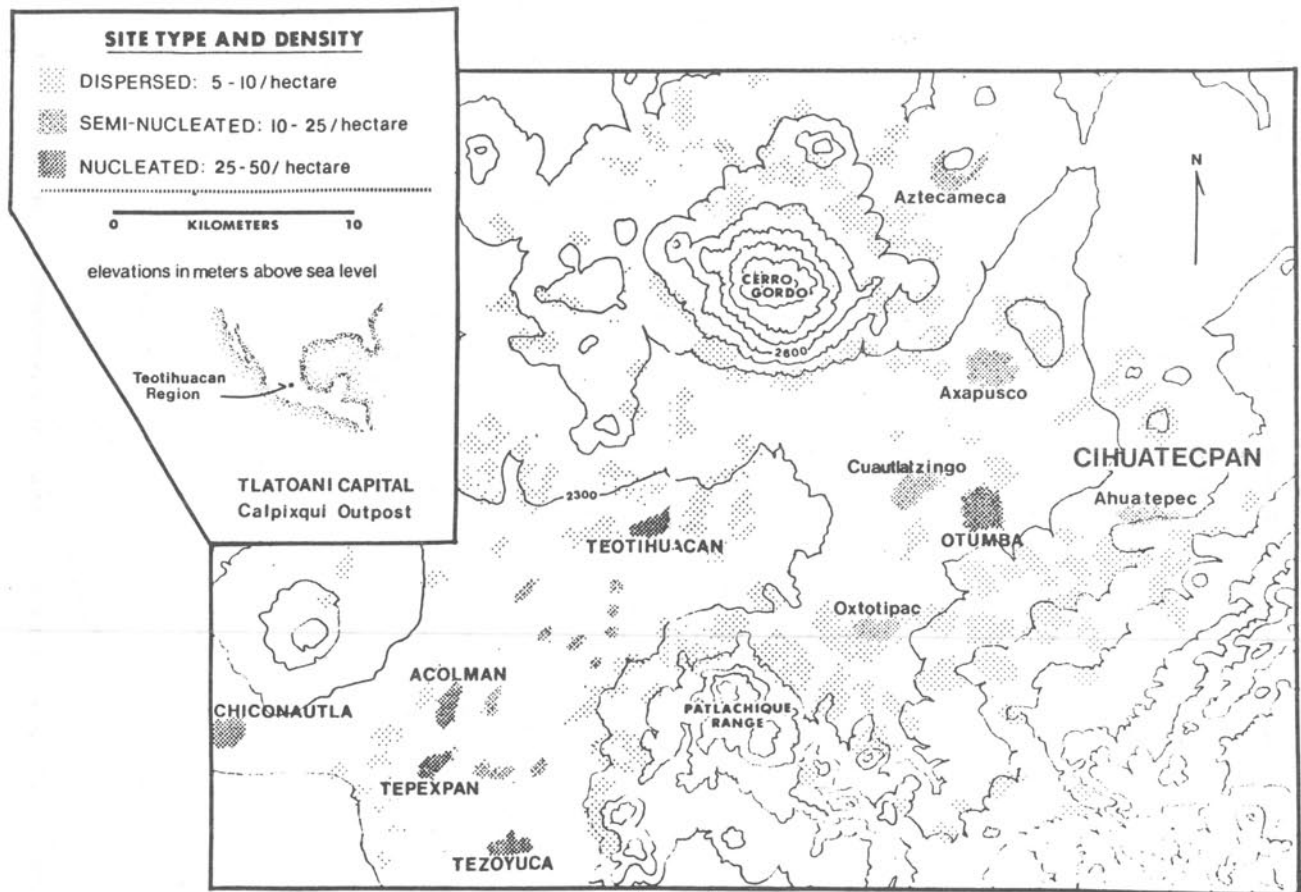


Figure 1.2

TEOTIHUACAN VALLEY SETTLEMENT PATTERN, ca. A.D. 1500

Information gathered in the course of research at Cihuatecpan is fleshed out by data from other excavations, and also by the invaluable accounts of native and Spanish observers. Together, these sources permit us to reconstruct some aspects of life at Cihuatecpan.

This report encompasses Cihuatecpan's place in the political setting of the time, and in the chronological framework of the Teotihuacan Valley, as well as providing a reconstruction of lifeways here, and an examination of the larger cultural processes at work, and the village's role in these. The format of this monograph is as follows. This paper includes a description of the general cultural background, a description of the environment of the Teotihuacan Valley (with emphasis on the upper valley), a discussion of culture history, and summary and interpretation of the houses and features excavated. The paper by Evans and Abrams summarizes methods and observations of the 1984 field season. The paper by Abrams describes the obsidian detritus dump in the central part of the site. Finally, the paper by McCoy and Evans briefly summarizes the results of the flotation analysis of materials gathered in various excavated contexts.

This project description is intended to provide basic information and preliminary interpretation of these findings. This volume is a working paper, a description of the present, limited state of knowledge, and a synthesis of relevant archaeological and ethnohistoric information. In order to understand the particular case, however, one must first understand the general context, which is the focus of the next section.

## BACKGROUND

During the period of Mexica (or Aztec) hegemony in the Basin of Mexico (*ca.* A.D. 1430 - 1520), the Teotihuacan Valley (Figure 1.2), like the rest of the Basin, had a large (approximately 125,000) and dense population<sup>3</sup> politically organized into city-states. Each of the six city-states in the Teotihuacan Valley was ruled by a lord or *tlatoni*<sup>4</sup> who extracted tribute from a population of peasant farmer-craftsmen. The *tlatoni*, in turn, paid tribute to an overlord, the *huetlatoni* who ruled the confederation of city-states. The peasants, then, formed the basic producing population of a multi-tiered sociopolitical order; the peasants grew the basic grain crops (maize, chia, amaranth) which sustained the population. They also grew other crops (produce, and plants which provided the raw materials for manufacturing, such as maguey), extracted raw materials (obsidian, clay, lime, salt, gravel, timber), manufactured various goods from local and imported raw materials, and provided service to the city-state and confederation by working in the *tlatoni*'s fields and palaces, and serving in his army.

---

<sup>3</sup>"Large" and "dense" are value-laden terms, having meaning only in a relative sense, relative, that is, to the size of the supporting resource base. In an earlier study of the resource base of the Teotihuacan Valley, I determined that the population size at the time of the conquest could be adequately supported by grain production within the Valley, but that any increase in population size or the size of the tribute requirement would induce stress in this system (Evans 1980). Because the population size is close to the capacity of the region to support it, it is deemed "large," and because the settlement distribution over the landscape is virtually continuous in the piedmont zones and nucleated in and around the alluvial plain, it is deemed "dense."

<sup>4</sup>Foreign terms are italicized in their first appearance in the text.

The peasant population of the Teotihuacan Valley lived in all the arable zones of the valley. Their villages on the alluvial plain were fairly small and dense, but their dispersed settlement of the gently sloping piedmont zones above the alluvial plain, discussed above, was a continuous broad sweep of terraces and houselots. Here homestead and farmstead were one, each physically linked to neighboring homesteads by a system of terraces which both channeled the seasonal irrigation of rainfall, and controlled erosion.

The sociopolitical linkage of these houselots is inferred from archaeological and ethnohistoric evidence. The distribution of housemounds over the terraces, with clusters of slightly larger mounds which seemed to provide a focus for scores of housemounds, was a pattern consistent with what has been described as *calpulli* organization, in which groups of peasants formed land-holding, tribute-paying local administrative units, whose functioning would require several larger special purpose buildings.

The identification of the Teotihuacan Valley's terraced system of dispersed houselots as the almost continuous villages of land holding peasants (*macehualtin*) is a deduction derived from a general model of Aztec period settlement and sociopolitical organization which combines evidence from ethnohistory and archaeology in a reconstruction of the spatial expression of sociopolitical structure (Evans 1980,1985; Sanders *et al.* 1979). Ethnohistoric evidence presents a general view of the sociopolitical structure of the Aztec core area as encompassing several grades of elite status (*e.g.*, hereditary nobles, the *pipiltin*, as well as nobles-by-achievement), several grades of free peasants (*macehualtin*), a grade of landless peasants (sometimes referred to as *mayeques*; see Hicks 1986:47 for a discussion of how this term has been misused) who worked the estates of various individual nobles, and finally, true slaves.

In addition to providing this general perspective on sociopolitical structure, ethnohistoric sources also present evidence on the historical dynamics of the period. What we know of the rapid increase in sociopolitical complexity and wealth differentials during this period corresponds nicely with archaeological reconstruction of the settlement system. Rural settlement types and their distribution seem to mirror the division of the peasant class into landcontrolling *macehualtin*, and the "mayeque" estate workers, a schism which followed the rise to power of the Mexica (Tenochtitlan Aztec) and their warmongering practice of awarding estates to military heroes. The two classes of peasants are posited to be represented by two site types: "mayeques" by small (<20 mounds) clusters of housemounds of roughly the same size and *macehualtin* by larger groups, with some variations in size and function.

In the late fifteenth and early sixteenth centuries the Teotihuacan Valley was not part of a domain conquered and subdivided by the Mexica, but rather was a part of the Acolhua domain, which encompassed the city-states tributary to the ruler of Texcoco (Figure 1.3). This confederation was, through most of the century before the Spanish Conquest, an independent ally of the Mexica, and therefore its lands and peasant population were not fit targets for Mexica aggression and subsequent control. While the alluvial plain of the Teotihuacan Valley held some noble estates, the practice of annexing the peasants' locally-held lands and reducing the peasants to a kind of serfdom was not ongoing in the Valley. Here, the local peasant population were tribute-payers, not tenants, and over half the Valley's population lived in villages of the dispersed type described above. One can picture these villages extending over the piedmont, as it gently rises from the alluvial plain: a set of green tiers dotted with houses, a well-tended and productive terrace system.

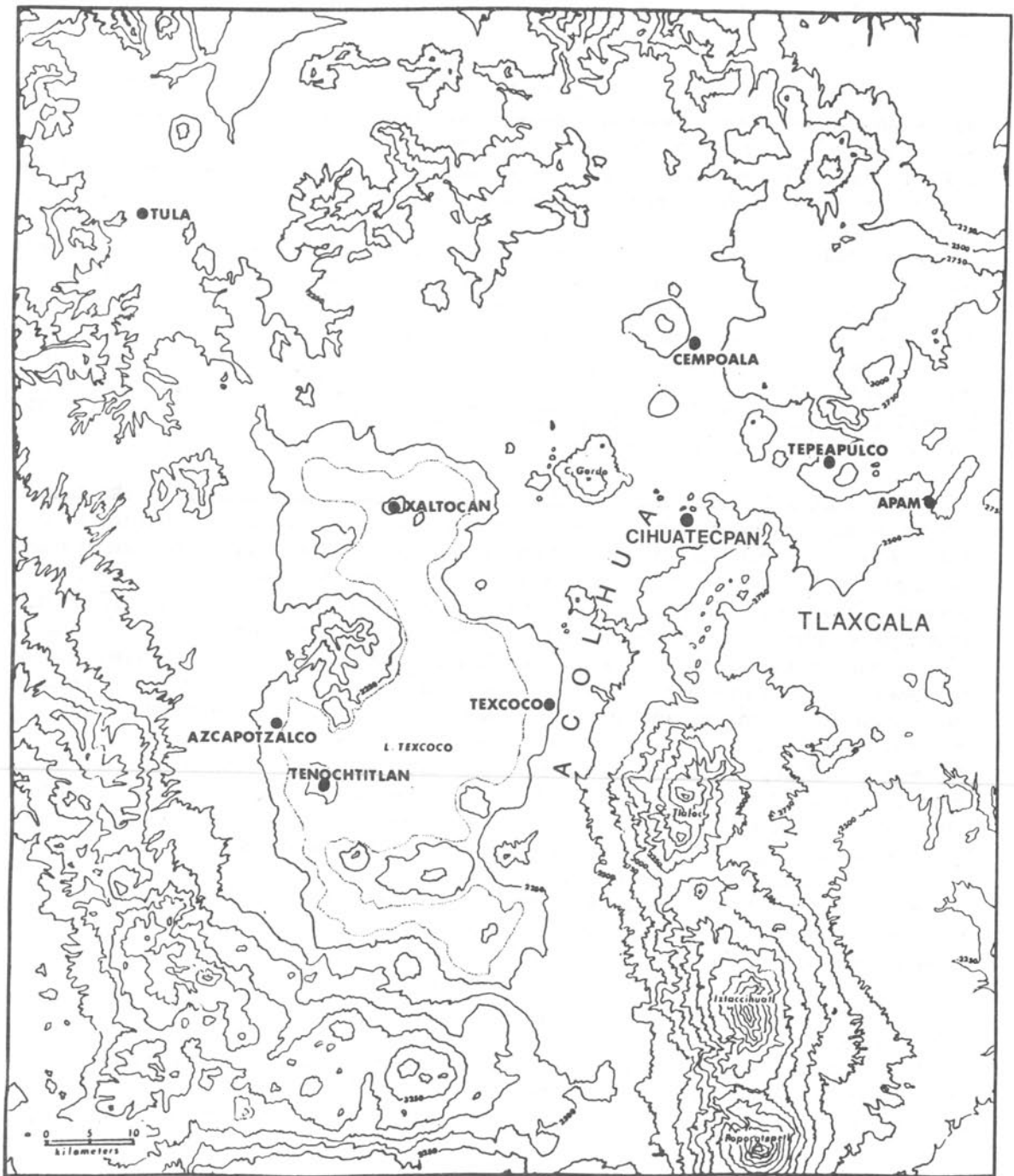


Figure 1.3

CENTRAL HIGHLANDS OF MEXICO



The terraced houselot villages fell into disuse after the Spanish conquest; the Valley, like the rest of the Basin, lost considerable population to disease and exploitation, and around A.D. 1600 remnant residents of the terrace system villages were ordered to congregate at larger towns. The Teotihuacan Valley, centuries ago the hinterland of the New World's most powerful city, became a colonial and then a republican backwater. In 1922, Gamio described a population of 8330 for the middle and lower valley, 7907 of whom lived in poverty, possessing no land (1922:xiv).

In the ensuing years of the twentieth century the population has grown and land has become much more broadly distributed, and with these changes, the terraces, long unused except for grazing and the occasional isolated habitation, became anew the focus of intensification. The old stone terrace risers were being rebuilt in the 1960's and the 1970's with remnant Aztec period terraces providing the basis for the modern terrace system, and by using essentially the same methods to build them. Soil began to accumulate behind the terraces as the constant erosion process was once again temporarily checked by intensive human effort. With soil buildup came soil disturbance, from plowing on the terraces, as former grazing areas returned to grain and vegetable production. These two agricultural effects were disturbing the well-preserved remains of the Aztec period dispersed villages which ringed the Valley's alluvial plain. Some excavation at these sites had already exposed examples of architecture and artifacts, but a systematic, in depth investigation of an exemplar village of this type had not been undertaken by the time of the late 1970's, when reclamation of the terraces was proceeding apace.

The dispersed village site type clearly deserved closer attention before the task of reconstructing the cultural context became considerably more difficult through the further disturbance of the material evidence. Ethnohistoric and archaeological evidence strongly indicated that this type of settlement represented the corporate land-holding villages of free peasants, in an era of increasing militaristic pressure throughout the Basin of Mexico. This type of village was an important window on a complex and alien culture, letting us witness part of the lifeways of a high civilization untouched by and unknown in the European world. In this setting, as in Europe of the Middle Ages, the role and status of the peasant were changing, and the identification of land and labor as commodities (rather than integrated features of community life) was taking hold. The historical coincidence of this aspect of European and New World peasant life leads us to consider how few cases there are, in world culture history, of the development of a state level society which is comparable to Europe of the Middle Ages but totally foreign to it, and completely unknown by it. All archaeological sites, it could be argued, have some potential value, but some are clearly more valuable than others. A corporate peasant village of the last uncontacted period in one of the major heartlands of civilization seemed to me to be a site type worth investigating intensively, to insure our best understanding of the basic producing socioeconomic class of this fascinating and complicated world.

As I describe in the preface, the process of rebuilding the ancient terrace systems (that I perceived as threatening to these villages) had a negligible impact, compared with the deep bulldozing that sealed their doom, utterly destroying most of these villages in the early 1980s. It was fortunate that the village of Cihuatecpan had been relatively unaltered by these efforts, and provided an opportunity to salvage the information necessary in order to reconstruct important aspects of rural life in the Aztec period.

## ENVIRONMENT, SETTING, AND LOCAL RESOURCES

Cerro San Lucas is located at the eastern end of the Teotihuacan Valley arm of the Basin of Mexico. The Teotihuacan Valley extends from the ancient shore of Lake Texcoco in the southwest (elevation about 2240 m above sea level) up to the Plain of Apam in the northeast (ca. 2500 m above sea level), a distance of about 40 km, and covers about 600 km<sup>2</sup>. The valley is composed of a broad, gently sloping alluvial plain and its surrounding mountainous boundaries: on the north, Cerro Gordo (the mountain directly behind the Classic city of Teotihuacan) and its adjacent hills, on the south, the Patlachique Range, and on the southeast, the Sierra de Malpais. Cerro San Lucas is located about 6 km northwest of the Sierra de Malpais, and about 5 km east of the town of Otumba. (Coordinates of Cerro San Lucas are 19° 42' 49" north latitude, and 98° 42' 25" west longitude.) A small volcanic cone, the Cerro rises to an altitude of approximately 2580 m above sea level, a height of about 150 m above the alluvial plain which surrounds it. Geologically, the plain is categorized as upper Tertiary volcanosedimentary sandstone and limestone, and the extrusive igneous rocks in the immediate area (Cerro Gordo and extensions, and Sierra de Malpais and extensions) date from the last 1.8 million years and are classified as basalts (while the adjacent Patlachique Range, dating from the Tertiary, is classified as andesitic), according to the *Carta Geológica* of the Secretaría de Programación y Presupuesto (1981) and Gamio (1922).

The climate of the Teotihuacan Valley is temperate and generally cool, with average temperatures ranging between 12°C in December to 17°C in May, and frost occurring between October and March (though frost may occur as early as September and as late as May). Rainfall in the middle valley averages around 550 cc annually, but in the upper valley the average is about 500 cc, close to the critical minimum for rainfall dependent agriculture. The rainy season begins in April or May and extends into September, with a regular pattern of torrential afternoon showers. The low rainfall value and extent of the frost season show that this area is marginal for grain cultivation without the added security of sources of irrigation to extend the growing season, and the history of settlement in the Teotihuacan Valley dramatically illustrates these limitations: the valley was one of the last areas of the Basin to be settled, and then only sparsely until the permanent water sources of the springs at Teotihuacan could be controlled and tapped for irrigation of the lower valley, permitting the rise of the great city of Teotihuacan<sup>5</sup>. In the upper valley, where such prolific water sources are absent, both agriculture and settlement were more limited (relative to the lower and middle valley) in prehispanic and early colonial times. In the mid-sixteenth century an aqueduct was constructed from Cempoala to Otumba (a distance of about 50 km) and while this functioned the town flourished, but after its destruction, late colonial Otumba "was a town of broken walls and ruins, 'the driest and most depopulated in the country'" (Gibson 1964:347,366).

These historical trends illustrate the marginality of the water supply of the upper valley, a feature which strongly influenced economic exploitation patterns and settlement patterns in this area. Given that rainfall was low, and the frost season long enough (and variable enough in length) to exacerbate further the risks involved in growing grains such as maize, it is not surprising that evidence from archaeological and ethnohistoric sources points toward this area's specialization in growing the cactus crops, nopal and maguey. We assume that maize (and amaranth and chia) were cultivated every year, but that the

---

<sup>5</sup>The area's literal marginality in ecological terms is illustrated by the Koeppen values for the Teotihuacan Valley: "B" (suitable for xerophytic vegetation) in dry and average years, "C" (suitable for temperate deciduous forest) in wet years (Colinvaux 1973:17-27; Sanders *et al.* 1979:225-228).

local economy drew strength from its diversity in crop exploitation; dependence on grain crops, beyond that needed for local subsistence, would invite regularly recurrent economic failure.

Although rainfall in the upper valley is low, the torrential nature of storms produces a scouring effect on land not covered by deep-rooted vegetation, and not protected from water erosion by terracing. (Wind erosion is another cause of soil loss, and substantial dust clouds are common during the dry season; their role in removing topsoil is no doubt considerable, and they make difficult the use of field equipment such as cameras, transits, and mechanical pencils.) The soils of the valley at the lake shore are up to 8 m deep, and owe this depth to the transport of topsoil from the valley's upper reaches. Soils in the upper valley, in contrast, are only 0.5 to 2.0 m deep (see Sanders 1965 for a general discussion), and around Cerro San Lucas and adjacent hills are areas where the topsoil is gone entirely, revealing a sterile substratum of *tepetate* (a calcified compacted volcanic ash).

The Aztec period pattern of establishing terraces over the piedmont represents the imposition of an artificial ecosystem, one designed and executed by humans, and one which owed its stability to constant human maintenance. The terrace systems short-circuit the erosion and gullyng processes, trapping soil as it advances downslope, and building up soil depth behind soil-breaks (*bancales*) of stone, chunks of *tepetate*, and cactus plantings. The terraces also permit rainfall and runoff to be trapped in the soil. Greater soil depth and moisture content reduce the risk of crop loss, permitting agriculturalists to ameliorate the worst excesses of drought and frost by providing crops with deep moisture at critical times in their growth cycles (Donkin 1979; McClung de Tapia 1984:36).

The terrace system visible today on Cerro San Lucas is a recent (within the last decade) reworking of an older set of terraces. The present terraces were built up with bulldozers, and in a few cases Aztec housemounds became part of the *bancales*. Reconstruction of the Aztec terrace pattern on Cerro San Lucas is impossible: bulldozing to create the new terraces has stripped off the soil down to the *tepetate* level in some places, and centuries of erosion following abandonment of the original terrace system have had the same effect in other areas (particularly the western slopes of the hill). Therefore, the relation of houses to their original terraces, and estimation of exact areas involved in cultivation immediately around the houses, are not possible to reconstruct. The distribution of mounded concentrations of rubble and artifacts over the slope of the hill does, however, permit us to understand the extent of sloping land which was settled, and the factors underlying the distribution pattern.

The heavy concentration of mounds (most representing the remains of houses) around the southern side of this hill is obvious. If the Cerro is divided into quadrants by drawing east-west and north-south lines through the center of the volcanic caldera, the 206 concentrations of archaeological materials are distributed as follows: southwest quadrant has 81 mounds (39%), the southeast quad has 80 (39%), the northwest quad has 33 (16%) and the northeast quad, 12 (6%). Of the several factors which may account for this skewed distribution, the two most important are assumed to be solar radiation and drainage (including rainfall runoff and the drainage of any springs from the caldera of the Cerro). Another environmental feature which may have figured in the pattern of site density, and location of the "public-scale" buildings on the south slope, is the proximity of the obsidian mine, 3 km south of the Cerro, and within sight of the south slope. Since this resource figured heavily in the settlement's economic activities, minimization of distance to haul the obsidian to village workshops, and, more marginally, the ability to keep track of the mine's use by others, may have been of value.

Cerro San Lucas itself, and the nearby mountain ranges, would have provided other resources, such as volcanic stone (particularly *tezontle*, a scorious basalt pumice widely used in construction, and denser basalt, used in cobble form as well as being shaped into squared cut stones; Cook de Leonard 1971:206 describes the valley's construction stone for the Classic period), *cascajo* (a gravel derived from *tezontle*, and quarried from areas where it occurs naturally), and wood for construction, the making of wooden implements, and fuel.

Another environmental feature with cultural significance for the denizens of Cerro San Lucas is the aspect of the south slope, which overlooks that part of the upper valley alluvial plain through which the Otumba to Apam trade route went. In fact, the road which cuts through the site in a general west to east direction may have served as part of this route (though, given the nature of foot travel, and human portorage, no great store can be set on the designation of one ancient track as a trade route, in an area when many alternatives are readily available). Whether any part of the trading circuit (prehispanic or colonial) went through the town (regularly or situationally) would defy proof, but the documented presence of this route through this part of the valley offers another reason for the concentration of activity on the south slope. The importance of obsidian working in this town must have made it a major local center for export of finished products, and although we lack documentation on the economic channels through which obsidian tools from the site flowed into the Acolhua domain, Mexica domain, and beyond (Isaac 1986<sup>b</sup> discusses this problem), proximity to this part of a major transport artery must have enhanced the town's position, among a set of obsidian tool producing centers in the area (others in the Otumba area are described in Spence 1985).

In sum, Cerro San Lucas and its adjacent alluvial plain and mountain ranges provided the people of Cihuateopan with a varied resource base. While the area is somewhat marginal for grain agricultural productivity, extensive use was made of other crops, such as cacti, and the village economy drew strength from the exploitation of local mineral resources.

## CULTURE HISTORY OF THE TEOTIHUACAN VALLEY AND CERRO SAN LUCAS AREA

The culture history of the Teotihuacan Valley is dominated by the rise and decline of the city of Teotihuacan. During its period of greatness, the Teotihuacan Valley was the core area of Mesoamerican culture of the central highlands, and the Middle Horizon (dating from about A.D. 100 to 750, roughly coextensive with the Classic Period of the Maya of the Peten and adjacent areas) is a watershed, after which the Teotihuacan Valley remained peripheral to other dominant regions<sup>6</sup>. Prehispanic habitation in the upper valley dates from just before the Middle Horizon, dwindles to almost nothing in the early Toltec period, and then is reestablished in the mid- to late Toltec period (the Mazapan phase) and continues to grow in the Late Horizon, or Aztec period. A subsequent major population decline took place during the colonial period, and demographic recovery to Aztec

---

<sup>6</sup>The Middle Horizon ends with the decline of the city of Teotihuacan (which took place about 150 years before the decline of the Classic Maya). The Middle Horizon is followed, in the chronology of the Basin of Mexico Project, by the Second Intermediate period, in which the rise and decline of Toltec power may be traced. The Early Toltec phase dates from A.D. 750 to 950, Late Toltec from 950 to 1150 (Sanders et al. 1979:93).

period population levels has only taken place in the twentieth century.

The earliest occupation of the Basin of Mexico by sedentary agriculturalists took place about 3500 years ago, with settlements in the southern Basin, where rainfall was adequate for the needs of farmers using simple techniques. The Teotihuacan Valley, with its marginal levels of rainfall, was not settled until fairly late, in the last few centuries before Christ. During this time, exploitation of the springs in the middle valley assured farmers of secure agriculture, and the city of Teotihuacan was established. In the Tzacualli phase, dating from the turn of the millenium, the Pyramid of the Sun was being built at Teotihuacan. During this time, the population of the city is estimated at around 50,000 to 60,000 (Cowgill 1974, Millon 1976:212), and the first traces of occupation are found at Cerro San Lucas. Ceramics dated to the Tzacualli phase are scattered on the west side of Cerro San Lucas (no structural remains have been identified), from which the Pyramid of the Sun, 13.5 km to the west, is clearly visible. Occupation on the west slope continues into the Middle Horizon, and this small site on the Cerro has been designated TC 123 by the Teotihuacan Valley Project (Sanders 1965).

With the eighth century decline of Teotihuacan, and the concomitant rise of Tula, population in the Teotihuacan Valley was concentrated in the middle and lower valleys, and the upper valley was virtually unoccupied. This Toltec period represents the earliest historical time period documented in the native accounts known to us from the time of the Spanish conquest. These accounts include descriptions of migrations of various ethnic groups into the Basin of Mexico from areas to the north, including the Toltec region (which underwent decline in the tenth and eleventh centuries due to a climatic shift which reduced available rainfall). Village agriculturalists in the Toltec heartland apparently turned to a nomadic way of life and headed south toward the more fertile country of the Basin (Calnek 1982:44,46; Carrasco 1971a:463-468). The later part of the Toltec period, the tenth, eleventh, and twelfth centuries, saw extensive reoccupation of the Basin and increase of populations already living there. During the tenth and eleventh centuries the upper Teotihuacan Valley was reoccupied, with scattered small dispersed villages and hamlets appearing on the piedmont of the Sierra de Malpais and Cerro Gordo (Evans 1986, Sanders 1965). On Cerro San Lucas, a small dispersed village (TT 64) from this period is found on the western lower piedmont, another (TT 63) is on the north-northwest lower piedmont, and a thin but substantial scatter of Mazapan style sherds is found over the west and south slopes of this hill. A few Mazapan sherds occurred in our excavated contexts of the Aztec period, but we found no evidence of structural remains from this period. Sanders hypothesizes that houses from rural areas from this period may have been of insubstantial and easily destroyed materials (personal communication, 1986), perhaps wattle and daub structures on low platforms. There is a substantial occupation from this period at Otumba (TT 96), and another small dispersed village (TT 61) lies between Otumba and Cerro San Lucas. These small Toltec period occupations are followed by the much larger Aztec period settlement, and this archaeological evidence generally substantiates the historical accounts (see Noguera 1962:64 for discussion of this issue for the Basin in general).

The interpretation of the local ethnic and political interaction spheres of this time is difficult to attempt. Our best view comes from a retrospective projection back from sources of the early colonial period, which focus heavily on the rise of the Mexica and the relation of the other ethnic groups in the Basin to them. A brief recounting will help to put this situation into perspective. The Mexica were the last of a series of ethnic groups to migrate into the Basin and find a territorial base there. In fact, their thirteenth century migration into the Basin (Smith 1984) was followed by several abortive attempts to settle on the fringes of other groups and they were finally successful in the fourteenth century,

when the Tepaneca of Azcapotzalco permitted them to establish a settlement on an island in the marshes along the western shore of Lake Texcoco. As Conrad and Demarest (1984) have pointed out, the warlike ethos of the Mexica gave them a cultural impetus to raise their status from that of lowly dependents of whatever ethnic group permitted them ground to camp on to that of dominant empire builders. Put another way, in the cultural environment of the different ethnic populations of the Basin, the Mexica developed a cultural strategy of warfare and terror which gave them a selective advantage over their competitors. Having established themselves as dependents of the Tepaneca, the Mexica became mercenaries in their service, helping the Tepaneca to unify the Basin (for the first time since the days of Teotihuacan's greatness) into a loose confederation. Then, in the early fifteenth century, the Mexica turned against the Tepaneca and took over this confederation, establishing rule by a junta of leaders from the Mexica, the Acolhua, and neutral Tepaneca. From this base, the Mexica and their allies expanded their area of control until it extended from coast to coast, north to regions adjacent to the Basin and south into presentday Guatemala.

The Teotihuacan Valley figures peripherally in these larger historical events. In spite of its loss of hegemony, the town of Teotihuacan remained a large center, and was the nexus of regional development in the late Toltec period, when other centers in other parts of the Basin were becoming established, setting a pattern of settlement which was expanded and ramified in the Aztec period. During the fourteenth century, the early Aztec period, the capital of the Acolhua domain was established at Texcoco, and apparently included the Teotihuacan Valley in its sphere. The Acolhua king Techotlalatzin (1357 - 1409) was allied with the Tepaneca, and backed their 1395 military campaign against the Otomi, whose capital, Xaltocan, was taken in an effort in which the Mexica figured as mercenaries. Techotlalatzin's loyalties were sufficiently complex for him to then offer lands in the Teotihuacan Valley to Otomi refugees, and he settled them near Otumba (literally, the place of the Otomis) according to Ixtlilxochitl (T. II:77-78).

In the early years of the fifteenth century, the Acolhua domain itself was absorbed into this larger sphere and Tezozomoc established two area capitals in the eastern Basin, one of them at Acolman in the Teotihuacan Valley. The status of the other Teotihuacan Valley towns at this time is not well understood, but for both Teotihuacan and Tepexpan, ethnohistoric sources indicate a well-established tradition of local rule; possibly they maintained tlatoque during the period of Tepanec hegemony, but these were subject to Acolman.

At around 1430 (sources differ as to the exact year) Tepanec hegemony was overthrown by a joint effort of Mexica, Acolhua, and neutral Tepanec forces. The resulting "Triple Alliance" ruled the consolidated Basin of Mexico tribute confederation established by Tezozomoc. From the beginning, the Mexica dominated this alliance, at first with a relatively strong partner in the Acolhua domain, which once again governed the eastern Basin, including the Teotihuacan Valley. Acolhua strength was maintained during the reigns of the Texcocan kings Nezahualcoyotl (to 1472) and Nezahualpilli (to 1515), but in 1515 the Mexica took advantage of an internal power struggle over the issue of succession to place a Mexica puppet on the Texcocan throne.

These political events express a simplified view of the ethnic diversity which characterized the northern Basin in the wake of the Toltec period migrations. As Davies (1980) has pointed out, ethnic designations such as Toltec, Chichimec, and Otomi are inconsistently used by the chroniclers writing in the early colonial period, and this inconsistency probably reflects considerable ethnic fluidity and admixture among "named" groups, as well as the veil of confusion dropped by the passage of time. The Acolhua

rulers traced their heritage from the Chichimecs, but adopted the Nahuatl language and mexicanized customs of groups which traced or acquired a "Toltec" ancestry. If we consider the roots of the Toltec heritage, we are brought back to Teotihuacan itself. Tula's rise to importance as an urban center is assumed to have been spurred by the influx of migrants from the Basin of Mexico in the eighth century. Thus, in ethnic terms, we could project a model of ethnic ebb and flow in which Teotihuacan culture bearers left the Basin, contributed to the rise of Tula, and then left Tula to return to the land of their ancestors, settling among their distant cousins and presumably sharing with them many of the same ethnic traits, including language, social organizational forms at the local level, ritual life, and material aspects of culture (house type, ceramic assemblages, style of dress, etc.).

Thus the Teotihuacan Valley in the late Toltec and early Aztec periods would have been inhabited by groups sharing the same general cultural characteristics. One significant exception to this view is the presence of the Otomi refugee populations from Xaltocan, mentioned above. Otomi settlers would have been distinguished from their neighbors by customs and language, as the Otomi constituted the only significant group of non-Nahuatl speakers in the Basin at the time of conquest. The historical truth of their presence as ethnic enclaves in the eastern Basin in the early colonial period is corroborated by the *Relaciones Geográficas* of 1578-82, which list Otomi as one of the languages in use in Teotihuacan, Acolman, Tepexpan, Tepeapulco, and Cempoala (Harvey 1972, Paso y Troncoso 1979), towns which surround the Otumba area. Unfortunately, no *Relación* exists for Otumba (Cline 1972), and our only source for the language in use there is the *Arzobispado de Mexico* of 1571, which lists Mexican (Nahuatl) as the language in use by clergy in the church at Otumba, and also "en este pueblo y sus sujetos" (Paso y Troncoso 1905:82). In spite of this assertion, it seems clear from extrapolation from general sources that Otomis formed a significant cultural group in the upper valley, and retained their ethnic identity to the extent that their language was still widely spoken at the time of conquest.

The issue of an Otomi ethnic presence in the upper valley is an interesting one from the perspective of interpretation of archaeological remains. The problem becomes one of identifying material culture remains which are characteristic of Otomi ethnicity, in contrast to ethnic markers of the dominant Nahuatl speaking populations in the Valley. Sahagún's informants describe the Otomi in Book 10 of the *Florentine Codex*, discussing at some length personality traits such as laziness, profligacy, and dubious taste in clothing and cosmetics (Sahagún 1950-1963). Even the things the Otomi were known to do well, such as weaving, they did with shoddy materials and an unrefined sense of color and design. This account of Otomi lifeways makes lively reading for anyone interested in the general study of ethnicity, since this group emerges from the description, not so much a semi-civilized people but as an ethnic group which was fit into a standard niche familiar to all of us: the butt of ethnic jokes and a byword for stupidity and laziness among those of the dominant culture.

Translating their characteristic traits back into archaeological markers, however, is difficult. They seem to have constructed their houses in a somewhat distinctive fashion, favoring thatched roofs. The *Mapa Quinatzin*, which depicts the glyphs of towns subject to Texcoco, shows a house with a pointed, thatched roof as the symbol of Otumba (*Mapa Quinatzin*, reproduced in Robertson 1959). Offner (1984) and Williams (1984), studying early colonial cadastral documents from towns in the Texcoco region south of the Teotihuacan Valley, think that some of the house depictions from these maps of property holdings may indicate Otomi families living among Nahuatl speakers. (The *Relación Geográfica* for Texcoco does not list the Otomi language, but it does appear in the records for the areas to the north [cited above] and in Coatepec, to the south [Harvey 1972:284,291].)

While language may be regarded as an important concomitant of ethnic identity, the issue of material culture markers remains a difficult one. We lack direct evidence of roof styles for the Aztec period houses excavated at Cerro San Lucas, except for the presence of U-shaped clay drainage tiles which are believed to come from the roofs, indicating that the roofs were not thatched (since such drainage mechanisms would be unnecessary for thatched roofs). The ceramic styles represented at the site conform to the repertoire shared generally in the Teotihuacan Valley and elsewhere in the Basin. Figurines also reveal no patterning which would indicate cultural affiliation other than Nahuatl, although figurine studies from Aztec period mesoamerica are as yet not sufficiently comprehensive to permit such inferences. The Otomi seem to be particularly associated with maguey, as weavers of fiber (see Sahagún Book 10:179), and also having given their name to the lowest of three colonial grades of pulque (Gibson 1964:10). Yet maguey products were universally exploited and used in the Aztec period Basin, so that the particular use by one ethnic group as opposed to another is impossible to distinguish.

Another set of distinguishing ethnic features which (theoretically) should be archaeologically traceable would be those related to burials: there may be some anthropometrically perceptible distinctions among skeletal populations, as well as among material remains of burial customs. Here, archaeological practice does not, at present, permit such typological distinctions to be made. Nahuatl speakers seem to have practiced cremation of most dead except those under 17 and those who died violently or from incurable disease (Harvey 1981:159). The archaeological record for Aztec period burials is very sparse. A recent excavation in the southern Basin came upon a cemetery dating from the Aztec period, from which 4 burials were recovered (Parsons *et al.* 1982:108-109), Muller (1963) describes two burials possibly representing ritual sacrifice, and our excavations at Cerro San Lucas revealed 2 individuals (one adolescent, one infant) interred in houses. To my knowledge, there is no large sample of burials from the Aztec period, from either Nahuatl or Otomi culture. In summary, the identification of an Otomi ethnic presence at the Aztec period village at Cerro San Lucas remains a fairly remote possibility, and we must assume that the villagers were part of the larger, Nahuatl-speaking culture.

The case of Otomi settlement in the Teotihuacan Valley represents but one of the many population movements which created the settlement pattern of the Aztec period Basin of Mexico. Returning now to the history of how these groups gained political control over the Basin's various regions, we pick up the narrative with the the successful rebellion of the Mexica and their allies against Tezozomoc's Azcapotzalco dynasty. The Acolhua ruler at this time (and until his death in 1472) was Nezahualcoyotl, the well-known Texcocan poet, philosopher, law giver, and civil engineer. It was Nezahualcoyotl who instituted the political patterning of interdigitated city-state territories in the Teotihuacan Valley which was in place at the time of the Spanish conquest, and which remained relatively unaltered into the colonial period (analysis of this unusual spatial pattern and its effects on political and social access to resources is found in Evans 1980, n.d.a, n.d.b, and Evans and Gould 1982).

Nezahualcoyotl's reorganization of Teotihuacan Valley political relations involved the demotion of Acolman from regional capital back to city-state capital, ruled by a tlatoani. Nearby Tepexpan, whose tlatoani dynasty had been interrupted by Tepaneca takeover, had its dynasty restored at this time (Paso y Troncoso 1979:233, citing the *Mapa de Tepechpan*). Teotihuacan's dynasty continued on, uninterrupted, although sources indicate that Nezahualcoyotl reduced Teotihuacan's territory, which had previously had extended eastward to include Tepeapulco (Gibson 1964:18). Otumba, which lies in the center of this zone, was made a tlatoani capital. Nezahualcoyotl imposed other



reorganizations in the upper Teotihuacan Valley. At the towns of Oxtotipac, Cuautlatzingo, Aztecaameca, Axapusco, and Ahuatepec, he established stewards of the Texcoco government (calpixque), nobles who collected imperial tributes from these towns, but who had no hereditary right to rule (as did the tlatoque). These towns, some of which had apparently been previously ruled only by tlatoque, roughly surround the town of Otumba (for a spatial analysis of this part of the settlement pattern, see Evans and Gould 1982), and Nezahualcoyotl may have been concerned with the political stability of the upper valley when he devised this pattern. Cihuatecpan lies roughly between Axapusco and Ahuatepec (the present boundary between these modern municipios in fact bisects the Aztec period site, a factor which somewhat complicated the process of getting permission to excavate), and it is possible that the Aztec period village was under the jurisdiction of one of these calpixqui outposts rather than that of Otumba.

Incorporation of this area into the domain of the Triple Alliance (Mexica, Acolhua, and Tepaneca) is reflected in the tribute list depicted in the *Codex Mendoza*. Among the 26 towns listed on page 21 and 22 are several in the upper Teotihuacan Valley (Aztecaameca, Otumba, Tepeapulco, and Ahuatepec); the tributes from this area are bins of maize, beans, chia and amaranth (Barlow 1949:71), fabric and clothing (mantas, huipiles, and maxtlatls), as well as war dresses and shields. These tributes attest to the importance of weaving as an ongoing household activity. Motolinía describes the tributes remitted by Teotihuacan Valley towns to the ruler at Texcoco as focusing on goods and services in support of the palaces and temples: lime, stone, firewood and lumber, as well as peasant labor, from the tlatoani capitals, and lumber, firewood and firebrands, and peasant labor, from the calpixqui outposts (Motolinía 1971:394-395). Since the labor tribute involved support of those peasants who were on the work parties, implicit in this tribute is a food tribute as well. As Gibson (1956) has pointed out, the labor requirement was among the most enduring of prehispanic tributes, and its continuation into the colonial period has provided us with further documentation of Aztec period patterns of political control.

Although these sources date from the colonial period, they record (at least in part) the tribute requirement during Aztec times, and give us a good idea of the kinds of materials that peasants, like the villagers at Cihuatecpan, were expected to produce at regular intervals for the support of their local lords and for the higher level of the power hierarchy.

The political divisions set up by Nezahualcoyotl enjoyed relative stability, surviving through the reign of his son, Nezahualpilli (1472-1515). At that time, an internecine struggle began for the Texcocan tlatoani position, which pitted the Mexica-backed favorite, Cacama, against the more "nationalistic" Ixtlilxochitl.

Ixtlilxochitl secured the support of a number of towns in the northern Acolhua area, including Tulanzingo and Tepeapulco, and won over Otumba by force, making himself its ruler and centering his resistance there (Gibson 1964:18).

This exciting chapter in Acolhua history left no apparent marks on the Cihuatecpan, but the village's location near the center of this struggle would have ensured that the conflict (ultimately involving an unsuccessful siege on Tenochtitlan, and finally being resolved in favor of Cacama) was well known locally.

The return to the normal political conditions of the previous century was short-lived, however, because within a few years Ixtlilxochitl found himself allied with a strong anti-Mexica force, the Spanish. The Spanish conquest is a dramatic and complex chapter of world history, well recounted in many sources, and I do not intend to assay a retelling

here. However, there is a strong local angle in the story, and that is of the Battle of Otumba, fought on July 8, 1520, a week after the Spanish escape from Tenochtitlan on La Noche Triste (June 30, following the death of Motecuzoma II). The Spanish, attempting to reach refuge in Tlaxcala, found as they approached the upper Teotihuacan Valley "a mighty host, filling up the whole depth of the valley, and giving to it the appearance, from the white cotton mail of the warriors, of being covered with snow" (Prescott [1843]:460). The Spanish fought their way through with the aid of their Tlaxcalan allies, and "[n]ot a lance was there which did not reek with the blood of the infidel" (462). Since Prescott estimates the Mexica and their allies at 200,000, and the number slain as 20,000 (465), more than the lances must have reeked following that bloody and crucial encounter (see Bandelier 1884:39 for a more cynical view of the nature of this battle).

The Spanish and Tlaxcalan forces continued their way through the upper valley to safety. Cerro San Lucas overlooks the plain adjacent to Otumba, the apparent site of the battle, and in the course of my work there I sometimes reflected on this event and how it affected the villagers. All day, the battle raged on before them, and then they saw the defeat of the native forces, the regrouping of the Spanish and Tlaxcalans, and the slow movement of the victors as they made their way east. The villagers must have fled to concealed positions, and watched the unfamiliar sights of armored men and horses, heard the unfamiliar sounds of armor clanking and a language from an alien world being spoken, and no doubt pondered the meaning of the revolutionary event which had been wrought before their eyes.

The following year brought the successful conclusion of the Spanish conquest, and the imposition of a new set of elites to whom tributes would flow from the peasant villages. The Spanish initially kept the native tribute system in place at the local city-state level, which maintained the stability of the complex economic system until their control was sufficiently secure to institute change. This conservative policy permits us to use the patterning of tributary relations of the colonial period as a fairly accurate model of the prehispanic pattern. It is from sources such as the *Relaciones Geográficas* (cited above) and native historical accounts that we are able to piece together the interdigitated tributary pattern instituted by Nezahualcoyotl in the Teotihuacan Valley.

The first Spanish colonial economic policy with far-reaching effects on the native populations was that of *encomienda*, "the official consignment of groups of Indians to privileged Spanish colonists...[who] were entitled to receive tribute and labor from the Indians delegated to them" (Gibson 1964:58). Cortes assigned himself as *encomendero* of Otumba, among other towns in the Basin, but in 1528 these were taken from him and reassigned, and in the 1530s Otumba was declared a crown province (Gibson 1964:60).

The *sujetos*, or subject towns of Otumba, are listed in the 1571 *Arzobispado de México* (Paso y Troncoso 1905:82-83), and the listing includes "Sant Lucas, media legua [de Otumba]" as having 210 "vecinos" (a term which roughly corresponds to heads-of-household, and whose conversion value into total population figures involves the multiplier of 2.8, according to Borah and Cook 1960; this would give a total population for the village in 1571 of 588, a decline of roughly 50% from the Aztec period estimate). The league, as used in colonial Spanish documents, is a notoriously uncertain value (see Hassig 1984:288 for a discussion of its various meanings) and the distance from Otumba to Cerro San Lucas, minimally 4 km, does not conform to any of the known measures of half a league. However, within the list of towns in the *Doctrina de Otunpan*, all towns which are half a league from Otumba are, in fact, roughly the same distance from it (for example, Oxtotipac and Axapusco), and Cuautlatzingo, half that distance from Otumba, is *cuarto de legua*, which tends to confirm that the Sant Lucas in question refers to the Aztec village under study.

Further colonial period documentation gives us the Nahuatl name of the village. The Orden de Congregación of October 3, 1603 called for the gathering together in Ahuatepec of remnant populations in a set of villages in the upper valley, and named among them is San Lucas Siguatepan (AGN Congregaciones V.I:48:34R). Garcia Cubas lists San Lucas Siguatepan as a "cerro situado a 5.5 km ENE de Otumba" (Tomo V:96).

Cihuatepan would have the literal meaning of woman-lord-place, commonly translated as woman-palace. The actual meaning-in-use during the Aztec period of the term Cihuatepan is no doubt far more complex, Nahuatl being a highly metaphoric language. In discussing the calpulli of this name in Tenochtitlan, Zantwijk interprets "Cihuatepan, the 'female administrative building'...[as] associated with the administration of internal affairs" (1985:72). Robelo, Olaquibel, and Peñafiel feel that the term "cihuatl" always carries considerable ideological meaning, and that "nombres geográficos en que entra en composición cihuatl, son hagiográficos" (1966:56).

As a place name, Cihuatepan is not uncommon, and my research into other occurrences of the name in the Basin revealed 4 other cases: a barrio of Chiconautla "se llama Ciguatapan, que quiere dezir 'casa de muger principal'" [Relación de Chiconautla, 1580, Paso y Troncoso 1979:168]), a barrio of Tenochtitlan (Crónica Mexicana 1975:394,471; Crónica Mexicayotl 1949:74; discussed in Zantwijk 1985:64,72,74,84,214; listed as Cihuatecaltitlan in Rojas 1986:45), a barrio of Culhuacan (Macazaga Ordoño 1981:43, here translated as "morada [abode] de Cihuacoatl"), and a town under the jurisdiction of Coatlichan in the early fifteenth century (Ixtilxochitl T. II:103).

It is perhaps ironic that we know "our" Cihuatepan's name from the congregation order which condemned it: the village is lifted from historical anonymity by its death warrant. But the fact that it was ordered to be abandoned in 1603 should not be taken as proof of its demise at this point. Gibson notes that, even when abandonment orders were carried out, some people returned to their original towns, and "many communities that were originally scheduled for removal survived as occupied sites" (1964:285), and Cline cites 1607 legislation which permitted some villagers "to return to their old sites by special permission" (1949:351). The effectiveness of the practice of congregating villages no doubt depended on many factors, including the zeal of local colonial authorities and the greed of colonial landholders. Local authorities were instructed to oversee the process, including "wrecking the old houses in order to make use of the wood and other materials useful in the new construction, as well as in order to destroy entirely the old village and not leave any occasion for the Indians to return to it; and if they do so or absent themselves, they shall...[be punished] for their correction and as a warning to others" (Congregación in the Province of Tlanchinol, described in Simpson 1934:96-105).

The state of the structural remains at Cihuatepan strongly suggests that the buildings were partially dismantled by removal of wooden structural elements in the roofs, entries, and (possibly) walls, and then the remaining walls collapsed onto the floors. The high value of timber in the area probably necessitated the removal of wooden beams and planks, so that these could be reused elsewhere. Thus our material evidence from architecture would substantiate a scenario of enforced abandonment. Evidence from datable ceramics, however, suggests that use of the site continued onto well into the colonial period, albeit at a much attenuated level.

Using the known ceramic chronology to interpret the extent of occupation at the site does not necessarily resolve all such issues. The problem of disentangling "Aztec" from "colonial" period occupation in the upper Teotihuacan Valley has long been a focus of Charlton's interest, and he projects that

[i]t is almost one hundred years to 130 years after the actual military conquest that settlement patterns, demography, ecology and ceramics reflect that event in the eastern Teotihuacan Valley. Only the church and the cemetery appeared earlier indicating outside influence (1972b:7).

He has found that ceramics dated to the Chimalpa phase (Aztec III, traditionally accepted as preconquest) persist in sites around Otumba "until at least 1650, and possibly to 1720," while

ceramics considered...diagnostic of Aztec IV (Teacalco Phase), and dating to 1520, appeared during the second half of the sixteenth century, persisted into the early part of the seventeenth century, and disappeared. They coexisted with Aztec III materials through that time (1972a:111).

Preliminary analysis of Black/Orange decorated wares from excavated contexts at Cihuateopan shows a predominance of Aztec III wares, a significant number (about 13% of all Black/Orange) of Aztec IV wares, and glazed wares occurring in small numbers in most of the excavated structures (though usually as part of the plowzone component), and having an overall frequency of 0.03% of all sherds.

We assume that the site was abandoned in the seventeenth century (with possible intermittent reuse of some buildings), and the land has since been used for pasture and cultivation. Charlton's point that we must see Aztec culture as persisting well beyond the time of conquest is well taken. The calamitous destruction of Tenochtitlan meant that, at the capital, Spanish colonial culture was strongly established early on, but the conservative nature of peasant lifeways, and the preservation of rural peasant villages, resulted in a much more gradual transformation. Basic economic practices continued on unchanged. The sociopolitical structure had, of course, been radically altered in terms of the ruling elite, but from the perspective of the peasants this represented the substitution of one set of overlords for another, with demands which were of the same general type as before.

Of all sectors of the native culture, ideological organization came under most severe pressure to change. Ideological transformation began early on in the colonial period, with massive efforts to wean the natives from their worship of the devil in his various mesoamerican guises, and save their souls by bringing them into the Christian fold. Missionaries saw their efforts as both helped and confounded by parallels in ideological rites of passage (baptism being similar to the infant bathing ceremony, the last rites having a correspondence to the dying Aztec's confession to Tlazolteotl, the filth eater, and, most disconcerting, the communion ceremony with its features of the commemoration of the martyrdom of Christ, and transubstantiation and consumption of Christ's body and blood, having a certain parallel to the ritual sacrifice and subsequent cannibalism of deity impersonators).

The gaudiest practices were the simplest to detect and suppress; more tenacious were the beliefs and rites associated with day to day living, particularly those involved with pregnancy and childbirth. Ruiz de Alarcon's 1629 treatises on the various forms of idolatry still practiced in rural areas southwest of the Basin of Mexico well illustrate this persistence. At Cihuateopan the largest set of material evidence for Nahuatl culture ideological practices is found in the large number of figurines which were collected (note: detailed description and analysis of this collection will appear elsewhere). The figurines include many depictions of a woman with a distinctive hairdo featuring two projections (M.H. Parsons' Type I-A, III-A [1972], Millian's Group 1 [1981], Barlow and Lehmann

Type A [1954-55]. These have been widely interpreted as depictions of Xochiquetzal, in whose care were pregnancy and normal birth (and who was patroness of weaving, another universal activity among peasant women).

Thus it would appear that Cihuateopan provides yet another example of the retention of native beliefs and practices in the New World, after Christianity had been imposed as a monopolistic religion. Fertility and the health of newborn children are major sources of anxiety for women in traditional societies, and when we consider the waves of disease which repeatedly struck these populations in the sixteenth century we can only assume that this anxiety would not have been completely allayed by the new religion, and that maintaining the old rites would have been a natural policy of insurance of well-being.

We find a parallel here in ancient Israel, where the Hebrew religion, aggressively monotheistic, apparently overlaid household pagan practices:

almost every major excavation in Israel has produced numerous hand-sized plaques, depicting the nude fertility goddess, dating from the Bronze and Iron Ages, as late as the sixth century B.C. (Cornfeld 1976:66).

The ancient rituals so closely tied to the crucial course of birthgiving, and privately practiced, would not be expected to be easily eradicated.

Thus Aztec period culture, historically ending with the Spanish conquest, persists at Cihuateopan until the final abandonment of the site. Cihuateopan rises, flourishes, and finally expires, its village life defined by and lived largely within the parameters of native practices. The material culture remains which are described and analyzed in this volume should be understood as the products of a trajectory of indigenous cultural development, bearing few traces of the conquering culture.

The culture history of this area has provided a context by which we can interpret the results of the archaeological field research. Let us now consider the reconstruction of lifeways of the Cihuateopaneca, based on these material remains, and their cultural setting.

## **CIHUATEOPAN ARCHITECTURE AND ARTIFACTS**

### **I. Introduction: The Village and its Features**

Archaeological research in 1984 provided some exciting results, giving us an opportunity to fit ethnohistorically-derived models of rural village life to the material evidence. Of particular interest are the architectural and artifactual remains. The latter permit a broad-spectrum view of the material life of the village, but did not fulfill the promise of revealing fine-grained information about variability among the families of the village, or about specific activities in their behavioral contexts. This is largely due to the conditions of site abandonment (discussed above); virtually all artifactual material is derived from fill rather than from the context of its use and therefore its explanatory power is limited. The architecture, on the other hand, gives us a good view of intravillage variability, with a range of variation in structure types, sizes, and quality of construction. In spite of a fairly homogeneous collection of artifactual remains (in terms of the

comparison of "assemblages" on a house-to-house basis), the architecture shows a high degree of diversity in affluence, and also, in Structure 6, provides an example of what is probably a public-function structure (in this case, the tecpan or village headman's house; Evans n.d.b).

Thus, while the lack of architectural evidence has generally been a chronic problem for interpretation of Aztec period life, here at Cihuateopan structural features are crucial pieces of evidence. Obviously, the artifactual evidence from the village will offer insights into the social, economic, and ritual life here, but the limitations imposed by scarcity of contextually sound artifactual data must be made clear.

The following discussion of the finds at Cihuateopan begins with a look at the architecture, then turns to a general view of the artifactual remains, with an interpretation of the chronology of the site based on the ceramic sequence.

## II. Architecture

It is unfortunate that when we want to speak of Aztec architecture, we must be guided by the old Spanish chronicles rather than by its material remains. Not a temple or a palace...escaped brutal and systematic destruction at the hands of the proud conquistadors or sacrifice to the missionaries' religious zeal (Heyden and Gendrop 1973:257).

Little is known of the domestic architecture of the Aztecs immediately before the Spanish Conquest of Mexico on the basis of archaeological investigation (Robertson 1977:11).

Of the common habitations we know very little (Margain 1971:90).

The lack of material evidence of architecture of the Aztec period has long been noted, and a major contribution of the Cihuateopan project is information about its buildings. This discussion of site architecture will encompass the distribution of houses over the slopes of Cerro San Lucas, the nature of architectural features, and the interpretation of variation in architecture.

### A. Distribution of Housemounds within Cihuateopan

It is clear from the map of housemounds that they are distributed over the entire circumference of Cerro San Lucas, and that there is some fairly strong clustering, with the density of habitation on the south slope being much higher than elsewhere (see Figure 1.1; this clustering is graphically illustrated in Figure 1.4). Some adjacent housemounds seem to form deliberate groupings (*e.g.*, #4 and #17; #34, #35, and #36), possibly sharing a common plaza, but houses were not arranged in contiguous patio groups of separate apartments, such as were found at Teotihuacan, at Tula (Healan 1977), or are depicted for some sections of Tenochtitlan (Calnek 1974). Each of the houses at Cihuateopan forms an integrated unit of rooms, often internally linked by hallways and an interior courtyard.

The southern slope of the Cerro is a natural locus for housemound clustering, because here courtyard groups could take advantage of the more sunny aspect of this side of the hill (as well as the cultural advantages of this area). As I discussed above, the

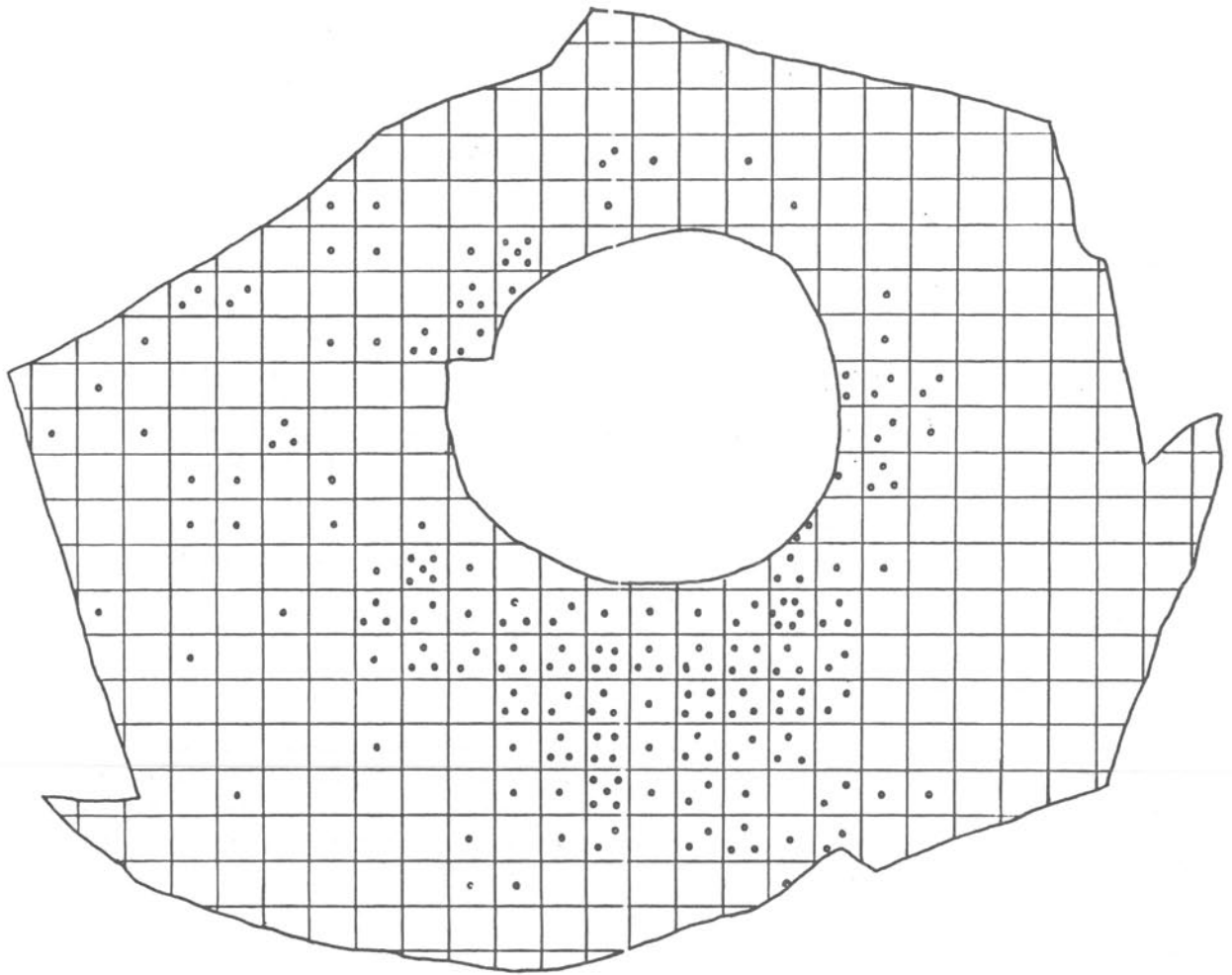


Figure 1.4

HOUSEMOUND DENSITY ON CERRO SAN LUCAS, BY HECTARE

village is of the dispersed type, and in these cases we expect each house to have an adjacent kitchen garden, or *calmil* (the Nahuatl etymology reveals a derivation from words for house and cultivated field, aptly reflecting its function). With its more dense habitation, the southern slope permits a smaller *calmil* per house than does the northern side of Cerro San Lucas. In fact, of the 330 ha mapped in this phase of the project, 106 had evidence of occupation (see Evans and Abrams, this volume, for a discussion of the mapping technique), resulting in an overall average of 2 housemounds per occupied hectare (again, see Figure 1.4 for a view of housemound density per hectare). Thus the total area of the occupied hectares, about 1 km<sup>2</sup>, would permit an average *calmil* of about 0.5 ha for each housemound; if the tracts of unoccupied land between housemounds over the 3.3 km<sup>2</sup> survey area are taken into consideration, the average is about 1.6 ha per housemound, over the slopes of Cerro San Lucas.

With these values in hand we can calculate how much land the Cihuatepanecos would need for gardens and grain fields, given the productivity of this local landscape and the needs of the villagers. First let us consider the productivity of this area. Cerro San Lucas is an isolated hill, and thus does not benefit from significant downslope movement of water and eroding soil, as would be the case for terrace systems on the lower piedmont of the nearby Patlachique Range. Fallowing would have been necessary on the slopes of the Cerro, resulting in an average yearly yield of about 40 tonnes per km<sup>2</sup> (Sanders 1976:144). The area on Cerro San Lucas which was available for grain cultivation (that is, not in use for *calmil*) was about 2.5 km<sup>2</sup>, producing about 100 tonnes of grain. One tonne will support five persons for a year, and provide a surplus of 160 kg for other purposes (tribute, for example), if we assume an 80% dependence on grain in the diet (Sanders 1976:109). From this, we can calculate that a population of 1000 will need 200 tonnes; 2.5 km<sup>2</sup> of land producing 40 tonnes/km<sup>2</sup> results in half their annual grain needs. Thus, Cerro San Lucas could not fill the food needs of the village, and additional land, probably on the adjacent alluvial plain, would need to be exploited, or food would have to be procured through trade. If the local alluvial plain were used, 1 km<sup>2</sup> would be necessary (producing 100 tonnes per km<sup>2</sup>; Sanders 1976:144). (A further complicating factor is the caloric value of maguey itself; this was no doubt planted as terrace edging, and has caloric value "surprisingly similar" to maize itself, on unirrigated land, according to Parsons and Parsons 1987:84.)

An average of 0.5 ha is cultivated as *calmil* by each family in modern Eloxochitl, a Totonac village in Puebla which also has a dispersed settlement pattern (Bray 1972:910). At Eloxochitl, each family also farms a larger milpa plot away from the house, and we would expect a similar arrangement at Cihuatepan. The Aztec period land distribution situation was complex all over the Basin of Mexico, with plots dedicated to the support of government offices, temples, nobles, and peasant villages sometimes closely juxtaposed. No documentary evidence has survived that maps the distribution of such plots around Cerro San Lucas and the adjacent alluvial plain, but colonial period documents such as the *Codice de Santa Maria Asunción* (Harvey 1985) from the nearby Texcoco area give us an idea of how plots of land used by the members of a community were allocated and inherited, and other documents, such as the Maguey Plan, indicate complex patterns of use of adjacent plots.

Thus, the settlement pattern is consistent with a land use regime in which the peasantry intensively used the piedmont zones (building terrace systems, probably using maguey for erosion control on the edge of the terraces), and worked the plots on the alluvial plain for themselves, and for nobles, political offices, and temples. The congruence of these factors—the population size and its broad distribution over Cerro San Lucas, the productivity of the local area, and ethnographically and ethnohistorically known



patterns of land use by similar villages—certainly substantiates the general model of Aztec period peasant life in the Teotihuacan Valley, which holds that the villages had a degree of economic independence consistent with the land corporately held by the calpulli.

This reconstruction of land use at Cihuatecpan, and the pattern of denser clustering of houses on the south side of the site, indicate that here is a simple case of declining intensity of land use—the "distance decay function"—away from the more nucleated area, with its features of the group of largest houses, special function structures, the obsidian industry, the road. In the Cihuatecpan case, von Thunen's bull's eye model is distorted into a kind of a necklace shape, serving, in its warped way, as a nice example of the effect of the real landscape (biophysical and cultural) on the expression of an ideal pattern.

The variation in density of houses around Cerro San Lucas brings up the question of whether quality of architecture covaried along these spatial lines; that is, is there a gradient of architectural quality here, with small, poorly built houses on the north slope contrasting with the affluent dwellings in the town's center? Based on evidence gathered in the process of mapping the site, the answer is a qualified yes. Mounds on the north side of the Cerro are smaller, with less rubble and artifactual debris. However, this area also shows the effects of more severe erosion and greater destruction by plowing, so we would expect disproportional destruction of archaeological evidence. The question of a qualitative spatial gradient can really only be addressed by extending the sample of excavated structures to include houses all around the Cerro. Structures 9 and 10 are several hundred meters away from the most densely settled area, and display features of good quality architecture—columns (10), extensive use of cut stone (9)—thus demonstrating the persistence of such traits on the edge of the core of the site.

Let us now consider some of the features which characterize the structures at Cihuatecpan, and their distribution.

## B. Features of Architecture

Sample: Of the 206 mounds at the site, nine were excavated, revealing the remains of more than eight structures (plus another constructed feature, Operation 3, the reservoir or jaguey). These were Structures 1, 2, 4, 5 West, 5 East (very fragmentary), 6, 7, 9, and 10. Abrams and I describe these structural remains and associated artifacts in detail elsewhere (Evans and Abrams, this volume); here I wish to note that each of these excavations uncovered virtually the whole structure, where possible, and tested rooms down to sterile tepetate. Figure 1.5 depicts these structural remains in a highly simplified fashion, permitting ready comparison of the size and layout of these buildings, and Table 1.1 summarizes the traits considered.

Orientation: In the Aztec period, houses featured unroofed entry courtyards, where many of the daily activities of the household took place. The Nahuatl word for this type of courtyard is *quiahuac*, and it denotes a semi-public space<sup>7</sup>. The logical orientation of the quiahuac would be toward the southwest, to take greatest advantage of natural heat and light (and the fact that they were walled would ensure the household some privacy and also serve as a windbreak). This sensitivity to the natural landscape is expressed at Cihuatecpan in the orientation of entry rooms of the structures (Table 1.1), all between 30 and 50 degrees west of south.

---

<sup>7</sup>McAndrew (1965) discusses the atrio as a feature of sixteenth century Mexican churches that has a clear native antecedent in the courtyard of public buildings. Although McAndrew is referring to courtyards such as the enclosure surrounding the temples at Tenochtitlan, the quiahuac as an architectural feature

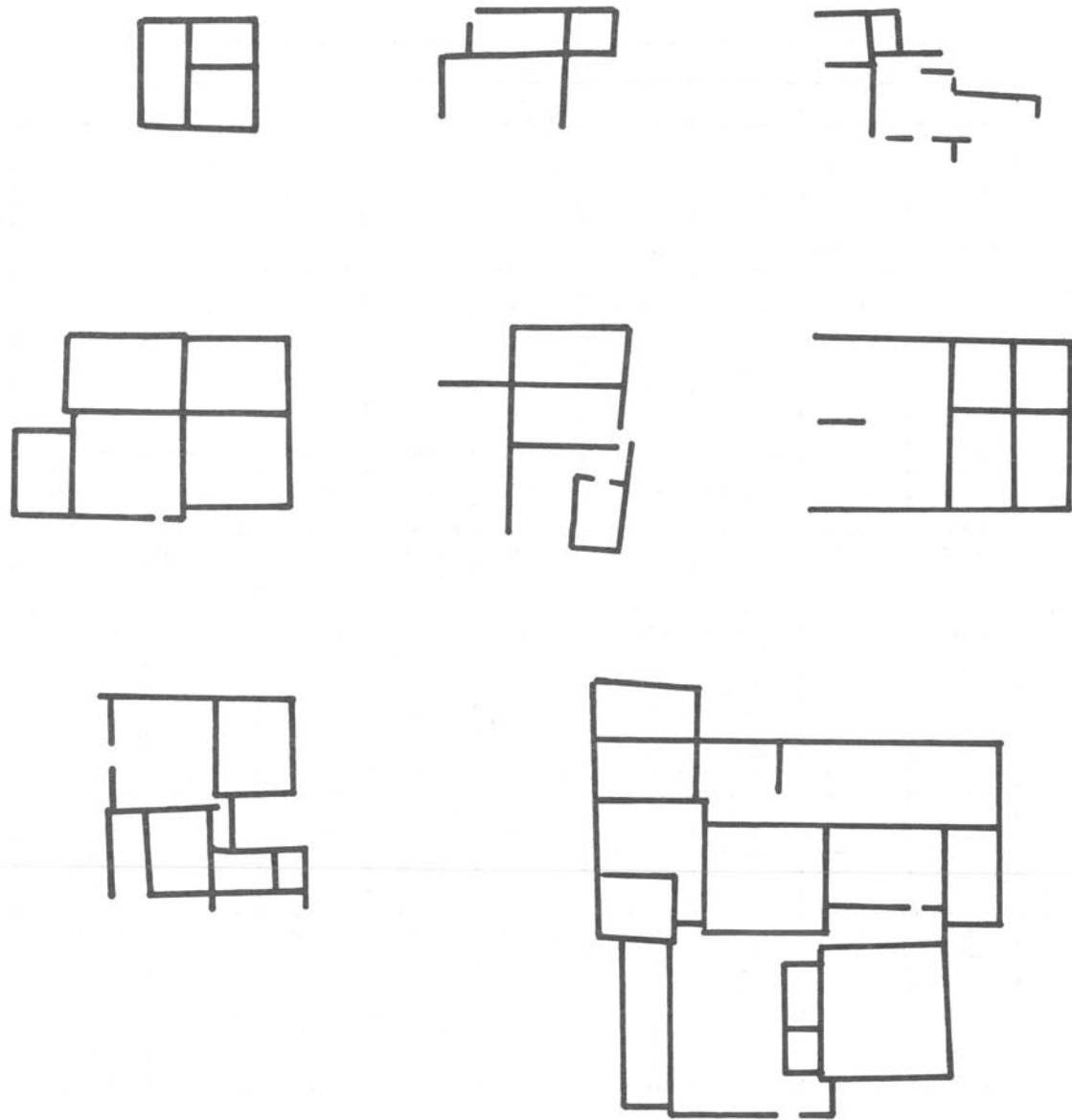


Figure 1.5

**COMPARISON OF STRUCTURES EXCAVATED AT CIHUAATECPAN**

Top row: Structures 5, 7, and 10. Middle row: Structures 1, 2, and 9.

Bottom row: Structures 4 and 6. Scale: 1 cm = 5 m.

Table 1.1

## COMPARISON OF STRUCTURES AT CIHUATECPAN

FEATURE	STRUCTURE								
	1	2	4	5E	5W	6	7	9	10
orientation of entrance	40° W of S	unknown	50° W of S (J)	unknown	unknown	30° W of S	30° W of S	unknown	30° W of S
<u>Size:</u> gross external (m)	10.7 x 16.4	11.5 x 12.75	11.2 x 12	unknown	6.8 x 7	24 x 25	6.8 x 10.2	14.55 x 9.8	9 x 13
combined interior (m <sup>2</sup> )	108.76	65.3	92.84	unknown	28.28	363.07	41.83	119.65	
no. of rooms/no. of room types	5/3	5+/3	8/4		3/1	21/6	3/2	6/2-3	
<u>Architecture</u> quality of wall construction	good	poor	very good	poor	good	excellent	poor	very good	poor
wall surfacing	mud plaster pumice cones	unknown pumice cones	mud plaster pumice cones	unknown	unknown pumice cones	mud plaster whitewash red paint pumice cones	unknown pumice cones	mud plaster whitewash red paint pumice cones	mud plaster
floor surfacing	whitewash	cascajo	whitewash cascajo adobe paving stone paving	unknown	cascajo	whitewash cascajo adobe paving	unknown	cascajo	cascajo
drainage	roof tiles	roof tiles	roof tiles floor drain	unknown	roof tiles	roof tiles floor drain	roof tiles	roof tiles trenches	roof tiles
cooking	hearth	unknown	hearth	tlequil	unknown	hearths tlequil oven	unknown	tlequil	hearth tlequil
benches	round stone	unknown	round stone square adobe	unknown	unknown	square adobe	unknown	unknown	unknown
other						burial poss. temascales	burial		pillars poss. temascal

Another aspect of architectural sensitivity to landscape relates to slope, and in the following section, on house plans and layout, this is discussed in regard to the multi-level aspect of these structures. Ideally, a house at Cihuateopan would place the courtyard downslope (taking advantage of natural downslope drainage to channel water and trash from the rooms to the courtyard, and then outside), and take advantage of the climate at the same time. Seen from the perspective of house layout and comfort, it is no wonder that the south slope was the most densely occupied area of the village. Since these houses are all on the south slope of Cerro San Lucas, the entrance to each house was downslope and sunny, and these factors worked together well.

*Plan:* The structures at Cihuateopan display a diversity of plans, suggesting that individual and family taste and choices determined the layout of the house and its special features. Describing a Moche V village in the Moche Valley of Peru, Bawden noted that although considerable diversity in affluence among houses was obvious, they followed what appeared to be a single structural type, a main room with raised benches, a kitchen, and one or more storage rooms (Bawden 1982). The Cihuateopan situation is very different, with highly individualized house plans, all executed within the constraints of location and a limited repertoire of construction media.

A glance at the chart comparing structural layouts (Figure 1.5) reveals that each structure comprised a varied set of rooms, and though some design parallels certainly exist, nothing here is standardized. Each building is composed of rectangular rooms, constructed in an additive fashion and resulting in a somewhat eccentric exterior design with breaks in the linear extent of exterior walls. Examples of Aztec period architecture excavated by Charlton show similar characteristics (n.d., 1972b). There are, however, some general patterns.

One of these is that the largest component space (the apparent quiahuac or entry courtyard) of the structure is generally on the southwest side, and has evidence of an exterior doorway in its southwest wall. This was true of Structures 1, 4, 6, 7, and 10 (in the other cases, no clear entryway was discernible). Other rooms led off from this entry hall or courtyard. In the case of Structure 6, the pattern is of suites of rooms, on three sides of this courtyard. Structure 1 seems to express a simplification of this pattern, and 4, 7, and 10 are variants of it. At Structure 4, the rooms are clustered on the east side of the courtyard, and another entrance, nicely detailed with a staircase studded with pumice cones, faced the southeast, and an adjacent house just downslope (Tlatel 17).

Another pattern common to the layout of rooms is the use made of the natural landscape, in that each house was a multi-level structure, the levels generally conforming to the slope of Cerro San Lucas. Floors were made by cutting and filling, and we found that on the upslope side of the room the lowest floor level was at tepetate, or slightly dug into it. The multi-level aspect of house design was often used to aesthetic advantage; in Structure 1, for example, the entry courtyard opened on to three rooms, each at a slightly higher level, reached by a cut stone step under a doorway which was nicely centered along the wall.

---

plays a role at all levels of scale, from that of the civic ceremonial center of the capital, through the tecpan (see Evans n.d.b; Arenas 1611/1982:23 defines "tecpanquiahuac" as "plaza", underscoring its semipublic function), down to the level of the family home. Calnek (1972:109) describes chinampa houses at Tenochtitlan as consisting of "a number of separately entered dwelling units which faced inward on an open patio space."

The multi-level aspect of these structures was expressed within rooms as well as between them. While a formal doorway divides space into separate rooms, insuring maximum privacy between two adjacent areas, space can also be divided in a less formal way, by introducing different levels into the same room. This means of breaking up the interior space of rooms is accomplished by building platforms or room-length benches (Structure 6's complex of rooms, MNPQ, illustrates the combination of use of steps, doorways, and platforms to divide up space). In these cases, the area of the room is divided up so that the condition of privacy (or lack thereof) is not altered, but functional specialization within the room is encouraged. These factors would suit a small nuclear family sharing a room as a living space, and serve to substantiate (in an impressionistic way) the reconstruction of the Aztec period house as the residence of several related nuclear families, each with its own room and sharing a common patio.

The multi-level room also shared with the house, as a whole, an additive manner of construction. The construction histories of the MNPQ complex of Structure 6 and the adobe platform in Room A of Structure 4 show shifting relative levels of platform and room floor. It is clear from the MNPQ complex, however, that the room was a multi-level construct from the beginning. While these platforms are generally low and seem more like different floor levels within a room, they resemble the room-spanning benches commonly featured in Maya houses, in serving to provide functionally different areas within a room. Evidence of platforms from Cihuatecpan therefore extends the temporal and spatial boundaries of this architectural feature, adding an arcane but interesting architectural detail to the Mesoamerican cultural trait list.

*Size and Complexity:* There are various ways to measure and compare these buildings, and in Table 1.1 are presented measurements of gross exterior dimensions, interior area (combined room space), and number of rooms. Probably the most revealing measurement, and the one which reflects most accurately the range of variation, is that of interior area. Of the eight structures measured, the average interior space is 111.93 m<sup>2</sup>. Six of the structures are reasonably close to this mean, forming a cluster ranging from 41.83 m<sup>2</sup> through 119.65 m<sup>2</sup> (Structures 2, 10, 4, 1, and 9, and 7). Of the two others, one (Structure 5W, at 28.28 m<sup>2</sup>) is one-quarter the size of the mean, and the other (Structure 6, at 363.07 m<sup>2</sup>) is three times as large as the mean. This huge building obviously skews the average value considerably, and if we ignore both Structure 6 and its counterpoint, 5W, then the mean falls to 84.02 m<sup>2</sup>, a value lying between the two median values, which are for Structures 10 and 4.

The count of rooms within a building gives an idea of complexity, particularly when functional diversity is considered. The most straightforward means of determining a room's function is, of course, a careful examination of the artifact assemblages within it. Since such artifactual evidence is uncommon at Cihuatecpan, we infer function mostly from the room's size, shape, details of finishing, and location within the building. The range in number of rooms per building is from 3 (Structures 5W and 7) to 21 (Structure 6; see Table 1.1).<sup>8</sup> Variation in number of types of rooms, by ascribed function, ranges from one type (Structure 5W) to 6 types (Structure 6). (A comparison of size and functional diversity among structures is graphically presented in Figure 1.6.)

---

<sup>8</sup>An interesting contrast can be made with early 15th century Florence, where "the finest private houses seldom consisted of more than twelve or thirteen rooms, while five or six was much more usual" (Origo 1963:228).

5W 

S
---

7 

C	L
---	---

2 

C	L	b
---	---	---

10 

C	L	ok
---	---	----

4 

C	L	O
---	---	---

1 

C	L	K
---	---	---

9 

C	L	O
---	---	---

6 

C	L	k	O
---	---	---	---

### KEY

--

 = 10 m<sup>2</sup>

S = storage

C = courtyard entry

L = living room

K = kitchen

O = other courtyard,  
hallway

Figure 1.6

COMPARISON OF SIZE AND FUNCTIONAL DIVERSITY OF STRUCTURES AT  
CIHUATECPAN

Room types include the following: entry courtyard (the quiahuac, probably unroofed, used for work, play, meetings, meals, rituals, etc.; Lombardo de Ruiz 1973:185), other courtyard (probably unroofed, workspace, sometimes a temascal was located here), family-living room (by this, I mean a roofed, general purpose room, for storage and indoor activities, including sleeping; in Spanish, this room would be called the "habitación"), kitchen (special purpose food preparation), storeroom, and hallway. It should be remembered that in traditional societies, even in wealthy houses a strict separation of space along functional lines was not the rule, any more than was a strict regulation of the composition of the household. In general, various rooms would have had multiple uses, depending on the time of day and year and nature of the coresiding group at that point. These types have been determined by the criteria mentioned above (size, shape, location), and by identifying features of architecture, and by the nature of the artifacts found within the rooms.

An example of how the complexity of structures is revealed through their functional diversity is found in the comparison of Structures 5W and 7. Each has 3 rooms, but the arrangement is quite different. Structure 7 looks like a simplified version of the "typical" house pattern, with an entry courtyard and adjacent rooms, but Structure 5W, with no discernible doorways connecting the internally divided spaces, and no orientation revealed in its stone box shape, does not give the impression of functionally distinct rooms opening on to each other. Rather, the rooms seem to replicate each other, and it is difficult to see how this structure could have functioned as a home.

*Basic Features of Construction and Materials:* In general, the buildings at Cihuatecpan were of stone, adobes, timber, and packed earth or clay. Walls and floors were finished with other materials, for enhanced practicality or aesthetic value, and other features added to the comfort of the structures.

*Foundations and Fill:* In the course of sounding the subfloor fill of these structures to tepetate, we came across interesting examples of techniques to insure structural integrity. While some of the wall stubs encountered in such excavations may have represented the partially destroyed wall bases of previous building episodes, it seems clear that the short wide subfloor walls running perpendicular to the front walls of Structures 4 (under Room D) and 6 (under Room S) were designed to stabilize the fronts of these buildings. Some of the wall bases of Structure 6 were significantly thicker than the wall above the floor; along the northwest side of the building, a 20 cm wide "skirt" strengthened the wall base.

Most of the fill of the structures was undifferentiated soil, with varying densities of sherds and obsidian. In Structure 4's Room A we came across one rather thick level of fill which was a homogeneous conglomerate of dirt and crushed calcified tepetate, reminiscent of Molina Montes's description of an innovation in the architecture of Tenochtitlan, "a very hard, compact, concretelike fill" in the last stages of rebuilding the Templo Mayor (1987:105).

*Walls:* The walls of buildings at Cihuatecpan had masonry foundations, with upper walls of stone and adobes, and packed earth floors (often surfaced with a finishing material). The stone wall bases probably functioned to protect the construction from the effects of drainage from torrential rainstorms (Diehl 1983:95 describes similar construction techniques at Tula). The wall bases were laid on tepetate, or just above it, or, sometimes, in shallow trenches dug into the tepetate. Trenching into subfloor fill in some cases revealed earlier construction episodes, and in other cases, exposed wall stubs that may have been built as structural support members, insuring the stability of large buildings on sloping ground (examples include subwalls under Rooms C and D of Structure 4, and under Rooms L and V of Structure 6).

Our evidence of the construction of upper walls is entirely circumstantial, from wall fall found in the fill of adjacent rooms, but of wall bases we found many excellent examples. From the range of these, I would characterize the typical exterior wall base as being about 45 cm wide, of basalt and tezontle cobbles (15 to 30 cm long), with cornerstones of cut basalt. The range of variation in quality of stone working in external walls was wide. It encompassed wall bases which were entirely of faced or cut stone (the exterior northeast wall of Structure 9, for example). This recalls Hawks's 1572 comment that the "walls of the houses of the Indians are but plain, but the stones are laid so close that you shall not well perceive the joints between one stone and another"(1972:158). At the other end of the quality continuum were wall bases made of rounded cobbles, and the most common were those composed largely of cobbles, with cut stone corners. On Table 1.1, the quality of walls in a building is judged as excellent if the walls are wellbuilt and use a high proportion (up to 30%) of cut and faced stone, judged as good if solidly built of cobbles, with cut stone corners, and judged as poor if no cut stone is in use. These judgements do not take into consideration the effect of erosion processes, and, of course, there is compounded effect in cases of poorly built walls that are also exposed to damage.

The bases of interior walls were thinner, sometimes less than 30 cm wide. Quality of these was also variable; the highest quality example is the northwest interior wall of the main courtyard of Structure 6, which made extensive use of cut and faced stone. The wall was laid so that bands of projecting cut stones would have formed moldings. This particular wall was then mud-plastered, lime-plastered, and painted red.

Upper walls, above the wallbases, were usually of stone or adobes, with some rare examples of solid walls of adobe conglomerate (the XY wall of Structure 6). It is possible that fired bricks were also incorporated into upper walls, though no examples exist in situ. Fired ceramic bricks, or thick tiles, were widely found at Cihuatecpan in fill and on the surface. I assume that they were used in upper wall construction, though it is possible that they were used in the roofs. Cortes described one of Moctezuma's houses as having "roofs ... half covered with tiles (1986:111). Other fired ceramic building materials include squared, U-shaped drainage channels, and rounded U-shaped drainage channels, both found in interior and exterior fill. These two types are hypothesized to have served two different drainage functions, the former being a floor drain and the latter a roof drain, and these are discussed below.

Use of fired ceramic building material of any kind is unusual in preHispanic Mesoamerica. The number of occurrences of fired bricks found at sites is small; the best known examples are Comalcalco (the westernmost Maya site, on the Gulf Coast), Tula, and Tizatlan, in the Tlaxcala region. Since Cihuatecpan had a fairly long post-conquest occupation (probably the better part of a century), it could be argued that fired ceramic building material is a post-conquest introduction, and not representative of Aztec period traditions. I would argue for a preHispanic use of these materials, from several points of view. First, our sample of domestic architecture dating from the Aztec period is so small that to denote a trait as "typical" or not is a haphazard operation, at best. Second, precedents occur, in the general area (in regions adjacent to the northern Basin of Mexico, on either side) for the use of such materials. Third, while most of these materials at Cihuatecpan were not found in context, the fired ceramic floor drainage tile in Structure 4 was, and we have no reason to believe that this house was a post-conquest construction (a general discussion of chronology will be found below). Fourth, these fired ceramic materials are standardized only in a very general way, their range of sizes indicating that they were not mass produced according to the European use of wooden frames for shaping many bricks of the same size, a method which later became widespread.



*Wall finishing:* Of wall surfacing, a few examples remain. Margain states categorically that coating stone walls with mud or other plaster was "a peculiarity common to all Mesoamerican architecture: the rock was never allowed to display its own color or texture but always received a veneer of varying thickness" (Margain 1971:52). This omnipresent protective wall coating is familiar to us from presentday stone and adobe architecture in the U.S. Southwest, for example; it protects the structure from incursions by weather and vermin. We would assume the basic coating to be mud plaster, and the extent to which lime plaster or whitewash would have further mantled these structures is not known. Remains of mud plaster were found in Structures 1, 4, 6, and 9, and the last two also showed remains of whitewash and red paint. In Structure 9 this was a fragment, but in Structure 6 several rooms gave evidence of this surface treatment, most spectacularly, the entry courtyard, in which at least one wall, stretching almost 10 m, was an expanse of brilliant red. The pigment here is probably derived from iron oxide, widely in use in Mesoamerica because of its cheapness, as well as for ideological reasons (Boone 1985:181).

Pumice cones, 20 to 30 cm long and about 10 cm wide, were used as decorative tenons. Vaillant, noting their presence in his excavations at Chiconautla, suggested that they functioned to bind the outer facing of the wall to the inner core (1935). *In situ* examples at Cihuateopan were found studding the side walls of staircases (Structures 4 and 6) and embedded in lower walls (Structure 6). The heads of the cones were daubed with plaster, and these extended 3 to 5 cm out from the wall surface. These are interesting features, possibly fraught with symbolic meaning, and their appearance here at Cihuateopan helps us understand what this meaning might be. Heyden and Gendrop note that the roof of Santa Cecilia Acatitlan has a "nailhead" motif, a reconstruction based on other sources, including figurine models of temples in which the heads of cones alternate with skulls in decorating the front of a high roof (1973:243-246). These cones are also illustrated in the Florentine Codex version of Sahagun's General History of the Things of New Spain, again as roof decorations (Book 11, drawings 885-888). The cones would have lent a bas-relief effect to a facade (or staircase wall), unlike the other common circular decorative motif on buildings, the "chalchihuitl" circle (discussed, in terms of its occurrence at Teotihuacan, by Marquina and others, and in terms of its occurrence in ethnohistoric literature on Aztec architecture by Evans, n.d.b), which was incised into a wall and then painted. As Sahagun illustrates both of these in Book 11 (Earthly Things), they are markers of high status or public function buildings, but not necessarily, in either case, of a particular type of building. This vagueness of symbolic meaning is no doubt due to the phenomenon mentioned by Garza, who says that governmental and religious buildings depicted in the sources are difficult to distinguish from each other in terms of motif, since they share an integrated role of importance to the people (1982:251).

Examples of such pumice cones were found in the excavations in the old aqueduct from Chapultepec to Tenochtitlan, but they weren't found in a behavioral context (Torres and Cervantes 1966). Vaillant's work at Chiconautla, cited above, is often referred to as a "palace" structure, but we must bear in mind that there is no documentation for this assumption, and that our sample of Aztec period houses (large or small) is only slightly less pitifully small than it was in 1935. More examples of pumice cones found in walls are necessary before their full range of use can be understood, but here at Cihuateopan they are found in residential contexts.

*Doorways:* As I mention elsewhere, the explicit policies of congregación demanded the dismantling of buildings, so the materials could be used in new construction and also to reduce temptation to return to the old villages. Wood, especially, was a valuable commodity in this area, and wooden parts of houses included the roof beams and structural

timbers outlining windows and doors. The removal of uprights and lintels explains, in part, why these buildings have so few clues as to the location of doorways. Granted, the combination of building orientation (the downslope, southwest aspects) and the shallowness of the overburden have combined to make most downslope wall remains less well preserved than the upslope sides. Thus, the side of the room, or building, where we would logically expect to find doorways is also the side most subject to damage. Another reason why doorways are difficult to detect is the apparent practice of having a fairly high doorsill, to prevent dirt or water from entering the building. We do have some cases where the door pattern is clear (the door in the CD wall of Structure 6 is a good example) and others where it can be readily inferred from such factors as cut stone steps or an unusually low part of the wall.

Though we lack archaeological evidence of the upper construction of doorways, the ethnohistoric sources are replete with door depictions. Many are found in the glyph for "house," the Nahuatl calli; as a day sign, a year sign, and a common element of toponyms, this symbol almost invariably shows a doorway with post and lintel construction, the members usually painted red against the white or beige of the house. The doorways at Cihuatecpan were no doubt of similar type.

*Floors:* All floors were of packed earth, which was sometimes surfaced with cascajo gravel (grey or pink) or lime whitewash. When these surface finishes are noted on Table 1.1, it indicates that at least a trace was found, on at least one floor surface of one room. The use of cascajo gravel was not limited to interior surfaces, but also paved exterior expanses of flat surface (such as near Structure 6). There were a few cases of the use of adobes or stone as paving. In the central room of Structure 6, an open hearth (tlequil) was centered against the back wall, and stretching off to each side was a band of adobes, installed to be at the same height as the floor.

*Drainage:* In discussing the incidence of fired ceramic construction materials I mentioned the drainage channels apparently used as drains for the floor and roof. An example of a squared, fired brick channel was found in situ at floor level, penetrating the exterior (southwest) wall of Room J of Structure 4 (other in situ examples of floor drains were the same shape, and served the same function, but were made of stone). All are roughly 60 cm long, 20 cm across and 10 cm high. They are formed of two parts: a squared, U-shaped channel and a flat top. Another kind of drainage feature, the trench dug into the ground, was found within and upslope from Structure 9. These trenches were both 12 cm across and 10 cm deep (see discussion in Evans and Abrams, this volume).

*Roofs:* As I mentioned above, the roofs are assumed to have been flat; our only material evidence substantiating this assumption is that of curved drainage tiles which would have been used on such a roof. These tiles were found in the fill of all structures except the fragmentary remains of 5E. There were no in situ examples of these rounded ceramic tiles, which is not surprising since no roofs were found intact. Reasoning from ethnohistoric sources that mention flat roofs in this region (Relación Geográfica de Teotihuacan, in Paso y Troncoso 1979) I assume that flat roofs were the pattern here at Cihuatecpan, and therefore the use of U-shaped drainage tiles to channel water off the roof makes sense. In the central highlands of Mesoamerica, the flat roof was a pole and beam construction, packed with clay with a high straw content (Margain 1971:56). It was slightly sloping, to facilitate drainage, and its level differed over different areas of the structure, achieving a terraced look which must have reflected the variety of floor levels of the building underneath it (Margain 1971:63).

Determination of interior areas that may have been unroofed results from extrapolation from the size of the room and its function. Descriptions of entry courtyards in ethnohistoric sources indicate that these were often unroofed, with awnings used to provide protection from weather (Diaz 1963:215). We found one example of the possible use of columns to support a roof, in room E of Structure 10. Flat, circular stones, symmetrically placed inside this entry room, may have been used to support wooden uprights, or columns of plastered stone (as Sisson found at Aztec period Coxcatlan Viejo; Sisson 1973).

Cooking Facilities: There were three kinds of features for cooking, and these also no doubt served to heat rooms as well: hearths made of a circle of cobbles, rectangular hearths made of cut stones (tlequiles), and an oven made of stone and mud mortar (in Room T of Structure 6, and possibly a post-conquest feature). In addition, portable heat sources, braziers, were widely used, judging from the ubiquity of fragments of these large vessels. Rooms designated as kitchens were smaller than living rooms, and had ash lenses at floor level; we assume that general food preparation took place in these small workrooms, and in the courtyards, but that food was commonly heated (or reheated) over braziers in the various living rooms and the quiahuac. Millon cites such use of these "portable ceramic stoves ... placed directly on plaster floors" at Classic period Teotihuacan (1981:203)

Benches: In the discussion of the layout of the houses I noted that some rooms were built in split levels, possibly engendering functional diversity within the space of the room. There are examples of other constructed features which seem to resemble furniture rather than spatial divisions, though I use the term "furniture" in a very guarded fashion, agreeing with Aguilera that the furniture of preHispanic times was low, light, movable, and limited in terms of type and examples (1985:15). Rybczynski makes the point that world cultures are divided between sitters and squatters (1987:78). Modern western culture hunkers squarely down on the side of the sitters, and most of the rest of the world, including preHispanic Mesoamerica, are squatters. Even the nobility, the rulers of Mesoamerica, sit on mats; the mats are elaborate, with backs, but they are not chairs.

This habitual squatting notwithstanding, the furniture of houses at Cihuatecpan reveals a new dimension of Aztec period home life. Most interesting of all are platforms made of adobes, hardly more than 10 cm high, and roughly 2 x 2 m. Examples were found in Structures 1, 4, and 6, in rooms conforming to the "living room" type. The size of these features indicates that they would have served nicely as beds, though low platforms could, of course, serve many purposes.

We also found several examples of round stone benches. Investigation of these revealed that they were solid and bore no traces of ash or other evidence of other use. Found in unroofed courtyards in Structures 1 and 4, these round features were only a few courses high, their upper courses apparently having been destroyed by the action of the plow.

Temascales: The sweat-bath was a regular fixture of Aztec period life, a necessity for health and well-being. Every village had at least one, and in fact the usual pattern was probably for many houses within the village to have attached temascales. Prototype temascal forms are found in ethnohistoric sources (Codex Magliabechiano 65; in *Costumbres, Fiestas, Enterramientos y Diversas Formas* the Spanish annotator expresses revulsion at the temascal, strongly suspecting it of being a locus of lewd behavior), and ethnographically known cases (see Cresson 1938). While no remains at Cihuatecpan correspond exactly to known plans of temascales, three "problematical round features" in

Structures 6 and 10 could well have served this function. These were found in the courtyards of these buildings, and consist of circles of cobbles. The two examples in Structure 6 measure 1.43 m (Room A, with cobbles one course high, and an opening in the northwest side) and 1.92 m (Room K, a ring of cobbles three courses high, ca. 36 cm), and in neither case could we detect evidence of use for storage or as an oven or kiln. At Structure 10, a quarter-round arc of stones one course high, resting on the floor, had a projected diameter of 1.75 m. Again, there was no evidence of other use, but this building was very damaged by plowing.

The operation of a temascal requires an enclosed space into which heated rocks can be brought, and then doused with water. Our problematical round features could have served this purpose.

*Middens:* Common sense dictated to me that trash middens would be located on the downslope sides of houses, most convenient to the entrances, but we found trash piled up against all sides of these structures, and sometimes the trash probably originated at another house, upslope. Such a "midden" would have resulted from natural causes despite its cultural content, but it is difficult to determine how much deliberate human action was involved in creating some of these seemingly illogically placed trash concentrations. Sometimes garbage was obviously not thrown very far beyond the entrance to the building (Structure 1 is a good example). Characterized by fairly dark soil and a high density of sherds and other debris, the middens that were clearly constructed by humans were particularly valuable, in light of the lack of meaningful behavioral contexts within the structures. The midden on the downslope side of Structure 2, for example, revealed such treasures as our only reconstructable Chalco-Cholula ware vessels, an omichicahuaztli (musical notched rasp, made from a human thighbone), and a copper sewing needle.

*Burials:* Ethnohistoric sources indicate that the normative mode of disposal of the dead in this cultural setting was cremation, but there were standard exceptions to this, for example, those under 17 years old, or those dying a violent death, or succumbing to incurable disease (Harvey 1981:159). The final resting place of the remains of such individuals may have been a formal cemetery or under the floor of the house. We found two interments: one was an adolescent, probably female, in the fill of Room L of Structure 6, and the other was an infant, found in Structure 7 (for further description of these remains, see Evans and Abrams, this volume).

### C. Interpretation of Variation in Architecture

The set of architectural features we have considered is shared by the structures in a classically polythetic manner, making it impossible to produce a simple rank ordering of buildings which yields the same hierarchy on all bases. While Structure 6 is by far the largest, most complex, and most elaborately finished of all, the ranking of the six other houses is less easy. A glance at Table 1.1 (a compilation of various data from the structures) and Figure 1.6 shows how such factors as size and complexity are broadly, but not invariably, linked.

This variability is a critical element of the view of Aztec rural life presented by Cihuateopan, because it reveals the rich complexity, and individuality of the lives of these villagers. We see clearly that these families, living in one community, had quite different levels of access to resources, different standards of living, and were able to choose to invest their resources in style as well as substance, consuming conspicuously as well as facing basic matters of subsistence. Pumice tenon cones, expanses of adobe parquetry on the floor, walls of carefully cut and matched stone, surfaced with plaster, and then

painted—these are features which have no impact on the soundness of the building, on the house's ability to provide adequate shelter. They are features which express pride of ownership and sense of style, and reveal dimensions of the Aztec period rural peasantry that have been heretofore ignored because no evidence of them existed.

### III. Artifacts

Artifactual material has been categorized and classified in a general way; the materials coming from these excavations will provide the basis for further study in the future. In this section, I briefly describe the finds by categories of material: ceramics (vessels, spindle whorls, figurines, other items) and lithics (chipped stone and ground stone artifacts, and other items). Counts of floral and faunal materials are presented in McCoy and Evans, this volume.

#### A. Ceramics

The lack of good behavioral contexts at Cihuateopan was a nagging problem, demanding that interpretations of lifeways be based on extrapolations and inferences from a range of data sources (architecture, artifacts in fill and in middens, ethnohistoric descriptions of lifeways). As if in compensation for this lack, the ceramic artifactual evidence displayed characteristics which enhanced the interpretive process. Aztec period ceramic vessels are of high quality ("often ringing like porcelain when struck" Sanders et al. 1979:471), and show chronologically sensitive stylistic variations. Chadwick notes that the Black on Orange types "are indebted to the Mixteca-Puebla tradition from which they seem to evolve" (1971:252). Another common decorated ware is "Aztec polychrome" or "Texcoco Black on Red", and this and "Chalco-Cholula" ware have fine and often complex designs on the exterior of simple bowls (Séjourné 1983 illustrates the former). Other important ceramic artifacts are spindle whorls (which constitute virtually our only material evidence of textile production) and figurine fragments (our most important source of information about the ritual life of the villagers).

*Ceramic Artifacts for Food Preparation and Service:* Almost 100,000 sherds were collected in the course of excavations and surface survey (see Table 1.2). Our preliminary analysis of these has consisted of sorting them into "fine" and "utility" wares, the former being serving dishes, and the latter, cooking and storage vessels (this basic dichotomy is the same as Parsons' and Whalen's; they use the terms "service" and "utilitarian" wares (Whalen and Parsons 1982:386). Within these broad categories, further distinctions are made. Utility ware sherds were sorted, where possible, by functional type. Fine or service ware sherds were sorted by manner and style of decoration. It must be noted that this preliminary categorization is not intended to be the final analysis of the sherd collection, but merely to reveal general characteristics of the different vessel forms and wares in use at the village. In this discussion, frequencies are presented in Tables 1.3 and 1.4. The ratio of fine to utility wares from excavated contexts in structures was consistently 1:2. Excavations in Operation 3, the jaguey, collected sherds in a 1:3.85 ratio, reflecting the practice of filling water transport/storage vessels there. Sherds from surface collections (Mounds 11-24, and much of the material from Operation 8; see Table 1.2) showed a radically different pattern, with fine ware sherds much more abundant than utility. This is perfectly understandable, given the much higher visibility of fine wares (as Table 1.3 shows, the fine ware material from Operation 8 and Mounds 11-24 is overwhelmingly [96% to 99.5%] decorated).

**Table 1.2. OPERATIONS 1 through 24—ARTIFACT SUMMARY**

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Structure 1</u> (58.104 m <sup>3</sup> )	12405	8476	3929	49	22	33	12	9	581	320	4	9	
<u>Structure 2</u> (50.12 m <sup>3</sup> )	5146	3242	1904	20	23	21	11		201	174	2	1	4
<u>Operation 3</u> (12.6 m <sup>3</sup> )	194	154	40			2			20	5			
<u>Structure 4</u> (70.81 m <sup>3</sup> )	9243	6262	2981	33	14	43	6		565	321	5	2	13
<u>Structure 5W</u> (24.99 m <sup>3</sup> )	5552	3590	1962	33	28	50	4		231	137			5
<u>Structure 5E</u> (18.68 m <sup>3</sup> )	7455	5102	2353	29	21	64	5		535	236		1	12
<u>Structure 6</u> (209.6949 m <sup>3</sup> )	37328	26259	11069	148	82	158	35		5077	977	3	3	9
<u>Structure 7</u> (28.31 m <sup>3</sup> )	5468	3915	1553	29	4	21	1		466	125	2		3
<u>Operation 8</u> obsidian dump	371	12	359						SEE REPORT				
<u>Structure 9</u> (57.3472 m <sup>3</sup> )	6215	4852	1363	40	18	19	9		456	201	8	1	5
<u>Structure 10</u> (35.39 m <sup>3</sup> )	7875	5805	2070	28	2	28	2	1	456	226			9
<u>Surface Collection</u> 11-24 (9,200 m <sup>2</sup> )	1058	84	984	71	48	56	3				7	3	4
Totals	98320	67753	30567	480	262	495	88	10	8588	2722	31	11	73

**Table 1.3. OPERATION 1 through 24—FINE CERAMICS**

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Structure 1</u> (58.104 m <sup>3</sup> )	3929	2131	681		9		94	44	15		11		2	331	507	37	86	12
<u>Structure 2</u> (50.12 m <sup>3</sup> )	1904	906	428		2		111	34	16		6		1	151	302	35	38	38
<u>Operation 3</u> (12.6 m <sup>2</sup> )	40	22	12				1				1			5	1			
<u>Structure 4</u> (70.81 m <sup>3</sup> )	2981	1579	567	6	18		131	16	13		15	7	9	295	499	59	27	2
<u>Structure 5W</u> (24.99 m <sup>3</sup> )	1962	902	466		2		73	8	6		2			179	355	25	10	6
<u>Structure 5E</u> (18.68 m <sup>3</sup> )	2353	1109	532		5		28	1						183	468	26	19	3
<u>Structure 6</u> (209.69449 m <sup>3</sup> )	11069	4887	2018	3	54	1	391	53	29		30		354	1109	2088	183	355	2
<u>Structure 7</u> (28.31 m <sup>3</sup> )	1553	697	318	1	20		46	5	9		1		11	149	338	15	11	5
<u>Operation 8</u> obsidian dump	359	2	140	2	2		58	6	6		2				98	26	12	3
<u>Structure 9</u> (57.3472 m <sup>3</sup> )	1363	803	224		1		30	7	11		10	6	7	138	160	8	12	11
<u>Structure 10</u> (35.39 m <sup>3</sup> )	2070	1213	311		1		87	11	10		2		2	154	288	3	89	
<u>Surface Collection</u> 11-24(9,200 m <sup>2</sup> )	984	37	513	4	15	1	204	47	17		21	2	45	9	208	49	31	12
<b>Totals</b>	<b>30567</b>	<b>14288</b>	<b>6210</b>	<b>16</b>	<b>129</b>	<b>2</b>	<b>1254</b>	<b>232</b>	<b>132</b>		<b>101</b>	<b>15</b>	<b>431</b>	<b>2703</b>	<b>5322</b>	<b>466</b>	<b>690</b>	<b>94</b>

Table 1.4. OPERATIONS 1 through 24—UTILITY CERAMICS

CONTEXT	Vessel type							Use			Handles		Spindle whorls		worked sherds
	total utility	comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Structure 1</u> (58.104 m <sup>3</sup> )	8476	797	1182	881	29	72	5515	180	330	64	101	33	7	5	5
<u>Structure 2</u> (50.12 m <sup>3</sup> )	3242	268	59	131	13	52	2719	95	224	36	47	17	4	3	5
<u>Operation 3</u> (12.6 m <sup>3</sup> )	154	1		6		1	146	2	6		11			1	2
<u>Structure 4</u> (70.81 m <sup>3</sup> )	6262	448	37	192	14	90	5481	119	661	34	110	33	5	2	14
<u>Structure 5W</u> (24.99 m <sup>3</sup> )	3590	240	40	192	22	10	3086	163	387	65	89	8	1	4	4
<u>Structure 5E</u> (18.68 m <sup>3</sup> )	5102	452	27	161	25	44	4393	70	546	74	129	40		5	2
<u>Structure 6</u> (209.6949 m <sup>3</sup> )	26259	1467	260	841	131	237	23323	502	2201	151	373	89	23	28	27
<u>Structure 7</u> (28.31 m <sup>3</sup> )	3915	209	41	115	10	41	3499	65	155	12	44	16	2	3	2
<u>Operation 8</u> obsidian dump	12			1			11						2	5	2
<u>Structure 9</u> (57.3472 m <sup>3</sup> )	4852	252	93	139	8	28	4332	117	532	56	51	20	5	6	2
<u>Structure 10</u> (35.39 m <sup>3</sup> )	5805	243	8	122	18	23	5391	125	357	6	50	16	4	3	3
<u>Surface Collection</u> 11—24 (9,200 m <sup>2</sup> )	84		1		48		35						2	13	17
Totals	67753	4377	1748	2781	318	598	57931	1438	5399	498	1005	272	55	78	83



**Fine Wares:** Nearly half the fine or service ware sherds were from plain orange vessels, and the rest were from decorated vessels (painted, slipped, glazed, or embossed). We include in this general summary sherds from Texcoco Fillet ware, which is "probably ceremonial in function" (Parsons 1966:454; see also general description in Parsons 1966:253-256); these vessels are probably incense burners. Another functional type that is not strictly a "service vessel" included in the sherd counts of Table 1.3 is the molcajete or grinding bowl, in design and size identical to other footed bowls in Plain Orange or Black on Orange, but having a scored base. Molcajete sherds are included with other Plain Orange and Black on Orange serving vessels in the general count, and with Black on Orange bowls and plates in the breakdown of types.

**Chronological Markers:** Black on Orange design types serve as a crucial set of chronological markers. Work done by Parsons (1966), Parsons and Blanton (1971), Whalen and Parsons (1982), Vega Sosa (1975) and Charlton on these types was invaluable for our preliminary breakdown of designs. I wish to emphasize that the analysis of Cihuateopan materials presented here is preliminary, that we analyzed only molcajetes, dishes, and plates, and that we lumped these vessel forms together, by design type. Therefore, although significant numbers of vessels with exterior Black on Orange designs were found, their description and analysis is a project for the future.

The Black on Orange sherds from molcajetes, bowls, and plates whose designs could be categorized amounted to 30% of Black on Orange sherds. The chronological breakdown of these types by Parsons (1966) groups them into three broad time periods (dates of archaeological phases are from Sanders et al. 1979:93): Aztec II, the Zocango phase of the Teotihuacan Valley sequence (ca. A.D. 1150 to 1350-1400), Aztec III, the Chimalpa phase of the Teotihuacan Valley sequence (ca. A.D. 1350-1400 to 1500), and Aztec IV, the Teacalco phase of the Teotihuacan Valley sequence (from ca. 1500 into the colonial period).

Molcajetes A and B, and dishes and plates A, B, and C date from the Zocango phase (A.D. 1250-1400; Parsons 1966:310-311). Our sample includes 147 sherds from this phase (8% of known Black on Orange types; see Figure 1.7). Another feature of Zocango phase pottery is the solid conical supports on dishes and molcajetes, and these occurred in frequencies double those of the later, slab type (see Table 1.2).

Chimalpa phase diagnostics include molcajetes of types C, D, and E, and dishes of types D and E (Parsons 1966:315-316). Types D and E account for 79% of identifiable Black on Orange sherds (see Figure 1.8 for examples). The final phase, Teacalco, includes molcajetes and plates of type F, and dishes F, G, and J (Parsons 1966:319). These types account for 13% of this sample.

Glazed wares are, of course, postConquest, and 1.4% of fine ceramic sherds were glazed. Most of these came from Structure 6.

It was noted earlier that the dating of these phases is approximate, and that Charlton has interpreted the later ceramic phases as extending well into the colonial period in the rural parts of the central highlands. Since, at this time, we have no independent chronological control on the dating of excavated contexts, the phasing of Black on Orange types by Parsons and Charlton give us our strongest guidelines on site establishment and occupation.

Extrapolating only from the Black on Orange ceramics analyzed so far, and from knowledge of the presence of other diagnostics such as Mazapan wares and glazed ceramics, I would posit a Late Toltec time of establishment of this village, with greatest

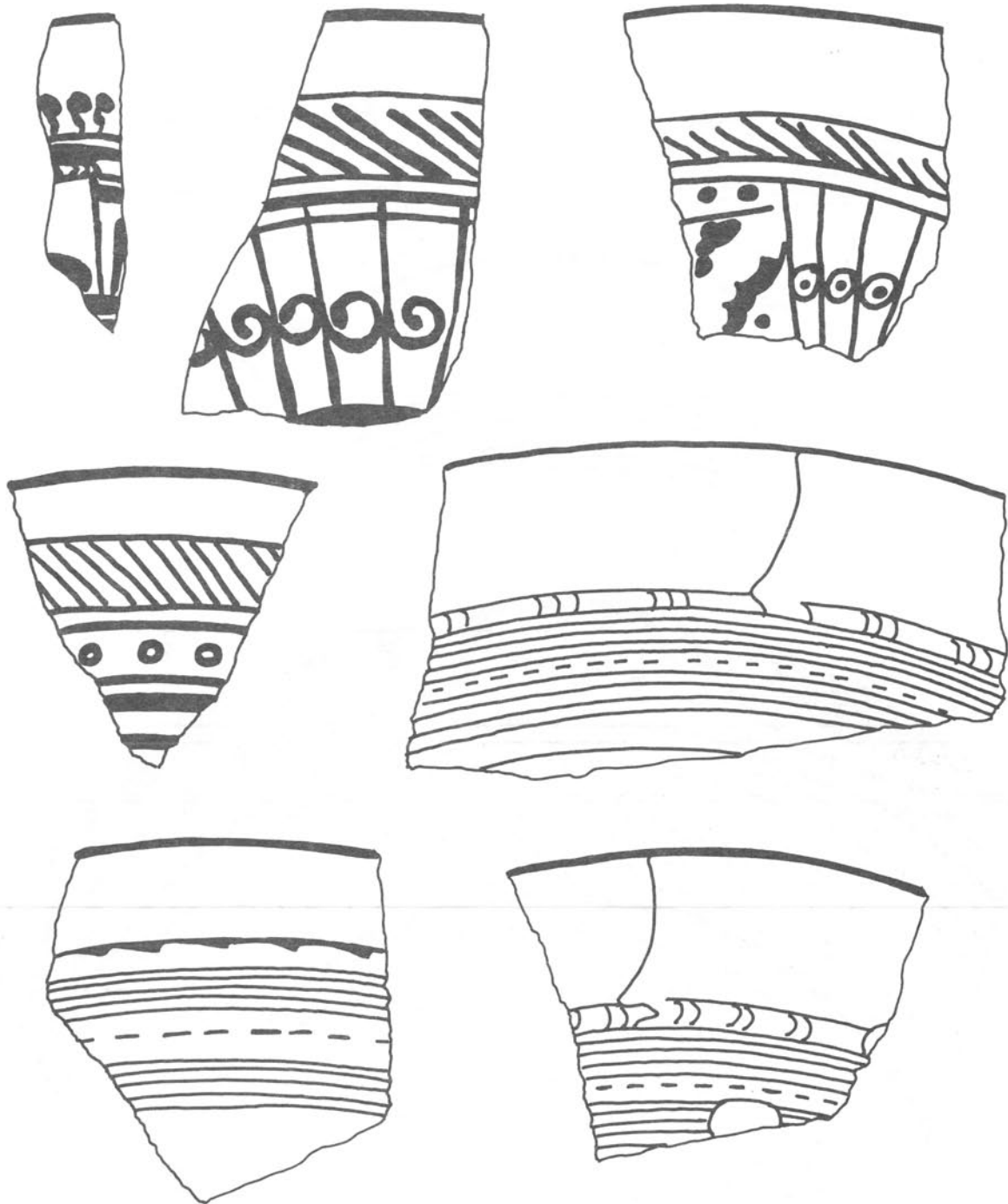


Figure 1.7

**BLACK ON ORANGE CERAMICS**

Top row: Plate "A" (6.71.1), Plate "B" (6.83.1), Plate "B" (6.59.3).

Middle row: Plate "B" (6.95.4), Plate "D" (6.14.2).

Bottom row: Plate "D" (6.31.1), Plate "D" (6.109.1).

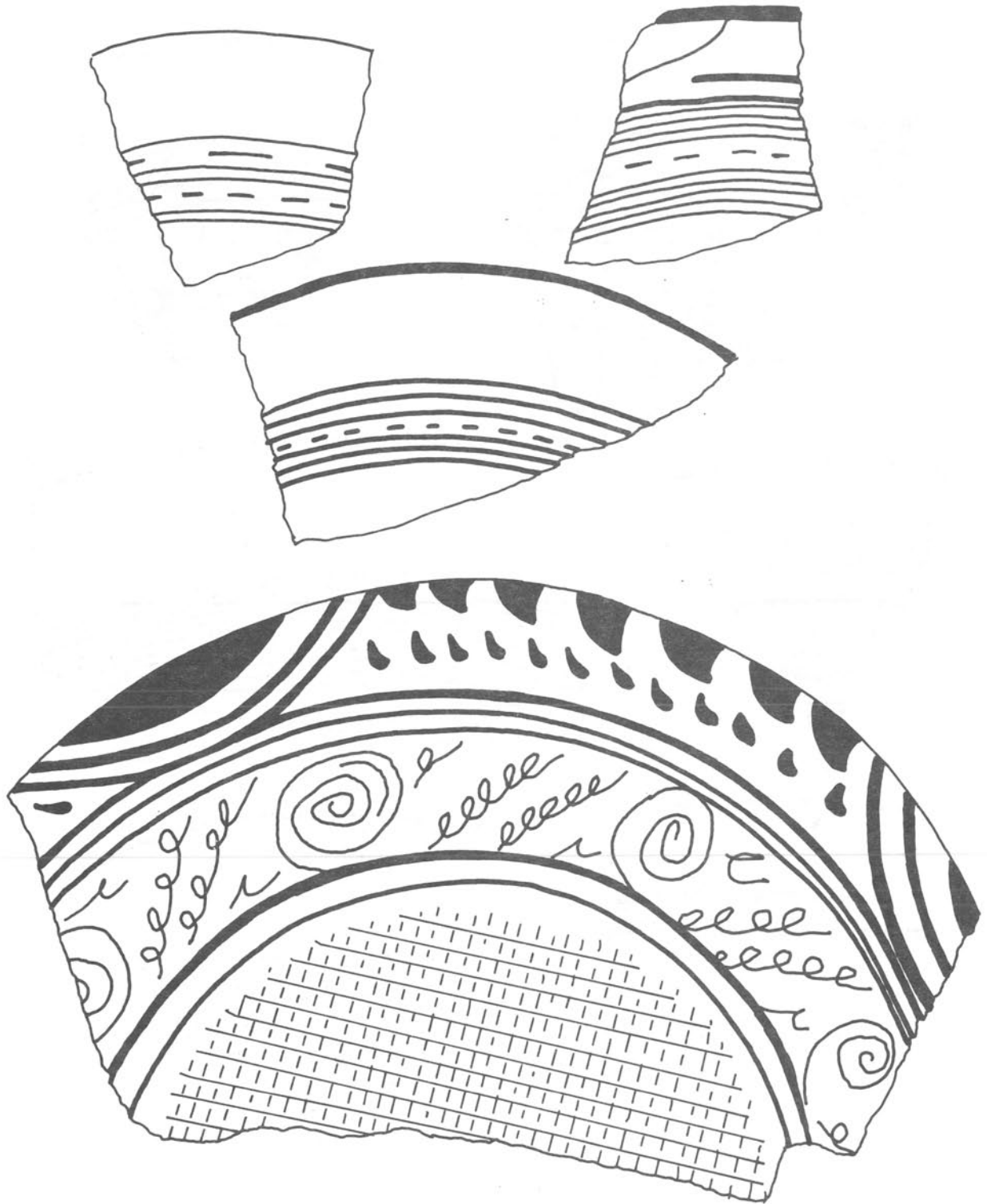


Figure 1.8

**BLACK ON ORANGE CERAMICS**

Top row: Plate "E" (6.16.10), Plate "E" (6.87.3).

Middle: Plate "E" (6.52.6).

Bottom: Molcajete "F" (1.1.3).

occupation in the fifteenth and sixteenth centuries, and scattered occupation in the seventeenth century. The ceramic evidence coincides with the general historical model of population movements and settlement patterns in the Late Postclassic. Pioneering Cihuatecanecos may have been displaced agriculturalists from the area north of the Basin of Mexico (perhaps, in turn, descended from displaced agriculturalists who migrated out of the Basin at the end of the Classic period). Since no structures of Mazapan date were uncovered (see the discussion above), the size of this original population cannot be determined. However, the widespread presence of Aztec III type "D" argues for the greatest extent of population (roughly 1,000, in the village's 200 houses) in the fifteenth and sixteenth centuries.

It should be emphasized that, beyond generating these very broad generalizations, relative proportions of various Black on Orange types cannot be used to calculate relative population sizes of the phases under study. Fully two-thirds of identifiable Black on Orange sherds were of type "D", and it may have been manufactured in greater quantities than the others, and for a longer stretch of time, overlapping the temporal extent of the other types.

**Utility Wares:** Sherds from utility vessels accounted for 69% of the sherds collected. As Table 1.4 shows, of the 67,727 sherds in this sample, 9796 (14%) could be categorized as to vessel type. The vessel types under study here include comales (griddles, accounting for 45% of identifiable types), basins (large, heavy-duty bowls, 18%), jars (28%), braziers (portable heat sources, 3%), and salt-production vessels (6%; these are sherds from Texcoco fabric-impressed pottery, which may have been used in rendering, trading, and storing salt; see Parsons 1966:247-249, and Charlton 1969 for discussions).

The frequencies of these types, like those for the fine wares, include both body and rim sherds that could be identified; these frequencies are offered to facilitate comparison of one building with another (in Evans and Abrams, this volume), rather than to indicate values useful in further interpretation (such as the delineation of broadly defined areas of activity of one sort or another). The high proportion of sherds from comales, for example, probably results from their distinctiveness (body sherds are completely flat, roughened on one side and very smooth on the other), which makes them easy to recognize and categorize, rather than from an actual preponderance of this type. On the other hand, it is more difficult to distinguish the body sherds of jars from those of basins, and more of the sherds from these vessels were classified as "unknown."

Utility wares were often used for cooking, and for soaking dried corn in water mixed with lime, and these activities are evidenced in charring on the outside of vessels, and a calcium coating within them (some vessels had both). These features were found on 7335 sherds (see Table 1.4).

*Other Ceramic Artifacts: Worked Sherds:* Sherds were sometimes reused in antiquity; their edges would be abraded away, and these worked sherds would assume a rounded shape, and served as markers, or, with a hole drilled through, as pendants or spindle weights. Ethnohistoric sources attest to the popularity of the patolli game (something like parcheesi), and though no examples of game boards were found at Cihuatecan, some worked sherds may well have served as markers for this or other games. Some worked sherds were perforated, and may have functioned as spindle whorls. Sherds from many different kinds of pottery types were worked and reused; no pattern of preference for a particular type, even for decorated wares over plain, emerges from the sample of 82 worked sherds.

*Spindle Whorls:* These ceramic artifacts served to weight the spinning staff as the yarn was wound onto it. There are two basic types: large, probably for spinning maguey fiber, and small, probably for spinning cotton. In a study of modern maguey utilization by the Otomi, Parsons and Parsons found substantiation of this assumption, in the direct relationship between spindle whorl size and thread thickness (1985:35c). Charlton (personal communication) notes the establishment of wool production in the upper Teotihuacan Valley in the colonial period, and suggests that the small spindle whorls may also have been used to produce wool thread and yarn. Both large and small whorls display a wide variety of styles, and M.H. Parsons has studied the significance of this stylistic variation in terms of the extent of trade in these items. The 133 spindle whorls found in 1984 divide 41%:59% between the large and small types, and will be studied further.

*Figurines:* A total of 480 figurine fragments were found (and no complete figurines were recovered). These include fragments of both hollow rattle and plaque types, and represent a large range of sizes (from a body a few centimeters long to two fragments—a face and a foot—that were life size). Like the spindle whorls, the figurine collection from Cihuateopan represents an important trove of information, and further analysis will provide us with insights into the religious life of the villagers.

*Seals:* Fragments of these were found in Structures 1, 6, and 10. The designs are stepped-fret, and a possible floral design (similar to Enciso 1953:52,vii, an example from Texcoco). The function of the seals is something of a mystery. Their purported uses include the application of designs to pottery, to clothing, to paper and to the skin, but Field (1967) points out that the evidence is very fragmentary, and they may have served as markers of signature or ownership.

*Cones:* Small ceramic cones (no more than 6 cm long, and 2 across) were found in Structures 6 and 7. One of these had a skeletal head incised into its broad end. Their function is not known.

## B. Lithics

*Obsidian:* At Cihuactecpan, there are two sets of obsidian data: the tools used by the villagers in their everyday life, and the waste byproducts of the local tool manufacturing industry.

The two obsidian detritus dumps at this village are striking in their extent and the quantity of waste they contain, and indicate the economic importance of exploiting this key local resource. The 692.98 kg of obsidian from Operation 8, discussed by Abrams (this volume) are waste materials from the production of grey-black obsidian bifaces and scrapers.

Another set of obsidian artifacts was excavated from the other research operations. A total of 11,310 pieces of obsidian were recovered, with grey-black to green in a 3:1 ratio. This important collection will be further studied as to the proportions of tools of various kinds, in the two types of obsidian. We assume the sources of these to be local outwashes (for cobbles) and the Estetes mine 3 km away for the grey-black (this is T.A. 79, discussed in Spence 1985:83, and Spence and Parsons 1972), and the Pachuca mines in Hidalgo (for the green obsidian) but source analysis should be performed on a small sample to confirm this (see Cressey 1975 for a full discussion of the kinds of obsidian in use in the upper Valley during the Aztec period, and the tools made from them).

The counts of obsidian per operation include tools, tool fragments, flakes, and debitage. Much of the green obsidian was in the form of prismatic blades, while the grey-black was used for a much wider range of tools, including prismatic blades (both "flake blades" and "fine blades" [Spence 1984:91], but not very many, because this local obsidian has a fairly rough texture; see Fraunfelder 1972:31 for the geophysical reasons), bifacial artifacts, end scrapers (these were useful in the production of maguey sap), and cores. There were also several small earspools found in the plowzone of Room J of Structure 6. Another special find in this structure was a plain orange bowl on the adobe paving of Room L, containing 21 fine grey-black prismatic blades.

Concerning projectile points, our findings concur with those of Cressey, who studied obsidian from sites in the upper Teotihuacan Valley, and says that "No other tool type is so poorly represented within the sites of this study," comprising only 0.11% of the sample (1975:103). At Cihuateopan, several projectile points were found.

Other Chipped Stone: Several small (3 cm diameter) chert flakes were found on survey and in excavation. Otherwise, all chipped stone material was obsidian, an overwhelming ratio in favor of the local, and readily available material. In contrast, 34% of the chipped stone artifacts at Aztec period Xico, in the southeastern Basin of Mexico, were of chert (but < 1% of chipped stone artifacts at Huexotla; Brumfiel 1986:253).

Quartz: The symmetry and scintillation of quartz crystals hold a strong aesthetic attraction for people of many cultures, though the function of these crystals in Cihuateopan village life remains a mystery. In Aztec times, quartz was included in luxury tribute as gemstones already set in jewelry (Berdan 1987:164-165), but crystals were not categorized as fine stones, being sold with the lesser stones in the marketplace (Berdan 1987:177). Cook de Leonard notes that quartz occurs naturally in various forms in the Teotihuacan Valley, but that little is known of it archaeologically from the Classic period (1971:214). The crystals found at Cihuateopan were recovered from flotation samples, and are the size of grape seeds (see McCoy and Evans, this volume, Table 4.3), and almost 80% of the 63 specimens come from Structure 6. At present, I could only speculate as to their use, and I include a functional attribution from the U.S. Southwest, Barnett's assumption that crystals "are thought to have been carried by medicine men in their pouches or bundles as charms of good fortune, and were employed in their practices, or other sacred rites. They were supposed to have been symbolic of light, and...were also considered by some to be symbolic of fire" (1973:46).

Ground Stone: Manos and metates were found as fragments, and not in great numbers. I attribute this relative dearth to the same circumstances of gradual site abandonment that account for other lacunae in the artifact record. Manos and metates conform to Tolstoy's (1971:288) expectations for this period: the latter are quadrangular and usually tripod and the former are loaf-shaped, sometimes "dog-bone" style from hard use. Stone bowls and stone beaters and pestles were also found.

Scrapers of fine-grained basalt were common at the site. These are shaped like modern hoes, but apparently did not serve that purpose (most agricultural implements were probably fire-hardened wood; see Rojas Rabiela 1984). These scrapers probably were used to process maguey leaves into fiber. Soustelle suggested this use in 1937, and Parsons and Parsons' recent ethnographic work among the Otomi included successful experimental use of a prehispanic tool of this kind to process fiber (the Otomi today use a tool of similar shape, made from a metal leaf spring from an automobile; Parsons and Parsons 1985:17,26). The abundance of these basalt tools at Cihuateopan underscores the importance of maguey in the local economy.

Metal: We found a number of postconquest metal artifacts (bottle caps, coins, part of a spur) and one probable preconquest item, a copper needle (described in the discussion of Structure 2). Preconquest copper was worked by hammering (Noguera 1971:268), and Gamio lists copper artifacts among those things manufactured in the Teotihuacan Valley in preconquest times, but the material was imported, and the needle was no doubt not of Cihuateopan manufacture.

### C. Bone and Shell

Several fragments of bone needles were found, but the most exciting bone artifact was the omichicahuastli, a musical rasp (see discussion of Structure 2 in Evans and Abrams, this volume). Several small whole shells were found, but the only shell artifact was a nacre ornament (only about a cm across), possibly a small nose ornament.

## IV. Cihuateopan: Material Evidence and Lifeways

Reconstructing the life of a village from the bits and pieces undestroyed by the centuries and perceptible to the archaeologist is no easy task, though here the job is made easier by the ethnohistoric record. In the discussion which follows I sketch the outlines of Cihuateopan's way of life, and I assume that future research, both on materials already gathered, and on new data, will enhance and alter these generalizations.

From the distribution of chronologically sensitive ceramic types, it seems clear that the circum-cerro pattern of settlement of the village was established, on a modest scale, in the Early Aztec (II, Zocango, probably twelfth century). This pattern would indicate an early commitment to terrace agriculture, given the dispersed houselot pattern so familiar from archaeological, ethnohistoric, and ethnographically known cases. A concomitant of this pattern is the mixed cultivation of maguey and seed crops (and here our flotation evidence of amaranth as well as maize provides some substantiation of the Codex Mendoza tribute requirements from the Teotihuacan Valley). The establishment of this pattern of houselots and this pattern of agricultural exploitation indicates that major elements of the village life style were the basis of its growth and prosperity: seed crops for subsistence and for tribute, and maguey, for its multitude of uses.

The exploitation of the local obsidian resources (the Estetes mine and the cobbles lying exposed in nearby gullies) was another major specialization, one which probably developed as the village grew. This issue can be addressed by further study of the detritus and tools, particularly establishing the chronology through the obsidian hydration dating technique.

The obsidian detritus from biface and scraper production was localized in two dumps (one is described in Abrams, this volume; the other was located nearby, about 100 meters downslope). The proximity of these dumps to each other, and the strong pattern of localization of the waste material, may shed light on the nature of the village's obsidian manufacturing industry. Healen found that in Tula, "obsidian working was essentially a cottage industry" (1986:143), with workers living and working in the same space. The dumps at Cihuateopan may simply result from accumulated refuse brought to particular spots from a large number of work contexts in houses throughout the village, or they may indicate that tool production was localized in a few areas, adjacent to the dumps. We should note that both dumps are fairly close to the largest housemounds, including Structure 6. The speculation that the work areas may have been localized does not

necessarily entail the notion that some individuals were fulltime craft specialists here; even if workshops were present, they could have been staffed on a parttime basis by the men of the community.

Obsidian working is not seasonally tied, but the rhythms of the agricultural cycle put definite constraints on time allocation. These work in different ways, depending on the crop. Seed crops have yearly cycles, but other crops demand careful attention on a day-to-day basis throughout the year. Maguey exploitation, for example, involves daily attention for at least three months, and the plants mature throughout the year. Since the plants take at least 6 to 8 years to achieve maturity, only about 2 to 3% are productive at any point in time (Parsons and Parsons 1987:84), but so great is the plant's value that humans readily adapt themselves to its needs at harvest time.

It hath near forty kinds of leaves, which serve for many uses, for when they be tender, they make of them conserves, paper, flax, mantles, mats, shoes, girdles, and cordage. On these leaves grow certain prickles so strong and sharp that they use them instead of saws: from the root of this tree cometh a juice like unto syrup, which being sodden will become sugar. You also make of it wine and vinegar....The rind roasted healeth hurts and sores, and from the top boughs issueth a gum, which is an excellent antidote against poison. (Gage 1648/1958:76)

Despite certain misunderstandings on Gage's part, his description conveys the wonderful range of uses of the plant: few cultigens feed, cloth, house, cure, and intoxicate, and then provide fuel for a warming fire. Motolinía praised maguey as a "thistle" of "great virtue" (1950:272), and devoted a chapter to its uses.

Parsons and Parsons have found that the exploitation of the plant's uses in turn plays a role in structuring human lives, and in establishing a pattern of sexual division of labor which no doubt marked the lives of the Cihuateopanecos. The timetables of maguey sap and fiber extraction are such that the demands of extracting the sap and delivering it fresh preclude also being involved with fiber processing, and consequently "it is not surprizing to find a well-defined division of labor within the...household with respect to the two main...products: the husband oversees the pulque operation, and comprises its principal labor force; the wife is comparably concerned with maguey fiber; the teen-aged children provide secondary assistance in both domains" (Parsons and Parsons 1985:18). Furthermore, maguey exploitation demands the dispersed settlement pattern, since the extraction of sap and the processing of fiber cannot take place far from the workplace (Parsons and Parsons 1985:27), which is presumably adjacent to the house.

The lives of the men in the village would be anchored in their agricultural duties, with the seasonal needs of seed and other crops, and the constant needs of the maguey plants. In addition, there would be manufacturing activities of all sorts: the obsidian industry would produce important commodities for trade, but other items in household use, wooden tools, for example, would probably be produced in each home, and men would form work cadres for tribute duties and community and family projects.

The lives of the women would focus on childbearing and rearing and textile production (with the daily processing of corn into masa using several hours of time; see Isaac 1986:14-15 for a general discussion). It is no wonder that the "goddess" representations of womanly sexual love, fertility and safe childbearing, and weaving are so closely related (Anawalt 1981:13; Sullivan 1982); these activities formed the continuing foci of life.



The processing of maguey fiber, materially evidenced by the scrapers and the large spindle whorls found in all parts of the village, produced fabric and cordage used at Cihuateopan and possibly traded away. Other aspects of the local textile industry involve more exotic goods: the small spindle whorls are our evidence of cotton fiber production. The cotton would have been purchased at the marketplace, imported from the warmer climates to the south and east (Rodriguez 1982). Since the tribute requirement (see the discussion of the Codex Mendoza) is in mantas and clothing rather than in thread, we can safely assume that weaving was also part of the processing, although no loom parts survive from Cihuateopan. Some of the cotton may have been locally used, by the tecpan household, but most Cihuateopanecos would have been forbidden by law to wear cotton clothing. Fine fiber can also be produced from the heart of the maguey, but this is not spun (Kelly 1944-45).

Yet another textile-related product which may have figured significantly in the local economy is cochineal. This dye was a valuable export from Mexico in colonial times as well as prehispanically (Cook de Leonard 1971:219-220). Made from the bodies of scale insects infesting nopal cactus, it was a product well adapted to the arid conditions of the upper Teotihuacan Valley. In fact, cochineal production in the Basin was centered "in the northeast, between Otumba and Cempoala" (Gibson 1964:354), so cochineal exploitation at Cihuateopan was probable. Unfortunately, the high value of the dye and the method of processing as we know it leave few clues as to possible archaeological evidence. The insects were boiled (presumably in a vessel of common type) and their bodies ground in a mortar and pestle. These are carefully rinsed out during the dyebath, so as to save even the slightest residue of the dyestuff. If used locally, the implements of dyeing would probably not be visible archaeologically, and if exported, the manner of transport was probably of pouches of dried bugs. Here is a case of a commodity which may have figured significantly in the local economy, but which is known to us only through the ethnohistoric and ethnographic record.

These economic activities form the basis for the village's prosperity. The affluence in the village is evidenced in architecture and in artifacts, and seems to have been fairly widely shared, at least among the families in the core area. As I mentioned above, the houses we excavated demonstrated the villagers' ability to invest in aesthetics as well as basic needs, and we must assume that the surplus available to them was their net worth, after taxes. The tribute of the village was organized by the local teuctli, the headman and presumable resident of Structure 6. The teuctli was responsible to the next higher level of administration (probably the tlatoani of Otumba) for gathering and remitting tributes, and he would have discussed the obligations with the heads of household, gathering them into Room V of Structure 6 (where, with a little jostling, all 200 of them could meet) and addressing them from his central room (L). The teuctli would also arbitrate disputes, celebrate rituals and rites of passage, and hold the land maps for the villagers. The tecpan, his residence, housed his family (probably with several wives [Anonymous Conqueror 1530/1917:77], their children, other kin) and some of his retainers (Carrasco 1964, 1971, 1972, 1976 discusses elite household size in the early postconquest period), and may have stored village goods gathered for tribute and grain stored against possible future hard times (Rojas 1986:55). Structure 5 West may also have served as a storehouse.

The differences in affluence among the houses would seem to bespeak opportunities for socioeconomic mobility. Perhaps this is, in part, related to degree of closeness to the teuctli, but houses some distance from Structure 6 show evidence of affluence. It is probable that in Cihuateopan, as in innumerable other peasant villages over the world and through time, hard work and good fortune sometimes combined to make some families better off than others.

The size and structure of families here at Cihuatecpan has not been studied in depth, but extrapolation from surveys based on ethnohistoric sources of the early colonial period in the Basin of Mexico (Harvey 1985) and elsewhere (Spores 1984) would suggest that the size of the average household was probably five, six, or seven persons, and that household composition was not rigidly fixed, but may have involved several married couples and their children, and several generations of the same family.

This brief look at the lives of the Cihuatecpanecos has been illuminated by the combined resources of their material remains, the accounts of lifeways in general by early colonial observers, and by the lives of presentday people still sharing some of their practices. The data gathered by the 1984 season of the Cihuatecpan project will be further analyzed, permitting more detail to emerge, and a clearer general picture of the life of the rural Aztecs.

## 2. ARCHAEOLOGY AT THE AZTEC PERIOD VILLAGE OF CIHUATECPAN, MEXICO: METHODS AND RESULTS OF THE 1984 FIELD SEASON

by

Susan T. Evans

and

Elliot M. Abrams

---

### INTRODUCTION

The Teotihuacan Valley during the Aztec period provides a rich set of resources for the job of reconstructing the cultural context: excellent archaeological survey and ecological background data, and considerable ethnohistoric documentation. The spring 1984 field season in Mexico focused on data recovery at Cihuatecpán through archaeological methods, though some ethnohistoric research was conducted at the Archivo General de Nación in Mexico City.

Archaeological field research in the 1984 season entailed four general categories of study: first, a survey of the entire terrace system encircling Cerro San Lucas, to locate and map the distribution of cultural remains; second, a more intensive survey of thirteen unexcavated mounds in the core area of the site (Operations 11 - 24); third, intensive survey and test-pitting of two non-residential features (Operations 3 and 8); and fourth, excavation of eight mounds which were the remains of Aztec period residences (Operations 1, 2, 4 - 7, 9 and 10). Figure 2.1 depicts the locations of Operations 1 - 24.

Our overall goal was to secure both general and specific information so that this site could be characterized in broad terms as well as emerging as a particular and distinct Aztec period rural village. The mapping survey provided a general view of the population of Aztec period archaeological remains available for further research (this "population" is itself a sample from a slightly larger original population of remains, some of which are now lost to various natural and cultural processes of landscape change). From this population of Aztec remains at Cerro San Lucas, including 206 concentrations of rubble and/or artifacts, samples were drawn for further investigation. In all, 23 mounds and an obsidian detritus concentration (together representing 12% of the population of mounds) were studied further. Of these, fourteen mounds were gridded into units of 10 m<sup>2</sup> and surface collected. Two other surface collection operations involved test-pitting as well: the obsidian concentration (Operation 8), and a mound which turned out not to have masonry remains, but is believed to have been an ancient *jaguey*, or man-made pond (Operation 3). Finally, the most intensive field investigation focused on a sample of eight mounds; these were excavated to gather detailed information on architecture and other behavioral features.

In this section of the report, we present a description of our methods of investigation, and then detailed descriptions of material evidence from Operations 1 through 7, and 9 through 24.

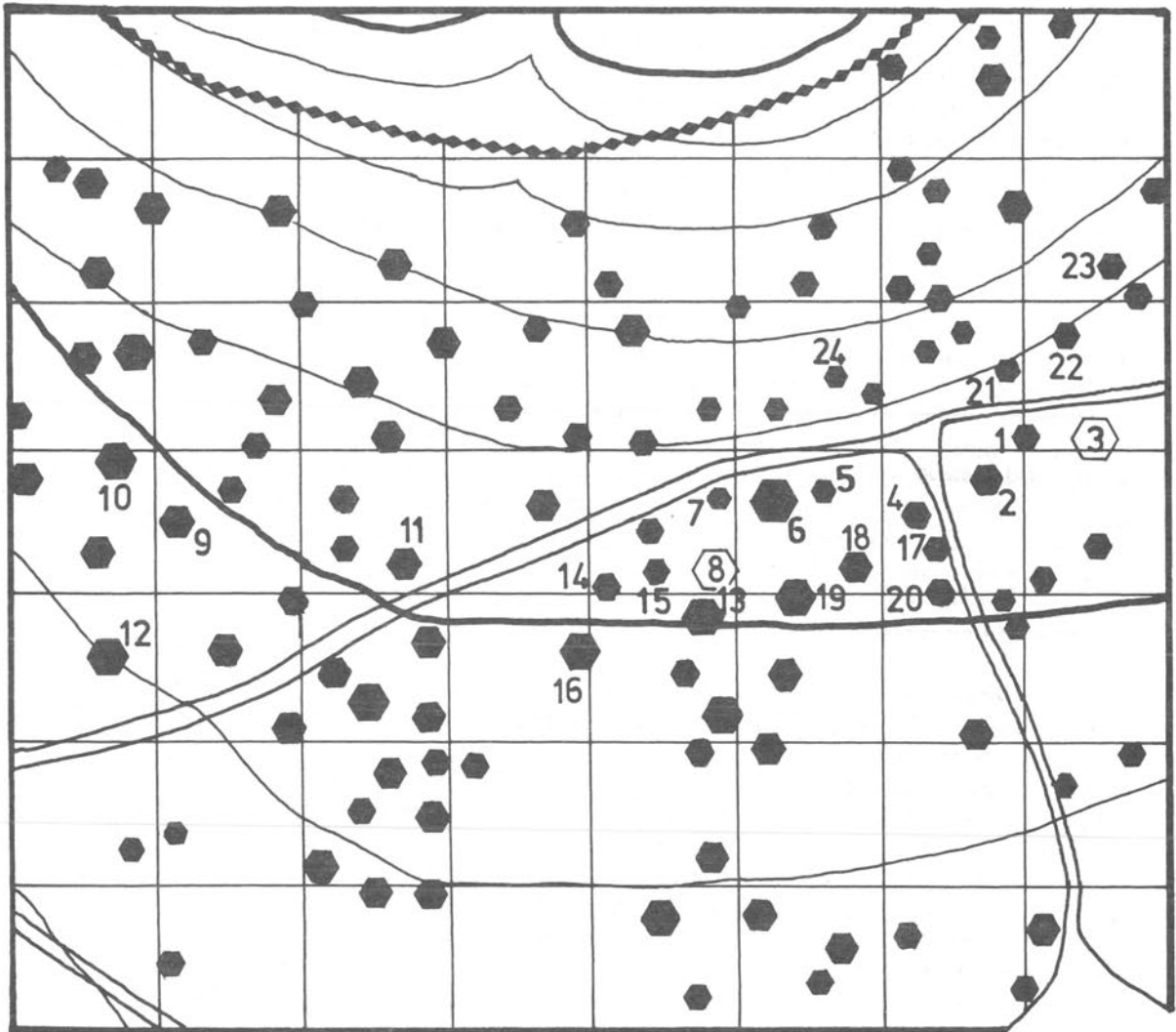


Figure 2.1:

HOUSEMOUNDS ON THE SOUTH SLOPE OF CERRO SAN LUCAS  
 (Each grid cell = one hectare)

## METHODS OF INVESTIGATION

### Sampling Strategy

The project goal of assessing intrasite variability in architecture and associated artifact assemblages necessitated an adequate sample of structures. Exactly what constitutes "adequacy" in these circumstances, however, depends on the degree of variation existing in the target population; if these villages are known to be internally homogeneous in lifestyle, a smaller sample size is necessary than that which would capture the variability of a more diverse setting. The degree of homogeneity or heterogeneity of villages of this type has not yet been adequately documented and therefore the project's goal of a 10% sample represented a shot in the twilight, a sample size which by far exceeds that of any Aztec village investigation to date, but which is arguably fairly small.

Some of the circumstances of data recovery at Cihuatecpan included soil .5 to 1 meter deep around the structural remains, fairly well-preserved architecture (most wall bases were intact, and in most rooms, at least part of at least one floor was present), and a large repertoire of artifacts. We quickly discovered that several features of the site simplified data collection: the soil was loose and powdery, and the behavioral contexts (such as living floors) had few artifacts *in situ*. This scarcity of materials in place was probably the result of the particular circumstances of abandonment, which were mandated by the colonial government policy of congregación. As families would prepare to move, they no doubt took with them to their new homes everything of use. It is also likely that wooden parts of the structures would have been removed for reuse, facilitating the collapse of the standing walls.

Assessing our strategy for data recovery after the first day of the field season, we decided that at the rate of excavation represented by the first day's work, we would be fortunate to complete excavation of three modest structures in nine weeks, or a 1.5% sample of the village house population of about 200. This, we thought, was not adequate to provide data on functional and economic diversity. Given the widespread destruction of villages of this type in the Teotihuacan Valley since the 1970s, and the probability that several years would ensue before the next field season at Cihuatecpan, with no guarantee of finding the site still unbulldozed, we decided to change our data recovery strategy in order to sample more structures. We assessed the value of screening, given the considerable time it took, and the nature of material which could only be recovered by screening. In looking over the first day's collection, we found hundreds of well worn, less than dime-sized sherds which seemed a poor bargain when weighed against the opportunity to collect good architectural data and readily analyzable artifact samples from a much larger group of structures. The fact that nothing guaranteed against further deterioration of the site obviously influenced our decision to sacrifice minutae and cast a wider sampling net. As a control against the danger of missing important details of behavioral contexts, we collected 177 eight-liter soil samples from good behavioral contexts, and material from light and heavy fractions of flotation is briefly described in McCoy and Evans (this volume).

Using the revised excavation strategy, we uncovered remains of more than eight structures: 1, 2, 4, 5 East wall lines, 5 West, 6, 7, 9, and 10. This represents about a 5% sample of the housemounds dispersed around Cerro San Lucas. This sample was not a random selection, however, but was stratified, focusing on densely spaced mounds

distributed over the broad terrace just below the east-west road running through the site. Here, we excavated more than six structures, plus testing the jaguey feature (Operation 3) and an obsidian debitage dump (Operation 8). Our strategy of excavating adjacent structures was strongly influenced by logistical and materiel factors, and in future excavations at Cihuatecpan this bias will be corrected by sampling mounds all the way around Cerro San Lucas. We did include Mounds 9 and 10, 350 m west of Structure 6, in our excavation sample, so that structures outside the core area are included in the data set of architectural and artifactual variability.

## Discussion

The materials from the first field season have been analyzed in a very general and preliminary way, and the proper characterization of the site will depend on detailed study of the data gathered so far. The continuing process of studying these data will take place over the next several years, as a new field season of excavation is prepared for. In depth analysis of the massive ceramic and obsidian collections will most appropriately be done by graduate students in the course of dissertation research, and it is hoped that these projects (which must take place in Mexico) will be integrated into future research designs, and will involve the study of newly gathered data as well.

We believe that the first season's research provides a fine basis for further work at this site, but also that the data gathered stand on their own as the basis for general interpretations about life in an Aztec period rural village. Our work at Cihuatecpan was flavored by a salvage archaeology state of mind, as we labored to save as much data as we could about what was clearly an endangered species of site type. We expect that Cihuatecpan will be a valuable locus of study in years to come, but if disaster should strike again, and this village should join others that have been bulldozed into oblivion, our sense of the way of life here will not have been lost.

## FIELD OPERATIONS

### 1. Mapping the Site

The Aztec period site at Cerro San Lucas was partially mapped by Charles Fletcher as part of the Teotihuacan Valley Project of the early 1960's (directed by W. T. Sanders, funded by grants from the National Science Foundation). At that time it was given the designation TA 81. In 1977, Evans did a reconnaissance of the Valley's Aztec period occupation, and visited the site, noting that there were several areas in the most densely settled part of the site where grey-black obsidian debitage lay thick on the ground.

Between 1977 and 1984, changes had taken place on Cerro San Lucas: the upper slopes had been bulldozed and terraced, and were in the process of being planted with nopal cactus, but fortunately the lower slopes, which had the largest mounds and densest occupation, were being farmed with horse-drawn plows (although bulldozers had been used to build up the terrace embankments).

Although the Teotihuacan Valley Project map of TA 81 was invaluable for orientation to the south slopes of Cerro San Lucas, it was necessary to draw a complete and more detailed map of the site as a basis for further data gathering and subsequent analyses. To resurvey the site for a new map, we followed the method used to map the Cerro Gordo site (Evans 1985). An aerial photograph of Cerro San Lucas and its adjacent alluvial plain was gridded into hectares, landscape features of each hectare were plotted onto graph paper, archaeological features were mapped onto the graph paper in the course of survey, and information gathered in the field on the single hectare sheets was compiled to make the site map (Figure 2.2). We began mapping the site almost immediately, and Evans continued to work on this after the excavation operation (supervised by Abrams) had begun.

## 2. Intensive Survey

The core area of the site (Figure 2.1) was the focus of most of the excavation, and of an intensive surface survey of fourteen mounds (Operations 11 - 24). The purpose of this research was to provide information on artifact types and their distribution on a wider range of mounds in this area than those excavated, so that general questions of functional and chronological diversity could be addressed, and also to provide baseline data for planning further excavation at the site.

The mounds so sampled were distributed around the southern side of Cerro San Lucas, between the excavated mounds farthest to the west (Operations 9 and 10) and to the east (Operation 3) and extending upslope. The selection reflects overall research design, to reconstruct the lifeway of this village and its place in the wider cultural context, which could be most effectively accomplished by investigating the core area. Secondly, constraints on choice were logistical: this set of operations was performed in the last two weeks of the field season, and used workers as they completed their jobs at the last two excavation operations. Finally, witnessing the widespread destruction of sites of this type had engendered a bias in our choice of sampling strategies: we were drawn toward the best preserved and most complex part of the site (the core area), the upper part of which was already damaged from bulldozer grading and was being planted in nopal, which rapidly becomes impenetrable.

The 100 m<sup>2</sup> collection units for each of these operations will serve as the basis for further analysis of the artifacts. Several of these mounds will be excavated in the future, and discernible patterns of sherd concentration will help guide research strategy.

## 3. Survey and Test-Pitting Operations

Two field operations, Operation 3 and Operation 8, involved excavation and some surface collection in activity areas that were not residential structures. Operation 3 investigated a low rise 50 m east of Structure 1. We hypothesized that here we might find the structural remains of an outbuilding associated with Structure 1, but instead found no evidence of building, but rather of a possible prehispanic excavation. The stratigraphic evidence is consistent with the interpretation of our colleague Pedro Baños, who suggested that this low tlatal represents the remains of a jaguey, or pond. Operation 8 investigated an area of almost 500 m<sup>2</sup> (southwest of Operation 6) which was littered with grey-black obsidian debitage. Here we made a complete surface collection and excavated two units

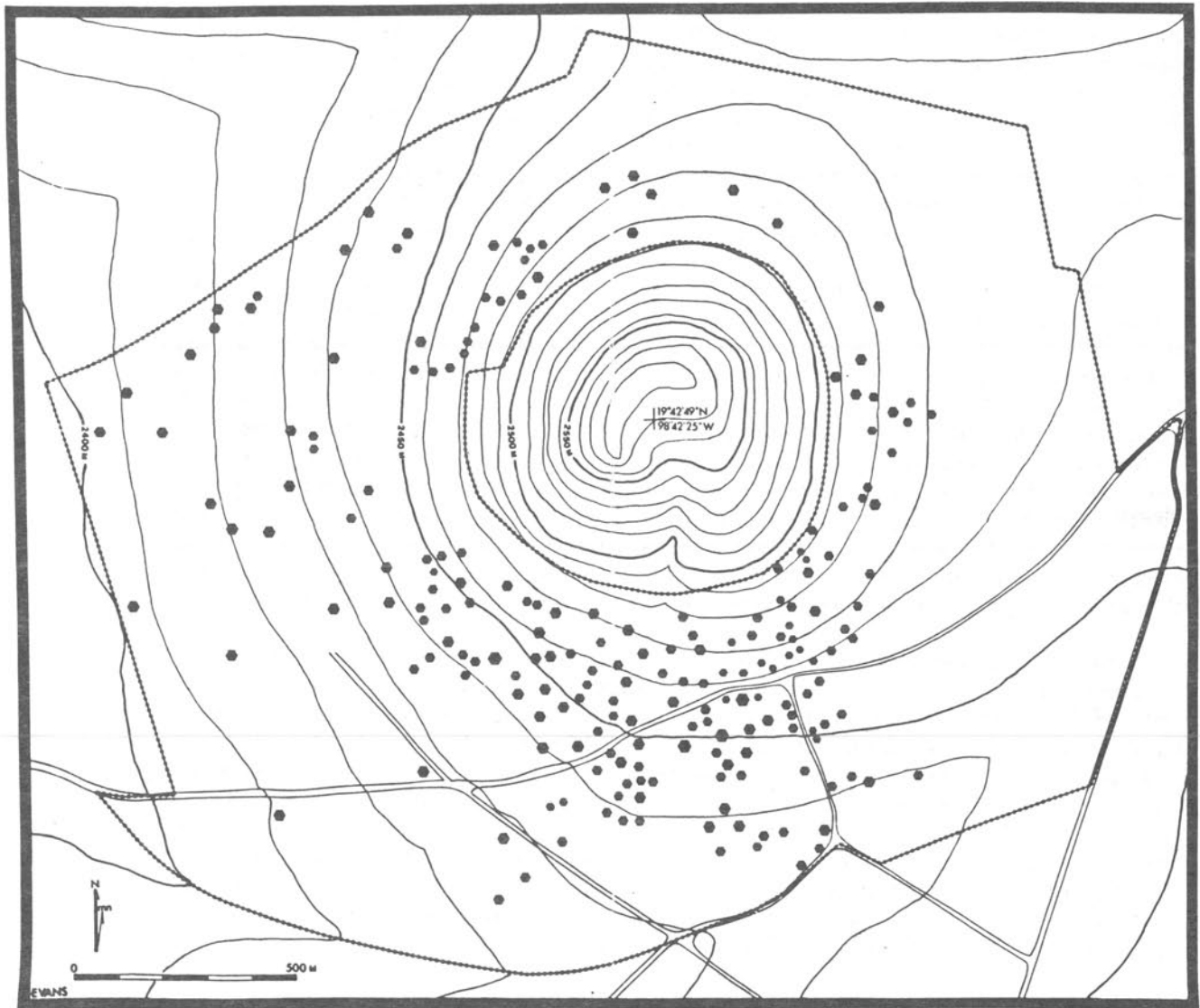


Figure 2.2

CIHUATECPAN AND CERRO SAN LUCAS  
 (Hexagon = housemound)



(each 2 m<sup>2</sup>). (This operation and its results are described in Abrams, this volume.) Both operations, then, combined several research strategies to investigate non-structural features critical to the local economy.

#### 4. Excavation of Structures

The lion's share of the field season's time and energy went into excavation of structures. Nine structures were excavated: and in only one case (the East Structure of Operation 5) are the remains so badly damaged as to defy interpretation. The structures represented a considerable range in area, from Operation 5's West Structure, 32.4 m<sup>2</sup>, to Operation 6, 493 m<sup>2</sup>. Preliminary analysis of artifacts and their distribution indicates that functional and sociopolitical differentials are also strongly represented in this sample, though some of the patterns expressed are unexpected (the beautiful and exotic Chalco-Cholula pottery is found in far greater frequency at modest Structure 2 than it is at Structure 6, which has many fine architectural touches, for example).

The excavations took place over the course of nine weeks, with a crew of field workers which ranged from twelve to eighteen men. In about 650 man-days, 553.43 m<sup>3</sup> of earth were excavated, yielding almost 100,000 sherds, roughly two-thirds of them utility types. Structure sizes ranged from three rooms (Operation 5 West) to the 24 room Operation 6. Artifact assemblages from house to house consistently indicated the repetition of basic functions: food processing and preparation, craft production activities, performance of rituals (this area of life is especially poorly understood, and these activities are inferred from musical instruments and figurines). Similarly, the simple but basic furniture of these houses, the occasional adobe benches (Operations 1, 4, and 6), stone bench features (Operations 1 and 4), the hearths in the floors (Operations 5, 6, and 9), and more common use of braziers for heat and cooking indicated that a common lifeway, characterized by relative simplicity in material culture repertoire, was shared by all.

Some structures definitely show far more care in their construction and decoration; cut stone, for example, graces the corners of virtually all structures, but is used for whole walls of Operations 4 and 9, and is lavishly used in Operation 6. Operation 6, with its large entry hall and raised surrounding rooms, would have made a fine headman's house, with plenty of space for calling together the more than one hundred heads of household in the village, which was one of headman's functions. The entry hall and raised central room (with its fine adobe floor panel and centered hearth) are reminiscent of the palace of the ruler at Texcoco, as this is depicted in the second part of the Mapa Quinatzin. The entry hall of Operation 6 (which may be the *tecpan* [palace] at Cihuatecpan, had plaster walls which had been painted red and white, another decorative feature which would have made Operation 6 a source of local pride, if not private envy.

Operation 6 gave us the only whole vessel found in this field season, an Aztec III Black on Orange plate which had been embedded into the sterile tepetate under the floor of a room in the east side of the building (Plate 1.3). Black/Orange ware, ubiquitous in the Basin of Mexico, incorporates several features which make it a highly desirable artifact type: the pottery is hard, and its designs resistant to erosion, and these designs are chronologically sensitive as well (the pottery sequence has been studied by Parsons, who produced a dissertation on the Aztec period pottery of the Teotihuacan Valley, and also by Charlton, who has devoted considerable effort to a refinement of the ceramic sequence). Finally, the designs, fine crisp black geometrics on an orange background, on simple and elegant vessel forms, are aesthetically pleasing.

Of 28,972 fine ware sherds found in the excavations, 5,557 (19%) were of the Black/Orange type, and 1491 of these could be assigned to chronologically sensitive subtypes. Eight percent were of types "A", "B", and "C", datable to the Zocango Phase (A.D. 1250 - 1400). Type "D" dating from the Chimalpa Phase (A.D. 1400 - 1500), accounts for 66% of the Black/Orange wares. Type "E", transitional to Teacalco Phase (beginning A.D. 1500, and generally regarded as early colonial in provincial areas such as the Teotihuacan Valley), represents 12% of the datable Black/Orange wares, and types "F" through "J" account for the remaining 14%. These typically Aztec period Black/Orange wares are chronologically bracketed at the site by pottery of the Late Toltec period (the Mazapan Phase) and by colonial glazed wares (377 sherds, just over 1% of the fine wares).

Charlton and Parsons believe that Black/Orange ware continued in common use well into the colonial period, accompanied by increasing amounts of glazed pottery. The ceramic sequence that we can devise at this point is nicely supported by the documentary evidence provided by the *Indice del Ramo de Congregación*, which lists San Lucas Siguatepec (sic) as ordered abandoned in 1603, its population to Ahuatepec.

#### Method of Structural Excavations

The general format of the structural excavation operations entailed gridding off the mound into 2 x 2 m units, taking surface elevations, and beginning to excavate through the plowzone to the tops of the walls. Tracing the wall lines permitted delineation of the structure and its rooms, and further excavation took place in these behavioral contexts.

The situation of these structures on the gentle lower slope of Cerro San Lucas resulted in a pattern of differential preservation in which (as you would expect) the downslope parts of the rooms of the structures sustained more damage than those upslope. Intact floors were generally found just downslope from walls, while the floors further downslope were destroyed as they intersected the plowzone.

In every structural excavation, trenches down to the sterile tepetate level determined the general elevations of this subsoil feature as it extended beneath the building. Many walls rested on tepetate, the wall bases conforming to the natural slope of the compacted volcanic ash and, in some cases, a shallow trench had been dug into the tepetate so that the wall base was provided with a more stable footing.

Areas exterior to structures were tested at intervals, and possible midden zones and activity areas were investigated thoroughly.

Following excavations, the exposed walls were consolidated. Here we followed guidelines provided by INAH on preservation of structural remains, and used concrete to cement the joints of standing walls. The excavations were then back-filled, in time for the landowner to proceed with his spring plowing.

## OPERATION 1

### Setting

The central part of the village site, that cluster of larger mounds on the south side of Cerro San Lucas, was distributed over a set of broad terraces, the uppermost of which was right below the east-west road. On this terrace the mounds were fairly well preserved, and we chose as our first excavation target a mound of moderate size (about 25 m across, and about 0.75 m above the terrace level) on the east end of this terrace. Abrams thought this looked like a likely mound to begin on, and he was right: the underlying structure's size, complexity, and degree of preservation gave us a good idea of the general parameters of these buildings.

The position of this building (Structure 1) on the terrace, relative to other structures and features, suggests that it was not part of a group of houses. The large feature immediately to the east (Operation 3) may have been a jaguey. At the Cerro Gordo Site it was noted that the jaguey was located close to the cluster of larger buildings (some with possible administrative functions; Evans 1985) and here the same general pattern holds, with the dry season water supply close by the village center.

The area was covered with dry grass. It had been in agricultural use the previous year. Soil depth in the area of the mound (surface to tepetate) averaged about 70 cm.

### Method

Investigations in this area took place between March 5 and 9, 1984, with an average crew size of 11.

The mound was gridded into 2 m segments and surface elevations were taken (Figure 2.3). Excavations began southwest of the structure, and we began to uncover Structure 1 at the CD wall joint of its southwestern wall. From there we began to uncover wall lines and explore room contexts, ultimately exposing an area of 143 m<sup>2</sup>, and excavating 58.104 m<sup>3</sup>.

In a pattern which became typical as we continued our excavations over the season, room contexts were most disturbed on the downslope (south) side. At the north end of the rooms the remaining walls protected remains of those floors below wall top level, but out in the room the plowzone extended deeply into the structure. One consistent interpretive problem which faced us here and elsewhere was that few formal doorways remained between rooms, so their locations were conjectural.

### Architecture and Features

Structure 1 is a five room house, 10.6 x 16 m. Its central room (D), a courtyard, is flanked by three living rooms (A, B, C) and a work room (E). They are described in this order.

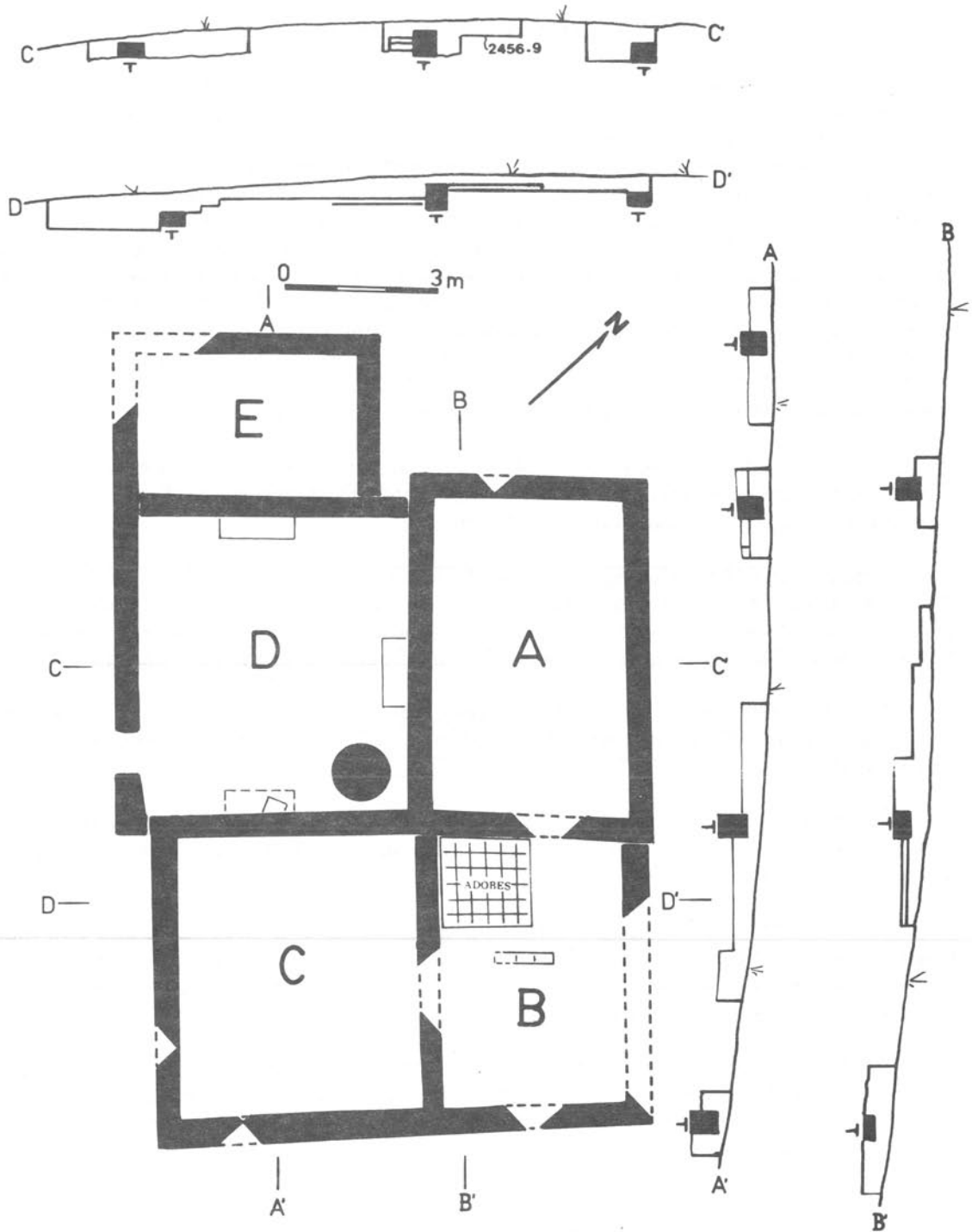


Figure 2.3

CIHUATECPAN, STRUCTURE 1

(Dashed line indicates extrapolation; "T" indicates tepetate.)

## Structure 1, Courtyard D

Architecture and Features. This room is 5.9 x 5.2 m (30.68 m<sup>2</sup>), probably an unroofed courtyard, with the entry to the building in its southwest wall; each of the courtyard's three other walls features a central step leading to an adjacent room (A, C, and E). In the east corner is a solid round bench of cobbles and faced stones (0.95 m in diameter, present height 0.25 m above the upper floor) whose function is not known (absence of ash within this feature indicates that it was probably not at one time used as an oven and then subsequently filled with cobbles). This bench and the steps rest on the surface of a plastered floor at about 2456.45 masl., which is a resurfacing of a packed earth floor at about 2456.39. These floors are visible in the northern part of the room, but in the downslope corner the ground surface is the same elevation as the floor zone, and plowing has disturbed the floor contexts in much of this courtyard. Beneath these floors is undifferentiated packed fill, down to tepetate, which is at floor level in the north end of the room, and about 80 cm below the floor at the downslope or south end.

The walls of this room were cobble and adobe brick coated with mud plaster. Ceramic drainage tiles found in the fill are probably from the roofs of adjacent rooms, having served to channel rainwater into the courtyard.

Artifacts and Other Remains. The artifacts are summarized in Tables 2.1, 2.2, and 2.3. Ceramics show the full range of types and forms. Utility wares include proportionally more basins and jars than are found in the whole excavated sample, and fewer comales. There is a large number of brazier fragments in the floor and floor fill.

Fine ceramics include a variety of types. Black/Orange chronologically diagnostic wares range from "B" to "H", with "B", "D", and "E" found in the context immediately above the floor.

Other ceramic artifacts include five figurine fragments, among them a male torso with bell necklace, the torso of a pregnant female, and an eagle head. The single spindle whorl is large.

Lithic artifacts include grey-black and green obsidian in a 1:43 ratio, and two mano fragments which were found directly over the floor. Other lithic remains were found in flotation samples from within the floor and within the fill of the bench, and notable among these are 4 small quartz crystals.

Another find from flotation analysis was a group of 18 amaranth seeds, in the fill of the bench. We do not believe that this find indicates a grain storage function for this feature, but since amaranth was widely used in rituals, its occurrence in this context may have some significance.

## Structure 1, Room A

Architecture and Features. Room A measures 5.7 x 3.8 m (21.66 m<sup>2</sup>). It opens onto the courtyard (D) and is about 45 cm higher (level of only discernible floor is 2456.90 masl.). This floor is of packed earth, and is badly disturbed by plowing. Rooms A, B, and C seem to form the original component of Structure 1, judging from the pattern of wall bonding. In fact, Room A may have been the original structure, and Rooms B and C later additions. Clearly, Room B's northeast wall abuts Room A, a puzzling structural anomaly if we assume a single A-B-C building episode. The bonding which is apparent in the corner

joining A with C may have been achieved by partially destroying and rebuilding the wall. The outer (northwest and northeast) walls are well made, 45 cm to 70 cm wide, with a high proportion of cut stones in use, and cut stones in the corners. The dating of this room is established through the presence of diagnostic Black/Orange "D" and "F" sherds in the subfloor fill; these indicate that construction would have taken place at about A.D. 1500. If we are correct in assuming that Room A is the original part of Structure 1, then the whole construction would also date from about A.D. 1500. The subfloor fill continues down to tepetate (about 2456.40-N to 2456.30-S). No other architectural features were found in this room.

Artifacts. Ceramics show a preponderance of utility wares, and like Courtyard D, Room A has a disproportionately large number of basin fragments. In fine wares, Black/Orange chronological markers include types "B", "D", and "F", as well as a *possible* glazed sherd (the only one for Structure 1) which was found in the plowzone over the wall between Rooms A and B. The presence of a brazier sherd indicated what must have been a common heat source (no hearth was found in this room). Other ceramic artifacts include five figurine fragments, among them a female head, female and male torsos (the male torso with a drum or quiver), and the face of a spotted cat. One small spindle whorl was found.

Among lithic artifacts is a maguey scraper. Obsidian is of local grey-black and Pachuca green types, and there are two mano fragments.

In the plowzone above Room A was found a possibly anthropomorphic basalt sculpture, 24 cm high. This was the largest of several stone sculptures found at the site. These pieces are simple in form and the lack of visual clues as to their meaning makes interpreting their ideological (and other) significance difficult. In rituals, the Aztecs commonly decked forms (made of wood, or amaranth paste, for example) with the trappings of a particular deity, and these simple basalt forms may have served that purpose.

### Structure 1, Room B

Architecture and Features. Room B measures 5.3 x 3.6 m (19.08 m<sup>2</sup>). This room is part of a construction unit with Room C (their walls are clearly bonded) which here abuts Room A. The outer walls are 30 cm to 45 cm wide, thinner than those of Room A, but like them are built of cobbles and cut stones. No doorways were found in the AB or outer walls, and this may reflect the shallowness of the architectural remains. Near the ABCD wall joint, the BC wall base has a gap in the upper course of stones, for about 30 cm, and this may be the doorway between Rooms B and C. It would have been in use before the bench was constructed. No other possible doorways were found in the surviving BC wall, which at its southeast end was 25 to 30 cm below the floor level of Room B. Like Courtyard D and Room A, Room B's floor level intersects ground surface level in the downslope part of the room. The floor level is 2456.50 to 2456.55 masl., the range representing a hard packed earth floor and a resurfacing. Beneath this floor, undifferentiated dirt fill continues down to tepetate (about 2456.30-N to 2455.70-S).

A major feature of Room B is the adobe bench or bed built into the west corner of the room. This measured 1.8 x 1.9 m and 0.1 m high and was made of a single layer of adobe bricks, mortared together with clay. Atop this bench was a broken flat disk of fired clay (originally 39 cm across and 2 cm thick) with two round scars (probably from a handle). Under the bench was a Black/Orange "D" sherd. Another adobe brick feature in

this room is a line of 2 adobes and a cut stone in the same dimensions, which seem to form a partition base in the center of the room, partially bisecting the room and resting on the same floor as the bed. This "wall base" does not extend beyond this short line of stone and adobes: trenching into the adjacent unit to the south revealed that there were no more adobes, and the floor continued intact.

The fill immediately above the floor showed very scattered evidence of burning. This was quite ephemeral, usually visible as greyish soil.

Artifacts. Ceramics include the full domestic range of utility wares (comales, basins, jars, fabric-marked salt ware, and brazier) and fine plain and decorated wares. Of Black/Orange chronological markers, types "D" and "E" are present.

Lithics include grey-black and green obsidian and two pieces of maguey scraper.

### Structure 1, Room C

Architecture and Features. This room measures 5.5 x 4.6 m (25.3 m<sup>2</sup>). Room C is the third of the living rooms which flank the central courtyard. Apparently built as a single construction with Room B, its walls are 40 cm to 45 cm wide, of cobbles and some cut stone. No doorways are apparent in the walls but the presence of cut stone rubble centered in front of the southeast wall of Courtyard D leads to the assumption of a step similar to the two others in Courtyard D, and an entry from Courtyard D in this spot. The breaks in Room C's walls occur in C-southwest, which is broken down to its lowest courses in two places; judging from the orientation of the breaks and the contour of the ground surface, these appear to be plow scars. The single extant floor level occurs at about 2456.50 masl. (slightly higher than the floor of Courtyard D). This floor is thick (up to 10 cm) pebble-tempered packed earth with a smooth but very thin plaster wash (3 cm thick). Beneath this floor is undifferentiated earth fill down to tepetate, which ranges from about 2456.40-S to 2456.25-N.

Artifacts. Ceramics include the domestic range of utility wares, with basins as a predominating vessel form (45% of identifiable utility sherds in this room as opposed to 18% for all excavated contexts in the first season), and a disproportionately low number of comal sherds (30%, compared with 45% for the site as a whole), and relatively similar proportion of jar sherds (24%, compared with 29% for the site as a whole). Also present are sherds of braziers, incense burners, and salt-making wares. Fine ceramics include most of the commonest decorated types, including Mazapan ware from the late Toltec period. Worked sherd fragments are parts of disks, and two of them have holes. These correspond in size to the large and small spindle whorl types. Figurines were found in the plowzone and in the floorzone (a figurine neck and torso depicting a bare breasted female wearing a skirt).

Grey-black and green obsidian occurs in nearly equal counts. The ground stone repertoire includes two maguey scrapers, one stone bowl, and a small sphere (as for slingshot).

### Structure 1, Room E

Architecture and Features. Room E measures 4.3 x 2.8 m (12.04 m<sup>2</sup>), and is the smallest room in Structure 1, positioned slightly apart from the living rooms. It seems to have been built as a unit with the southwest wall of Courtyard D, and the wall which separates Courtyard D and Room E is the narrowest (28 cm to 35 cm) in the structure. There is one floor, of packed earth, at about 2456.50 masl. In the north corner of the room is an ash lens resting on this floor. Beneath the floor is undifferentiated dirt down to tepetate.

Artifacts. Ceramic remains include a full range of utility and fine wares. Like the rest of Structure 1, Room E has a disproportionately large number of basins (55%). Sherds from comales, jars, salt-making ware, and braziers are also part of the ceramic assemblage. Fine wares account for half the sherds in Room E, this proportion is slightly higher than that for Structure 1 as a whole (45%), and both are considerably higher than the value for the excavations as a whole (30% fine sherds). Chronological markers present directly over the floor are Black/Orange types "D" and "F" (Aztec III and IV). No figurines were found in this area, nor were any spindle whorls. A single piece of worked sherd, with a partial perforation, came from above the northwest wall.

There were no ground stone artifacts. Obsidian was found here in a .8:1 grey-black to green ratio. Considering that the one of the village's major industries was biface blade production from grey-black obsidian, it is interesting to find imported obsidian in such common household use.

### Structure 1, Room E—Midden North and Northeast

Architecture and Features. The addition of Courtyard D and Room E onto Structure 1 left an oddly shaped inlet outside the house wall northeast of Room E. Here, and all around the north side of Room E, household trash had been thrown. We excavated 4.94 m<sup>3</sup> in this area, yielding an average of 386 sherds/m<sup>3</sup>.

Artifacts. The artifact repertoire was broad. All utility types except brazier sherds are present. The most common fine wares are present, including Black/Orange types "D", "E", "F", and "H". Five figurine fragments were found, and 1 large spindle whorl. Lithics include grey-black and green obsidian (in virtually equal frequency), and two maguey scrapers.

### Structure 1, Exterior to the Southwest

Architecture and Features. In beginning to excavate this tlatal, we followed a strategy of approaching the buried structure from downslope. We excavated four 2 x 2 m trenches to tepetate before the fifth yielded structural remains, the southwest wall of Room C, and stone rubble fall from the south corner of Courtyard D. These five trenches averaged about 60 cm deep, and the volume excavated was 9.86 m<sup>3</sup>, 17% of the total volume of excavation (58.104 m<sup>3</sup>) in this operation. The soil was undifferentiable into strata according to texture or color and a plow scar into the tepetate of one of these trenches, about 75 cm below the surface, indicates the high level of disturbance and low probability of behavioral contexts surviving outside the structure's wall bases. The only evidence of behavior more carefully patterned than throwing out the trash (and plowing over it for centuries) is a group of food preparation artifacts 70 cm below the surface. The



cluster consists of a mano and 22 sherds (4 Black/Orange [one, from a type "D" plate, another, from an "E" dish], 2 Black and White/Red, and 16 from utility wares [3 of them from a jar]), and occurs about 10 cm above tepetate. While the soil here is undifferentiated, with no perceptible packed surface, the position of the artifacts seems to indicate that they rested where they were dropped rather than being brought down to that level by plow action. However, if this were the case, it would indicate that the ground surface in Aztec IV times was only 10 cm above tepetate, and 70 cm below the present surface. This trench is immediately southwest of the house's entry in the southwest wall of Courtyard D, and the dropoff from the floor level of Courtyard D to the level of the sherd and mano cluster about 2 m away is 7.5 cm, so the slope would have been perceptible.

If our reconstruction of the remodeling of this house (Courtyard D and Room E as a single addition to the older A-B-C room cluster) is correct, then this area may have been an older trash dump for the house, in use before the midden north and northeast of Room E, a chronological relationship which is somewhat substantiated by comparison of proportions of Aztec III *vs* Aztec IV sherds from the two areas (Table 2.2 shows that of the two, only the southwest midden has type "B" represented, and it has more of "D" and "F", and less of "E" and "H").

Construction materials occur throughout the plowzone, and include cobbles from wall fall, and also pieces of fired clay drain tiles, presumably from the roof of Room C or Room E.

Artifacts. The most remarkable feature of the artifact repertoire in this set of trenches is the number of artifacts found: 17% of the operation's excavated volume yielded 43% of the sherds. The reasons for this are apparently based in Aztec period deposition behavior and twentieth century archaeological strategy: first, this downslope area adjacent to the front of the house was probably a trash dump, and second, the dirt we excavated from this area was screened (1/4" mesh), unlike that from other excavated areas (see the methods section, above). Therefore, many more sherds were saved, and, we believe, there were more sherds to save in the first place. A large proportion of the sherds retrieved here were smaller than a quarter and therefore are of dubious diagnostic value, relative to the time spent retrieving, washing, and curating them.

All utility vessel types are represented, though the proportions vary from those for Operation 1 as a whole (Table 2.3): in this area are more sherds from basins and comales, fewer from jars and braziers.

The proportion of fine wares to utility sherds is about the same for this set of trenches as it is for the excavation as a whole (Table 2.2). Fine ceramics of all the commoner types are represented, including all of the Black/Orange subtypes. The proportions of chronologically diagnostic Black/Orange sherds in this area closely follow the proportions for the structure as a whole, with slightly less emphasis on the later, Aztec IV material in this trash dump area (see above). One glazed sherd was found, in the plowzone (this is the only positively identified glazed shed in Operation 1). Other ceramic artifacts include 26 partial figurines. The seven spindle whorls in this area were of both functional types: 2 maguey whorls and five cotton whorls were found immediately in front of Room C, and in the adjacent trenches to the south. A whole round worked sherd (from Black/Red bowl) shows the start of a perforation on one side, but its position off center may explain its abandonment as a future small spindle whorl. A broken bone needle also was found in the southwest midden.

Obsidian of grey-black and green varieties occurs in roughly the same proportions (2:1) as for Operation 1 as whole (1.82:1). The mano found with the sherd cluster is the only ground stone artifact.

### **Structure 1, Mixed Contexts**

Material from the plowzone above shared walls was given separate provenience from material above either adjacent room. Artifact counts may be found in Tables 1, 2, and 3 for these mixed contexts (e.g., "Rooms A and B"). Since this is all plowzone material, inferences about direct behavioral associations are chancy.

**Table 2.1. OPERATION 1—ARTIFACT SUMMARY**

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Room A</u>													
plowzone (8.37 m <sup>3</sup> )	559	436	123	4		1			16	12	2		
floor zone (0.8 m <sup>3</sup> )	23	20	3										
subfloor (0.5 m <sup>3</sup> )	235	186	49	1		2			8	3			
walls, NE & NW	45	27	18										1 scraper
<i>Subtotals</i>	<i>862</i>	<i>669</i>	<i>193</i>	<i>5</i>		<i>3</i>			<i>24</i>	<i>15</i>	<i>2</i>		<i>1 scraper</i>
<u>Rooms A &amp; B</u>													
plowzone & wall (0.8 m <sup>3</sup> )	74	46	28						3	6			
<u>Room B</u>													
plowzone (1.3 m <sup>3</sup> )	118	64	54	1	1				3	7			
directly over the bed	69	53	16						6				
directly over floor (0.38 m <sup>3</sup> )	78	67	11			1			7	3			2 pcs scraper
directly under the bed	100	78	22							3			
<i>Subtotals</i>	<i>365</i>	<i>262</i>	<i>103</i>	<i>1</i>	<i>1</i>	<i>1</i>			<i>16</i>	<i>13</i>			<i>2 pcs scraper</i>
<u>Rooms B &amp; C</u>													
plowzone (1.23 m <sup>3</sup> )	156	117	39			2	1	Maz	4	6			1 trough/ bowl
<u>Rooms A &amp; D</u>													
plowzone & wall AD (1.8 m <sup>3</sup> )	114	73	41		1				3	3			
<u>Room C</u>													
plowzone (5.42 m <sup>3</sup> )	1126	824	302	2		1		Maz ann.	61	45			1 scraper 1 bowl
over floor (2.98 m <sup>3</sup> )	273	183	90			1	2		7	8			1 scraper
floor zone (0.8 m <sup>3</sup> )	300	189	111	1		1		Maz	5	9			
subfloor (0.4 m <sup>3</sup> )	63	43	20						2	1			1 ball
<i>Subtotals</i>	<i>1762</i>	<i>1239</i>	<i>523</i>	<i>3</i>		<i>3</i>	<i>2</i>	<i>2 Maz</i>	<i>75</i>	<i>63</i>			<i>2 scrapers 1 bowl 1 ball</i>
<u>Rooms C &amp; D</u>													
plowzone (2.6 m <sup>3</sup> )	219	155	64	4	1				6	5			

OPERATION 1—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	Conical				Obsidian pcs		Ground Stone		
					slab	sol	hol	oth	black	green	mano	metate	other
<b>Room D</b>													
plowzone (7.74 m <sup>3</sup> )	389	276	113	4	2	1			28	9			
directly over floor (5.88 m <sup>3</sup> )	188	140	48	1	1	1	glob		12	6	2		
floor & floor fill (0.075 m <sup>3</sup> )	117	56	61		2				14	8			
material above round bench	23	13	10										
material from mortar, NE step (0.125 m <sup>3</sup> )	60	51	9		1				1	1			
"front door" ext (0.2 m <sup>3</sup> )	23	19	4										
<b>Subtotals</b>	<b>800</b>	<b>555</b>	<b>245</b>	<b>5</b>	<b>6</b>	<b>2</b>			<b>55</b>	<b>24</b>	<b>2</b>		
<b>Rooms D &amp; E</b>													
plowzone (1.6 m <sup>3</sup> )	155	131	24		2				8	5			
<b>Room E</b>													
plowzone (1.78 m <sup>3</sup> )	313	125	188						5	15			
directly over floor (0.5 m <sup>3</sup> )	114	55	59		1	1			2	1			
floor zone (0.42 m <sup>3</sup> )	6	4	2						1				
subfloor (0.1 m <sup>3</sup> )	8	4	4										
sherd cluster	20	13	7		1					1			
NE wall (0.5 m <sup>3</sup> )	167	114	53						9	5			
<b>Subtotals</b>	<b>628</b>	<b>315</b>	<b>313</b>		<b>2</b>	<b>1</b>			<b>17</b>	<b>22</b>			
<b>Midden</b>													
NE of Room E (2.18 m <sup>3</sup> )	257	170	87		1		1		15	11			1 scraper
N of Room E (2.76 m <sup>3</sup> )	1648	1170	478	5	2	5			43	36			1 scraper
<b>Subtotals</b>	<b>1905</b>	<b>1340</b>	<b>565</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>1</b>		<b>48</b>	<b>47</b>			<b>2 scrapers</b>
<b>Exterior</b>													
SW of Room C (3.0 m <sup>3</sup> )	922	656	266	5		3	4	4 sp 2 Mz	68	49			
SW slope of mound (6.86 m <sup>3</sup> )	4443	2918	1525	21	6	16	4		254	111			
<b>Operation 1 Totals (58.104 m<sup>3</sup>)</b>	<b>12,405</b>	<b>8476</b>	<b>3929</b>	<b>49</b>	<b>22</b>	<b>33</b>	<b>12</b>	<b>5 Mz 4 sp 1 gl</b>	<b>581</b>	<b>320</b>	<b>4</b>	<b>0</b>	<b>6 scrapers 2 bowls 1 ball</b>

+

Table 2.2. OPERATION 1—FINE CERAMICS

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<b>Room A</b>																		
plowzone (8.37 m <sup>3</sup> )	123	55	29		1		8		2					11	22		3	
floor zone (0.8 m <sup>3</sup> )	3	2	1															
subfloor (0.5 m <sup>3</sup> )	49	23	13				2		1					2	9		1	
walls, NE & NW	18	9	2				1							3	2			
<i>Subtotals</i>	<i>193</i>	<i>89</i>	<i>45</i>		<i>1</i>		<i>11</i>		<i>3</i>					<i>16</i>	<i>33</i>		<i>4</i>	
<b>Rooms A &amp; B</b>																		
plowzone & wall (0.8m <sup>3</sup> )	28	15	4				2						1 pos	4	2			
<b>Room B</b>																		
plowzone (1.3m <sup>3</sup> )	54	40	8				3	1						1	5			
directly over the bed	16	8	2											2	2		1	
directly over floor (0.38 m <sup>3</sup> )	11	5	3												2		1	
directly under the bed	22	10		1				1						1	7	1	2	
<i>Subtotals</i>	<i>103</i>	<i>63</i>	<i>14</i>				<i>4</i>	<i>1</i>						<i>4</i>	<i>16</i>	<i>1</i>	<i>3</i>	<i>1</i>
<b>Rooms B &amp; C</b>																		
plowzone (1.23 m <sup>3</sup> )	39	28	4					1	1					3	4			
<b>Rooms A &amp; D</b>																		
plowzone & wall AD (1.8 m <sup>3</sup> )	41	19	6				4				2			4	12			
<b>Room C</b>																		
plowzone (5.42 m <sup>3</sup> )	302	140	60		1		14	3			1			25	55	3	11	
over floor (2.98m <sup>3</sup> )	90	43	15				2		1					17	11	4		
floor zone (0.8 m <sup>3</sup> )	111	56	17				5	2	1					5	24	3	4	
subfloor (0.4 m <sup>3</sup> )	20	6	11												3			
<i>Subtotals</i>	<i>523</i>	<i>245</i>	<i>103</i>		<i>1</i>		<i>21</i>	<i>5</i>	<i>2</i>		<i>1</i>			<i>47</i>	<i>93</i>	<i>10</i>	<i>15</i>	
<b>Rooms C &amp; D</b>																		
plowzone (7.74 m <sup>3</sup> )	64	26	8				1	3			1			9	16	3	1	

OPERATION 1—FINE CERAMICS (Page 2)

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<b>Room D</b>																		
plowzone (7.74 m <sup>3</sup> )	113	57	20		1		4	2	2		1			8	15	3	9	
directly over floor (5.88 m <sup>3</sup> )	48	38	16		2		2	1						5	8	3	1	1
floor & floor fill (0.075 m <sup>3</sup> )	61	59	1															1
material above round bench	10	6												1	1			1
material from mortar, NE step (0.125 m <sup>3</sup> )	9	7	2															
"front door" ext (0.2 m <sup>3</sup> )	4	4																
<i>Subtotals</i>	<i>245</i>	<i>171</i>	<i>39</i>		<i>3</i>		<i>6</i>	<i>3</i>	<i>2</i>		<i>1</i>			<i>14</i>	<i>24</i>	<i>6</i>	<i>10</i>	<i>3</i>
<b>Rooms D &amp; E</b>																		
plowzone (1.6 m <sup>3</sup> )	26	1	10		2		2	2	1					2	5		2	
<b>Room E</b>																		
plowzone (1.78 m <sup>3</sup> )	188	69	66				5	3			2			27	26			
directly over floor (0.5 m <sup>2</sup> )	59	31	13				2		1						10		4	
floor zone (0.42 m <sup>3</sup> )	2	2																
subfloor (0.1 m <sup>3</sup> )	4	1	2															
sherd cluster	7	2	2												3			
NE wall (0.5 m <sup>3</sup> )	53	32	9											5	6		1	
<i>Subtotals</i>	<i>313</i>	<i>137</i>	<i>92</i>				<i>7</i>	<i>3</i>	<i>1</i>		<i>2</i>			<i>32</i>	<i>45</i>		<i>5</i>	
<b>Midden</b>																		
NE of Room E (2.18 m <sup>3</sup> )	87	50	22				1	3			2			5	9			1
N of Room E (2.76 m <sup>3</sup> )	478	203	83				11	11	1		1			26	55		4	
<i>Subtotals</i>	<i>565</i>	<i>253</i>	<i>105</i>				<i>12</i>	<i>14</i>	<i>1</i>		<i>3</i>			<i>31</i>	<i>64</i>		<i>4</i>	<i>1</i>
<b>Exterior</b>																		
SW of Room C (3.0 m <sup>3</sup> )	266	117	53		1		4		1					19	66	3	5	1
SW slope of mound (6.8 m <sup>3</sup> )	1525	967	198		1		20	12	3		1		1	146	127	14	38	5
<b>Operation 1 Totals</b>	<b>3929</b>	<b>2131</b>	<b>681</b>		<b>3</b>		<b>64</b>	<b>31</b>	<b>10</b>		<b>8</b>		<b>2</b>	<b>331</b>	<b>507</b>	<b>37</b>	<b>86</b>	<b>12</b>

+

Table 2.3. OPERATION 1—UTILITY CERAMICS

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room A</u>															
plowzone (8.37 m <sup>3</sup> )	436	32	12	16	1	4	403	15	8		8	7	1		
floor zone (0.8 m <sup>3</sup> )	20	1	14	5											
subfloor (0.5 m <sup>3</sup> )	186	12	13	5		6	150	1	25	6	3				
walls, NE & NW	27		2	1			24	2	2						
<i>Subtotals</i>	<i>669</i>	<i>45</i>	<i>41</i>	<i>27</i>	<i>1</i>	<i>10</i>	<i>545</i>	<i>18</i>	<i>35</i>	<i>6</i>	<i>11</i>	<i>7</i>	<i>1</i>		
<u>Rooms A &amp; B</u>															
plowzone & wall (0.8 m <sup>3</sup> )	46	11	11	20			4		4						
<u>Room B</u>															
plowzone (1.3 m <sup>3</sup> )	64	5	15				44	2	7	2	8	1			
directly over the bed	53	13	10	13			17	1	4			1			
directly over floor (0.38 m <sup>3</sup> )	67	2	2	4	1	1	57	4	5						
directly under the bed	78	12	4	18			44				1				
<i>Subtotals</i>	<i>262</i>	<i>32</i>	<i>31</i>	<i>35</i>	<i>1</i>	<i>1</i>	<i>162</i>	<i>7</i>	<i>16</i>	<i>2</i>	<i>9</i>	<i>2</i>			
<u>Rooms B &amp; C</u>															
plowzone (1.23 m <sup>3</sup> )	117	12	19		1		85	12	15	1		1			
<u>Rooms A &amp; D</u>															
plowzone & wall AD (1.8 m <sup>3</sup> )	73	4	4	9			56	1	3		2	1	1	1	
<u>Room C</u>															
plowzone (5.42 m <sup>3</sup> )	824	102	183	56		2	481	17	14	12	7	1			1
over floor (2.98 m <sup>3</sup> )	183	22	4	28		1	128	2	13		1				1
floor zone (0.8 m <sup>3</sup> )	189	34	56	44	1	1	53	5	3			1			1
subfloor (0.4 m <sup>3</sup> )	43	5	1	3	2		32	1							
<i>Subtotals</i>	<i>1239</i>	<i>163</i>	<i>244</i>	<i>131</i>	<i>3</i>	<i>3</i>	<i>695</i>	<i>25</i>	<i>30</i>	<i>12</i>	<i>8</i>	<i>2</i>			<i>3</i>
<u>Rooms C &amp; D</u>															
plowzone (2.6 m <sup>3</sup> )	155	26	21	61			47	4	9	1	1				

OPERATION 1—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room D</b>															
plowzone (7.74 m <sup>3</sup> )	276	47	53	96	3	2	75	11	6	6	6	2		1	
directly over floor (5.88 m <sup>3</sup> )	140	17	10	46	1		66				6	2			
floor & floor fill (0.075 m <sup>3</sup> )	56	3	22	15	15	1									
material above round bench	13	1					12	1	1		1				
material from mortar, NE step (0.125 m <sup>3</sup> )	51			5			46	13	1	9	1				
"front door" ext (0.2 m <sup>3</sup> )	19	1	3	13*			2	*							
<b>Subtotals</b>	<b>555</b>	<b>69</b>	<b>88</b>	<b>175</b>	<b>19</b>	<b>3</b>	<b>201</b>	<b>38</b>	<b>8</b>	<b>15</b>	<b>14</b>	<b>4</b>		<b>1</b>	
<b>Rooms D &amp; E</b>															
plowzone (1.6 m <sup>3</sup> )	131	7	4	4		4	112	1	14	4					
<b>Room E</b>															
plowzone (1.78 m <sup>3</sup> )	125	32	75				18	3			1	1			
directly over floor (0.5 m <sup>3</sup> )	55	17	19	15		2	2	2			1	1			
floor zone (0.42 m <sup>3</sup> )	4			1			3				1				
subfloor (0.1 m <sup>3</sup> )	4						4								
sherd cluster	13	2	6	5											
NE wall (0.5 m <sup>3</sup> )	114			4	3	2	105	4	6		3				
<b>Subtotals</b>	<b>315</b>	<b>51</b>	<b>100</b>	<b>25</b>	<b>3</b>	<b>4</b>	<b>132</b>	<b>9</b>	<b>6</b>		<b>6</b>	<b>2</b>			
<b>Midden</b>															
NE of Room E (2.18 m <sup>3</sup> )	170	8	5	14		4	139	4			5				
N of Room E (2.76 m <sup>3</sup> )	1170	53	62	58		1	996	6	44	5	18	6		1	2
<b>Subtotals</b>	<b>1340</b>	<b>61</b>	<b>67</b>	<b>72</b>		<b>5</b>	<b>1135</b>	<b>10</b>	<b>44</b>	<b>5</b>	<b>23</b>	<b>6</b>		<b>1</b>	<b>2</b>
<b>Exterior</b>															
SW of Room C (3.0 m <sup>3</sup> )	656	31	30	19	1	4	571	17	13	1	6	2	2		
SW slope of mound (6.86 m <sup>3</sup> )	2918	285	522	303		38	1770	46	126	17	21	6	3	2	
<b>Operation 1 Totals (58.104 m<sup>3</sup>)</b>	<b>8476</b>	<b>797</b>	<b>1182</b>	<b>881</b>	<b>29</b>	<b>72</b>	<b>5515</b>	<b>180</b>	<b>330</b>	<b>64</b>	<b>101</b>	<b>33</b>	<b>7</b>	<b>5</b>	<b>5</b>

+



## OPERATION 2

### Setting

About 30 m southwest of Operation 1 and on the same terrace, this mound measured about 20 m across, and about 0.5 m above the terrace level. Its southern side was very close to the bancale, which was a bulldozer creation, and we found that the southern end of the building (Structure 2) had sustained some damage. Soil in this area ranged from 20 to 70 cm deep and was in general fairly shallow.

### Method

Investigations in this area took place March 11 to 15, 1984 with an average crew size of 14.

The mound was gridded into 2 m segments and surface elevations were taken. Excavation began with a set of 2 x 2 m trenches across the middle of the mound. This revealed walls BF and AB, and subsequent excavations traced the wall pattern and investigated the behavioral contexts described below. The final trench was exploratory, to determine whether any remnant of a wall enclosing area F could be detected. None was.

### Architecture and Features

This poorly preserved building consists of four rooms and a hallway, roughly 11 x 30 m overall (Figure 2.4). Interpretation of the orientation of the entry to the house is difficult because the southern part of the mound had been bulldozed in the process of building a terrace bancale just south of the mound. Two walls extend off from the structure, leading to the northwest and southwest, but do not join other walls to enclose the space fully. The walls themselves have been destroyed down to their last few courses, so the pattern of doors in the walls cannot be reconstructed. Since no tentative reconstruction can be made of the flow of traffic through the rooms of the house (*i.e.*, Structure 1's courtyard with flanking living and work rooms), the order of room descriptions is arbitrary, beginning with the easternmost, Room A.

#### Structure 2, Room A

Architecture and Features. Room A measures 6.2 x 2.8 m (16.8 m<sup>2</sup>), and has a single perceptible floor at 2455.15 masl. This floor was about 5 cm thick, and made of pink cascajo (crushed pumice). As was true of Structure 1, in the downslope part of the room, floor level intersected the present ground surface level, so considerable contextural evidence was lost in the plowzone. Beneath this floor was undifferentiated dirt fill down to tepetate. The walls are of cobbles, with good cut stone corners in the north and east.

Construction materials (besides stone) found in the plowzone include a tezontle cone and five pieces of roof drain.

Artifacts. Ceramics include the usual domestic range of utility and fine wares (Tables 2.4, 2.5, and 2.6). All utility types are represented, though the proportion of basins is lower (about 10%) than the average for all excavated contexts, of 18%, and the

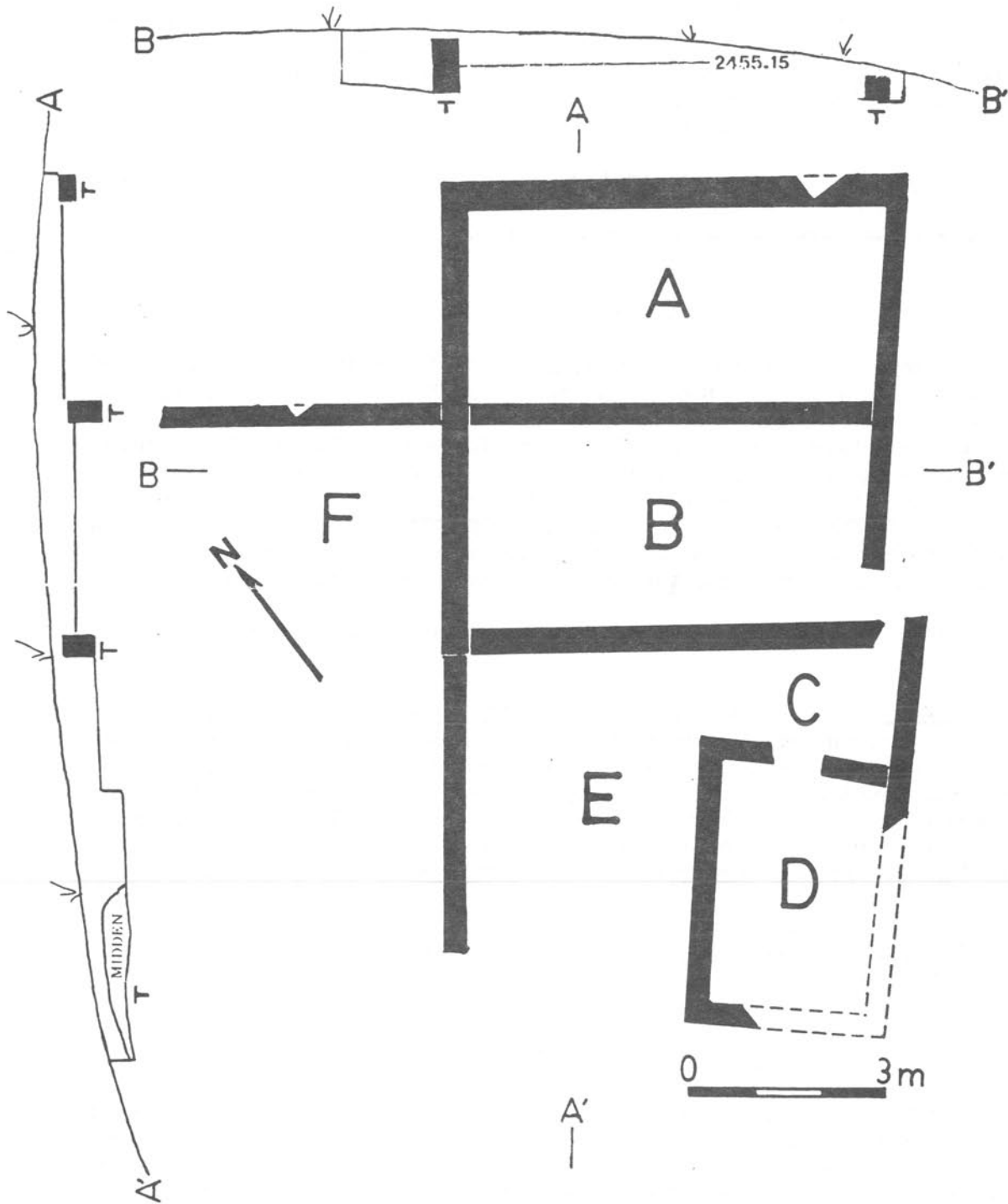


Figure 2.4

**CIHUATECPAN, STRUCTURE 2**

(Black areas indicate solid constructions;  
dashed lines indicate extrapolations, "T" indicates tepetate.)

proportion of comales is somewhat higher (52%, compared with 45% for the project). Fine ceramics also present a wide range of types, with Black/Orange chronological markers from Aztec II through IV (types "B" through "H"); "D" and "E" sherds (Aztec III) were found in the subfloor fill. A small spindle whorl was found in the plowzone, as was a perforated worked sherd fragment. Five figurine fragments were found: animal parts, an abstract element, and two pyramid fragments.

The stone tool repertoire is varied. Ground stone implements include a mano, a metate, a stone bowl fragment, a tecolote (grinder/pestle) and a maguey scraper. Both grey-black and green obsidian are present (2.4:1 ratio).

### Structure 2, Room B

Architecture and Features. Room B measures 6.0 x 3.0 m (18 m<sup>2</sup>), and has the same set of contexts as the adjacent Room A: a single discernible floor of pink cascajo (at about 2455.00 masl., 15 cm below the level of Room A) whose level intersects ground surface level in the downslope (southern) end of the room. Beneath this floor undifferentiated fill continues down to tepetate (which ranges from approximately 2454.60-N to 2454.30-S). There may have been an entry to this room in the southern end of the southeast wall, but deterioration of this area makes reconstruction impossible. From the pattern of wall bonding, it seems that Rooms A and B were built as a single unit, and then the wall, dividing the space into two rooms was built. These walls are all around 40 cm wide.

Only one example of a special construction material was found in the fill: a second tezontle cone.

Artifacts. In the ceramic repertoire, all utility types are present, though comales dominate the assemblage of known types, and only one sherd recognizable as having come from a jar is present. Fine ceramics include plain and decorated wares of Black/Orange chronological markers, only Aztec II types, "D" and "E", are present, and the only diagnostics found in the subfloor are of type "D". A fragment from a large perforated worked sherd was found in the plowzone, and small spindle whorl was directly over the floor. Figurine fragments found in Room B include the head of a canid and human bodies and head.

Grey-black and green obsidian are both represented (2.4:1 ratio), the single ground stone artifact is a tecolote.

### Structure 2, Hallway C

Architecture and Features. This 1.5 x 3.0 m (4.5 m<sup>2</sup>) room is a narrow alcove which may have served as a passageway from Room (or Courtyard) E to the exterior, since the break in the south end of the BC wall may have been a doorway. However, the poor preservation of this end of the building makes such reconstructions entirely hypothetical: no extant floors were found in Hallway C or Rooms D and E. The context of Hallway C is plowzone.

Artifacts. There are few artifacts in this small area. Among utility sherds, comales, basins, and salt-making wares are present. Fine sherds are mostly Plain Orange, and the two Black/Orange were not identifiable as to type. A small spindle whorl was also found in this disturbed stratum, as were both kinds of obsidian.

### Structure 2, Room D

Architecture and Features. This 2.5 x 3.6 m (9 m<sup>2</sup>) room was apparently enclosed on all sides, with a possible entry from Hallway C, judging from orientation of the remaining CD walls. As was discussed above, preservation in this end of the building is poor, and all artifacts come from the plowzone. The walls are narrow (30 cm to 35 cm), with one good cut stone corner at the west end of the room. A tezontle construction cone was found in the fill.

Artifacts. Sherd density here is much higher than in the adjacent Hallway C. Comales, basins and jars are represented in the utility ware repertoire. Fine wares include all major plain and decorated types, including one glazed sherd (the only one found in this operation). Black/Orange wares include "B", "D", and "E" types (thereby representing Aztec II and III). A large spindle whorl was found here, and a large rough unperforated worked sherd. Grey-black and green obsidian are the only lithic artifacts in this context.

### Structure 2, Room E

Architecture and Features. Measuring roughly 3.4 x 5.0 m (17 m<sup>2</sup>), with no southwest wall and its northwest wall destroyed, Room E makes an unlikely candidate for a treasure trove, but the trash deposits at the southwest end of this room yielded some of the most unusual finds of the whole excavation season, including our only reconstructable Chalco-Cholula type vessels, a musical rasp made from a human femur and a copper sewing needle. This midden context has been kept separate from the rest of Room E (which, like Hallway C and Room D, consists only of a plowzone stratum) and will be discussed after the discussion of the room.

Besides the fairly thin and poorly preserved walls, no architectural remains were found in the room. In the midden context, construction materials were found: five pieces of roof drain tile, and fired brick.

Artifacts. Room E's artifact repertoire contains the standard ceramic utility wares, with the exception of basin sherds. All the common fine wares are represented, and Black/Orange sherds are largely Aztec III, with one Aztec IV sherd. Two figurine fragments were found, both heads. No manufactured spindle whorls were found, but one of the two worked sherds was small and perforated and probably was a fine-fiber whorl (the other worked sherd was a disk about 5 cm in diameter). The only lithics in Room E were grey-black and green obsidian, here in an unusual 1:1.75 ratio.

The midden at the southwest end of Room E was excavated in arbitrary levels, and the summed totals of artifacts from these represent a broad range of ceramic, lithic, and other material. With an average sherd density of 232/m<sup>3</sup>, the ceramic material includes all standard utility and fine types. One rough oval worked sherd was found and three spindle whorls (two large and one small). Figurine fragments include a male figure seated on a pyramid, wearing a pectoral of a slice of conch, and two female heads (one with the typical "Xochiquetzal" twin-prong hairdo, the other with a twisted fillet of what may be unspun cotton) and some possible body parts. Of particular interest is a mold to produce a type of figurine, probably an animal head (a serpent) support for a vessel or end of a censer handle. This is an unusual find; such molds (others were found in Structures 4 and 6) constitute our only evidence for this type of ceramic production, and given the need to apply supports to vessels before the unfired clay of either has dried, it seems unlikely that the manufacturing of vessels and then supports would be separate operations.

Among fine ceramic wares, of particular interest are the seriation of Black/Orange and the presence of Chalco-Cholula wares. As Table 2.5 shows, the distribution of Black/Orange types shows a generally strong (though not perfect) concordance with expected changes in frequencies over time; "D" and "E" are by far the commonest, but Aztec IV types appear in the higher strata. This chronological progression is affirmed in changing frequencies of support forms over time (Table 2.4): slab supports, the biggest change marking the advent of Aztec IV (Parsons 1966:319) are most common in the upper levels. The Chalco-Cholula polychrome ware found in this midden represents 30% of all sherds of this type found in the excavation of this season. Even more important these sherds were parts of largely reconstructable vessels, small hemispherical bowls (rim diameter average about 15 cm) the only fairly complete Chalco-Cholula vessels we found. Beautifully painted with red, black, and white fretwork designs on yellow-orange or yellow paisley elements swirling among white dots on a blackish-brown background, these bowls would be expected in the ceramic repertoire of the finest house in the village, and what they would be doing in Structure 2, with its thin shallow walls and cramped floorplan, is a challenge to any archaeologist's capacity for just-so stories. These round sided bowls are Variants A, B, and possible G (Parsons 1966:263-268) and therefore may cover a broad chronological range from Aztec I through III. That they would have been carefully curated is not surprising, their beauty makes them logical heirlooms. The anomaly is their presence in the trash heap of this modest structure and low frequency in other more prepossessing houses.

Another artifact count which contradicts the norm is the ratio of grey-black to green obsidian, here 0.58:1 (Structure 2 average ratio is 1.37:1; ratio for all excavated structures except 6 is 2.04:1). No other lithic materials were found.

Other unusual finds in the midden were some small (the largest is about 13 cm) broken human long bones found about 80 cm below the surface. Obviously, these merit further osteological study, but no patterning of bones or remains suggested a deliberate burial. In this same level there occur the highest densities of sherds in the midden (809/m<sup>3</sup>).

Another human bone was found 20 cm below and 60 cm north of the longbones. This was the femur of an adult which had been notched so the bone could serve as a musical rasp. Called an *omichicahuaztli*, it produced a tone when scratched with a stick. It was commonly used in ceremonies commemorating the dead, and "[t]he Spanish considered its music to be 'extremely doleful'" (Stevenson 1952:10, citing Tezozomoc's *Crónica Mexicana*).

The excavation season as a whole produced several pieces of metal: a few bottle caps from the upper plowzone, a spur in the plowzone near Structure 6. The only metal artifact which is arguably prehistoric, however, is a copper needle 8.0 cm long found 40 cm deep in the midden. It is of the same type as those on display among Aztec period materials in the Museo Nacional de Antropología in Mexico City, the Cortes Palace Museum in Cuernavaca and The American Museum of Natural History in New York. Among the objects Gamio cites as having been made in the Teotihuacan Valley during prehispanic times are needles, and he lists copper as raw material locally in use in manufacturing (Gamio 1972:lxxiv), so this may have been an item locally produced from imported raw material.

### Structure 2, Room F

Architecture and Features. This area is bounded by only two walls and thus its status as a "room" is questionable, but given the general southern orientation of the structures on this terrace (Structures 1, 2, and 4-7), a room or courtyard in this position would be expected to serve as a kind of entry patio. Although no floor was discernible in this area, the material from the 13 cm stratum bounded by wall height and wall base in the southwest half of Trench 19 was kept as a separate behavioral unit, floor zone, and the material below it as subfloor.

The wall which extends out toward the northwest from the structure is narrow (30 cm to 35 cm) and ranges in height from one course at its northwest end to three courses near Rooms A and B. In the plowzone fill of "Room" F were found two roof tiles.

Artifacts. Ceramics are represented by a range of utility and fine sherds. Utility wares do not include sherds from basins or braziers, and no spindle whorls, worked sherds, or figurines were found. Fine ware types included the commonest; Black/Orange frequencies show a much higher proportion of Aztec IV wares (50%) than is true for the structure as a whole (13%), and no Aztec IV in the two lower contexts.

Lithics include a mano, and grey-black and green obsidian (3.9:1 ratio).

### Structure 2, Northwest of Room F (Trench 24) and Mixed Context Rooms E and F (Trench 8, Lot 1)

Architecture, Features, and Artifacts. These excavated areas produced materials which were kept as separate behavioral units from those from adjacent contexts. Although they are separated by 4 m there are parallels in artifact repertoire. Utility ceramics lack basins, braziers, and salt-making wares, no spindle whorls, worked sherds, or figurines are present, and the few fine wares are non-diagnostic. Lithics consist of two pieces of obsidian (1:1).

Table 2.4. OPERATION 2—ARTIFACT SUMMARY

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<b>Room A</b>													
plowzone (11.95 m <sup>3</sup> )	740	456	284	4	4	1	7		47	16	1	1	1 scraper 1 bowl 1 tecolote/ grinder
directly over floor (0.2 m <sup>3</sup> )	70	64	6						4	3			
floor zone (0.2 m <sup>3</sup> )	60	35	25	1					5				
subfloor (0.25 m <sup>3</sup> )	134	81	53		1		3		3	5			
<i>Subtotals</i>	<i>1004</i>	<i>636</i>	<i>368</i>	<i>5</i>	<i>5</i>	<i>1</i>	<i>10</i>		<i>59</i>	<i>24</i>	<i>1</i>		<i>1 scraper 1 bowl 1 tecolote/ grinder</i>
<b>Room B</b>													
plowzone (6.2 m <sup>3</sup> )	542	356	186	5			4		19	14			1 grinder
directly over floor (0.2 m <sup>3</sup> )	24	16	8						2	2			
directly under floor (0.525 m <sup>3</sup> )	102	62	40				2						
subfloor fill (0.175 m <sup>3</sup> )	31	17	14						2				
subfloor to tepetate (0.3 m <sup>3</sup> )	3	1	2										
<i>Subtotals</i>	<i>702</i>	<i>452</i>	<i>250</i>	<i>5</i>			<i>6</i>		<i>23</i>	<i>16</i>			<i>1 grinder</i>
<b>Rooms B &amp; E</b>													
plowzone (1.2 m <sup>3</sup> )	50	37	13				2						
<b>Rooms B &amp; F</b>													
plowzone (1.2 m <sup>3</sup> )	46	32	14						1	6			
<b>Room C</b>													
plowzone (1.8 m <sup>3</sup> )	77	41	36				1		7	4			
<b>Room D</b>													
plowzone (~2.4 m <sup>3</sup> )	430	265	165	2	4				14	20			
<b>Room E</b>													
plowzone (7.3 m <sup>3</sup> )	427	277	150	2	2	1			12	21			

OPERATION 2—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<b>Room E Midden</b>													
top 50 cm (3.8 m <sup>3</sup> )	542	345	197	3	4	1	1		13	19			
next 20 cm (0.85 m <sup>3</sup> )	192	57	135	2	1	3			7	14			
next 14 cm (0.56 m <sup>3</sup> )	453	252	201		3	3			5	20			
to tepetate (1.27 m <sup>3</sup> )	367	256	111	1	1				8	11			
plowzone, surface to tepetate (0.6 m <sup>3</sup> )	90	45	45						8	7			
<i>Subtotals</i>	<i>1644</i>	<i>955</i>	<i>689</i>	<i>6</i>	<i>9</i>	<i>7</i>	<i>1</i>		<i>41</i>	<i>71</i>			
<b>Room F</b>													
plowzone (6.44 m <sup>3</sup> )	560	383	177		3	2	1		37	10	1		
floor zone (0.195 m <sup>3</sup> )	48	38	10						6	1			
subfloor (0.705 m <sup>3</sup> )	8	5	3										
<i>Subtotals</i>	<i>616</i>	<i>426</i>	<i>190</i>		<i>3</i>	<i>2</i>	<i>1</i>		<i>43</i>	<i>11</i>	<i>1</i>		
<b>NW of Room F</b>													
plowzone (0.4 m <sup>3</sup> )	82	58	24										
<b>Rooms E &amp; F</b>													
plowzone (1.4 m <sup>3</sup> )	68	63	5						1	1			
<b>Operation 2 Totals (50.12 m<sup>3</sup>)</b>	<i>5146</i>	<i>3242</i>	<i>1904</i>	<i>20</i>	<i>23</i>	<i>21</i>	<i>11</i>		<i>201</i>	<i>174</i>	<i>2</i>	<i>1</i>	<i>1 scraper 1 bowl 1 grinder 1 tecolote/ grinder</i>

+



**Table 2.5. OPERATION 2—FINE CERAMICS**

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<b>Room A</b>																		
plowzone (11.95 m <sup>3</sup> )	287	155	58		1		11	1	2		2			20	42	3	3	
directly over floor (0.2 m <sup>3</sup> )	6	2	1				1								3			
floor zone (0.2 m <sup>3</sup> )	25	13	6				1		3				2	4				
subfloor (0.25 m <sup>3</sup> )	53	18	19				5	2					6	10				
<b>Subtotals</b>	<b>371</b>	<b>188</b>	<b>84</b>		<b>1</b>		<b>18</b>	<b>3</b>	<b>5</b>		<b>2</b>		<b>28</b>	<b>59</b>	<b>3</b>	<b>3</b>		
<b>Room B</b>																		
plowzone (6.2 m <sup>3</sup> )	186	83	43				9	1						25	31	2	2	
directly over floor (0.2 m <sup>2</sup> )	8	4	1												1	2		
directly under floor (0.525 m <sup>3</sup> )	40	20	9				2						5	5			1	
subfloor fill (0.175 m <sup>3</sup> )	14	7	6												1			
subfloor to tepetate (0.3 m <sup>3</sup> )	2		1				1								1			
<b>Subtotals</b>	<b>250</b>	<b>114</b>	<b>60</b>				<b>12</b>	<b>1</b>					<b>30</b>	<b>39</b>	<b>4</b>	<b>3</b>		
<b>Rooms B &amp; E</b>																		
plowzone (1.2 m <sup>3</sup> )	13	5	4											2	2			
<b>Rooms B &amp; F</b>																		
plowzone (1.2 m <sup>3</sup> )	14	10	2				1	1						2				
<b>Room C</b>																		
plowzone (1.8 m <sup>3</sup> )	37	20	2											4	9			
<b>Room D</b>																		
plowzone (-2.4 m <sup>3</sup> )	165	86	32		1		9	2					1	16	22	4	1	3
<b>Room E</b>																		
plowzone (7.3 m <sup>3</sup> )	151	66	38				10	4	1					5	28	1	4	7

OPERATION 2—FINE CERAMICS (Page 2)

CONTEXT	Black on Orange											glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Choilula	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H							J
<b>Room E Midden</b>																		
top 50 cm (3.8 m <sup>3</sup> )	197	86	52				13	1	1		2		17	30	8	4		
next 20 cm (0.85 m <sup>3</sup> )	135	48	23				5	12			1		13	15	5	5	26	
next 14 cm (0.56 m <sup>3</sup> )	201	72	49				25	7	1				12	46	5	15	2	
to tepetate (1.27 m <sup>3</sup> )	111	66	16				8	2					5	20	2	2		
plowzone, surface to tepetate (0.6 m <sup>3</sup> )	45	30	8				4							2	3	2		
<b>Subtotals</b>	<b>689</b>	<b>302</b>	<b>148</b>				<b>55</b>	<b>22</b>	<b>2</b>		<b>3</b>		<b>49</b>	<b>114</b>	<b>22</b>	<b>26</b>	<b>28</b>	
<b>Room F</b>																		
plowzone (6.44 m <sup>3</sup> )	177	98	48				5	2	8		1		13	17	1			
floor zone (0.195 m <sup>3</sup> )	10	4	3				1							3				
subfloor (0.705 m <sup>3</sup> )	3	2	1					1										
<b>Subtotals</b>	<b>190</b>	<b>104</b>	<b>52</b>				<b>6</b>	<b>3</b>	<b>8</b>		<b>1</b>		<b>13</b>	<b>20</b>	<b>1</b>			
<b>NW of Room F</b>																		
plowzone (0.4 m <sup>3</sup> )	24	11	5										1	6		1		
<b>Rooms E &amp; F</b>																		
plowzone (1.4 m <sup>3</sup> )	5		1										1	3				
<b>Operation 2 Totals (50.12 m<sup>3</sup>)</b>	<b>1909</b>	<b>906</b>	<b>428</b>		<b>2</b>		<b>111</b>	<b>34</b>	<b>16</b>		<b>6</b>		<b>1</b>	<b>151</b>	<b>302</b>	<b>35</b>	<b>38</b>	<b>38</b>

+

Table 2.6. OPERATION 2—UTILITY CERAMICS

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room A</b>															
plowzone (11.95 m <sup>3</sup> )	456	33	5	21	4	2	391	6	23	3	7	4	1		1
directly over floor (0.2 m <sup>3</sup> )	64	5				1	58	1	6			2			
floor zone (0.2 m <sup>3</sup> )	35	2				1	32		3		1				
subfloor (0.25 m <sup>3</sup> )	81	8	5	5		1	62	11	5		1	1			
<i>Subtotals</i>	<i>636</i>	<i>48</i>	<i>10</i>	<i>26</i>	<i>4</i>	<i>5</i>	<i>543</i>	<i>18</i>	<i>37</i>	<i>3</i>	<i>9</i>	<i>7</i>	<i>1</i>		<i>1</i>
<b>Room B</b>															
plowzone (6.2 m <sup>3</sup> )	356	23	14		3	3	313	9	7	3	7	3			1
directly over floor (0.2 m <sup>3</sup> )	16	3					13		5				1		
directly under floor (0.525 m <sup>3</sup> )	62	4			2	2	56	7	3		2				
subfloor fill (0.175 m <sup>3</sup> )	17	2					15	3							
subfloor to tepetate (0.3 m <sup>3</sup> )	1			1											
<i>Subtotals</i>	<i>452</i>	<i>32</i>	<i>14</i>	<i>1</i>	<i>5</i>	<i>5</i>	<i>397</i>	<i>19</i>	<i>15</i>	<i>3</i>	<i>9</i>	<i>3</i>	<i>1</i>		<i>1</i>
<b>Rooms B &amp; E</b>															
plowzone (1.2 m <sup>3</sup> )	37	2					35		5						
<b>Rooms B &amp; F</b>															
plowzone (1.2 m <sup>3</sup> )	32	4					28	1							
<b>Room C</b>															
plowzone (1.8 m <sup>3</sup> )	42	2	2			4	33	1	11			1	1		
<b>Room D</b>															
plowzone (~2.4 m <sup>3</sup> )	265	33	6	6			220	12	12		5	2		1	1
<b>Room E</b>															
plowzone (7.3 m <sup>3</sup> )	277	18		24	2	5	228	9	29	15	7				2

OPERATION 2—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room E Midden</b>															
top 50 cm (3.8 m <sup>3</sup> )	345	24	6	10	1	6	298	1	19	1	5			1	
next 20 cm (0.85 m <sup>3</sup> )	57	1		4	2	6	44	3	15		4	1			
next 14 cm (0.56 m <sup>3</sup> )	252	47	15	18		5	167	15	42		2		1	1	1
to tepetate (1.27 m <sup>3</sup> )	256	23	6	13	1	5	208	5	7	7	1	1			
plowzone, surface to tepetate (0.6 m <sup>3</sup> )	45	2		4		5	34		4	2					
<b>Subtotals</b>	<b>955</b>	<b>97</b>	<b>27</b>	<b>49</b>	<b>4</b>	<b>27</b>	<b>751</b>	<b>24</b>	<b>87</b>	<b>10</b>	<b>12</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>
<b>Room F</b>															
plowzone (6.44 m <sup>3</sup> )	383	25		19		6	333	10	20	5	2	2			
floor zone (0.195 m <sup>3</sup> )	38	3					35	1							
subfloor (0.705 m <sup>3</sup> )	5						5								
<b>Subtotals</b>	<b>426</b>	<b>28</b>		<b>19</b>		<b>6</b>	<b>373</b>	<b>11</b>	<b>20</b>	<b>5</b>	<b>2</b>	<b>2</b>			
<b>NW of Room F</b>															
plowzone (0.4 m <sup>3</sup> )	58	1		2			55		6		3				
<b>Rooms E &amp; F</b>															
plowzone (1.4 m <sup>3</sup> )	63	3		4			56		2						
<b>Operation 2 Totals (50.12 m<sup>3</sup>)</b>	<b>3242</b>	<b>268</b>	<b>59</b>	<b>131</b>	<b>13</b>	<b>52</b>	<b>2719</b>	<b>95</b>	<b>224</b>	<b>36</b>	<b>47</b>	<b>17</b>	<b>4</b>	<b>3</b>	<b>5</b>

+

### OPERATION 3

Operation 3 investigated a rise 50 m east of Structure 1. Five 2 m<sup>2</sup> trenches were sunk, and no masonry features were encountered (Figure 2.5); the soil in Trench 3 for example, was soft to a depth of 135 cm (at tepetate), with two thin horizontal lenses of darker soil. Pedro Baños suggested that Operation 3 had been a jaguey, and the nature of the mound, excavation features, and the needs of the Aztec village all lend credence to this hypothesis. Our investigation of this feature was not sufficiently extensive to provide an adequate estimate of the amount of water such a jaguey might have held. Our deepest trench, hitting tepetate at 1.35 m below the surface, does not give us an understanding of the actual depth of the feature in Aztec times, since we have no surface indications of the location of the built-up rim of the jaguey, or the height of this rim. If we hypothesize a diameter of 20 m, and an Aztec period depth of 2 m at its deepest point, then the surface area would be about 314 m<sup>2</sup>. Assuming further a gradually declining depth gradient, calculated in 10 cm levels, the volume of such a jaguey would be roughly 260 m<sup>3</sup>, holding 260,000 liters of water.

Translating this into a "carrying capacity" value, an estimate of the number of people who would be served by the jaguey, requires data from studies of water use in similar settings. One such study was done by Matheny (1978), who found that in the modern Edzna Valley in Campeche, a family of 12 uses about 54,750 liters a year (excluding water for washing clothes and water for animals), an average of 12.5 liters/person/day. In a survey of water use in developing countries, Saunders and Warford found that 5 liters/person/day "is probably the minimum necessary to sustain life" (1976:44).

While it would be unsound to make a direct equation between these values and Cihuatecpan, this does give a general idea of the value of this jaguey, and its ability to serve the needs of the families living close to it.

One hundred ninety-four sherds were excavated from 12.6 m<sup>3</sup> in the five trenches (Tables 2.7, 2.8, and 2.9), a sherd density of 15/m<sup>3</sup>, compared with 174/m<sup>3</sup> for the eight excavated structures; 79% of these were utility wares (compared with 70% for the excavated structures). The only interpretable Black/Orange wares were types "D" and "H", of Aztec III and Aztec IV ceramic types, respectively.

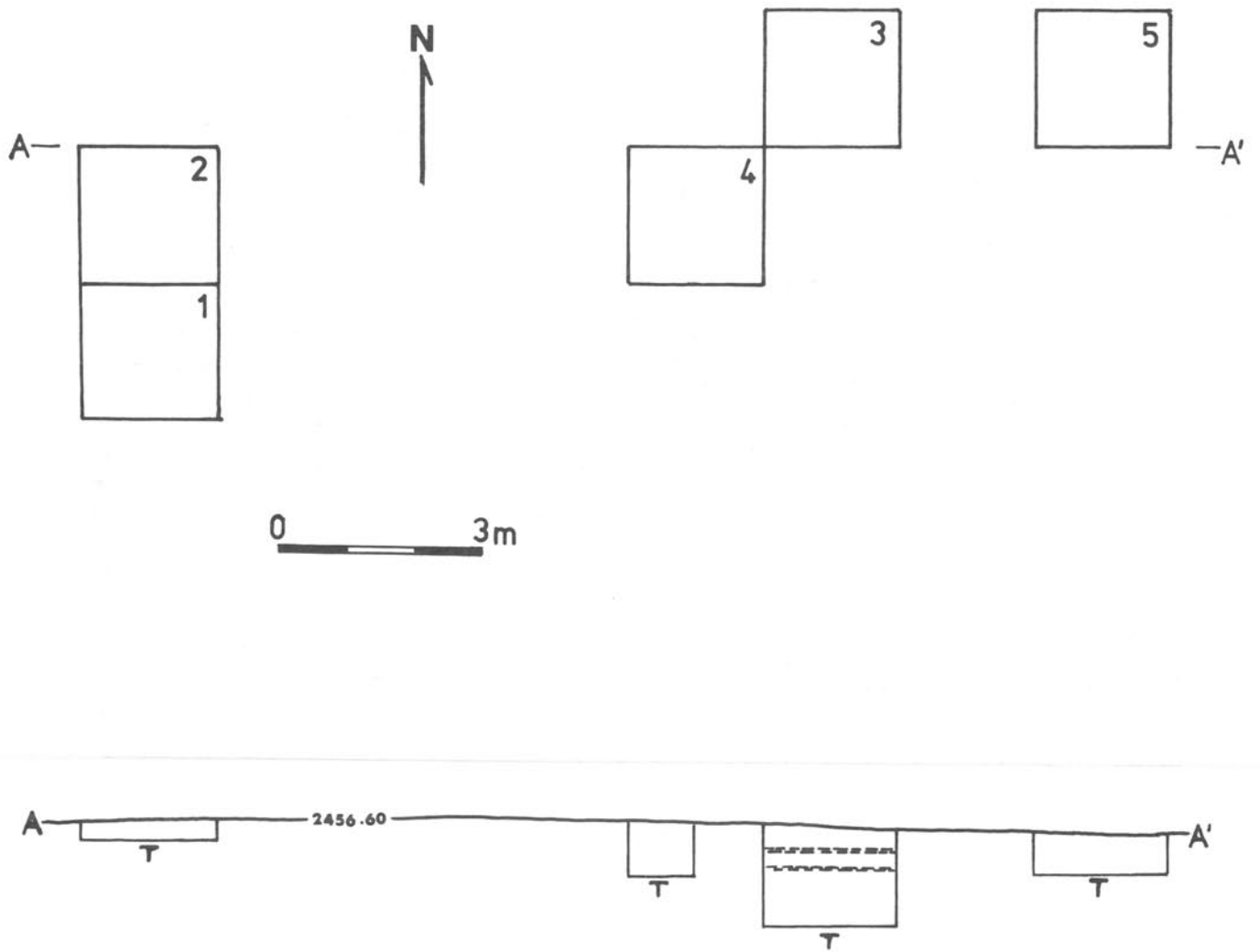


Figure 2.5

CIHUATECPAN, OPERATION 3 (PROBABLE JAGUEY)  
 (Above: distribution of test trenches; below: section diagram)

Table 2.7. OPERATION 3—ARTIFACT SUMMARY

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
Trench 1 (.8 m <sup>3</sup> )	18	16	2										
Trench 2 (1.2 m <sup>3</sup> )	13	10	3										
Trench 3 (5.4 m <sup>3</sup> )	71	47	24					13	4				
Trench 4 (2.8 m <sup>3</sup> )	75	67	8			2		5					
Trench 5 (2.4 m <sup>3</sup> )	17	14	3					2					
TOTALS (12.6 m <sup>3</sup> )	194	154	40			2		20	5				

Table 2.8. OPERATION 3—FINE CERAMICS

CONTEXT			Black on Orange											glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Choitua
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J							
Trench 1 (.8 m <sup>3</sup> )	2		1												1				
Trench 2 (1.2 m <sup>3</sup> )	3	3																	
Trench 3 (5.4 m <sup>3</sup> )	24	14	7				1			2	1								
Trench 4 (2.8 m <sup>3</sup> )	8	4	2								1				2				
Trench 5 (2.4 m <sup>3</sup> )	3	1	2																
Operation 3 Totals (12.6 m <sup>3</sup> )	40	22	12				1				1				5	1			

Table 2.9. OPERATION 3—UTILITY CERAMICS

CONTEXT	Vessel type							Use			Handles		Spindle whorls		worked sherds
	total utility	comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
Trench 1 (.8 m <sup>3</sup> )	16	1									4				
Trench 2 (1.2 m <sup>3</sup> )	10			1				1			2			1	
Trench 3 (5.4 m <sup>3</sup> )	47			3				1	5		2				
Trench 4 (2.8 m <sup>3</sup> )	67			1					1		1				
Trench 5 (2.4 m <sup>3</sup> )	14			1		1					2				
Operation 3 Totals (12.6 m <sup>3</sup> )	154	1		6		1		2	6		11			1	

## OPERATION 4

### Setting

Located about 50 m southwest of Structure 2, and on the same terrace level, this mound measured about 30 m across, and about 0.5 m high. With the present terrace system, Mound 4 is on the downslope side of this densely occupied terrace; just over 20 m southeast of it, on the adjacent downslope terrace lies another mound (#17). The bancal which separates Mounds 4 and 17 has been built up recently by a bulldozer, and is being planted with nopales (the holes had been dug and were waiting for the plants), but these rebuilding operations seem to be taking place on a long established terrace. Substantiating the possibility that the terrace location is basically the same as it was in the Aztec period is the orientation of Structure 4 relative to that of Mound 17, and its floor levels, relative to the present general level of the terrace. It was fortunate that the recent terrace rebuilding operations did not damage Structure 4's southeast side, since this was particularly complex in terms of its architecture, with a broad (5.6 m) 3-tiered staircase, its side studded with tezontle cones. This southeast side of the structure, so nicely detailed, faces the nearby Mound 17, and it would be interesting to determine Mound 17's plan and orientation, as well.

The area was being prepared to be planted. Soil depth on the mound (surface to tepetate) varied between 20 and 80 cm.

### Method

Investigations in this area took place between March 14 and 20, 1984, with an average crew size of 14.

The mound was gridded into 2 m segments, and surface elevations were taken. Excavation began with a north-south transect of four 2 x 2 m trenches over the western side of the mound. These uncovered Courtyard J and the northwest wall of the building. The next nine trenches continued to trace this wall and determine its extent, and to open up Room A, and the AJ wall. Meanwhile, investigations began of the complex central area, and of the southeast rooms of the structure and the staircase along the southeast side of the building. An area of 162.5 m<sup>2</sup> was uncovered, with a total of 70.81 m<sup>3</sup> excavated.

### Architecture and Features

This is a well-made and fairly well-preserved structure, roughly 11.5 x 12 m, with a history of rebuilding. The last extant phase of Structure 4 (Figure 2.6) has at least six interior rooms, plus a passageway (E) and a partially enclosed courtyard (B). The broad staircase on the southeast side of the building will serve as our orientation to the layout of this last building phase. The staircase is topped by a broad platform divided into two rooms (Rooms C and D). A passageway (E) at the rear of Room D leads back to the partially enclosed Courtyard B (to the right) and to a set of rooms (Rooms F through I) on the left. Access to the northwestern rooms of the structure (Room A and Courtyard J) from the southeast rooms was circuitous during this last phase: the only clearly visible entry is that between Rooms A and B. Courtyard J probably had an entry in its southwest wall, and it opened onto Room A in a step-up pattern similar to that of Structure 1, Courtyard D and Room A.



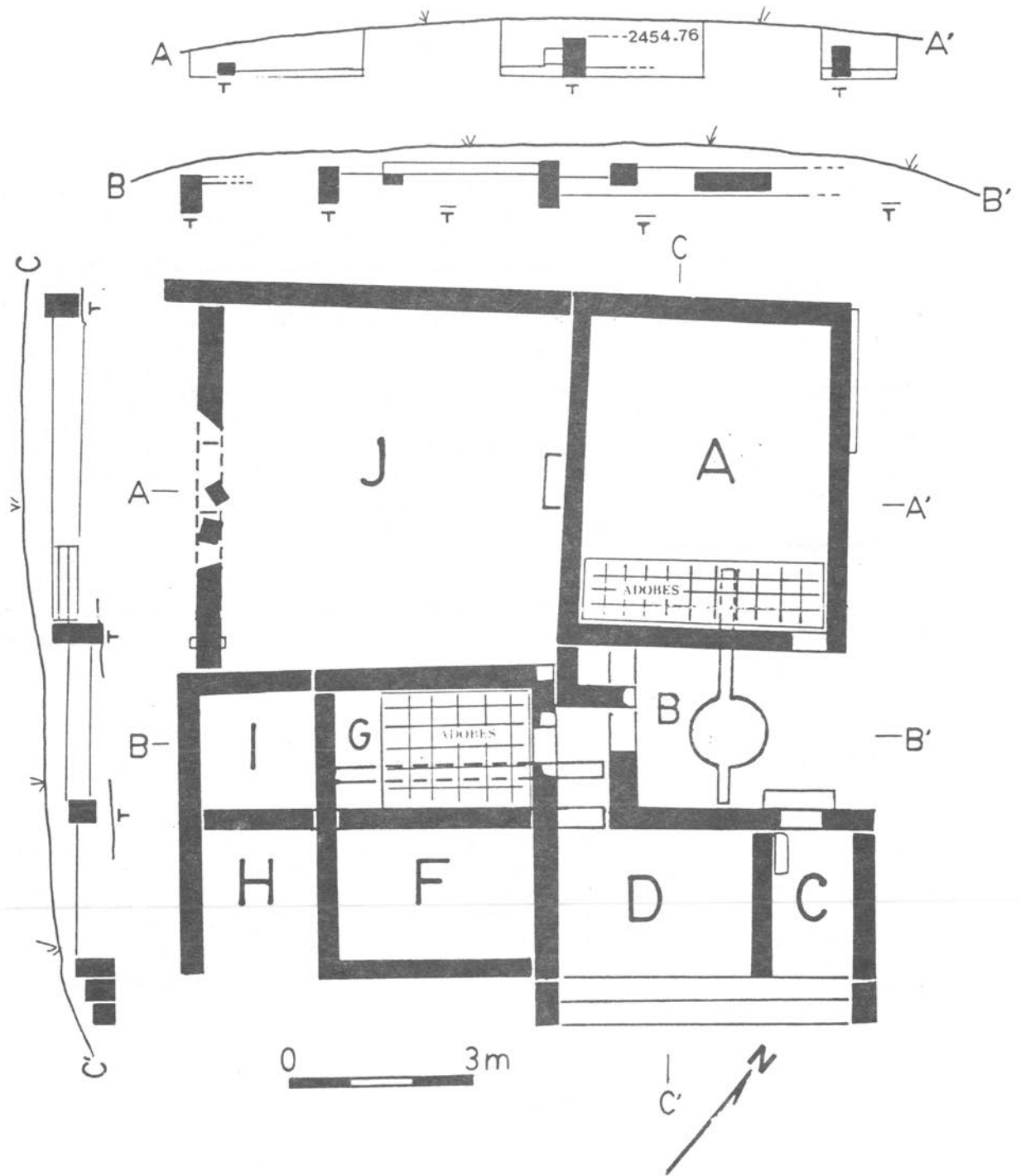


Figure 2.6

CIHUATECPAN, STRUCTURE 4

(Black areas indicate solid construction; dashed lines indicate extrapolation;  
"T" indicates tepetate)

These rooms are described according to the standard format of this report, beginning with the entrance (the stairway and the southeastern rooms), then turning to the other rooms: Courtyard J, the northern room (A) and the adjacent eastern room (Courtyard B).

#### Structure 4, Stairway

Architecture and Features. A three-tiered staircase 5.6 m wide leads up to an equally wide platform, about 2.1 m deep, which is subdivided into two adjacent rooms, C and D, each with a slightly different floor level. The stairs rise from a level of approximately 2453.45 masl. (the hard-packed earth surface in front of the structure) to the platform level of Rooms C and D, at about 2454.00 masl. As The stairs are of large crude stone, and an *in situ* adobe brick suggests that they may have been surfaced with adobes. The sidewalls of the staircase are 45 cm to 50 cm wide, built of faced stone with cobble fill, and two plaster-daubed tezontle cones are visible embedded in the southwest sidewall. These well-finished masonry features indicate that the stairway was an aesthetic focal point for the house, a more attractive entry than that provided either by the partial Courtyard B (which has a trash heap on its open northeast end), or by the doorway which was probably centered in Courtyard J's southwest wall.

Artifacts. The surfacing of the stairway having been destroyed, there is no good behavioral context for artifacts which would indicate special function. The fill of the stairway, the dirt into which the large stones were set, contained utility and fine sherds, including two Black/Orange type "D" sherds (Aztec III; artifact counts are presented in Tables 2.10, 2.11, and 2.12). Pieces of grey-black and green obsidian were found in a 2.25:1 ratio.

#### Structure 4, Room D

Architecture and Features. Rooms D and C share the broad platform which is the stairway's upper landing. The outside walls of this pair of rooms (walls C-northeast, and DF) are of nicely faced stone, and both have wall bases at 2453.65 masl., while the interior wall separating Room C from Room D is of irregular tezontle, mudplastered. The base of this wall is at 2453.79 masl. This is about the same level as the base of the rear wall of these two rooms, and also of the present top of the lowest stair (which would have been somewhat higher with a surface of adobes). The similar depth of these wall bases may indicate that they were built on an established level surface, a possible lower floor, some 20 cm to 25 cm below the level of the last extant floor for these rooms. In fact, a few fugitive traces of a hard packed earth floor at 2453.78 masl. were found in Room D near the northwest wall, but the fill elsewhere in this room was undifferentiated and no artifacts were recovered in subfloor excavation. If we assume a floor at about 2453.78 masl., then it would cover a large area (almost 5 m<sup>2</sup>), that of the later Rooms B through E. The deep wall fragment just northeast of and below the latest CD wall may mark the northeast extent of an early construction phase, but this wall had only one course, probably having been torn down to that level (the base at 2453.25 masl. and the top at 2453.48 masl.) then covered with fill up to about 2453.78 masl. This new level would have served as a living surface, with a circular hearth in what is now Courtyard B, until construction of the present CD wall, BCD wall, the central round feature in Courtyard B, and its flanking walls, the staircase, and the laying of the upper floors in these separate rooms. A sherd of a Black/Orange plate base found under the southeast end of the CD wall dates to Aztec III.

Room D, 2.1 x 2.6 m (5.46 m<sup>2</sup>) would have served as a kind of entry room, leading through Passageway E to the other areas of the house.

Artifacts. The artifact density in the plowzone over Room D was low, and in the floor contexts was almost nonexistent, averaging 3.7 sherds/m<sup>3</sup>. Just over the floor were a few utility sherds and a few Plain Orange sherds, and two pieces of black obsidian. This paucity of artifactual material found in context is typical in this village, where abandonment was a well-anticipated event. Another possible reason underlying the lack of artifacts is that this was not, in fact, a work area, but rather usually served as an entry room and corridor.

#### Structure 4, Room C

Architecture and Features. Only 1.3 m wide (1.3 x 2.1 m, 2.73 m<sup>2</sup>), this side room was separated from Room D by a mud-plastered wall with a base of crude tezontles (which rested on the 2453.79 masl. surface). These two rooms may have been open on the stairway side, and possibly roofed over. If Room D is perceived as a main entry room, Room C may have been the "service entry," since the doorway in Room C's rear (northwest) wall leads to the partial courtyard and trash dump area. Directly across this courtyard from Room C's rear doorway is an entry doorway to Room A. The rear doorway of Room C features a nice outside doorstep, made of adobes.

The subfloor fill is undifferentiated. The deep wall remnant mentioned above is the only other feature; its base, at 2453.25 masl., rests on tepetate.

Artifacts. Density of ceramic remains here is much higher than in Room D, both in the floorzone and in the subfloor fill. Comal and basin sherds are among the utility wares, and fine sherds include three of Black/Orange type "D" in the floor fill, indicating at least an Aztec III date for construction of the CD platform and staircase. An unusual figurine fragment was found in the floor fill: life-size (or larger) fourth and fifth toes of a right foot.

#### Structure 4, Passageway E

Architecture and Features. This hall leads from Room D to the other rooms of the house. Measuring 80 cm to 85 cm wide, its present length of 2 m represents a reduction from the earlier 3 m length, before the construction of the L-shaped wall which enclosed the northwest end of the hall as a niche for Courtyard B. There is a single floor in the passageway, at 2456.24 masl., and beneath this are two northeast-southwest cross walls, one course each, which continue from Room G (to the southeast) and seem to provide the foundations for the slight elevations of Passageway E above the floor level of Room D.

Four cutstone uprights stud the corners of these various dividing walls. If these walls were all of normal height, three of the uprights would have been visible as a group: the two which frame the doorway from Passageway E to Room G and that in the north end of the BE doorway; rather, the similarity of these uprights would have been a unifying element for the interior architecture of this central part of the house.

Artifacts. Because of the confusion of the fill above this passageway (the multiplicity of walls, resulting in a high density of jumbled cobbles) the single good context for this passageway is the fill under the floor. Sherds here are relatively dense. These sherds in the fill were about three-quarters utility wares of largely undistinguishable type. The

major fine wares are present, but no chronological markers could be determined among the Black/Orange wares. The artifact repertoire is completed by two pieces of grey-black obsidian.

#### Structure 4, Rooms F and G

*Architecture and Features.* A doorway framed by two upright cut stones leads from Passageway E to the adjacent southwest room, Room G. Rooms F and G are described as a single unit because the wall which bisects their mutual area was apparently only one course high above the floor level, serving to demarcate the southeast side of the adobe bench which covers most of Room G. Interior dimensions of these rooms together are 4.45 by 3.20 m (14.24 m<sup>2</sup>). The level of the 2.3 x 2.3 m adobe bench in Room G is 2454.33 masl.; it is about 8 cm high, and rests on a layer of dirt and gravel about 18 cm thick. This, in turn, rests on a hard packed dirt floor surfaced in the northwest part of Room G, with a thin layer of lime plaster at about 2454.07 masl. Extending into the fill, with its upper course at about 2454.15 masl., is a southwest-northeast cross wall which forms a bonded corner with the GI wall, its base resting on 2453.87 masl. This wall is parallel to, and has the same wall base elevation as the FG wall, which came up to 2454.26 masl. and served as the foundation for the southeast edge of the adobe bench. These walls may have at one time divided the room space, but it is also possible that they functioned only to stabilize the fill of the room, and delineate minor changes in floor height, and were always subfloor constructions. Their junctures with wall EG seem to be bonded, though this does not mean the bonded courses were constructed at the same time: cobble architecture is easily disassembled for renovations and additions. Both crosswalls abut the BE wall, however.

These wall lines take on a Movius-strip pattern of integration, similar to those of Structure 1. As Figure 2.7 shows, the pattern of corner bonding indicates that the northwest wall of Room G seems to have been already built when the northwest crosswall was built up to it, yet these walls seem bonded at the northeast corner, and their wall bases are at almost the same level. It is possible that these walls bases define a small (1.2 x 3.1 m; 3.72 m<sup>2</sup>) room, opening off Passageway E, which had a (lime-plastered) floor at 2454.07 masl. Subsequent rebuilding involved the reduction of this wall down to a few courses, and covering it with fill and, eventually with part of the adobe bench.

*Artifacts.* Density of ceramic artifacts in Room G is fairly high (183 sherds in 0.83 m<sup>3</sup>), but the sherd collection does not include very many important diagnostics. Utility vessel types which have been identified are comales and jars, with a few salt-manufacturing ware sherds. The fine wares include identifiable Black/Orange types, and just above the lime-plastered floor were found sherds of a type "A" dish and "E" plate, while in the subfloor fill in the east corner of the room were sherds from a type "D" dish and plate, and a type "F" dish. From the western corner of the room, just above the lime-plastered floor, came an unusual partial figurine, wearing a skirt and holding what may be an ear of maize (Patricia Anawalt, personal communication), which raises the possibility that the figurine depicts an aspect of one of the maize-related deities, such as Centeotl, Chicomecoatl, or Xilonen. Other artifacts included about two dozen pieces of grey-black and green obsidian, occurring in roughly equal quantities throughout.

The 2.15 x 3.2 m (6.88 m<sup>2</sup>) area southeast of the central dividing wall has been designated Room F. It has a single floor of hard packed earth, at about 2454.20 masl., with undifferentiated fill down to tepetate. The southeast wall of Room F continues the line formed by the top stair, and the F-southwest wall seems to be bonded with the DF

wall (nicely cut stones face outward at this corner) although F-southwest's base is at about 2453.90 masl., much higher than that of wall DF (at 2453.65 masl.).

The entire FG room unit forms a stone box 5.1 x 3.9 m, with well-finished cut stone corners. The bases of the northwest and southeast walls are at the same level, 2453.9 masl., suggesting the possibility that these walls may have been built at the same time.

Room F's artifact repertoire is as unprepossessing as that of the adjacent Room G. Plowzone sherds show a fairly complete range of utility and fine wares. In the context directly over the floor, three sherds of Black/Orange type "D" were found, and a fragment of a worked sherd. Both types of obsidian appear, in a 3:1 ratio.

#### Structure 4, Rooms H and I

*Architecture and Features.* Southwest of Rooms F and G is an addition onto them; this area has been designated as two rooms, H and I, the space bisected by a wall which continues in a line from the FG wall. The interior space is 1.9 m wide (southwest to northeast), and, if it had a southeast wall which continued in a line from that of Room F, would measure 4.4 m (northwest to southeast). Floors in this set of rooms are very disturbed, partly because of the lack of a southeast wall to protect the floor contexts, but pieces of floor have been found in both Room H (at 2454.12 masl.) and Room I (hard-packed earth floor at 2454.20 masl. over a floor with a red cascajo surface at 2454.08 masl., which overlies a floor at 2454.00 masl.). Beneath these rather uneven and ephemeral floors, undifferentiated fill continues down to tepetate. No other features were found in these rooms.

*Artifacts.* Sherd densities in both these rooms were moderately high, and in both cases a good range of vessel type sherds was found in the floor zones.

Room H utility sherds include all common types except salt-manufacturing ware. Within the floor, a Black/Orange fine ware sherd of type "D" was found. Obsidian occurred in a 3.25:1 ratio. A figurine head was found in the plowzone.

Room I's two floors show a similar range of ceramic and lithic material. In the lower floor, the only identifiable utility sherds are of comales. Fine wares covered a fairly wide range, especially for the middle (2454.08 masl., red cascajo) floor. In this zone were found several chronologically useful fine ware sherds: Black/Orange types "D" and "H", and two sherds from a glazed vessel. Obsidian is found in the fill underlying the two upper floors in a roughly 3:1 ratio.

#### Structure 4, Courtyard J

*Architecture and Features.* This area was probably an unroofed courtyard, in the same manner as Structure 1's Courtyard D. The entry is assumed to have been in the southwest wall. In the central part of the line of this wall, plow damage had destroyed all the evidence of the wall except for a few cut stones which may indicate the location of the entry. From the relationship of the walls, it appears that Courtyard J was the last large (5.5 x 5.7 m, 31.35 m<sup>2</sup>) addition onto Structure 4, since the northwest and southwest walls abut those of Rooms I and A.

Courtyard J's large size makes it unlikely that the space was roofed over. It probably was a work area, the privacy of activities ensured by its enclosing walls while its openness permitted light and air into the courtyard itself and the rooms of the rest of the house.

The breadth of the space here also had permitted the disruption of much of the floor area. There seems to be one hard-packed earth floor, with a level varying between 2454.26 masl. (near Room A) to 2454.14 masl. (near the southwest wall). A single cut stone step (2454.54 masl.) leads up to Room A (2454.71 masl.). To the northwest of this step was an area paved with flagstones, against the AJ wall. The upper level here is about 2454.10 masl., and this flagstone area may represent a surface in use before Courtyard J's northwest and southwest walls were erected, and the level of Room A was lower than the last extant level. It should be noted, however, that the flagstone surface was quite uneven and may never have been an active living surface; one stone was a broken piece of metate, its short legs pointed upward. Beneath this flagstone floor was a thin layer of undifferentiated hard-packed dirt, above tepetate at about 2454.00 masl.

Another behavioral context which we isolated was a hard-packed earth surface in the south corner of the room, next to the IJ wall. This surface, at 2453.90 masl., is listed on the artifact tables as a floor, and was probably an active surface before Courtyard J was built. A drain at floor level pierced the southwest wall, close to the IJ wall (see Figure 2.7).

Artifacts. The density of ceramics in this room (average 91 sherds/m<sup>3</sup>) is lower than the average (131 sherds/m<sup>3</sup>) for this structure as a whole, but a fairly high density occurs near the IJ wall, under the 2453.90 surface (143 sherds in 24m<sup>3</sup>; average 596 sherds/m<sup>3</sup>), suggesting that this may represent refuse material accumulating against this wall. This ceramic material ("fill of floor at 3.9") includes many utility ware sherds too fragmentary to identify as to vessel form; of greatest in this sherd collection are Black/Orange sherds of types "A" and "B". Other artifacts in this area include a figurine fragment and obsidian (4:1 ratio).

Material collected off the 2453.90 masl. surface was limited to a few sherds.

The floor of this room, averaging about 2454.20 masl., was the surface in use during the time Courtyard J was an enclosed space. The floor fill has fairly dense ceramic material, with a full range of both utility vessel type sherds and fine ware sherds. Black/Orange ware of types "A" and "B" is present. Other artifacts include 2 figurine fragments, and obsidian in a 1.7:1 ratio of grey-black to green.

Material directly over this 2454.20 masl. floor includes 100 utility vessel sherds, including identifiable sherds of comales, jars, and salt-manufacturing wares. Fine wares included all common types and Black/Orange "D", "G", and "H" sherds were present. Obsidian in 1.5:1 ratio, and a worked sherd complete the artifact repertoire.

The plowzone had scattered artifacts, with a low sherd density (44/m<sup>3</sup>). The utility sherds included sherds from jars and salt-manufacturing vessels, and fine wares included Black/Orange types "D" and "H". Obsidian was present in a roughly 1:1 ratio.

## Structure 4, Room A

Architecture and Features. This 4.0 x 5.0 m (20 m<sup>2</sup>) room has entries from Courtyard J and Courtyard B. The walls of this room form a single coherent unit, and are very well made, with generous use of cut stones in the walls as well as the corners. The northwest wall is set into a trench dug a few centimeters into tepetate (wall base at about 2454.28 masl.). The northeast wall rests on tepetate, and features an external skirt of adobes set into the ground at the outside "floor" level, about 2454.45 masl. The floors of this room were seriously disturbed by plowing, and our reconstruction of three possible floors is drawn from evidence of the surfaces themselves, uncovered during excavation, as well as from extrapolation from evidence of other features, such as that of the adobe bench which spans the southeastern end of the room.

The two floors were found at 2454.26 masl. and 2454.76 masl., respectively, but I emphasize that the upper floor is highly disturbed since the upper floor zone intersects the present ground surface (2454.67 masl.) in the eastern corner of the room (surface elevation is only 2455.06 masl. in the west side). Plowing activity over many years has left few surviving upper floor remnants. The tepetate level in the northern (upslope) corner is 2454.21 masl., about the same as the lowest floor level, which minimizes the amount of fill necessary in the construction of the room. The adobe bench feature is integrated into this lowest floor, and the top of the lowest layer of adobes (of four layers of adobes here) is the same as that of the floor. (The doorway to Courtyard B is at this level, which is about the same as that of the floor of Courtyard B itself.) The bench has a smooth mud plaster surface both indicating that it may have been in use over the course of three rebuildings: one layer of adobes (at 2454.26 masl.), three layers (at 2454.45 masl.) and four layers (2454.55 masl.). The area between the floors (at 2454.26 masl. and 2454.76 masl.) was filled with a combination of dirt, crushed tezontle, and broken-up tepetate and lime, in a fairly homogeneous mix. In two places were found some small areas of red cascajo floor at 2454.55 masl., but these were fugitive in nature, and didn't provide behavioral contexts for artifact collection.

We reconstruct the possible architectural history of this room as follows: the room was built as a single unit construction with well-made walls and an original floor at 2454.26 masl., paved in the southeast end of the room with adobes at the same level as the floor. At some later time, the adobe bench was raised to the 2454.45 masl. level, mud-plastered, and then another level added to bring its height to 2454.55 masl. Then the floor in the rest of the room was raised to the same level, and paved with red cascajo. Still later, the floor of Room A was raised to 2454.76 masl. Whether or not the level of the adobe bench was raised, or covered with fill, or left at 2454.55 masl., could not be determined because of the depth of the plowzone in this area. The feature of the raised adobe bench has proven to be standard in these structures, probably because it serves to break up the space of the room and in so doing to provide a kind of built-in furniture in a rural culture lacking portable versions of this amenity. Therefore, it would not be surprising if the adobe bench served as such when the adjacent floor level was raised above it—preserving a 125 cm wide area along the southeast wall of the room which was a separate zone within the room, a broad step which led down to the doorway to, and level of, Courtyard B.

The southeast wall of Room A has its base at 2453.75 masl., and at this same level is the base of a wall perpendicular to it, which intersects it and continues on both sides of the AB wall (see Courtyard B description for the south side of this sub-AB wall, and the problematic round feature it frames). The top of this lower wall is at about 2454.20 masl., a few centimeters below the floors in Room A and Courtyard B. The nexus of these two

walls seems bonded on all sides, but given that this lower wall is only 45 cm high, it is more likely that when the AB wall was built, the lower wall was destroyed down to the 2454.20 masl. level, the AB wall was built onto (and into) it and above it, and the floors in Room A and Courtyard B laid over the deeper wall (see Courtyard B for description of this deeper wall).

Artifacts. Because the mid floor level (2454.55 masl.) was so ephemeral, the behavioral contexts for artifact descriptions are limited to those of the upper and lower floors. In general, sherd densities for Room A are very low, averaging 44 sherds/m<sup>3</sup>. They are particularly low (34/m<sup>3</sup>) in the fill below the upper floor, the fairly homogeneous crushed tezontle, tepetate, and cal mixture. As the artifact tables show, the repertoire of vessel types and decorative styles is not extensive, or very revealing. There is a higher proportion of fine wares here (40%) than in Structure 4 as a whole (32%), but the limited size of the sherd sample here makes generalizations difficult. The two Black/Orange sherds recognizable as to type are "D", and the lowest occurs in the fill between the floors. Also found in this fill is a female figure head of the standard folded headdress type, though with the headdress broken.

#### Structure 4, Courtyard B

Architecture and Features. The clockwise tour through Structure 4 ends with Courtyard B, the most architecturally puzzling room of the building. As Figure 2.7 shows, this courtyard is behind the first set of rooms in the front (southeast) of the house. In the last construction phase of this structure, the courtyard measured 2.6 m by about 3.5 m (roughly 9.1 M<sup>2</sup>), with no northeast wall, a niche built into the western end of the courtyard, and a floor at 2454.24 masl. There are two definite doorways; these are from Rooms A and C and they face each other across this courtyard. These doorsteps are at about the same level as the floor. There was also probably a doorway from Passageway E, but the wall there is low, so no trace of the doorway exists.

The walls which frame this courtyard are AB, an integral part of Room A, with its base at 2453.75 masl., and the L-shaped wall BCDE, with its base at 2453.80 masl. As I pointed out in the discussion of Rooms C and D, this wall base level seems to have been a floor onto which the last arrangement of walls was built. This floor is found only to the southwest of the buried wall and problematic round feature (see below); on the northeast side, the 2454.24 masl. level is the only floor. At the 2453.80 masl. level there was a hearth in the south corner. Note that if the L-shaped wall is disregarded, the placement of this hearth shows a nice symmetry relative to Room D. This aesthetic fine point is probably only perceptible to us, however, since the CD wall and the L-shaped wall were probably contemporaneous, simultaneously centering the hearth and blocking it from view. Also, the CD stairway probably post-dated the 2453.80 masl. floor and its hearth.

Courtyard B's really interesting feature, however, is the buried wall and associated problematical round feature, the tops of which are found at about 2454.20 masl., a few centimeters below the floor. As I mentioned above, the wall bases are at 2453.75 masl., the same as the AB wall and only slightly lower than the BD wall. The round feature is 125 cm across and is built solidly of cobbles. Therefore, the function of this feature was probably not storage or a temescal; but probably served as a bench, like the similar feature in Structure 1, Courtyard D. The outer base of this round feature was at 2453.90 masl., a few centimeters above the floor level and the level of its adjacent walls. Since these walls seem bonded to the round feature, it may be that they were of a single construction phase, but it is also possible (given the ease with which cobble architecture can be renovated) that the round feature was built in an opening in the wall.



Artifacts. With an average sherd density of 106/m<sup>3</sup>, Courtyard B's ceramic repertoire consists of most utility vessels types (with the exception of braziers) and the commonest fine ware varieties. Material directly over the 2454.20 masl. floor is meager, but the fill beneath that floor yielded a type "E" Black/Orange sherd and a maguey scraper, as well as two pieces of grey-black obsidian and few unidentifiable utility sherds. In the west corner of the courtyard a small trench in front of the BE wall yielded a fairly high concentration of sherds, with a wide range of utility and fine wares.

In the southern corner of Courtyard B, a trench down to tepetate isolated material between the two floors, and beneath the 2453.80 masl. floor down to tepetate at about 2453.40 masl. Each of these two levels turned up an identifiable Black/Orange sherd, type "D" between the floors, and type "B" beneath the lower floor. Both levels had utility sherds from comales, jars, and salt-manufacturing vessels and obsidian of both kinds. Each level had a figurine fragment, the upper level had a very worn face of the same size as many of the female "folded headdress" figurines, and the lower level held a fragment of a crouching male with a necklace, and armpit perforations.

#### **Structure 4, Midden Adjacent to Courtyard B**

Architecture and Artifacts. The area northeast of Courtyard B was a convenient and well made dump for the northeast side of the building. The courtyard was probably a kind of service area, and its wall-less northeast end a repository for refuse. Below the plowzone, the sherd density is high, 313 sherds/m<sup>3</sup>. The ceramic repertoire represented by the sherd sample includes comales, jars, and salt-manufacturing wares, and the fine ceramics include Black/Orange wares of types "B" and "D". There are two small spindle whorls and two worked sherds, and three small figurine fragments. Lithics include a maguey scraper and obsidian, here in an unusual 0.6:1 ratio of grey-black to green.

#### **Structure 4, Midden North of Room A and Courtyard J**

Architecture and Artifacts. Another area which obviously served as a trash dump is located north of the structure, along the northwest walls of Room A and Courtyard J. Here the ceramic density averages about 216 sherd/m<sup>3</sup>. All utility ware types are represented, as are all fine wares, with Black/Orange wares covering a broad ("A" through "J") range, and four glazed ware sherds being included. Eight figurine fragments were found, including females with folded hairdos, partial female bodies, a seated male figure with a loin cloth, and a standing figure in a patterned tunic. The lithic material included obsidian in a roughly 2:1 ratio, a ground stone beater and two maguey scrapers.

Table 2.10. OPERATION 4—ARTIFACT SUMMARY

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<b>Room A</b>													
plowzone (1.04 m <sup>3</sup> )	57	31	26						4	1			
directly over floor at 4.75 (0.27 m <sup>3</sup> )	24	7	17						2	2			
floor fill at 4.75 (2.29 m <sup>3</sup> )	77	57	20	1	1				26	5			
floor zone at 4.24 (0.05 m <sup>3</sup> )	1	1											
<i>Subtotals</i>	<i>159</i>	<i>96</i>	<i>63</i>	<i>1</i>	<i>1</i>				<i>32</i>	<i>8</i>			
<b>Rooms A &amp; Ext H</b>													
plowzone (1.6 m <sup>3</sup> )	77	34	43	2					7	6		1	
<b>Rooms A &amp; Ext E</b>													
plowzone (2.3 m <sup>3</sup> )	187	114	73	1		1	1		12	2			1 bowl
<b>Rooms A, J &amp; Ext H</b>													
plowzone (3.6 m <sup>3</sup> )	103	69	34		1				6	4	1		1
<b>Room B</b>													
plowzone (2.36 m <sup>3</sup> )	95	53	42	1					5	3			
directly over floor at 4.2 (0.2 m <sup>3</sup> )	12	4	8						3	2			
floor fill at 4.2 (1.6 m <sup>3</sup> )	335	199	136	2		1	1		18	8			1 scraper
<i>Subtotals</i>	<i>442</i>	<i>256</i>	<i>186</i>	<i>3</i>		<i>1</i>	<i>1</i>		<i>26</i>	<i>13</i>			<i>1 scraper</i>
<b>Rooms A &amp; B</b>													
plowzone (1.56 m <sup>3</sup> )	82	58	24						3	5			
<b>Rooms B &amp; C</b>													
plowzone (0.8 m <sup>3</sup> )	88	49	39						3		1		

OPERATION 4—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>Midden</u>													
plowzone (1.6 m <sup>3</sup> )	97	68	29					2		3	4		
primary (1.84 m <sup>3</sup> )	577	354	223	3				2	1	27	45		1 scraper
<i>Subtotals</i>	<i>674</i>	<i>422</i>	<i>252</i>	<i>3</i>						<i>30</i>	<i>49</i>		<i>1 scraper</i>
<u>Room C</u>													
floor zone at 4.0 (0.03 m <sup>3</sup> )	23	19	4							2	1		
floor fill at 4.0 (0.2 m <sup>3</sup> )	74	42	32	1						2	1		
<i>Subtotals</i>	<i>97</i>	<i>61</i>	<i>36</i>	<i>1</i>						<i>4</i>	<i>2</i>		
<u>Rooms C &amp; D</u>													
plowzone (1.0 m <sup>3</sup> )	79	61	18					1		7	2		
<u>Rooms C and Ext E</u>													
plowzone (0.8 m <sup>3</sup> )	108	81	27					1		4	5		
<u>Room D</u>													
plowzone (0.8 m <sup>3</sup> )	101	75	26							5	4		1
directly over floor at 4.11 (1.5 m <sup>3</sup> )	4	3	1							1			
directly over floor at 4.07 (1.5 m <sup>3</sup> )	7	3	4							1			
<i>Subtotals</i>	<i>112</i>	<i>81</i>	<i>31</i>							<i>7</i>	<i>4</i>		<i>1</i>
<u>Rooms D &amp; F</u>													
plowzone (0.8 m <sup>3</sup> )	27	14	13							1	4		
<u>Room E</u>													
floor fill at 4.24 (0.1 m <sup>3</sup> )	42	31	11							2			
<u>Room F</u>													
plowzone (0.4 m <sup>3</sup> )	75	44	31							7	1		
directly over floor at 4.2 (0.2 m <sup>3</sup> )	27	18	9					1		2	2		
<i>Subtotals</i>	<i>102</i>	<i>62</i>	<i>40</i>					<i>1</i>		<i>9</i>	<i>3</i>		
<u>Rooms F &amp; Ext S</u>													
plowzone (0.4 m <sup>3</sup> )	89	65	24					1	1	5	3		

OPERATION 4—ARTIFACT SUMMARY (Page 3)

CONTEXT					Supports									
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone			
						sol	hol	oth	black	green	mano	metate	other	
<b>Room G</b>														
directly over floor at 4.2 (0.23 m <sup>3</sup> )	14	5	9						1	1				
floor fill (0.38 m <sup>3</sup> )	169	128	41	1		1			10	10				
directly over bed (0.04 m <sup>3</sup> )	52	39	13						3	2				
within bed (0.12 m <sup>3</sup> )	2		2											
directly under bed (0.06 m <sup>3</sup> )	10	7	3											
<i>Subtotals</i>	<i>247</i>	<i>183</i>	<i>64</i>	<i>1</i>					<i>14</i>	<i>13</i>				
<b>Rooms G &amp; E</b>														
plowzone (1.0 m <sup>3</sup> )	94	45	49	1		1			4	2				
<b>Rooms G &amp; I</b>														
plowzone (0.32 m <sup>3</sup> )	12	9	3	1					1	1				
<b>Rooms G &amp; J</b>														
plowzone (1.4 m <sup>3</sup> )	50	41	9						1	1				
<b>Room H</b>														
plowzone (0.43 m <sup>3</sup> )	152	97	55	1					11	2				
directly in & under floor at 4.12 (0.81 m <sup>3</sup> )	83	58	25						2	2				
<i>Subtotals</i>	<i>235</i>	<i>155</i>	<i>80</i>	<i>1</i>					<i>13</i>	<i>4</i>				
<b>Stairway</b>														
fill (0.52 m <sup>3</sup> )	113	93	20			1			9	4				
<b>Room I</b>														
floor fill at 4.2 (0.32 m <sup>3</sup> )	53	38	15						11	3				
floor fill at 4.08 (0.02 m <sup>3</sup> )	78	37	41						10	4				
floor fill at 4.0	1		1		1	1								
<i>Subtotals</i>	<i>132</i>	<i>75</i>	<i>57</i>		<i>1</i>	<i>1</i>			<i>21</i>	<i>7</i>				

OPERATION 4—ARTIFACT SUMMARY (Page 4)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>Rooms I &amp; J</u>													
plowzone (1.84 m <sup>3</sup> )	45	30	15	1		1			9				
<u>Rooms I &amp; Ext W</u>													
plowzone (1.3 m <sup>3</sup> )	25	14	11	1									
<u>Room J</u>													
plowzone (4.5 m <sup>3</sup> )	198	131	67						10	9			
directly over floor at 3.9 (0.03 m <sup>3</sup> )	4	1	3			3							
floor fill at 3.9 (0.24 m <sup>3</sup> )	143	108	35	1					8	2			
directly over floor at 4.2 (0.81 m <sup>3</sup> )	149	100	49						12	8	1		
floor fill at 4.2 (0.81 m <sup>3</sup> )	170	105	65	2					17	10			
<i>Subtotals</i>	<i>664</i>	<i>445</i>	<i>219</i>	<i>3</i>					<i>47</i>	<i>29</i>	<i>1</i>		
<u>Rooms J &amp; Ext N</u>													
plowzone (2.8 m <sup>3</sup> )	349	241	108	1	1	3			35	12			2 balls
<u>Rooms J &amp; Ext W</u>													
plowzone (3.2 m <sup>3</sup> )	97	75	22	2					4	3	1		
<u>Exterior</u>													
North of str. primary midden (12.62 m <sup>3</sup> )	3918	2725	1193	8	5	9			212	104			1 beater 2 scrapers 4 unknown
W of str. plow- zone (1.56 m <sup>3</sup> )	169	118	51		5	11				8	1		
E of str. plow- zone (0.56 m <sup>3</sup> )	61	44	17						3	1			
E of str. fill of ext surf (0.3 m <sup>3</sup> )	31	16	17						3	1			
S of str. plow- zone (4.8 m <sup>3</sup> )	594	399	195	2		3	2		31	21			1 scraper
<u>Operation 4</u> Totals (70.81 m <sup>3</sup> )	9243	6262	2981	33	14	43	6		565	321	5	2	1 bowl 7 scrapers 2 balls 1 beater 5 unknown

+

**Table 2.11. OPERATION 4—FINE CERAMICS**

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<b>Room A</b>																		
plowzone (1.04 m <sup>3</sup> )	26	16	2				1							5	2		1	
directly over floor at 4.75 (0.27 m <sup>3</sup> )	17	12	1												4			
floor fill at 4.75 (2.29 m <sup>3</sup> )	20	10	5				1							3	2			
floor zone at 4.24 (0.05 m <sup>3</sup> )																		
<b>Subtotals</b>	<b>63</b>	<b>38</b>	<b>8</b>				<b>2</b>							<b>8</b>	<b>8</b>		<b>1</b>	
<b>Rooms A &amp; Ext H</b>																		
plowzone (1.6 m <sup>3</sup> )	43	26	9						1		1			2	6			
<b>Rooms A &amp; Ext E plowzone</b>																		
plowzone (2.3 m <sup>3</sup> )	73	44	21		1		2				1			4	3	1		
<b>Rooms A, J &amp; Ext N</b>																		
plowzone (3.6 m <sup>3</sup> )	34	23	6				1		1					1	4			
<b>Room B</b>																		
plowzone (2.36 m <sup>3</sup> )	42	18	10		1		1							4	10			
directly over floor at 4.2 (0.2 m <sup>3</sup> )	8	4	4															
floor fill at 4.2 (1.6 m <sup>3</sup> )	137	78	16		1		1	1						13	24	4	1	
<b>Subtotals</b>	<b>187</b>	<b>100</b>	<b>30</b>		<b>2</b>		<b>2</b>	<b>1</b>						<b>17</b>	<b>34</b>	<b>4</b>	<b>1</b>	
<b>Rooms A &amp; B</b>																		
plowzone (1.56 m <sup>3</sup> )	25	10	4				2							5	4			
<b>Rooms B &amp; C</b>																		
plowzone (0.8 m <sup>3</sup> )	40	17	8	1	1			1						6	7			
<b>Midden</b>																		
plowzone (1.6 m <sup>3</sup> )	29	15	3				1				1			2	8		1	
primary (1.84 m <sup>3</sup> )	223	104	33		2		14							21	49	11	5	
<b>Subtotals</b>	<b>252</b>	<b>119</b>	<b>36</b>		<b>2</b>		<b>15</b>				<b>1</b>			<b>23</b>	<b>57</b>	<b>11</b>	<b>6</b>	

OPERATION 4—FINE CERAMICS (Page 2)

CONTEXT	Black on Orange											glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H						
<b>Room C</b>																	
floor zone at 4.0 (0.03 m <sup>3</sup> )	4		1												1	2	
floor fill at 4.0 (0.2 m <sup>3</sup> )	32	20	7				3								2	2	1
<i>Subtotals</i>	<i>36</i>	<i>20</i>	<i>8</i>				<i>3</i>								<i>3</i>	<i>4</i>	<i>1</i>
<b>Rooms C &amp; D</b>																	
plowzone (1.0 m <sup>3</sup> )	18	6	3				1								4	5	
<b>Rooms C &amp; Ext E</b>																	
plowzone (0.8 m <sup>3</sup> )	27	12	7		2		5	1								8	
<b>Room D</b>																	
plowzone (0.8 m <sup>3</sup> )	26	15	7				5								2	2	
directly over floor at 4.11 (1.5 m <sup>3</sup> )	1	1															
directly over floor at 4.07 (1.5 m <sup>3</sup> )	4	4															
<i>Subtotals</i>	<i>31</i>	<i>20</i>	<i>7</i>				<i>5</i>								<i>2</i>	<i>2</i>	
<b>Rooms D &amp; F</b>																	
plowzone (0.8 m <sup>3</sup> )	13	4	6				2								1	2	
<b>Room E</b>																	
floor fill at 4.24 (0.1 m <sup>3</sup> )	11	5	3												1	1	1
<b>Room F</b>																	
plowzone (0.4 m <sup>3</sup> )	32	16	3				1								6	5	
directly over floor at 4.2 (0.2 m <sup>3</sup> )	9	2	3				3								1	3	
<i>Subtotals</i>	<i>41</i>	<i>18</i>	<i>6</i>				<i>4</i>								<i>7</i>	<i>8</i>	
<b>Rooms F &amp; Ext S</b>																	
plowzone (0.4 m <sup>3</sup> )	24	17	5				2	1							1	1	

OPERATION 4—FINE CERAMICS (Page 3)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula		
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J								
<b>Room G</b>																				
directly over floor at 4.2 (0.23 m <sup>3</sup> )	5	4	1				1													
floor fill (0.38 m <sup>3</sup> )	41	11	14	1			2	1	1					13	7	1				
directly over bed (0.04 m <sup>3</sup> )	13	7	1				1							1	4					
within bed (0.12 m <sup>3</sup> )	2														2					
directly under bed (0.06 m <sup>3</sup> )	3	1													2					
<i>Subtotals</i>	<i>64</i>	<i>22</i>	<i>16</i>	<i>1</i>			<i>3</i>	<i>1</i>	<i>1</i>					<i>14</i>	<i>15</i>	<i>1</i>				
<b>Room H</b>																				
plowzone (1.0 m <sup>3</sup> )	49	36	3				1							2	8					
<b>Rooms G &amp; I</b>																				
plowzone (0.32 m <sup>3</sup> )	3	1												1	1					
<b>Rooms G &amp; J</b>																				
plowzone (1.4 m <sup>3</sup> )	9	3	2				1							2	2					
<b>Room H</b>																				
plowzone (0.43 m <sup>3</sup> )	56	36	8				2		1						9			1		
directly in & under floor at 4.12 (0.81 m <sup>3</sup> )	25	9	6				2							4	5	1				
<i>Subtotals</i>	<i>81</i>	<i>45</i>	<i>14</i>				<i>4</i>		<i>1</i>					<i>4</i>	<i>14</i>	<i>1</i>		<i>1</i>		
<b>Stairway</b>																				
fill (0.52 m <sup>3</sup> )	20	6	4				2							2	8					
<b>Room I</b>																				
floor fill at 4.2 (0.32 m <sup>3</sup> )	15	7	1												7					
floor fill at 4.08 (0.02 m <sup>3</sup> )	41	16	12				8				3		2	2	8	1				
floor fill at 4.0	1														1					
<i>Subtotals</i>	<i>57</i>	<i>23</i>	<i>13</i>				<i>8</i>				<i>3</i>		<i>2</i>	<i>2</i>	<i>16</i>	<i>1</i>				



OPERATION 4—FINE CERAMICS (Page 4)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<u>Rooms I &amp; J</u>																		
plowzone (1.84 m <sup>3</sup> )	15	11	2												2			
<u>Rooms I &amp; Ext W</u>																		
plowzone (1.3 m <sup>3</sup> )	11	5	2											2	2			
<u>Room J</u>																		
plowzone (4.5 m <sup>3</sup> )	67	33	11				1				1		1	9	13			
directly over floor at 3.9 (0.03 m <sup>3</sup> )	4	2																
floor fill at 3.9 (0.24 m <sup>3</sup> )	35	11	9	1	1									11	4			
directly over floor at 4.2 (1.7 m <sup>3</sup> )	51	22	6				1				1	1		6	7	5	1	
floor fill at 4.2 (0.81 m <sup>3</sup> )	68	34	10	1	1									9	5	2	2	
<u>Subtotals</u>	225	102	36	2	2		2				2	1	1	35	29	7	3	
<u>Rooms J &amp; Ext N</u>																		
plowzone (2.8 m <sup>3</sup> )	108	34	26		1		5	1	1					17	27	1	3	
<u>Rooms J &amp; Ext W</u>																		
plowzone (3.2 m <sup>3</sup> )	22	11	6												4	1		
<u>Exterior</u>																		
North of str. primary midden (12.62 m <sup>3</sup> )	1196	660	205	2	5		42	7	8		9	1	4	108	179	24	9	1
W of str. plowzone (1.56 m <sup>3</sup> )	51	28	15				4	1			3			3	4		1	
E of str. plowzone (0.56 m <sup>3</sup> )	17	9	3											1	4			
E of str. fill of ext surf (0.3 m <sup>3</sup> )	17	7	6				1							1	3			
S of str. plowzone (4.8 m <sup>3</sup> )	197	97	47		2		12	2					1	14	27	6	1	
<u>Operation 4 Totals</u> (70.81 m <sup>3</sup> )	2997	1579	567	6	18		131	16	13		15	7	9	295	499	59	27	2

+

**Table 2.12. OPERATION 4—UTILITY CERAMICS**

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room A</b>															
plowzone (1.04 m <sup>3</sup> )	31			1							1				
directly over floor at 4.75 (0.27 m <sup>3</sup> )	7			1											
floor fill at 4.75 (2.29 m <sup>3</sup> )	57	1	2	3				1	5		2				
floor zone at 4.24 (0.05 m <sup>3</sup> )	1														
<b>Subtotals</b>	<b>96</b>	<b>1</b>	<b>2</b>	<b>5</b>				<b>1</b>	<b>6</b>		<b>2</b>				
<b>Rooms A &amp; Ext H</b>															
plowzone (2.3 m <sup>3</sup> )	34	3		4		1					2	2			
<b>Rooms A &amp; Ext E</b>															
plowzone (2.3 m <sup>3</sup> )	114	1	1	6		1		5	6		1				1
<b>Rooms A, J &amp; Ext N</b>															
plowzone (3.6 m <sup>3</sup> )	69	3		5						14	3				
<b>Room B</b>															
plowzone (2.36 m <sup>3</sup> )	53		2	2						3					
directly over floor at 4.2 (0.2 m <sup>3</sup> )	4														
floor fill at 4.2 (1.6 m <sup>3</sup> )	199	20	2	9		5	2	9	17		5				
<b>Subtotals</b>	<b>256</b>	<b>20</b>	<b>4</b>	<b>11</b>		<b>5</b>	<b>2</b>	<b>9</b>	<b>20</b>		<b>5</b>				
<b>Rooms A &amp; B</b>															
plowzone (1.56 m <sup>3</sup> )	58	1		2				1	5	1					
<b>Rooms B &amp; C</b>															
plowzone (0.8 m <sup>3</sup> )	49	5		2				1							
<b>Midden</b>															
plowzone (1.6 m <sup>3</sup> )	68			4				1	13		2				
primary (1.84 m <sup>3</sup> )	354	26		8		31		11	10	2	5		2		2
<b>Subtotals</b>	<b>422</b>	<b>26</b>		<b>12</b>		<b>31</b>		<b>12</b>	<b>23</b>	<b>2</b>	<b>7</b>		<b>2</b>		<b>2</b>

OPERATION 4—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room C</u>															
floor zone at 4.0 (0.3 m <sup>3</sup> )	19			1					3			1	1		
floor fill at 4.0 (0.2 m <sup>3</sup> )	42	5						1	3	1	3				
<i>Subtotals</i>	<i>61</i>	<i>5</i>		<i>1</i>				<i>1</i>	<i>6</i>	<i>1</i>	<i>4</i>	<i>1</i>			
<u>Rooms C &amp; D</u>															
plowzone (1.0 m <sup>3</sup> )	61	3		2				1	15	1	1	1			
<u>Rooms C &amp; Ext E</u>															
plowzone (0.8 m <sup>3</sup> )	81	4		6			1	2	16	4	1				
<u>Room D</u>															
plowzone (0.8 m <sup>3</sup> )	75	4		2		2			20	2	2				
directly over floor at 4.11 (1.5 m <sup>3</sup> )	3							1							
directly over floor at 4.07 (1.5 m <sup>3</sup> )	3														
<i>Subtotals</i>	<i>81</i>	<i>4</i>		<i>2</i>		<i>2</i>		<i>1</i>	<i>20</i>	<i>2</i>	<i>2</i>				
<u>Rooms D &amp; F</u>															
plowzone (0.8 m <sup>3</sup> )	14	2									1				
<u>Room E</u>															
floor fill at 4.24 (0.1 m <sup>3</sup> )	31	1						3	3			1			
<u>Room F</u>															
plowzone (0.4 m <sup>3</sup> )	44	5	1	2	1				2			1			
directly over floor at 4.2 (0.2 m <sup>3</sup> )	18														1
<i>Subtotals</i>	<i>62</i>	<i>5</i>	<i>1</i>	<i>2</i>	<i>1</i>				<i>2</i>			<i>1</i>			<i>1</i>
<u>Room F &amp; Ext S</u>															
plowzone (0.4 m <sup>3</sup> )	65	6	2	2			2	2	3	2	3				

OPERATION 4—UTILITY CERAMICS (Page 3)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room G</b>															
directly over floor at 4.2 (0.23 m <sup>3</sup> )	9														
Floor fill (0.38 m <sup>3</sup> )	128	11		3		2		4	11		2				
directly over bed (0.04 m <sup>3</sup> )	39	2							6						
directly under bed (0.6 m <sup>3</sup> )	7	4													
<i>Subtotal</i>	<i>183</i>	<i>17</i>		<i>3</i>		<i>2</i>		<i>4</i>	<i>17</i>		<i>2</i>				
<b>Roms G &amp; E</b>															
plowzone (1.0 m <sup>3</sup> )	45	3		2	1						1		1		
<b>Rooms G &amp; I</b>															
plowzone (0.32 m <sup>3</sup> )	9								1						
<b>Room G &amp; J</b>															
plowzone (1.4 m <sup>3</sup> )	41	4						1							
<b>Room H</b>															
plowzone (0.43 m <sup>3</sup> )	97	9	1	5				4	5	2	1				1
directly in & under floor at 4.12 (0.81 m <sup>3</sup> )	58	3	3	3				4	12	2		1			
<i>Subtotals</i>	<i>155</i>	<i>12</i>	<i>4</i>	<i>8</i>				<i>8</i>	<i>17</i>	<i>4</i>	<i>1</i>	<i>1</i>			<i>1</i>
<b>Stairway</b>															
fill (0.52 m <sup>3</sup> )	93	8		1		1		2	6						
<b>Room I</b>															
floor fill at 4.2 (0.32 m <sup>3</sup> )	38	1		1		1			12		1	1			
floor fill at 4.08 (0.02 m <sup>3</sup> )	37	2							3						
<i>Subtotals</i>	<i>75</i>	<i>3</i>		<i>1</i>		<i>1</i>			<i>15</i>		<i>1</i>	<i>1</i>			
<b>Rooms I &amp; J</b>															
plowzone (1.84 m <sup>3</sup> )	30	4		1							3				

OPERATION 4—UTILITY CERAMICS (Page 4)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Rooms I &amp; Ext W</u>															
plowzone (1.3 m <sup>3</sup> )	14	2	1	1	1							1			
<u>Room J</u>															
plowzone (4.5 m <sup>3</sup> )	131			1		1		2	3		3				1
directly over floor at 3.9 (0.03 m <sup>3</sup> )	1							1							
floor fill at 3.9 (0.24 m <sup>3</sup> )	108					1		6	10						
directly over floor at 4.2 (1.7 m <sup>3</sup> )	100	11		8		1			13	1	3	1			1
floor fill at 4.2 (0.81 m <sup>3</sup> )	105	12	1	5	1	1		3	4						
<u>Subtotals</u>	<u>445</u>	<u>23</u>	<u>1</u>	<u>14</u>	<u>1</u>	<u>4</u>		<u>12</u>	<u>30</u>	<u>1</u>	<u>6</u>	<u>1</u>			<u>2</u>
<u>Rooms J &amp; Ext N</u>															
plowzone (2.9 m <sup>3</sup> )	241	14		9	2	2		3	43	1	6				2
<u>Rooms J &amp; Ext W</u>															
plowzone (3.2 m <sup>3</sup> )	75	7		5		1			18		6	2			
<u>Exterior</u>															
North of str. primary midden (12.62 m <sup>3</sup> )	2725	205	19	78	6	37		33	309	9	42	17	1	1	4
W of str. plow- zone (1.56 m <sup>3</sup> )	118	11		5	1			5	3	1	2				1
E of str. plow- zone (0.56 m <sup>3</sup> )	44	1							4		2	1			
E of str. fill of ext surf (0.3 m <sup>3</sup> )	16								1		1				
S of str. plow- zone (4.8 m <sup>3</sup> )	399	44	2	28	1	2		12	58	5	5	3	1	1	
<u>Operation 4 Totals (70.81 m<sup>3</sup>)</u>	<u>6262</u>	<u>448</u>	<u>37</u>	<u>192</u>	<u>14</u>	<u>90</u>	<u>5</u>	<u>119</u>	<u>661</u>	<u>34</u>	<u>110</u>	<u>33</u>	<u>5</u>	<u>2</u>	<u>14</u>

+

## OPERATION 5

### Setting

This tlatal was 60 m northwest of Operation 4, and just to the east of the very large mound which became Operation 6. As Figure 2.1 shows, it is on the north side of the terrace, abutting the line of mature nopales along the road.

### Method, Architecture and Features

The mound measured about 25 m east-west by 12 m north-south, and had two slight rises, representing the two structures, 5 East and 5 West (Figure 2.7). Excavation began simultaneously on both rises with 10 workmen, and continued for 4 days. We excavated 43.67 m<sup>3</sup>, uncovering the solid intact wall bases of the west structure, and the unconnected wall lines and hearth which were all that remained of the east structure. We cleared an area about 45 m<sup>2</sup> downslope from of these east structure remnants, and found that the level of the soil above tepetate was only about 30 cm in this extensive area; since it was a plowzone, no behavioral contexts remained. The soil depth in the area of 5 West was generally greater, reaching 60 cm (ground surface to tepetate) in the northern part of the structure. Even though 5 West's wall bases were in excellent condition (and ranged from 27 cm high in the north to 53 cm high in the south) the walls did not seem to have protected any behavioral contexts: no floors were discernible (the only possible remnant being a small [0.3 x 0.55 m] fugitive lens of cascajo in the north end of Room A, at the same height [2457.66 masl.] as the adjacent wall top). The soil in the vicinity of 5 West, even below the wall tops, was undifferentiated down to tepetate.

### Structure 5 West

Architecture and Features. This 6.8 x 7 m (47.6 m<sup>2</sup>) building was constructed of a nearly square set of bonded outer walls, subdivided by two inner walls. The interior divisions have been used to demarcate three separate rooms as behavioral contexts, although, since floors are lacking (see above) the significance of such contexts is rather limited. The walls of this structure are robust: the exterior wall is 50 cm to 60 cm wide, as is the interior BC wall, and the other internal wall is 45 cm wide. The exterior corners are of cut stone and squared stone, and the east corner rests on tepetate. No doorways were found in the walls, so the orientation of the structure and the pattern of communication of the rooms isn't known.

Artifacts. Ceramic remains consist of 5552 sherds (222/m<sup>3</sup>), representing all functional utility types, and all fine wares except glazed ware (Tables 2.13, 2.14, and 2.15). Of utility wares whose form can be identified, 5 West has roughly the same proportions of comales as is the average for all excavated material this season, but 5 West has proportionally more jars (38%, compared with the total of 29%) and fewer basins (8%, compared with the total of 18%). In fine wares, Black/Orange types "B", "D", "E", "F", and "H" are represented (Aztec II - IV) with "D" accounting for 80% of the diagnostic sherds (compare with 66% for the excavation as a whole). Other ceramic artifacts include four worked sherds. One of these, 2.8 cm in diameter and perforated, probably served as a whorl for spinning fine fibers. Five manufactured spindle whorls were found, four large and one small. Thirty-three figurine fragments were found in and around 5 West, including a seated figure wearing a maxlatl and a pectoral representing a cross section of

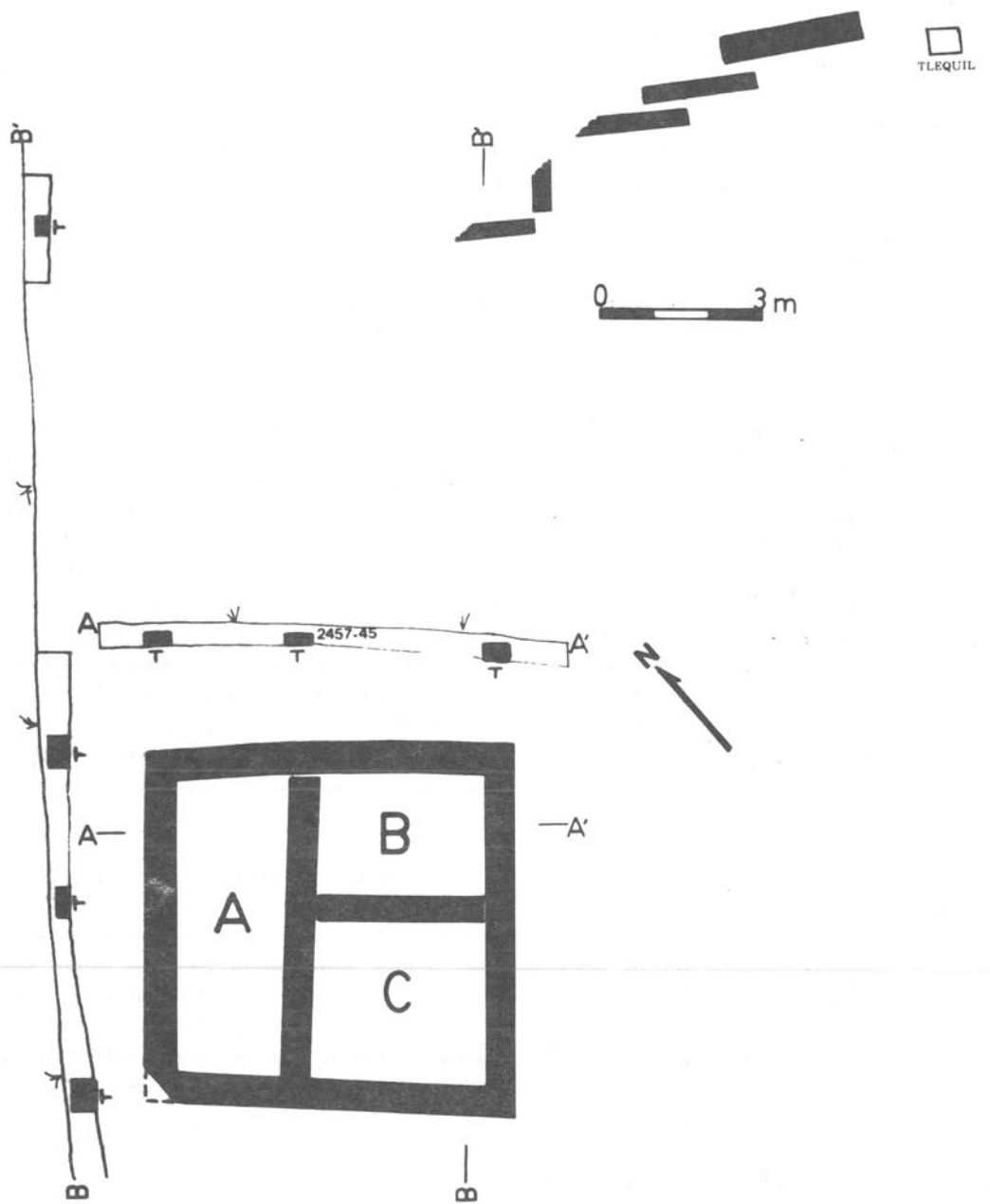


Figure 2.7

**CIHUATECPAN, STRUCTURES 5 EAST AND 5 WEST**

(Black areas indicate solid construction; dashed lines indicate extrapolation; "T" indicates tepetate.)

conch. Other figurine fragments found here are number of male figurine heads and several female torsos with armpit perforations, one of them carrying a child.

Lithic artifacts include grey-black and green obsidian (1.8:1 ratio), and several kinds of ground stone tools (including three maguey scrapers) but no manos or metates.

### Structure 5 East

Architecture and Features. The structural remains here consist of five wall lines whose relation to each other is difficult to reconstruct. There are no corners, and the four parallel walls vary in width from 30 cm to 45 cm. The easternmost "wall" is 2.4 m long and 35 cm to 45 cm wide, made of one course of large (about 20 x 20 cm) crude tepetate and basalt chunks. About a meter southeast of the east end of this wall is a tlequil (rectangular hearth of cut stones). The structural remains rest on tepetate or on soil just above it, and on the whole, soil cover in this area is thin, 25 cm to 30 cm.

Artifacts. The single most impressive feature of the artifact repertoire here is the sherd count, 7455, which gives an overall density of 399/m<sup>3</sup>. The density of the area around the walls is even higher: 547/m<sup>3</sup>. The reasons for this are difficult to interpret, given the fragmentary nature of the structural remains: this area might have been a trash dump for 5 East. The only chronologically diagnostic Black/Orange sherds which were in a possibly primary setting were of type "D", and these were found associated with the walls and with the tlequil; no later material (including glazed ware) is found in these behavioral contexts, though one "E" sherd was found in the "exterior" plowzone midden area.

Overall, for 5 East and its associated exterior, the proportions of utility and fine wares reflect the averages for excavated contexts as a whole. All common utility forms are present, with a preponderance of comales and jars. The common range of fine wares is also represented including Chalco-Cholula ware. Other ceramic artifacts include a round, worked, and perforated sherd (4.8 cm in diameter) which may have served as a spindle whorl. A small manufactured spindle whorl was also found.

This area produced 29 figurine fragments of a variety of types: canine, pyramid, and many human representations (heads and torso parts). The most interesting of these is the head of a smiling old man; carefully modeled and painted with red and white pigments, this is almost certainly a representation of Huehuetotl.

Lithic artifacts included grey-black and green obsidian (3.1:1). One metate was found, and eight maguey scrapers.



Table 2.13. OPERATION 5—ARTIFACT SUMMARY

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	Conical				black	green	mano	metate	other
					slab	sol	hol	oth					
<b>West Structure</b>													
<u>Room A</u>													
plowzone (6.48 m <sup>3</sup> )	937	604	333	9	1	13			51	27			
<u>Rooms A &amp; B</u>													
plowzone (1.8 m <sup>3</sup> )	395	226	169	1		3			27	16			
<u>Rooms A &amp; C</u>													
plowzone (1.8 m <sup>3</sup> )	280	204	76	4	3	2			8	4			
<u>Room B</u>													
plowzone (1.96 m <sup>3</sup> )	983	662	321	6	7	9			31	18			1 scraper
<u>Rooms B &amp; C</u>													
plowzone (2.15 m <sup>3</sup> )	1087	657	430	4	2	7	1		38	36			1 ball 2 scrapers 1 polishing stone
<u>Room C</u>													
plowzone (4.4 m <sup>3</sup> )	998	637	361	5	8	6	3		31	18			
wall	12	8	4										
<i>Subtotals</i>	<i>1010</i>	<i>645</i>	<i>365</i>	<i>5</i>	<i>8</i>	<i>6</i>	<i>3</i>		<i>31</i>	<i>18</i>			
<b>West Structure Ext.</b>													
<u>N of Room A</u>													
plowzone (1.6 m <sup>3</sup> )	382	266	116		3	3			17	9			
<u>SW of Room B</u>													
plowzone (1.32 m <sup>3</sup> )	102	59	43	1	1	1			5				
<u>E of Room C</u>													
plowzone (3.48 m <sup>3</sup> )	376	267	109	3	3	6			23	9			
<b>West Structure Totals</b> 24.99 m <sup>3</sup> )	<i>5552</i>	<i>3590</i>	<i>1962</i>	<i>33</i>	<i>28</i>	<i>50</i>	<i>4</i>		<i>231</i>	<i>137</i>			<i>1 ball 3 scrapers 1 polishing stone</i>

OPERATION 5—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports						Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		mano	metate	other
						sol	hol	oth	black	green			
<b>East Structure</b>													
plowzone, assoc. with walls (6.08 m <sup>3</sup> )	3324	2258	1066	15	2	32	3		118	44		1	3 scrapers 3 unknown
plowzone, assoc. with tleguil (0.08 m <sup>3</sup> )	21	15	6							1			
<b>Exterior</b>													
plowzone (9.8 m <sup>3</sup> )	1678	1084	594	5	6	25	2		121	36			4 scrapers 1 abrading stone
plowzone/midden (2.72 m <sup>3</sup> )	2432	1745	687	9	13	7			65	18			1 scraper
<b>Subtotals</b>	<b>4110</b>	<b>2829</b>	<b>1281</b>	<b>14</b>	<b>19</b>	<b>32</b>	<b>2</b>		<b>186</b>	<b>54</b>			<b>5 scrapers 1 abrading stone</b>
<b>East Structure Totals</b> (18.68 m <sup>2</sup> )	<b>7455</b>	<b>5102</b>	<b>2353</b>	<b>29</b>	<b>21</b>	<b>64</b>	<b>5</b>		<b>304</b>	<b>99</b>			<b>3 unknown 8 scrapers 1 abrading stone</b>
<b>Operation 5 Totals</b> (43.67 m <sup>2</sup> )	<b>13,007</b>	<b>8692</b>	<b>4315</b>	<b>62</b>	<b>49</b>	<b>114</b>	<b>9</b>		<b>535</b>	<b>236</b>		<b>1</b>	<b>3 unknown 1 ball 11 scrapers 1 polishing stone 1 abrading stone</b>

Table 2.14. OPERATION 5—FINE CERAMICS

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<b>West Structure</b>																		
<u>Room A</u>																		
plowzone (6.48 m <sup>3</sup> )	334	158	79				1							25	63	6	1	
<u>Rooms A &amp; B</u>																		
plowzone (1.8 m <sup>3</sup> )	170	75	39											22	29	2	1	
<u>Rooms A &amp; C</u>																		
plowzone (1.96 m <sup>3</sup> )	76	40	26											5	4	1		
<u>Room B</u>																		
plowzone (1.96 m <sup>3</sup> )	329	156	72				16	2	1					26	51	6		2
<u>Rooms B &amp; C</u>																		
plowzone (2.15 m <sup>3</sup> )	437	222	91				33	4	1		2			42	54	9	4	3
<u>Room C</u>																		
plowzone (4.4 m <sup>3</sup> )	363	163	79		2		16	2						29	84	1	3	
wall	4	2	1												1			
<b>Subtotals</b>	<b>367</b>	<b>165</b>	<b>80</b>		<b>2</b>		<b>16</b>	<b>2</b>						<b>29</b>	<b>85</b>	<b>1</b>	<b>3</b>	
<b>West Structure Ext</b>																		
<u>N of Room A</u>																		
plowzone (1.6 m <sup>3</sup> )	116	28	40											13	34			1
<u>SW of Room B</u>																		
plowzone (1.32 m <sup>3</sup> )	43	19	11											6	7			
<u>E of Room C</u>																		
plowzone (3.48 m <sup>3</sup> )	111	39	28				7		4					11	28		1	
<b>West Structure Totals (24.99m<sup>3</sup>)</b>	<b>1983</b>	<b>902</b>	<b>466</b>		<b>2</b>		<b>73</b>	<b>8</b>	<b>6</b>		<b>2</b>			<b>179</b>	<b>355</b>	<b>25</b>	<b>10</b>	<b>6</b>
<b>East Structure</b>																		
plowzone, assoc. with walls (6.08 m <sup>3</sup> )	1073	538	214				7							96	195	11	13	2
plowzone, assoc. with tleguil (0.08 m <sup>3</sup> )	6	2	1				1								3			

OPERATION 5—FINE CERAMICS (Page 2)

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<b>Exterior</b>																		
plowzone (9.8 m <sup>3</sup> )	597	274	147		4		13							46	117	4	3	
plowzone/ midden (2.72 m <sup>3</sup> )	690	295	170		1		7	1						51	153	11	3	1
<i>Subtotals</i>	<i>1287</i>	<i>569</i>	<i>317</i>		<i>5</i>		<i>20</i>	<i>1</i>						<i>97</i>	<i>270</i>	<i>15</i>	<i>6</i>	<i>1</i>
<b>East Structure Totals</b> (43.68 m <sup>3</sup> )	2366	1109	532		5		28	1						183	468	26	19	3
<b>Operation 5 Totals</b>	4349	2011	998		7		101	9	6		2			362	823	51	29	9

Table 2.15. OPERATION 5—UTILITY CERAMICS

CONTEXT	Vessel type							Use			Handles		Spindle whorls		worked sherds
	total utility	comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>West Structure</b>															
<u>Room A</u>															
plowzone (6.48 m <sup>3</sup> )	604	62	9	24	5	2		20	34	6	19	1		2	
<u>Rooms A &amp; B</u>															
plowzone (1.8 m <sup>3</sup> )	226	20	1	8		1	1	7	10	4	5				
<u>Rooms A &amp; C</u>															
plowzone (1.8 m <sup>3</sup> )	204	1		13	2			18	55	2	3			1	
<u>Room B</u>															
plowzone (1.96 m <sup>3</sup> )	662	36	10	35	11			44	16	8	16	1			1
<u>Rooms B &amp; C</u>															
plowzone (2.15 m <sup>3</sup> )	657	48	4	41		2		40	29	18	13	3		1	1
<u>Room C</u>															
plowzone (4.4 m <sup>3</sup> )	637	52	10	46	3		2	25	134	25	12	2			1
wall	8	1		3											
<i>Subtotals</i>	<i>645</i>	<i>53</i>	<i>10</i>	<i>49</i>	<i>3</i>		<i>2</i>	<i>25</i>	<i>134</i>	<i>25</i>	<i>12</i>	<i>2</i>			<i>1</i>
<b>West Structure Ext</b>															
<u>N of Room A</u>															
plowzone (1.6 m <sup>3</sup> )	266	15	3			4			34		3		1		
<u>SW of Room B</u>															
plowzone (1.32 m <sup>3</sup> )	59		2	3	1			2			1	1			
<u>E of Room C</u>															
plowzone (3.48 m <sup>3</sup> )	267	5	1	19		1		7	75	2	17				1
<b>West Structure Totals</b> (24.99 m <sup>3</sup> )	3590	240	40	192	22	10	3	163	387	65	89	8	1	4	4
<b>East Structure</b>															
plowzone, assoc. with walls (6.08 m <sup>3</sup> )	2258	214	6	46	14	21		39	230	46	57	27		1	
plowzone, assoc. with tleguil (0.08 m <sup>3</sup> )	15	2	1					2	2						

OPERATION 5—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Exterior</b>															
plowzone (9.8 m <sup>3</sup> )	1084	63	15	29	2	8		9	104	5	31	6		2	2
plowzone/ midden (2.72 m <sup>3</sup> )	1745	173	5	86	9	15		20	210	23	41	7		2	
<b>Subtotals</b>	<b>2829</b>	<b>236</b>	<b>20</b>	<b>115</b>	<b>11</b>	<b>23</b>		<b>29</b>	<b>314</b>	<b>28</b>	<b>72</b>	<b>13</b>		<b>4</b>	<b>2</b>
<b>East Structure</b>															
Totals (18.68 m <sup>3</sup> )	5102	452	27	161	25	44		70	546	74	129	40		5	2
<b>Operation 5</b>															
Totals (43.67 m <sup>3</sup> )	8692	692	67	353	47	54		233	933	139	218	48	1	9	6

## OPERATION 6

### Setting and Method

Continuing to investigate the mounds on the broad terrace just below the eastwest road, we approach the largest mound, which measured about 50 m across and rose to height of about 1 m above the level of the terrace. We began excavating in three areas which came down on the western and eastern sides of the structure and eventually opened up an area 488 m<sup>2</sup>, 209.6949 m<sup>3</sup>. Work on Operation 6 began on March 26, 1984, and continued, with a crew size averaging 15, for three weeks. The structure uncovered here is impressive in terms of its size, complexity, and wealth of construction detail, and we regard this season's excavation effort here as a first step which should be followed by further excavation.

### Architecture and Features

The village name, Cihuatecpan, challenges the investigator to find the *tecpan*, and for reasons described in the interpretive section, Structure 6 emerges as a likely candidate (Figure 2.8). Its large entry hall, leading onto other side rooms, would have suited the needs of the village headman in assembling household heads for discussions of community concerns.

The descriptions of Structure 6's many rooms will begin with the entry hall, Room V, then consider rebuilding episodes and subdivisions within Room V (Rooms T and U). Moving to the west side of Room V, we will consider the broad platform containing Rooms W, X, and Y and conclude the main hall area with the central room, L. Then the other suites of rooms will be discussed: S and R, M through Q, C through H, A and B, and J and K.

### Structure 6, Room V

Architecture and Features. This is the entry room of the structure, with the entryway in its southwest wall, and access to other parts of this large house by stairways and hallways. Ignoring the 2.3 by 6.5 m inclusion of Rooms T and U, Room V measures 8.3 by 9.7 m (80.5 m<sup>2</sup>; actual interior area is 65.6 m<sup>2</sup> when Rooms T and U are calculated into the measurement).

The lower interior walls of this room are the fronts of the platform bases for adjacent rooms of higher elevation. These walls are 40 to 45 cm thick and the quality of the masonry is high. Many stones in use are cut, or carefully laid so that a smooth side of the stone faces outward. These fine masonry features would have been hidden from Aztec view, however; the interior walls were mud-plastered, and at least two of them, northwest and northeast, were also lime-plastered and partially painted red. The evidence of this began to come up as we excavated through the plowzone, along the northwest wall; about 50 cm below the surface (about 2456.50 masl.) we began to come upon bits of limed and painted mud plaster, 1 to 4 cm across. (None of this painted plaster was found *in situ*, though some plastered cut stones were found in the east corner.) This was like finding a few probably unrelated jigsaw puzzle pieces from a completed puzzle 16 m long. It would have taxed the imagination of Sir Arthur Evans to reconstruct this mural in any but the simplest design, since the pieces were either white or red, or bicolor, the colors joined along

The well description  
 in Codices  
 was

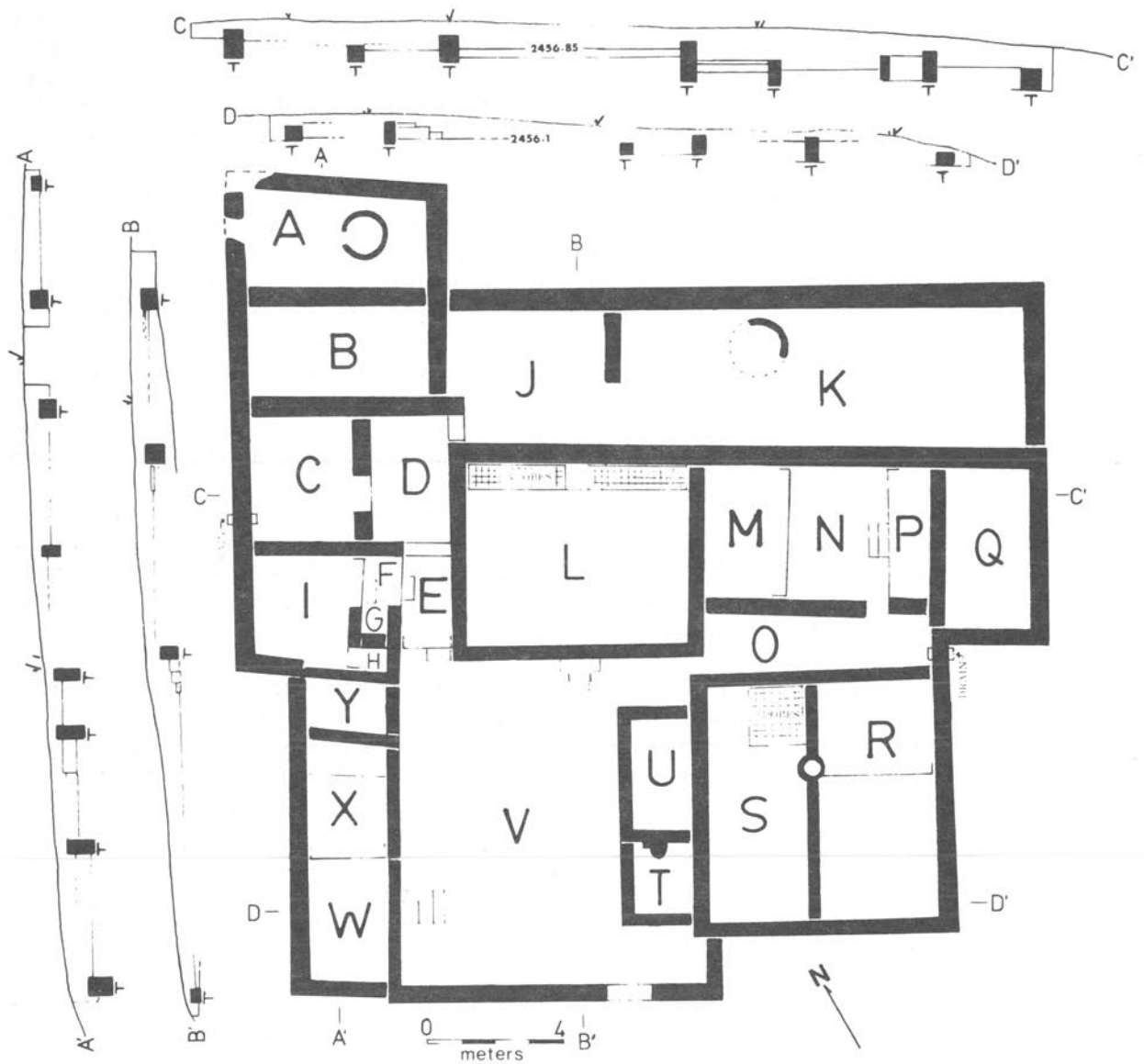


Figure 2.8

**CIHUATECPAN, STRUCTURE 6**

(Black areas indicate solid construction; dashed lines indicate extrapolation; "T" indicates tepetate.)



a straight line. We can only hypothesize that it resembled the familiar wall decoration found so often in modern Mexico and graphically depicted in house illustrations in Codices (e.g. Borgia, Mendoza, Magliabecchiano, Nuttall, and many others): the broad red horizontal band around the door frame, sometimes continuing along the base of a building. The view from Room V's entry looking northwest and north into the room would have been impressive, the walls a long expanse of bright white and rich color. This decorative technique has been extensively found only in Structure 6, here at Cihuatecpan (although a piece of painted, stuccoed tezontle was found in Room D of Structure 9, and other large structures may have had it, as well), and bespeaks the affluence of this great house. The argument for Structure 6's status as the village tecpan is made on the basis of general features of its architecture, and its constellation of special decorative features, of which this is an important one. But we emphasize that Structure 6 was the only building of its size excavated at Cihuatecpan and other large mounds exist, also that our sample of structures of this size from Aztec period rural villages in general is small, and finally that other, smaller structures may have shared this feature, but that the height of their remaining walls was insufficient to protect such mural fragments from total destruction from plowing. It can probably be assumed that this decorative feature was unusual, however, and that it made an implicit statement to all seeing it about the household head's ability to secure differential access to resources and services.

The rooms adjacent to Room V along its northwest and northeast sides were 65 and 85 cm above Room V's floor. A major question in architectural reconstruction here is that of the nature of the walls between Room V and these adjacent rooms W, X, Y, and L. The palace plan of the Mapa Quinatzin seems to indicate open platforms around and above the central room or courtyard. Archaeological evidence from Room V and its neighbors points toward some sort of partition, however, with a quantity of wall fall material (adobes as well as cobbles) in Room V's plowzone near these rooms.

The nature of these walls bears on the question of the roof over Room V: did it exist, or was Room V a courtyard, like Structure 1's Courtyard D or Structure 4's Courtyard J? We found no evidence of any supporting posts inside the room, but the floor was very disturbed in the center of the room, by both plowing and tree root growth. The space could have been roofed in one span, however, and may have had a partial ramada over the wall areas of this room.

Cut-stone stairways led to adjacent rooms in three places: up to Room W, to Passageway E, and to Room L. A passageway beginning in the east corner of the room led off to Rooms M through Q.

The stairways were in use when the commonest extant floor, that at about 2456.10 masl. was being used, and if a higher surface (at about 2456.40 masl.) extended over the whole room (it was found only in the north corner) the stairs would have continued in use when fill raised the floor level around them. The clear delineation of separate floor levels in this room was hampered by plow and root disturbance, and also by the probable nature of resurfacing events over this broad area, which may have only involved partial filling, since sloping floors in large rooms at Cihuatecpan are common anyway.

The entryway to the room (which is the main entry into the house from the outside) is in the extreme southern end of the southwest wall. Here a doorway, 1.65 m wide, led into, on the right, a semi-hallway, 1.6 m deep, leading down 20 cm to Room T, and on the left, the broad expanse of Room V. The floor of this small foyer-like area had been given several resurfacings. The upper floor, at about 2455.90 masl., formed an edge over the southwest wall of Room T, so apparently there was no permanent partition here. Room

T's floor was about 20 cm below this, and this would have added visual interest, and yet another level, to the general Room V vista. Another, lower floor in this area was found at 2455.7 masl.

The outside part of the entry way was given special decorative touches: a tezontle cone and a stone sculptural element were found in this area, and indicate that this was, indeed, the main entry for the house.

Subfloor trenching revealed a fugitive wall near Room W. Its small size mitigates against attempting to reconstruct an earlier building from it; it may have served as a retaining wall, serving a substructural function only.

Artifacts. The ceramic repertoire of this room includes a full range of utility vessels (many sherds also showed exterior burning) and most of the major fine ware types (see Tables 2.16, 2.17, and 2.18). These occur in roughly the same relative proportions as was found in Structure 6. Black/Orange sherds of types "B", "D", "F", and "H" occur, but perhaps the most impressive proportion is that of glazed sherds, accounting for about 5% of the fine wares (compare to 3.3% for Structure 6 as a whole, and 1.3% for all excavated contexts at Cihuatecan). A glazed sherd even turned up in the subfloor to tepetate investigation around the buried wall near Room W. We may posit misinterpretation of a sherd, or an error in recording, or even rodent activity, but the possibility still remains that this part of Structure 6 was built in the Post-Conquest period.

The utility ware type sherd frequencies were of similar proportions to the range for the structure as a whole. Even though basin sherds were not very common, we found two almost complete crushed plain orange basins along the northwest wall. These were probably in a state of disrepair when the room was abandoned, and therefore, were abandoned along with it. They may have been serving vessels, calling up to us images of feasts held in this room, but we must remember that this is not Pompei, with its people frozen in place by a sudden and violent catastrophe, but a slowly dying village whose families gradually became refugees from its once bustling houses.

The ratio of grey to green obsidian is 7.3:1. Ground stone tools include a mano, metate, and 2 tecolotes (grinders). Eighteen figurines and two large spindle whorls were found in this room.

### Structure 6, Room T

Architecture and Features. We pointed out that this room lies about 20 cm below the upper floor of the entry area of the adjacent Room V. Room T's packed earth floor is at 2455.73 masl., which is about the same as a lower floor in this entry area, and at some time this floor may have been continuous, and then the TV wall built and the the entry area filled up to the 2455.93 masl. level. The major feature of this 1.9 x 2.2 m room (4.18 m<sup>2</sup>) is a mud plastered stone and adobe oven, altogether about 60 cm across, which featured an opening on the southwest side and an upper vent to the northwest. This oven was found full of pot sherds and ashy dirt. The sherds are overwhelmingly utility wares of various kinds, with jars being the best represented of the relatively few recognizable wares. The as concentrations were very light grey and fine-textured, and Abrams was told by our workmen Luis Ramirez Franco and Javier Sanchez that this was typical of maguey ash. Today, the roots and cores of large magueys are collected to use as fuel for fires, and this plant's ultimate use lends yet another dimension to its lifetime of value. The plants have a lifespan of about 16 years, and although the fuel needs of the

community would have by far exceeded the relatively small dead-maguey supply, the border plantings of the terraces provided a not inconsiderable source for a relatively scarce commodity.

Artifacts. The sherd density here is quite high, averaging 460 sherds/m<sup>3</sup>. All utility vessel types are represented, and 10% show burning. All fine wares are represented, with just one glazed sherd, which turned up in the plowzone. The subfloor investigation yielded two sherds of Black/Orange type "D".

Other ceramics included a figurine fragment and a mold for a ceramic effigy of a reptile (or perhaps amphibian) head, which may have been used as the handle of a censer (Parsons 1972). The mold was in the plowzone, not in behavioral context, and only in the plowzone of Operation 4 did we come across another mold of this type. No other indicators of this kind of ceramic industry, such as numbers of wasters, kiln areas, etc. were found. We have several examples of this type of reptile-head, including one from an adjacent plowzone lot over Rooms S, T, and V. Although one can imagine many scenarios which might explain the presence of this unusual artifact at Cihuatecpan in such low frequency, the simplest explanation would remain that somewhere on the site, in a place as yet undetected, censers with reptile-head handles, or possibly vessels with reptile-head supports, were being produced. (Production of these heads only, without the vessels, is unlikely given the nature of the pottery making process: trading from town to town for unfired vessel parts makes little sense in terms of cost efficiency.) The possible presence of this local industry is documented very poorly, to be sure, but it is a possibility which must be entertained. Obsidian occurred in a 2:1 ratio of grey to green.

#### Structure 6, Room U

Architecture and Features. This 1.9 x 3.3 m room (6.27 m<sup>2</sup>) had two floor levels: the lowest at about 2455.87 masl. (which was almost at tepetate level in the north end of the room) and an upper level at around 2456.15 masl. which was paved with grey cascajo. Above this was about 45 cm of plowzone.

The walls of Room U are of cobbles with earth mortar and they are about 45 cm wide. The wallbase of the northeast wall is 5 cm deeper than the lower floor level, indicating that it might have been built contemporaneously with the preparation of the lower floor. This floor was about 15 to 20 cm lower than the adjacent floor of the main hall V, and thus the wall would have enclosed the room and logically would have been high enough to insure privacy. But when the upper floor level of Room U was built, the new floor level (2456.15 masl.) was about 5 to 10 cm above Room V, and the wall tops are surfaces, as well. Therefore this "room" may have served as a low wide bench, suitable for sleeping, or as a raised area when the main hall V was being used for large group meetings. We found no post holes in the paved edge of this wall, so we lack positive evidence of a roof or ramada support, but wooden posts to serve this purpose unfortunately don't necessarily leave marks.

Artifacts. Sherd density in Room U was about average for the structure. Fine wares account for 41% of the sherds, slightly higher than the average for Structure 6 (29%). These fine sherds include two "D" type Black/Orange between the floors and type "B" directly above the lower floor. Plain Orange and Black/Orange frequencies here are higher than in other parts of Structure 6.

Few of the utility sherds were recognizable, but comales, and jar sherds were present, as were 2 figurines and a small spindle whorl.

A ground stone bowl fragment was found in the plowzone. Field notes record a concentration of grey-black obsidian in the south end of the room, below the level of the upper floor, and the grey to green obsidian ratio is 23:1.

### Structure 6, Rooms W, X, and Y

Architecture and Features. These three rooms are distinguished by differing floor levels, and by the WX and XY walls, but basically they together form the elevated platform which flanks the main hall on its northwest side. The staircase which joins this platform to the main hall leads up into Room W, through which Room X is reached. The manner of entry into Room Y is probably through Room X, since the XY wall extends only a few centimeters above the adjacent surface levels of these rooms. The height of the YHI wall effectively separates off this group of rooms from the group to its northwest. We should keep in mind that rebuilding episodes altered the relation of rooms to each other: if the 2456.74 masl. floor level of Room Y was contemporaneous with the adjacent 2456.4 masl. floor remnant of Room V, then access from Room V to Room Y would have been simple.

This set of rooms was built as a unit onto the main structure (Room V) and the northwest part of the building. The walls, including interior walls, are based on tepetate or just above it, and our trenching indicated rebuilding of floors but no subsurface walls. Interior total dimensions of this platform are 8.2 m long and 2.9 m wide (inside of back wall to edge of platform).

#### Room W

Architecture and Features. A room 2.9 m deep and 3.6 m long, this space was divided off from Rooms V and X by walls which extend down to just above tepetate (wall bases about 2455.99 masl.), and the WX wall abuts the WV wall. There are two floors here, the lowest at 2456.05 masl., underneath which were to Black/Orange dish sherds, "B" and "D". Between this lower floor and the upper, at about 2456.54 masl. were two more Black/Orange dish sherds, "B" and "F". This uppermost area is only found in the uphill end of the room and even here it is only about 30 cm below the ground surface. There may have been another upper floor, above the level of the top of the stairway to Room V (wall here is 2456.69 masl.) and if the floor continued over the edge of the wall top (as is the case in Room U, for example) then Room W would serve as a platform, open to Room V and about 60 cm above it. That these two respective levels were contemporaneously in use is suggested by the nature of the construction of the stairway, which was clearly built as a single unit.

Artifacts. The sherd density here is somewhat less than average, but fine ware and utility ware proportions are right at the norm. Few of the utility wares were identifiable; comales, basins, and jars were found. Fine wares showed a rather high proportion of Black/Orange, including the four diagnostic sherds mentioned above. Obsidian occurred in a 6:1 ratio.

## Room X

Architecture and Features. This adjacent room, 2.9 m deep and 3.4 m wide, features a bench (1 m wide) spanning its northern end. This bench's surface is at 2456.83 masl., about 5 cm above the adjacent floor, which continues under the bench. This raised feature is made of cobbles and chunks of adobe and unusually high amounts of mud mortar, which is found cementing these materials together and coating the bench and adjacent walls in several distinct layers. The XY wall adjacent to the bench has a different composition than most others at the site: rather than being rough courses of large cobbles and cut stones, this wall had a conglomerative nature, being of mud and small (walnut sized) stones, as well as some which were 15 to 20 cm in diameter and faced with mud plaster. The wall is about 35 cm wide, and its heavy proportion of mud mortar raises interesting questions about its structural soundness: could it have borne a roof?

Between the floor at 2456.78 masl. and a deeper (2456.41 masl.) cascajo floor was undifferentiated fill containing Black/Orange sherds including one from a "D" plate. Under this lower cascajo floor (which may have been an exterior surface at the time of its use) fill down to tepetate (at 2456.16 masl. at the north end) was undifferentiated, with sherds from Black/Orange dishes of types "B", "D", and "E", and a glazed sherd. The last, at this level signals that this suite (Rooms W, X and Y) is Post-Conquest construction. Before asserting this is true, the sherd should be reexamined.

The room was not open to Room V, but had an adobe wall on that side; remnants of the wall are still in place, and the fall from this wall is found in an area extending out into Room V's plowzone fill for a distance of almost 2 m.

Artifacts. Sherd density here is slightly above average, being especially dense in the deeper fill. At the deeper levels we find some identifiable utility sherds, and a worked sherd. The deeper levels also hold the most interesting fine wares, and in the deepest level (sub-floor to tepetate) are found the Black/Orange diagnostics and the alleged glazed sherd. A broken Plain Orange bowl was found inverted on the surface of this bench.

The figurine fragment at the lower floor level was not identifiable but the figurine in the plowzone is one of the most unusual of the project's find: a fragment of a life-sized mask with finely modeled nose and closed eye. This defies typology by known figurine classifications, and is probably better understood as part of a mask or possibly part of a life-sized terracotta figure. Obsidian occurred in a 7.8:1 ratio.

## Room Y

Architecture and Features. Like the others, Room Y is 2.9 m deep. It is about 1.4 m wide. Wall bases are a few centimeters above tepetate, and above the wall bases is undifferentiated fill up to one floor (hard packed earth) at about 2456.75 masl. Diagnostic sherds beneath this floor are two "D" Black/Orange. A glazed sherd occurs directly above the floor, and six more in the plowzone.

Artifacts. Sherd density here is considerably lower than the average, though utility: fine ware proportions are about the same. The utility ware sherds show few identifiable pieces, and the fine wares include the diagnostics mentioned above. Obsidian occurred in a 5.8:1 grey to green ratio.

## Structure 6, Room L

Architecture and Features. Standing in the entryroom (V) and looking northeast, Room L appears as a broad (6.6 m), deep (5.9 m, 38.94 m<sup>2</sup>, in all) platform about 0.75 m above the level of Room V (Room L's main floor is at 2456.85 masl.). Two steps in the middle of Room L's southwest wall led up to it from Room V. Room L is in several senses the central room of the structure: most obviously, it is centrally located, secondarily, the cut stone hearth flanked by a 0.7 m wide paving of adobes along the back (northeast) wall of this room show it to be a focal point of the structure. Masonry in this part of the building is of high quality and it is evident that considerable care went into its construction and detail. The floor is hard packed earth and this surface extended over the edge of the LV wall. We found a hole in the floor about 1.5 m north of the steps. This measured about 15 cm across and was about 30 cm deep, and did not contain a cache; we assume this hole to have had a structural function, perhaps as the socket for a supporting post, or for a pole (Nahuatl xocotl, a regular feature in the ritual life of the culture (Duran 1971:442-443).

Excavation under this floor revealed another, also of packed earth, at 2456.65 masl. This featured a hearth in the south corner of the room, a quarter round area about 0.8 m across which was rimmed by crude cobbles.

Excavation beneath this floor revealed substructural walls, one of which ran under the adobe paving for the length of the room (abutting the two side walls) and a cross wall at the same level which extended (from just to the west of the upper hearth) in a southwest direction for 1.1 m. In a line with this, another wall stub just over a meter long abutted the LV wall.

In the north corner of the room, deep trenching revealed a burial, the cranium and long bones of what Abrams estimates to be an adolescent female. Adjacent to was an overturned Plain Orange bowl, broken from the weight of the fill, and a small figurine fragment, of a man seated in a chair.

These substructural remains clearly indicate that there was an earlier building episode here, though any interpretation of this earlier structure will entail further excavation. Diagnostic sherds found in these deep soundings are Black/Orange "A", "B", and "D"; no glazed sherds were found in these deeper contexts.

Artifacts. The sherd density (202/m<sup>3</sup>) in this room was somewhat higher than average. The proportion of fine to utility wares is about average.

Utility wares showed a whole range of vessels. Forty-eight percent of identifiable utility sherds were comales, and there were also a large number of brazier fragments, lending strength to the assumption that this room served as a place where meal preparation and consumption took place.

The fine ceramics also show a range of types, with Plain Orange, Black/Orange, and red types predominating. Table 2.17 displays a nice seriation of chronologically sensitive diagnostics; the later Black/Orange types and the glazed sherds are found in the upper levels, the last being limited to the plowzone.

Eight spindle whorls came up in these contexts, and a few worked sherds were found throughout. Numerous figurine fragments came up in this area, the most interesting of these was a Tlaloc head. Others include several male and female heads.

Near the north end of the adobe paving was found a ceramic stamp of typical prehispanic design.

A cache of 21 pieces of prismatic blades (fine quality grey-black obsidian) in a fire-blackened Plain Orange bowl (18.5 cm diameter) rested on the south end of the adobe paving. We have not even cleaned these, as we did not wish to remove any possible deposits of cultural significance (such as blood) which may be identifiable. Other obsidian was in a 14.8:1 grey to green ratio. The single ground stone artifact was a maguey scraper, found in the plowzone.

### Structure 6, Rooms R and S

Architecture and Features. This set of rooms measures 6.6 x 6.9 m, and seems to represent a single building episode. The space was divided into two long rooms, each of which is described below. This set of rooms may have served as the separate domestic space for a nuclear family, or for one of wives of the household head, and their children. The two rooms share a circular hearth, just north of the center of the whole space, although the RS wall definitely divided off the rooms from each other. This hearth is about 0.7 m across and is rimmed with small tezontle and basalt cobbles and a single fired brick. As in the case with so many other room contexts here at Cihuatecpan, the southern half of the whole area suffered considerable damage to behavioral contexts, as the floor level and ground surface intersect.

#### Room R

Architecture and Features. 3.5 m wide and 6.9 m long (24.15 m<sup>2</sup>), this space was divided into two separate floor areas, the north end having a packed earth floor at about 2456.40 masl. and this surface formed a broad platform, dropping off midroom to a cascajo floor level in the south end of about 2455.90 masl. There may have been another higher floor surface in the south end, but traces were ephemeral. Beneath the known floor levels of the two rooms, was undifferentiated fill down to tepetate. Diagnostic sherds in the subfloor fill were Black/Orange types "B" and "E".

Artifacts. Sherd density for this room was about average. The proportion of fine ware sherds was about 35%, somewhat higher than average. All utility ware types were represented, with a fairly large number of comal fragments. Fine wares show a full range (including a Chalco-Cholula representative) except for the lack of glazed ware sherds. A single worked sherd and three large spindle whorls were found. Two figurines were recovered, and obsidian occurred in a 2.6:1 ratio.

#### Room S

Architecture and Features. There are two main floors in this room (both of packed earth), one at about 2456.3 masl. and another at about 2455.9 masl. The main feature here is an adobe bench roughly 2 m<sup>2</sup>, in the northeast corner of the room. This is similar to the adobe benches found in Structures 1 and 4. In the north end of this room, in the plowzone, a small piece of mud plaster painted deep reddish brown was found, perhaps indicating that the RS wall was painted. Beneath the lower floor was undifferentiated fill down to tepetate; Black/Orange sherds of types "B" and "D" were found here.

A deep trench in the southwest corner of this room (adjacent to Room T) revealed a short (0.85 m long) wall stub running southwest-northeast, its top level with the lower

floor and its base on tepetate, 2455.17 masl. This abuts the southwest wall of Room S, and seems to have served a structural supporting function.

Artifacts. Sherd density here is slightly higher than average, and the proportion of fine to utility wares shows a higher than average incidence of fine ware sherds. Like Room R, this area evidences all utility types, with a high frequency of comal sherds. Fine wares also show a wide range, including a glazed sherd in the plowzone. No spindle whorls, worked sherds, or ground stone occurred in these contexts. Seven figurines were recovered, and obsidian in a 3.5:1 ratio.

### Structure 6, Rooms M, N, O, P, and Q

Architecture and Features. These rooms together form another suite, again interpreted as the quarters of a nuclear family, or of a co-wife and her children. This group of rooms seems to have been built as a single construction, the outer wall of this group being a continuous single building unit. As can be seen from Figure X, "Room" O is a corridor leading off the main hall V. The corridor opens onto Room N, in a rare case of a clear cut entry from one room to another (for this bit of preserved architectural detail we owe thanks to the multiplicity of walls which protected these features from the plow). Room N is flanked by two platforms, "Rooms" M and P, and the latter leads up to Room Q. Thus there emerges a view of a space which was first grossly divided by walls, and then subdivided by elevation into various broad benches or platforms. The whole interior space of this area measures 9.7 by 6.0 m. Discussion begins with Corridor O and then focuses on Room N and its platforms (M and P) and finally on Room Q.

#### Corridor O

Architecture and Features. This corridor is 6.5 m long and 1.6 m wide (10.4 m<sup>2</sup>). The floor is of packed earth; at the northwest end it is at about 2456.4 masl. and this drops off to 2456.22 masl. at the southeast end. There is a buried wall beneath this floor, its base resting on tepetate (2455.7 masl.); this continues under the OMN wall, (the base of which rests on tepetate in its OM section, and on the floor in its ON section). At the southeast end of O's floor is a drain installed through the wall at floor level. This is of cut stone (fine tezontle) and is 21 cm across and 60 cm long. The subfloor fill, of undifferentiated dirt, contained a single Black/Orange "D" sherd.

Artifacts. The sherd density in the corridor is strikingly low (94.5/m<sup>3</sup>), understandable if this is a passageway. A high proportion of the sherds (40%) are fine wares. The utility wares show a full range of types, with a preponderance of jar sherds among those identifiable. Fine wares include most common types, including 10 glazed sherds in the plowzone. No spindle whorls, worked sherds, or ground stone artifacts were found, and the figurine fragments were too amorphous to be recognizable. Obsidian occurred in 4.5:1 grey to green ratio.

#### Room N

Architecture and Features. This area (3 x 3.9 m, 11.7 m<sup>2</sup>) had a single uneven pink cascajo floor with an average elevation of about 2456.15 masl. The northeast wall (which continues on to become the northeast wall of the central room, L) is presently about 0.7 m high and 0.5 m wide and is built of unfaced basalt and some tezontle. It rests on tepetate, here at 2455.99 masl. Near this wall, also resting on tepetate, was an Aztec III Black/Orange plate. This can be interpreted as a cache, perhaps dedicatory in function,



and similar to buried vessels found by Sisson at Coxcatlan Viejo (Sisson 1973). This was the only whole vessel found in the first season of work at Cihuateopan. Beneath the floor was undifferentiated fill down to tepetate; this level contained Black/Orange "D" sherds. Near the door, just above the floor level, a tezontle cone was embedded in the wall; its end was touched with plaster.

Artifacts. Sherd density here was considerably lower than average ( $102.6/m^3$ ), with the proportion of fine to utility sherds showing a slightly higher than average value for the former. All utility types are represented, with comales and jars occurring in fairly high frequency. Fine wares show most common types; all identifiable Black/Orange types are "D" and glazed sherds are found in contexts above the floor. Three spindle whorls and eight figurine fragments were found, and the obsidian occurred in a 3.5:1 ratio.

#### Platform M

Architecture and Features. The wall between Platform M and Room N functioned as a riser for the platform level of M, which is interpreted as the surface in use during this structure's final occupation. It was a deep wall, however, resting on tepetate and continuing under the MNO wall to form a substructural part of Corridor O. The back wall (LM) was also resting on tepetate. Within this 1.9 by 3.9 m space ( $7.41 m^2$ ) there were three floor levels: 2456.39, 2456.35, and 2456.12 masl. Pieces of painted stucco (reddish brown) were found in the fill 5 cm above the upper floor, and also in the fill above tepetate, indicating that the back wall, at least, had been decorated in this way. Diagnostic sherds of Black/Orange were found in various contexts; those in the subfloor to tepetate level were types "B" and "D". Glazed sherds occur as deep as the fill above the lower floor. One of the oddest artifact assemblages found at the site was set of small (5 cm long) cones. More were found in Structure 7, including one with a skull motif; their function is not known and we welcome any ideas as to the use to which they were put.

Artifacts. Sherd density here was strikingly low ( $72/m^3$ ); proportions of fine and utility wares are in general correspondence with the average. The full range of utility wares is found, with comales showing strong representation. Fine wares also cover all common types, with a modest seriation effect of diagnostics perceptible in Table 2.17. Two worked sherds, three spindle whorls, and four figurines were found. Obsidian occurred in a 3.8:1 ratio.

#### Platform P

Architecture and Features. This platform formed the southeast end of Room N. It was 1.2 m deep and 4.3 m wide ( $5.16 m^2$ ) and its surface (hard packed earth with cascajo) elevation was 2456.5 masl. This surfacing apparently extended over the tops of the walls (NP and OP) which serve as a riser for it. Platform P was reached by two steps centered along the NP wall; these were of fine cut stone, 1.16 m long). The NP wall rests on tepetate (2455.85 masl. at the northeast end). Beneath the floor surface is undifferentiated fill down to tepetate; diagnostics here are two Black/Orange sherds of type "D".

Artifacts. Sherd density here is somewhat lower than average ( $110/m^3$ ), and fine ware sherds occur in somewhat lower frequency relative to utility ware sherds. The platform surface had a few utility sherds, and the few fine ware sherds are of the commonest types. There were four pieces of grey obsidian.

## Room Q

Architecture and Features. This 2.6 by 4.8 m room (12.48 m<sup>2</sup>) has a single identifiable floor at 2456.17 masl. There is no clear entryway from either Platform P or Corridor O, but the height of the remaining PQ wall (2456.6 masl., just 10 cm below the ground surface) indicates that entry from Platform P would have been possible to manage in one step. There may have been a higher surface of Room Q, but no trace of it remains. Under the floor is undifferentiated fill down to tepetate, and this contains two Black/Orange type "D" sherds.

Artifacts. Unlike its neighboring rooms, Room Q has an artifact density close to the norm. Fine wares account for 37% of sherds, somewhat higher than average. Among utility wares, basins are absent but all others are represented. Fine wares show the commonest types, including glazed wares. Two figurines were found, and obsidian in a 2.5:1 ratio.

## Structure 6, Rooms C and D

Architecture and Features. This set of rooms measured 5.7 by 3.6 m (20.52 m<sup>2</sup>) and was divided by a central southeast to northwest wall with a doorway (1.1 m wide) in the middle. The lowest course of this wall, of nicely cut stone, continued across the room, providing the doorway with a fine sill. At the final occupation stage, this doorsill would have been level with Room C's floor (at about 2456.15 masl.), which was about 3 to 8 cm above Room D's upper floor (variable: 2457.07 to 2457.12 masl.). These two rooms provide us with yet another illustration of the architectural/housebuilding style of this period, the juxtaposition of different levels, as well as walls, to divide up a larger space. They also may be another separate set of living rooms for a nuclear family or co-wife and children.

## Room D

Architecture and Features. This 2.4 by 3.6 m room (8.64 m<sup>2</sup>) leads into Room C and also, via its southwest wall, into Room E. It probably also had an entry to the Central Room L; this is inferred from a lower part of the remaining DL wall. Room D has two floors, both of hard packed earth, at about 2457.1 masl. and 2456.8 masl. Beneath the lower floor is undifferentiated fill down to tepetate (which is at 2456.70 masl. in the north corner of the room). In this subfloor fill were found Black/Orange sherds of types "A", "B", "C", "D", and "E". In the fill between floors were found a Black/Orange "E" sherd and 3 glazed sherds, indicating a Post-Conquest date for the resurfacing of this room. The bases of the outer walls and the CD wall rested on tepetate.

Artifacts. Sherd density here is high (221/m<sup>3</sup>), especially in the subfloor fill (731/m<sup>3</sup>). Fine sherds occurred in slightly greater frequency than normal, and included standard types, including glazed wares. Utility sherds showed the usual range. Five figurine fragments, three spindle whorls, and a ground stone pestle were found. Obsidian occurred in a 2.6:1 ratio.

## Room C

Architecture and Features. This room measured 2.8 by 3.6 m (10.08 m<sup>2</sup>) and had one badly damaged earth floor at about 2457.15 masl. This was in fairly good condition along the southwest wall, and here were found a metate fragment (27 cm across), a cut

stone (29 cm across), and a built-in mud plastered bin in the south corner, 51 cm across, separated from the adjacent floor by a line of four thin (5.5 cm thick) adobes. Also along this wall was an area of floor which was a lens of dusty yellow (7.5 YR 5/4) soil with small pieces of red painted stucco. The floor near this wall was littered with broken adobes, indicating that the CI wall, which has a stone wall base, was at least partially built of adobes, then plastered and painted. The subfloor fill was undifferentiated and contained Black/Orange sherds of types "B", "D", "E", and "H". The northwest wall of this room is the outer wall of the building, impressive in girth (about 65 cm wide) and in features: A drain went through from the room floor to the outside surface (also about 2457.15 masl.), and the wall widened beneath the floor, forming a ledge which extended out 18 cm, and which was at 2457.12 masl. (just under the floor). This wider sub-wall was no doubt for added structural soundness. The drain was in two pieces, a channel of squared U-shape, made of a stone the workmen called *pedra cantera* (possibly andesite; not tezontle or basalt) which they said was found in the Patlachique Range. It was 15 cm across and 10 cm high, and was topped with a flat ceramic cap about 2 cm thick.

Artifacts. The sherd density here is virtually the same as the average for Structure 6 and for all structures. Utility wares occur in slightly higher relative frequency than usual. All standard utility types are represented, as are all of the more common fine wares. As Table 2.17 shows, Black/Orange sherds were found in many levels, and glazed sherds were found directly above the floor. In addition to the metate, a maguey scraper, three spindle whorls, and three figurines were found. Obsidian occurred in a 3:1 ratio.

### Structure 6, Rooms E, FG, H, and I

Architecture and Features. This cluster of rooms covers an area roughly 5.6 by 3.6 m (20.16 m<sup>2</sup>) and consists of: Hallway E (which joins this upper portion of the building to the main hall, V, and leads into Room D), and Room FG, which in turn leads into Room I. Room H is a 0.8 m square to the southwest of Room FG. This set of rooms is clearly separate from Rooms C and D, and may represent yet another domestic locus.

#### Hallway E

Architecture and Features. This hallway measures 1.5 m across and 2.9 m long (4.35 m<sup>2</sup>). The uppermost floor level is at 2457.0 masl., and paves over an entryway from Room V. This entry is flanked by the EL wall, and by a short thick wall (EV) which partially closes off this space. This wall rests on the upper floor. The ED wall is now only one course above this floor (its base is at the 2456.73 masl. level); there is a slight depression in the center, and this may have been a doorway. A single step, about 20 cm high, leads up into FG. In the northeast side of this step is embedded a tezontle cone. Room E's floor was the last of six floor surfaces (2457.0, 2456.97, 2456.94, 2456.85, 2456.83, and 2456.60 masl.); the lowest topped undifferentiated fill down to tepetate, which averaged about 2456.30 masl. In this fill were Black/Orange sherds of types "B", "D", and "E".

Artifacts. The numerous floor resurfacings in this area left little room for artifacts, and sherd density here is very low (48/m<sup>3</sup>). Still, the proportions of fine and utility wares are normal, and all the standard utility types are present. Fine wares show a full range, with Black/Orange in some floor contexts; glazed sherds are limited to the plowzone. There were two figurines, and obsidian in a 3:1 ratio.

## Room FG

Architecture and Features. This small (0.8 x 2.4 m, 1.92 m<sup>2</sup>) area forms a kind of very broad midstep, or small platform, between Hallway E and Room I. Its single floor level was 2457.23 masl., and on this rested a 50 by 30 cm step (aligned with the step in Hallway E) which gave access to Room I. Beneath the floor was undifferentiated fill down to tepetate, and this contained a Black/Orange "D" sherd.

Artifacts. The sherd density was somewhat lower than average, but the impressive stability of the relative proportions of fine and utility ware sherds can once again be noted, as can the presence of almost a full range of utility vessels sherds. Fine wares include the more common types. One figurine, and obsidian in a 6.5:1 ratio.

## Room H

Architecture and Features. This tiny space (0.8 x 0.8 m, 0.64 m<sup>2</sup>) was apparently entered through Room I (inferred from the relative height of the walls). It was apparently built in a single construction episode with Room FG, since their northwest wall, based based at 2456.65 masl., rests on a lower floor beneath Room FG. Only one floor of hard packed earth at 2456.79 masl., is known for Room H. The function of this space is difficult to reconstruct since we lack any *in situ* artifacts, and no special treatment of floor or walls (plastering or painting) is perceptible. Two possible functions are storage and ritual: the former seems an imposition of a modern mental template of what a closet looks like, and the latter while drawing upon known analogues of niches serving as household shrines, is unfounded in terms of evidence. There are no figurine fragments here, nor any other artifact material which can be interpreted as having ritual significance.

Artifacts. The 18 sherds found here are not terribly revealing; the only identifiable utility sherd is from a jar, and the few fine sherds include one Black/Orange "D". No other artifacts were found.

## Room I

Architecture and Features. Like Room E, this area (2.6 x 3.3 m; 8.58 m<sup>2</sup>) was characterized by a set of superimposed floors. The uppermost of these, of red cascajo, was at 2457.23 masl.; four other levels, all packed earth, began at about 455 cm below this (2456.75, 2456.67, 2456.63, and 2456.60 masl.). Part of the lowest floor may, in fact, have been a smoothed tepetate surface, since this occurs at about 2456.64 masl. in the east corner of the room. The fill between tepetate and the extent of the lowest floor contained Black/Orange sherds, of types "D" and "E". Two "D" sherds also occur in the fill between the highest floor and that underlying it. Like the northwest wall in Room C, one of the walls in I features an underlying ledge, about 25 cm wide, its surface at 2456.80 masl. This ledge is part of the southwest wall, and in this area there may be a doorway through to the narrow passageway (Room Y); the height of the remaining walls in this area makes estimating doorways (once again) a problem.

Artifacts. Sherd density here averages 132/m<sup>3</sup>; this is somewhat lower than average, accounted for by the close superimposition of the floors. Fine and utility ware relative proportions are close to the norm. All common utility types are found except for braziers. Fine wares also show a fairly broad distribution, though no glazed wares are found. No figurines, spindle whorls, or ground stone artifacts were found. Obsidian occurred in a 6:1 ratio.

## Structure 6, Rooms A and B

Architecture and Features. These two rooms are roughly the same size and shape, and are adjacent, but there may well be no direct functional relationship between them.

### Room B

Architecture and Features. This 5.2 by 2.6 m room (13.52 m<sup>2</sup>) has a single floor surface of pink cascajo. This surface was uneven, but averaged about 2457.1 masl. Beneath this is undifferentiated fill, sown to tepetate (which is about 5 cm below the floor in the room's north corner). This fill held Black/Orange sherds of types "B", "D", "E", and "H". The outer wall here is massive, 70 cm wide, and the shared AB wall is 60 cm wide; both walls rest on tepetate.

Artifacts. Sherd density here is far above normal, about 253/m<sup>3</sup>. Fine and utility wares maintain their usual proportions. Utility sherds show the standard types except for braziers. Fine wares also show the usual range, with two glazed sherds appearing in the plowzone at the floor level. Two worked sherds were found here, but no spindle whorls or other artifacts. Obsidian occurred in a 2.4:1 ratio.

### Room A

Architecture and Features. Room A is the north corner of the structure. Its dimensions are 5.4 by 2.6 m (14.04 m<sup>2</sup>) and it has one definite floor (packed earth) at 2457.35 masl., the level of the tepetate in the north corner. The walls are massive here, 60 to 75 cm wide, constructed of sizeable (some are 35 cm across) blocks and basalt. Since tepetate is only 30 cm below the ground surface the northernmost walls have been broken apart by plow action and also by tree roots. The most interesting feature here is a one course ring of well cut stone (1.43 m, exterior diameter, 1.07 m, interior diameter) resting on the floor. Several of the stones are misaligned, no doubt a reflection of the fact the feature is only 20 cm below the ground surface. No traces of ash were found in the center, nor were there any accumulations of floral remains. The stones did not appear to have been plastered. Sanders (personal communication) suggested that this feature may have served as a temascal, and the shape and size certainly would suit this function.

Artifacts. Sherd density here is much higher than normal (310/m<sup>3</sup>), with the fine to utility proportions hovering around average. Utility sherds show the standard range, with the exception of brazier sherds. Fine wares cover most of the usual types, and three Black/Orange "D" type sherds occur in the floorzone/subfloor context. Eight figurines were found, and obsidian occurred in a 3.2:1 ratio.

## Structure 6, Rooms J and K

Architecture and Features. These two rooms comprise the long "back" of the structure, together about 16.5 m long and about 4 m across. The space is divided by a rather short JK interior wall, and a special feature is a round structure in Room K which is similar to the one in Room A.

## Room J

Architecture and Features. This room constitutes roughly the northwest quarter of the whole space, its floor area being  $18.86\text{m}^2$  (4.6 by 4.1 m). Three superimposed floors were found (2457.1, 2457.0, and 2456.9 masl.), the lowest being about the same level as tepetate was found in the north corner. The outer wall rests on tepetate in this north end, though as the wall extends past Room K there are areas where the wall base is as much as 25 cm above tepetate. Black/Orange sherds occur throughout the strata; the subfloor to tepetate fill has "D" and "E" types. Glazed sherds appear in several mixed contexts, but are also securely in the level between the lowest and the middle floors.

Artifacts. The sherd density here is quite high,  $303/\text{m}^3$ . Fine sherds account for a mere 21%, a strikingly low value. Utility sherds show representation of all categories, and fine wares are generally well represented also. Twelve figurine fragments were found. Also on this floor surface were bones from a large ungulate. A maguey scraper was found in a mixed context. Obsidian occurred in a 4.7:1 grey to green ratio.

## Room K

Architecture and Features. Twelve meters long (and 4.2 m wide;  $50.4\text{m}^2$ ), this room contains a circular stone feature similar to the one found in Room A. The diameter is somewhat larger (1.92 m) and three courses are left (about 36 cm high); its base is built into tepetate, and it was covered over by an upper floor (at about 2456.8 masl.) which now exists only in the northwest part of the room. The floor in the southeast part of the room is at about 2456.2 masl., and intersects tepetate midroom. Both floors are of packed earth, and I should emphasize that both are very uneven. When the ungulate bones came up in Room J, one of our workmen said that this long JK room might have been a stable or an animal pen at some time, and the uneven floor, typical in a room which is strictly utilitarian, doesn't refute this. The problematical round feature remains a puzzle; perhaps it represents another temascal, though some other, corroborating evidence is necessary before a strong case can be made.

Artifacts. Sherd density here is slightly below average, at  $161/\text{m}^3$ . Utility and fine ware relative proportions hover close to the mean. All utility ware types are found, and so are virtually all fine wares, including Black/Orange "D" sherds and glazed sherds in the subfloor to tepetate context of the southeast half of the room. There were seventeen figurine fragments, 2 large spindle whorls, three worked sherds and a maguey scraper. Obsidian occurred in a 3.2:1 ratio.

**Table 2.16. OPERATION 6—ARTIFACT SUMMARY**

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical		oth	black	green	mano	metate	other
						sol	hol						
<u>Room A</u>													
plowzone (3.68 m <sup>3</sup> )	891	619	272	6	5	8	1		75	18			
directly over floor (1.4 m <sup>3</sup> )	622	452	170			2	1		43	7			
floor zone & subfloor (0.843 m <sup>3</sup> )	461	355	106	2	5	3	1		24	17			
circular feature (0.5 m <sup>3</sup> )	20	17	3							2			
<i>Subtotals</i> (6.423 m <sup>3</sup> )	<i>1994</i>	<i>1443</i>	<i>551</i>	<i>8</i>	<i>10</i>	<i>13</i>	<i>3</i>		<i>142</i>	<i>44</i>			
<u>Room A &amp; N. Ext</u>													
surface to wall height (0.8 m <sup>3</sup> )	21	15	6						3				
surface to tepetate (1.0 m <sup>3</sup> )	386	304	82			2			34	10			
<u>Exterior N of "A"</u>													
surface to 10 cm deep (0.2 m <sup>3</sup> )	164	119	45	2		1			10	12			
subsurface to tepetate (0.72 m <sup>3</sup> )	176	149	27			2			27	9			
<u>Room A &amp; NE. Ext.</u>													
material over wall	46	31	15	1					9	5			
<u>Exterior E of "A"</u>													
plowzone (1.36 m <sup>3</sup> )	550	330	220	2	2	2			46	16			
to floor at 2457.05 masl. (0.15 m <sup>3</sup> )	83	50	33						17	3			
to tepetate (0.35 m <sup>3</sup> )	23	19	4						80	1			
<i>Subtotals</i> (4.58 m <sup>3</sup> )	<i>1449</i>	<i>1017</i>	<i>432</i>	<i>5</i>	<i>2</i>	<i>7</i>			<i>226</i>	<i>52</i>			
<u>Rooms A &amp; B</u>													
surface to wall height (0.4 m <sup>3</sup> )	100	76	24	1									
<u>Rooms A &amp; B &amp; WNW Exterior</u>													
plowzone (0.8 m <sup>3</sup> )	62	41	21	1					4	3			1 scraper

OPERATION 6—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Exterior WNW of "A" &amp; "B"</u>													
plowzone to floor (0.02 m <sup>3</sup> )	35	26	9			1			2	2			
plowzone to tepetate (1.24 m <sup>3</sup> )	64	31	33						8				
<i>Subtotals</i> (2.06 m <sup>3</sup> )	<i>161</i>	<i>98</i>	<i>63</i>	<i>1</i>		<i>1</i>			<i>14</i>	<i>5</i>			<i>1 scraper</i>
<u>Room B</u>													
plowzone from surface (1.34 m <sup>3</sup> )	203	148	55			3			13	7			
plowzone, sub-surface over floor (1.295 m <sup>3</sup> )	314	237	77		2	2			23	11			
plowzone thru floor (0.675 m <sup>3</sup> )	275	165	110						28	8			
directly over floor (0.15 m <sup>3</sup> )	68	44	24						7	5			
floor zone (0.14 m <sup>3</sup> )	7	7											
subfloor (0.15 m <sup>3</sup> )	81	52	29		1				15	5			
<i>Subtotals</i> (3.75 m <sup>3</sup> )	<i>948</i>	<i>653</i>	<i>295</i>		<i>3</i>	<i>5</i>			<i>86</i>	<i>36</i>			
<u>Rooms B &amp; C &amp; W Exterior</u>													
plowzone (2.0 m <sup>3</sup> )	83	61	22										
directly over floor (0.2 m <sup>3</sup> )	40	27	13		2		1		4	3			
floor zone (0.08 m <sup>3</sup> )	37	25	12			1							
<i>Subtotals</i> (2.28 m <sup>3</sup> )	<i>160</i>	<i>113</i>	<i>47</i>		<i>2</i>	<i>1</i>	<i>1</i>		<i>4</i>	<i>3</i>			
<u>Room C</u>													
plowzone from surface (2.465 m <sup>3</sup> )	334	265	69			3			33	11			1 scraper
plowzone subsurface (2.0 m <sup>3</sup> )	111	76	35	1		1	1		6	3			



OPERATION 6—ARTIFACT SUMMARY (Page 3)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>Room C</u> (Cont.)													
wall height to floor (0.798 m <sup>3</sup> )	88	62	26					5	1				
directly over floor (0.595 m <sup>3</sup> )	224	131	93	2		2		23	9				
floor near metate	17	11	6					4			1		
doorway to Room D	100	82	18		1	1		16	8				
subfloor to tepetate of wall ledge (0.3 m <sup>3</sup> )	95	70	25					5	1				
subfloor to tepetate (1.309 m <sup>3</sup> )	336	258	78			2		17	3				
<i>Subtotals</i> (7.467 m <sup>3</sup> )	<i>1305</i>	<i>955</i>	<i>350</i>	<i>3</i>	<i>1</i>	<i>9</i>	<i>1</i>	<i>109</i>	<i>36</i>		<i>1</i>	<i>1 scraper</i>	
<u>Room C &amp; WNW Ext.</u>													
plowzone (1.2 m <sup>3</sup> )	33	24	9					7					
<u>WNW Ext., Room C</u>													
directly over floor (0.28 m <sup>3</sup> )	37	23	14	1				4	2				
floor zone (0.04 m <sup>3</sup> )	50	42	8					1	2				
<i>Subtotals</i> (0.32 m <sup>3</sup> )	<i>87</i>	<i>65</i>	<i>22</i>	<i>1</i>				<i>5</i>	<i>4</i>				
<u>Room D</u>													
plowzone from surface (4.49 m <sup>3</sup> )	360	258	102	1	3		1	21	4				
plowzone, subsurface (0.231 m <sup>3</sup> )	33	18	15			1		7	3				
directly over floor 1 (0.6825 m <sup>3</sup> )	179	124	55	3	1	2		15	6				
doorway to Room E	27	19	8			1							
intrafloor, upper (0.345 m <sup>3</sup> )	213	174	39	1				17	3				1 pestle
directly over floor 2 (0.495 m <sup>3</sup> )	123	87	36					7	2				

OPERATION 6—ARTIFACT SUMMARY (Page 4)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>Room D</u> (Cont.)													
below floor 2 to tepetate (0.87 m <sup>3</sup> )	634	373	261		1	1	1		31	19			
<i>Subtotals</i> (7.1135 m <sup>3</sup> )	<i>1569</i>	<i>1053</i>	<i>516</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>2</i>		<i>98</i>	<i>37</i>			<i>1 pestle</i>
<u>Room E</u>													
plowzone from surface (2.34 m <sup>3</sup> )	127	103	24	1	2	1			14	4			
plowzone subsurface (0.964 m <sup>3</sup> )	205	138	67			1			14	6			
directly over floor 1 (0.2065 m <sup>3</sup> )	46	27	19						2	1			
to floor at 2456.95-.97 masl (0.11 m <sup>3</sup> )	14	9	5	1					1				
to floor at 2456.94 masl (0.06 m <sup>3</sup> )	5		5			1							
to floor at 2456.85 masl (0.12 m <sup>3</sup> )	15	12	3						1	1			
to floor at 2456.83 masl (0.02 m <sup>3</sup> )													
to floor at 2456.60 masl (0.25 m <sup>3</sup> )	48	29	19		1	1			6				
subfloor to tepetate (0.83 m <sup>3</sup> )	267	172	95		1	1			23	9			
<i>Subtotals</i> (4.9005 m <sup>3</sup> )	<i>727</i>	<i>490</i>	<i>237</i>	<i>2</i>	<i>1</i>	<i>5</i>			<i>61</i>	<i>21</i>			
<u>Rooms F &amp; G</u>													
plowzone, surface to wall height (0.36 m <sup>3</sup> )	22	11	11						1				
to tepetate (0.6 m <sup>3</sup> )	123	86	37	1		2			12	2			
<i>Subtotals</i> (0.96 m <sup>3</sup> )	<i>145</i>	<i>97</i>	<i>48</i>	<i>1</i>		<i>2</i>			<i>13</i>	<i>2</i>			
<u>Room H</u>													
plowzone (0.11 m <sup>3</sup> )	19	13	5			2							
<u>Rooms G &amp; H &amp; I</u>													
plowzone (1.2 m <sup>3</sup> )	116	85	31						11	13			

OPERATION 6—ARTIFACT SUMMARY (Page 5)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Room I</u>													
plowzone to rubble (1.247 m <sup>3</sup> )	61	37	24						8				
above floor at 2457.2 masl (1.1835 m <sup>3</sup> )	45	39	6						4	1			
above floor at 2456.75 masl (0.705 m <sup>3</sup> )	113	75	38						4	3			
above floor at 2456.67 masl (0.075 m <sup>3</sup> )													
above floor at 2456.63 masl (0.06 m <sup>3</sup> )	14	10	4						3				
above floor at 2456.60 masl (0.045 m <sup>3</sup> )	52	35	17						2	1			
subfloor to tepetate (0.86 m <sup>3</sup> )	267	171	96		1	1			24	3			
<i>Subtotals</i> (4.1755 m <sup>3</sup> )	<i>552</i>	<i>367</i>	<i>185</i>		<i>1</i>	<i>1</i>			<i>47</i>	<i>8</i>			
<u>Room I &amp; W Ext.</u>													
plowzone (0.8 m <sup>3</sup> )	30	21	9						2				
<u>Ext. W of Room I</u>													
plowzone, surface to floor (0.6 m <sup>3</sup> )	14	12	2						3	1			
plowzone subsurface (0.9 m <sup>3</sup> )	52	38	14	1 & sculpt	1	1			6	2	1		
drain feature floor (0.15 m <sup>3</sup> )	17	12	5						1				
<i>Subtotals</i> (1.65 m <sup>3</sup> )	<i>83</i>	<i>62</i>	<i>21</i>	<i>2</i>	<i>1</i>	<i>1</i>			<i>10</i>	<i>3</i>	<i>1</i>		
<u>Room J</u>													
plowzone, surface to wall top (1.28 m <sup>3</sup> )	12	7	5						2				
plowzone, surface to 5 cm over floor (5.07 m <sup>3</sup> )	454	361	93	4		3			103	6			
directly over floor at ca. 2457.1 masl (0.49 m <sup>3</sup> )	674	559	115	4	2	3	1		89	20			

OPERATION 6—ARTIFACT SUMMARY (Page 6)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical		oth	black	green	mano	metate	other
						sol	hol						
<u>Room J</u> (Cont.)													
directly over floor at ca. 2457.0 masl (0.1 m <sup>3</sup> )	142	109	43			1			31	6			
directly over floor at ca. 2456.9 masl (0.2 m <sup>3</sup> )	268	238	30						11	3			
subfloor to wallbase (0.9 m <sup>3</sup> )	489	370	119	2		3			59	18			
plowzone, surface to wallbase (0.55 m <sup>3</sup> )	207	182	25			1			earsp; 32	earsp; 4			1 scraper
subfloor to tepetate (0.56 m <sup>3</sup> )	481	326	155	2	1	2	1		44	23			
material over NNW wall	31	23	9						12	1			
<i>Subtotals</i> (9.15 m <sup>3</sup> )	2768	2175	593	12	3	13	2		383	81			1 scraper
<u>NNE Ext. of Room J</u>													
plowzone (0.96 m <sup>3</sup> )	47	33	14						17	5			
directly over floor at 2457.03 masl (0.16 m <sup>3</sup> )	45	26	19										
<i>Subtotals</i> (1.12 m <sup>3</sup> )	92	59	33						17	5			
<u>Rooms J &amp; K</u>													
plowzone (1.08 m <sup>3</sup> )	33	27	12						14	2			
plowzone to floor ca. 2457.0 masl (0.5625 m <sup>3</sup> )	116	73	43						16	3			
directly over floor at 2456.91 masl (0.12 m <sup>3</sup> )	80	65	15						10	1			
directly over floor at 2456.83 masl (0.08 m <sup>3</sup> )	25	18	7						5	3			
wall	65	36	29			1			5	2			
<i>Subtotals</i> (1.8425 m <sup>3</sup> )	325	219	106			1			50	11			

OPERATION 6—ARTIFACT SUMMARY (Page 7)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	Conical				black	green	mano	metate	other
					slab	sol	hol	oth					
<u>Ext. NNE of Room K</u>													
plowzone (1.614 m <sup>3</sup> )	570	426	144	2	2	5	1		1		34	16	
plowzone, surface to tepetate (1.34 m <sup>3</sup> )	437	311	126						27	7			
plowzone, subsurface to tepetate (0.762 m <sup>3</sup> )	370	267	103	1					24	9			
<i>Subtotals</i> (3.716 m <sup>3</sup> )	<i>1377</i>	<i>1004</i>	<i>373</i>	<i>3</i>	<i>2</i>	<i>5</i>	<i>1</i>		<i>85</i>	<i>32</i>			
<u>Ext. E of Room K</u>													
plowzone (0.25 m <sup>3</sup> )	189	139	50	1	3	2			14	6			
<u>Ext. Wall of Room K</u>	60	39	21						5	1			
<u>Room K—NW Half</u>													
plowzone from surface (3.18 m <sup>3</sup> )	125	87	38	1		1			12	4			
plowzone, subsurface (0.2 m <sup>3</sup> )	70	57	13			1	1		15	2			
over floor (1.45 m <sup>3</sup> )	259	214	45	2		1	1		17	8			
<i>Subtotals</i> (4.83 m <sup>3</sup> )	<i>454</i>	<i>358</i>	<i>96</i>	<i>3</i>		<i>3</i>	<i>2</i>		<i>44</i>	<i>14</i>			
<u>Room K—Center</u>													
plowzone, to floor (0.96 m <sup>3</sup> )	204	154	50				2		23	2			
<u>Room K—SE Half</u>													
plowzone from surface (10.0575 m <sup>3</sup> )	1963	1401	562	6	4	11			102	31			1 scraper
above floor (2.552 m <sup>3</sup> )	330	239	91	6		1	3		19	11			
subfloor to tepetate (0.6 m <sup>3</sup> )	107	75	32	2	3		1		2	3			
<i>Subtotals</i> (13.2095 m <sup>3</sup> )	<i>2400</i>	<i>1715</i>	<i>685</i>	<i>14</i>	<i>7</i>	<i>12</i>	<i>4</i>		<i>123</i>	<i>45</i>			<i>1 scraper</i>
<u>Room K Subtotals</u> (18.9995 m <sup>3</sup> )	<i>3058</i>	<i>2227</i>	<i>831</i>	<i>17</i>	<i>7</i>	<i>15</i>	<i>8</i>		<i>190</i>	<i>61</i>			<i>1 scraper</i>

OPERATION 6—ARTIFACT SUMMARY (Page 8)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	Conical				black	green	mano	metate	other
					slab	sol	hol	oth					
<u>Room L</u>													
plowzone, surface to floor at 2456.80-.89 masl (0.24 m <sup>3</sup> )	8	4	4	4 (1 incised stamp)					2	0			
plowzone, surface to 5.0 cm over floor (12.6257 m <sup>3</sup> )	2350	1813	537	7	10	5	2		1018	45			1 scraper
directly over floor at 2456.80-.89 masl (2.655 m <sup>3</sup> )	760	569	191	5	2	1			108	21			
intrafloor to floor at 2456.65 masl (0.22 m <sup>3</sup> )	36	20	16	1					7	3			
intrafloor to floor at 2456.40 masl (3.635 m <sup>3</sup> )	668	454	214	2		3	1		31	9			
subfloor to tepetate (1.38 m <sup>3</sup> )	258	154	104	5	2				38	2			
<hr/>													
<u>burial feature</u>													
subfloor to top of burial (0.38 m <sup>3</sup> )	108	74	34			1			18	1			
burial (0.1 m <sup>3</sup> )	25	13	12	1					1	1			
burial floor (0.48 m <sup>3</sup> )	148	77	71						9	1			
<hr/>													
<u>soil sample from hole in 2456.80-.89 masl floor</u>	16	11	5	poss.									
<u>contents of tequil</u>	4	3	1										
<hr/>													
<u>Subtotals</u> (21.7175 m <sup>3</sup> )	4381	3192	13	25	12	3			1232	83			1 scraper
<u>Rooms E &amp; L—Wall</u>	4	3	1						5	1			
<u>Rooms J &amp; L—Wall</u>	6	3	3						1	1			
<u>Rooms L &amp; M—Wall</u>	5	1	4										
<u>Room M</u>													
plowzone, surface to 5.0 cm over upper floor (1.225 m <sup>3</sup> )	143	102	41	1		1			10	4			
plowzone, surface to upper floor (2.6 m <sup>3</sup> )	68	41	27			1			5				

OPERATION 6—ARTIFACT SUMMARY (Page 9)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Room M</u> (Cont.)													
directly over upper floor (0.39 m <sup>3</sup> )	47	29	18	1					6				
plowzone, surface to middle floor (2.16 m <sup>3</sup> )	265	220	45				1		41	17			
platform fill to 5.0 cm over lower floor (0.324 m <sup>3</sup> )	71	17	54	1					16	2			
platform fill to lower floor (0.95 m <sup>3</sup> )	66	43	23				3		15	3			
directly over lower floor (0.09 m <sup>3</sup> )	15	13	2		1								
subfloor to tepetate (1.78 m <sup>3</sup> )	96	63	33	1			1		29	6			
<i>Subtotals</i> (10.744 m <sup>3</sup> )	771	528	243	4	1	3	4		122	32			
<u>Rooms M &amp; N</u>													
plowzone (1.4 m <sup>3</sup> )	30	22	8	1					5	3			
<u>Room N</u>													
plowzone from surface (2.2 m <sup>3</sup> )	257	187	70	3			1	1	21	7			
plowzone subsurface (3.298 m <sup>3</sup> )	278	188	90	1	1	3	2		8	1			
plowzone, surface to 5.0 cm over floor (2.2 m <sup>3</sup> )	184	109	75				2		10	4			
plowzone, surface to floor (0.31 m <sup>3</sup> )	96	62	34						17	4			
directly over floor (1.952 m <sup>3</sup> )	144	90	54	1	1	1			10	5			
subfloor to base of step (0.5625 m <sup>3</sup> )	60	48	12						7	1			
subfloor to tepetate (1.7775 m <sup>3</sup> )	243	151	92	3	1	3			21	5			
<i>Subtotals</i> (12.3 m <sup>3</sup> )	1262	835	427	8	3	10	3		94	27			

OPERATION 6—ARTIFACT SUMMARY (Page 10)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Room Q</u>													
plowzone, surface to 5.0 cm over floor (2.275 m <sup>3</sup> )	160	90	70			1			34	5			
directly over floor (0.235 m <sup>3</sup> )	28	24	4						4	2			
subfloor to tepetate (0.24 m <sup>3</sup> )	72	42	30	2					7	3			
<i>Subtotals</i> (2.75 m <sup>3</sup> )	260	156	104	2		1			1			45	10
<u>Rooms O &amp; R—Wall</u>	20	11	9	1					3				
<u>Room P</u>													
plowzone, surface to platform (0.0625 m <sup>3</sup> )	29	19	10						2				
subplatform to tepetate (0.73 m <sup>3</sup> )	58	45	13						2				
<i>Subtotals</i> (0.7925 m <sup>3</sup> )	87	64	23						4				
<u>Room P &amp; Q</u>													
plowzone surface to wall height (0.4 m <sup>3</sup> )	292	191	101		1	1			19				
material over PQ wall	47	39	8						2	2			
<i>Subtotals</i> (0.4 m <sup>3</sup> )	339	230	109		1	1			21	2			
<u>Room Q</u>													
plowzone, surface to under floor (1.705 m <sup>3</sup> )	223	141	82			8			21	5			
subsurface plowzone (0.21 m <sup>3</sup> )	63	36	27		1				5	4			
plowzone, sub-surface to floor at 2456.15 masl (0.495 m <sup>3</sup> )	98	63	35	1					18	9			
subfloor to smoothed tepetate (0.65 m <sup>3</sup> )	112	72	40						11	4			
subfloor to tepetate (0.02 m <sup>3</sup> )	7	3	4	1									
<i>Subtotals</i> (3.08 m <sup>3</sup> )	503	315	188	2	1	8			55	22			



OPERATION 6—ARTIFACT SUMMARY (Page 11)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Room Q &amp; Ext.</u>													
plowzone (1.2 m <sup>3</sup> )	337	232	105			1			15	8			
<u>Ext. Adjac. to Room Q</u>													
plowzone (1.56 m <sup>3</sup> )	315	233	82	1 mold	4				23	11			
floor near drain (0.035 m <sup>3</sup> )	7	5	2							1			
<i>Subtotals</i> (1.595 m <sup>3</sup> )	322	238	84	1	4				23	12			
<u>Room R—north end</u>													
plowzone, surface to 5.0 cm over floor (0.345)	103	57	46			1			7	6			
directly over floor (0.115 m <sup>3</sup> )	59	40	19		1				6	1			
subfloor to tepetate (0.89 m <sup>3</sup> )	142	94	48	1	2				10	7			
<u>Room R—midroom</u>													
intrafloors (0.432 m <sup>3</sup> )	85	61	24						14	1			
<u>Room R—south end</u>													
plowzone (1.02 m <sup>3</sup> )	176	123	53						18	6			
over floor at 2455.9 masl (0.91 m <sup>3</sup> )	183	127	56						16	7			
to lower floor (2455.36 masl) & tepetate (0.73 m <sup>3</sup> )	2192	106	86		1	1							
to tepetate (1.6 m <sup>3</sup> )	70	48	22	1		1			11	4			
<i>Subtotals</i> (6.042 m <sup>3</sup> )	1010	656	354	2	4	3			82	32			
<u>Rooms Q &amp; R—Wall</u>	19	13	6						2	1			
<u>Room R &amp; SSE Ext.</u> (0.95 m <sup>3</sup> )	94	67	27						8				
<u>SSE Ext. Adjac. to Room R</u> (3.16 m <sup>3</sup> )	355	218	137	2		1			56	14			

OPERATION 6—ARTIFACT SUMMARY (Page 12)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>Rooms R &amp; S</u>													
plowzone to floor (0.96 m <sup>3</sup> )	134	105	25						11	6			
directly over floor (0.2 m <sup>3</sup> )	81	58	23						8	1			
<i>Subtotals</i> (1.16 m <sup>3</sup> )	<i>215</i>	<i>167</i>	<i>48</i>						<i>19</i>	<i>7</i>			
<u>Rooms R &amp; S—Wall</u>	62	50	12	1	1				6	2			
<u>Room S</u>													
plowzone to 2456.4 masl (1.12 m <sup>3</sup> )	121	76	45	1			1		16	7			
to floor at 2456.3 masl (0.62 m <sup>3</sup> )	97	56	41	1					6	1			
directly over adobes (0.48 m <sup>3</sup> )	67	55	12						5	1			
adobes & below	9	6	3						13				
plowzone to 2455.8 masl (1.066 m <sup>3</sup> )	148	101	47	1					13	3			
plowzone to floor at 2455.9 masl (2.4 m <sup>3</sup> )	329	210	119	2			2		39	9			
subfloor to tepetate (0.9536 m <sup>3</sup> )	458	331	127	2			1	1	16	10			
<i>Subtotals</i> (6.6396 m <sup>3</sup> )	<i>1229</i>	<i>835</i>	<i>394</i>	<i>7</i>			<i>3</i>	<i>2</i>	<i>108</i>	<i>31</i>			
<u>SSE Ext. Adiac. to Room S</u> (0.88 m <sup>3</sup> )	166	116	50				2		16	4			
<u>Room T</u>													
subsurface plowzone to floor at 2455.75 masl (1.316 m <sup>3</sup> )	742	416	326	1 mold 1 fig.			2		98	58	1		
stove interior (0.04 m <sup>3</sup> )	392	345	47						16				
to wall bases (0.34 m <sup>3</sup> )													
to tepetate (0.3125 m <sup>3</sup> )	212	163	49						17	7			
<i>Subtotals</i> (2.0085 m <sup>3</sup> )	<i>1346</i>	<i>924</i>	<i>422</i>	<i>2</i>			<i>2</i>		<i>131</i>	<i>65</i>	<i>1</i>		

OPERATION 6—ARTIFACT SUMMARY (Page 13)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>Rooms S &amp; T &amp; U</u>													
plowzone (0.8 m <sup>3</sup> )	205	166	39	2		1			30	3			
<u>Rooms T &amp; U</u>													
plowzone (0.275 m <sup>3</sup> )	136	88	48			1			12	10			
<u>Rooms T &amp; U &amp; V</u>													
plowzone (1.48 m <sup>3</sup> )	417	276	141	min. sup.	1	4			163	6			
<u>Room U</u>													
plowzone to 5.0 cm over floor at 2456.15 masl (0.875 m <sup>3</sup> )	107	65	42	1					195	2			1 bowl
directly over floor at at 2456.15 masl (0.175 m <sup>3</sup> )	30	24	6						3				
directly under floor (0.072 m <sup>3</sup> )	22	13	9						1				
directly over floor at 2455.87 masl (0.26 m <sup>3</sup> )	80	40	40	1					7	7			
<u>Subtotals</u> (1.382 m <sup>3</sup> )	239	142	97	2					206	9			1 bowl
<u>Rooms U &amp; S—Wall</u>	29	20	9						2				
<u>Rooms U &amp; V</u>													
plowzone to 5.0 cm over floor (2.16 m <sup>3</sup> )	466	404	62						59	10			
directly over floor at 2456.16 masl (0.2 m <sup>3</sup> )	45	34	11						12				
<u>Subtotals</u> (2.36 m <sup>3</sup> )	511	438	73						71	10			
<u>Rooms T &amp; V</u>													
plowzone (0.8 m <sup>3</sup> )	595	466	129		2	3			91	6			

OPERATION 6—ARTIFACT SUMMARY (Page 14)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical		oth	black	green	mano	metate	other
						sol	hol						
<u>Room V</u>													
plowzone from surface (10.1425 m <sup>3</sup> )	609	443	166	3	3	4			110	14			
plowzone to floor at 2456.4 masl (3.205 m <sup>3</sup> )	174	125	49	1		1	2		53	4			
directly over floor at 2456.4 masl (2.55 m <sup>3</sup> )	59	36	23			1			28	3			
plowzone, surface to floor at 2456.1 masl (4.355 m <sup>3</sup> )	294	291	103	1					134	5	1	2	2 tecolote
plowzone, sub-surface to floor at 2456.1 masl (2.2 m <sup>3</sup> )	150	116	34						17	2			
directly over floor at 2456.1 masl (0.715 m <sup>3</sup> )	349	213	136	2		2	1		58	11			
directly under floor at 2456.1 masl (0.66 m <sup>3</sup> )	184	126	58	1					20	6			
to floor at 2455.93 masl (0.295)	60	41	19		1				4	2			
subfloor to tepetate (1.817 m <sup>3</sup> )	347	226	121	4		2	1		40	6			
<u>Building Entry</u>													
plowzone from surface (2.2 m <sup>3</sup> )	661	415	246	4	1	3			79	14			
plowzone, subsurface (0.39 m <sup>3</sup> )	104	53	51						25	12			
to floors (0.6 m <sup>3</sup> )	30	23	7						3	1			
directly over floor at 2455.64 masl (0.35 m <sup>3</sup> )	183	141	42	1		1			30	2			
plowzone from surface S of wall (0.18 m <sup>3</sup> )	21	14	7	1					2	1			
<u>Subtotals</u> (29.6595 m <sup>3</sup> )	3325	2263	1062	18	5	14	4		603	83	1	1	2 tecolote

OPERATION 6—ARTIFACT SUMMARY (Page 15)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Room V &amp; SSW Exterior</u>													
plowzone	112	71	41		1	2			15			1	
<u>Room W</u>													
combined values (2.04 m <sup>3</sup> )	275	190	85	1		1			24	4			
<u>Room W &amp; West Exterior</u>													
plowzone (2.09 m <sup>3</sup> )	102	75	27						19				
directly over floor (0.1 m <sup>3</sup> )	7	6	1						4				
<i>Subtotals</i> (2.19 m <sup>3</sup> )	<i>109</i>	<i>81</i>	<i>28</i>						<i>23</i>				
<u>Ext. West of Room W</u>													
plowzone (1.93 m <sup>3</sup> )	332	235	97	2 rnd	1		1		62	6			
<u>Room X</u>													
plowzone (1.035 m <sup>3</sup> )	42	30	12	1					5				
bench surface (0.195 m <sup>3</sup> )	46	40	6						1	1			
under bench (0.03 m <sup>3</sup> )													
to floor 2456.75 masl (0.32 m <sup>3</sup> )	69	44	25						42	1			
to floor 2456.4 masl (0.35 m <sup>3</sup> )	101	73	28	1		1	1		9	4			
to tepetate 2456.16 masl (0.25 m <sup>3</sup> )	92	62	30						13	3			
<i>Subtotals</i> (2.18 m <sup>3</sup> )	<i>350</i>	<i>249</i>	<i>101</i>	<i>2</i>		<i>1</i>	<i>1</i>		<i>70</i>	<i>9</i>			
<u>Room Y</u>													
plowzone to directly over floor (0.66 m <sup>3</sup> )	6	4	2						1				
plowzone to 5 cm above floor (1.3438 m <sup>3</sup> )	35	24	11						earsps: 67	9			

OPERATION 6—ARTIFACT SUMMARY (Page 16)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical		oth	black	green	mano	metate	other
						sol	hol						
<u>Room Y</u> (Cont.)													
plowzone, subsurface (0.95 m <sup>3</sup> )	86	53	33		1								
directly over floor (0.0625 m <sup>3</sup> )	5	4	1										
to tepetate (0.08 m <sup>3</sup> )	83	69	14		3			2	2				
<u>Subtotals</u> (3.0963 m <sup>3</sup> )	215	154	61		4			70	12				
<u>Room Y &amp; W Ext</u>													
plowzone, surface to floors (1.1 m <sup>3</sup> )	31	24	7					5	1				
<u>Operation 6</u> Totals (209.6949 m <sup>3</sup> )	37328	26233	10817	148	82	158	35	5077	977	3	3	2 tecolote 5 scrapers 1 pestle 1 bowl	

Table 2.17. OPERATION 6—FINE CERAMICS

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room A</u>																		
plowzone (3.68 m <sup>3</sup> )	272	151	43				2	3	2		3		3	25	48	1	5	
directly over floor (1.4 m <sup>3</sup> )	170	96	23		1		6	1	1				2	24	25		7	
floor zone & subfloor (0.843 m <sup>3</sup> )	106	57	16				3							13	19		8	
circular feature (0.5 m <sup>3</sup> )	3	1	1												1		1	
<i>Subtotals</i> (6.423 m <sup>3</sup> )	<i>551</i>	<i>305</i>	<i>83</i>		<i>1</i>		<i>11</i>	<i>4</i>	<i>3</i>		<i>3</i>		<i>5</i>	<i>62</i>	<i>93</i>	<i>1</i>	<i>21</i>	
<u>Room A &amp; N. Ext</u>																		
surface to wall height (0.8 m <sup>3</sup> )	6	3	1				1							1	1			
surface to tepetate (1.0 m <sup>3</sup> )	82	29	22				4		1					8	18		2	
<u>Exterior N of "A"</u>																		
surface to 10 cm deep (0.2 m <sup>3</sup> )	45	27	8											6	4			
subsurface to tepetate (0.72 m <sup>3</sup> )	27	8	8				1							2	8	1		
<u>Room A &amp; NE, Ext.</u>																		
material over wall	15	9	2											1	1	1	1	
<u>Exterior E of "A"</u>																		
plowzone (1.36 m <sup>3</sup> )	220	131	22		1		3							21	34	5	4	1
to floor at 2457.05 masl. (0.15 m <sup>3</sup> )	33	16	5		1									3	6	3		
to tepetate (0.35 m <sup>3</sup> )	4	1	1												1		1	
<i>Subtotals</i> (4.58 m <sup>3</sup> )	<i>432</i>	<i>224</i>	<i>69</i>		<i>1</i>		<i>9</i>		<i>1</i>				<i>42</i>	<i>73</i>	<i>10</i>	<i>8</i>	<i>1</i>	
<u>Rooms A &amp; B</u>																		
surface to wall height (0.4 m <sup>3</sup> )	24	17	5											2	2			
<u>Rooms A &amp; B &amp; WNW Exterior</u>																		
plowzone (0.8 m <sup>3</sup> )	21	14	3				2							1	2			

OPERATION 6—FINE CERAMICS (Page 2)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<u>Exterior WNW of "A" &amp; "B"</u>																		
plowzone to floor (0.02 m <sup>3</sup> )	9	2	1												3	3		
plowzone to tepetate (1.24 m <sup>3</sup> )	33	10	6		1		4								7	8		
<i>Subtotals</i> (2.06 m <sup>3</sup> )	63	26	10		1		6								11	13		
<u>Room B</u>																		
plowzone from surface (1.34 m <sup>3</sup> )	55	26	8												8	11		2
plowzone, sub-surface over floor (1.295 m <sup>3</sup> )	77	31	16				6	1			1				7	21	1	1
plowzone thru floor (0.675 m <sup>3</sup> )	110	68	12				1							2	7	15	6	6
directly over floor (0.15 m <sup>3</sup> )	24	11	3												3	5		2
floor zone (0.14 m <sup>3</sup> )																		
subfloor (0.15 m <sup>3</sup> )	29	16	7		1		5	3			1				1	4		1
<i>Subtotals</i> (3.75 m <sup>3</sup> )	295	152	46		1		12	4			2			2	26	56	7	12
<u>Rooms B &amp; C &amp; W Exterior</u>																		
plowzone (2.0 m <sup>3</sup> )	22	16	2		1		1									4		
directly over floor (0.2 m <sup>3</sup> )	13	3	4				2								3	2		
floor zone (0.08 m <sup>3</sup> )	12	1													9	2		
<i>Subtotals</i> (2.28 m <sup>3</sup> )	47	20	6		1		3								12	8		
<u>Room C</u>																		
plowzone from surface (2.465 m <sup>3</sup> )	69	31	9		1		2							6	8	14		4
plowzone subsurface (2.0 m <sup>3</sup> )	35	15	7											4	1	6		4



OPERATION 6—FINE CERAMICS (Page 3)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<u>Room C</u> (Cont.)																		
wall height to floor (0.798 m <sup>3</sup> )	26	11	8										1	2	4			
directly over floor (0.595 m <sup>3</sup> )	93	51	15		2		5						3	7	17			
floor near metate	6	3	1											1			1	
doorway to Room D	18	9	1				1							1	6		1	
subfloor to tepetate of wall ledge (0.3 m <sup>3</sup> )	25	7	12				5	1						6				
subfloor to tepetate (1.309 m <sup>3</sup> )	78	29	24		1		5	3			1			7	15		2	1
<i>Subtotals</i> (7.467 m <sup>3</sup> )	350	156	77		4		18	4			1		14	33	62		3	10
<u>Room C &amp; WNW Ext.</u>																		
plowzone (1.2 m <sup>3</sup> )	9	2	5				1		1				1					
<u>WNW Ext., Room C</u>																		
directly over floor (0.28 m <sup>3</sup> )	14	8	2											2	2			
floor zone (0.04 m <sup>3</sup> )	8	4	3				1								1			1
<i>Subtotals</i> (0.32 m <sup>3</sup> )	22	12	5				1							2	3			1
<u>Room D</u>																		
plowzone from surface (4.49 m <sup>3</sup> )	102	54	17				1						8	7	16			3
plowzone, subsurface (0.231 m <sup>3</sup> )	15	10	2						1						3			
directly over floor 1 (0.6825 m <sup>3</sup> )	55	26	6				1						3	6	11		3	2
doorway to Room E	8		2				1						3	1	2			
intrafloor, upper (0.345 m <sup>3</sup> )	39	12	5										3	4	14			1
directly over floor 2 (0.495 m <sup>3</sup> )	36	16	6					1							13			1

OPERATION 6—FINE CERAMICS (Page 4)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<u>Room D</u> (Cont.)																		
below floor 2 to tepetate (0.87 m <sup>3</sup> )	261	143	42	1	1	1	8	2						28	43	1	2	
<i>Subtotals</i> (7.1135 m <sup>3</sup> )	516	261	80	1	1	1	11	3	1				17	46	102	4	9	
<u>Room E</u>																		
plowzone from surface (2.34 m <sup>3</sup> )	24	12	2				1							2	8			
plowzone subsurface (0.964 m <sup>3</sup> )	67	32	7										21	2	4	1		
directly over floor 1 (0.2065 m <sup>3</sup> )	19	12	4				1			1				2		1	2	
to floor at 2456.95-.97 masl (0.11 m <sup>3</sup> )	5	2													3			
to floor at 2456.94 masl (0.06 m <sup>3</sup> )	5	5																
to floor at 2456.85 masl (0.12 m <sup>3</sup> )	3	2													1			
to floor at 2456.83 masl (0.02 m <sup>3</sup> )																		
to floor at 2456.60 masl (0.25 m <sup>3</sup> )	19	9	3				1	1						1	4	1	1	
subfloor to tepetate (0.83 m <sup>3</sup> )	95	33	23		1		6	1						9	23	1	3	1
<i>Subtotals</i> (4.9005 m <sup>3</sup> )	237	107	39		1		9	2			1		21	16	43	4	6	1
<u>Rooms F &amp; G</u>																		
plowzone, surface to wall height (0.36 m <sup>3</sup> )	11	5	3				1		1						3			
to tepetate (0.6 m <sup>3</sup> )	37	18	9				1							4	5		3	
<i>Subtotals</i> (0.96 m <sup>3</sup> )	48	23	12				2		1					4	8		3	
<u>Room H</u>																		
plowzone (0.11 m <sup>3</sup> )	5	3	1				1									1		
<u>Rooms G &amp; H &amp; I</u>																		
plowzone (1.2 m <sup>3</sup> )	31	8	16				1							2	5		1	

OPERATION 6—FINE CERAMICS (Page 5)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J							
<b>Room I</b>																			
plowzone to rubble (1.247 m <sup>3</sup> )	24	12	2				1								3	7			
above floor at 2457.2 masl (1.1835 m <sup>3</sup> )	6	2	2		1		1									2			
above floor at 2456.75 masl (0.705 m <sup>3</sup> )	38	22	7				2								3	5		3	
above floor at 2456.67 masl (0.075 m <sup>3</sup> )																			
above floor at 2456.63 masl (0.06 m <sup>3</sup> )	4	2	2																
above floor at 2456.60 masl (0.045 m <sup>3</sup> )	17	7	3												6	1			
subfloor to tepetate (0.86 m <sup>3</sup> )	96	54	20				2	1							6	11	3	1	1
<b>Subtotals</b> (4.1755 m <sup>3</sup> )	<b>185</b>	<b>99</b>	<b>36</b>		<b>1</b>		<b>6</b>	<b>1</b>							<b>18</b>	<b>26</b>	<b>3</b>	<b>4</b>	<b>1</b>
<b>Room I &amp; W Ext.</b>																			
plowzone (0.8 m <sup>3</sup> )	9	4	1											1	1	1		1	
<b>Ext. W of Room I</b>																			
plowzone, surface to floor (0.6 m <sup>3</sup> )	2	1														1			
plowzone subsurface (0.9 m <sup>3</sup> )	14	6	3				2								3	2			
drain feature floor (0.15 m <sup>3</sup> )	5	3													2				
<b>Subtotals</b> (1.65 m <sup>3</sup> )	<b>21</b>	<b>10</b>	<b>3</b>				<b>2</b>								<b>5</b>	<b>3</b>			
<b>Room J</b>																			
plowzone, surface to wall top (1.28 m <sup>3</sup> )	5	3	2																
plowzone, surface to 5 cm over floor (5.07 m <sup>3</sup> )	93	32	23				8	2	1		1			11	4	18		7	2
directly over floor at ca. 2457.1 masl (0.49 m <sup>3</sup> )	115	53	19						2		1				24	18		1	

OPERATION 6—FINE CERAMICS (Page 6)

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room J</u> (Cont.)																		
directly over floor at ca. 2457.0 masl (0.1 m <sup>3</sup> )	43	22	5				4						1	4	10		2	
directly over floor at ca. 2456.9 masl (0.2 m <sup>3</sup> )	30	8	10		1		2						1	3	7		4	
subfloor to wallbase (0.9 m <sup>3</sup> )	119	63	17				3		1				1	11	27		3	
plowzone, surface to wallbase (0.55 m <sup>3</sup> )	25	11	2										3	4	4			1
subfloor to tepetate (0.56 m <sup>3</sup> )	155	79	25				5	1						12	38		7	
material over NNW wall	8	4	4					1										
<u>Subtotals</u> (9.15 m <sup>3</sup> )	593	275	107		1		22	4	4			2	17	62	122		24	3
<u>NNE Ext. of Room J</u>																		
plowzone (0.96 m <sup>3</sup> )	14	3	4											3	4			
directly over floor at 2457.03 masl (0.16 m <sup>3</sup> )	19	19																
<u>Subtotals</u> (1.12 m <sup>3</sup> )	33	22	4											3	4			
<u>Rooms J &amp; K</u>																		
plowzone (1.08 m <sup>3</sup> )	12	3	1										1	2	4			
plowzone to floor ca. 2457.0 masl (0.5625 m <sup>3</sup> )	43	30	5				1							3	4		1	
directly over floor at 2456.91 masl (0.12 m <sup>3</sup> )	15	9	4											1	1			
directly over floor at 2456.83 masl (0.08 m <sup>3</sup> )	7	2	1											2	2			
wall	29	9	6				3						2	5	5	1	1	
<u>Subtotals</u> (1.8425 m <sup>3</sup> )	106	53	17				4						3	13	16	1	2	

OPERATION 6—FINE CERAMICS (Page 7)

CONTEXT	Black on Orange											glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H							J
<u>Ext. NNE of Room K</u>																		
plowzone (1.614 m <sup>3</sup> )	144	53	50		1		15				1		4	13	21	1	3	
plowzone, surface to tepetate (1.34 m <sup>3</sup> )	126	59	34				4	2	1		1		1	12	20			
plowzone, subsurface to tepetate (0.762 m <sup>3</sup> )	103	50	19		1		4		2					11	22		1	
<i>Subtotals</i> (3.716 m <sup>3</sup> )	373	162	103		2		23	2	3		2		5	36	63	1	4	
<u>Ext. E of Room K</u>																		
plowzone (0.25 m <sup>3</sup> )	51	27	5										3	4	10		2	
<u>Ext. Wall of Room K</u>	21	9	4				1	1	1				2	1	4		1	
<u>Room K—NW Half</u>																		
plowzone from surface (3.18 m <sup>3</sup> )	38	17	8				2						2	3	8			
plowzone, subsurface (0.2 m <sup>3</sup> )	13	5	2					1					1	2	3			
over floor (1.45 m <sup>3</sup> )	45	21	15				1	1						2	5		5	
<i>Subtotals</i> (4.83 m <sup>3</sup> )	96	43	25				3	2					3	7	16		5	
<u>Room K—Center</u>																		
plowzone, to floor (0.96 m <sup>3</sup> )	50	11	13						1					5	20	1		
<u>Room K—SE Half</u>																		
plowzone from surface (10.0575 m <sup>3</sup> )	562	255	114		4		26	5	2		8		11	48	126	3	28	
above floor (2.552 m <sup>3</sup> )	91	38	24		1		4		1		1			7	17	4	4	
subfloor to tepetate (0.6 m <sup>3</sup> )	32	16	6				2						2		5	3	1	
<i>Subtotals</i> (13.2095 m <sup>3</sup> )	685	309	144		5		32	5	3		9		13	55	148	10	33	
<u>Room K Subtotals</u> (18.9995 m <sup>3</sup> )	831	363	182		5		35	7	4		9		16	67	184	11	38	

OPERATION 6—FINE CERAMICS (Page 8)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J							
<u>Room L</u>																			
plowzone, surface to floor at 2456.80-.89 masl (0.24 m <sup>3</sup> )	4	4																	
plowzone, surface to 5.0 cm over floor (12.6257 m <sup>3</sup> )	537	221	98	1	1		18	3	2		2		37	65	94	10	24		
directly over floor at 2456.80-.89 masl (2.655 m <sup>3</sup> )	191	74	36		3		5	1			1		2	26	46	5	5		
intrafloor to floor at 2456.65 masl (0.22 m <sup>3</sup> )	16	13	2					1								1			
intrafloor to floor at 2456.40 masl (3.635 m <sup>3</sup> )	214	64	59		8		10				1			22	57	5	16		
subfloor to tepetate (1.38 m <sup>3</sup> )	104	52	13		1		3							7	5	2	3		
<u>burial feature</u>																			
subfloor to top of burial (0.38 m <sup>3</sup> )	34	13	7											7	5	2			
burial (0.1 m <sup>3</sup> )	12	6	2	1										2	2				
burial floor (0.48 m <sup>3</sup> )	71	37	9		2		1							4	13	6	2		
<u>soil sample from hole in 2456.80-.89 masl floor</u>	5	4												1					
<u>contents of tlequill</u>	1														1				
<u>Subtotals</u> (21.7175 m <sup>3</sup> )	1189	488	226	2	15		37	4	2		4		39	134	244	34	50		
<u>Rooms E &amp; L—Wall</u>	1	1																	
<u>Rooms J &amp; L—Wall</u>	3	1	1												1				
<u>Rooms L &amp; M—Wall</u>	4	2													2				
<u>Room M</u>																			
plowzone, surface to 5.0 cm over upper floor (1.225 m <sup>3</sup> )	41	16	7				5	1					6	4	4	4	1		
plowzone, surface to upper floor (2.6 m <sup>3</sup> )	27	3	3				1						5	4	12				

OPERATION 6—FINE CERAMICS (Page 9)

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room M</u> (Cont.)																		
directly over upper floor (0.39 m <sup>3</sup> )	18	4	1										9	1	2		1	1
plowzone, surface to middle floor (2.16 m <sup>3</sup> )	45	16	7				2							3	12	3	5	
platform fill to 5.0 cm over lower floor (0.324 m <sup>3</sup> )	54	24	19				1						3	2	3	3	1	
platform fill to lower floor (0.95 m <sup>3</sup> )	23	9	7												3	3		
directly over lower floor (0.09 m <sup>3</sup> )	2	1													1		1	
subfloor to tepetate (1.78 m <sup>3</sup> )	33	6	15		1		2							5	6		2	
<i>Subtotals</i> (10.744 m <sup>3</sup> )	243	79	59		1		11	1					23	19	43	13	11	1
<u>Rooms M &amp; N</u>																		
plowzone (1.4 m <sup>3</sup> )	8	4													4			
<u>Room N</u>																		
plowzone from surface (2.2 m <sup>3</sup> )	70	23	9				2						12	11	15		2	
plowzone subsurface (3.298 m <sup>3</sup> )	90	31	11				2						27	9	13		1	
plowzone, surface to 5.0 cm over floor (2.2 m <sup>3</sup> )	75	35	7				4						5	7	17			
plowzone, surface to floor (0.31 m <sup>3</sup> )	34	22	4											4	2			2
directly over floor (1.952 m <sup>3</sup> )	54	22	10				3							7	13	2		
subfloor to base of step (0.5625 m <sup>3</sup> )	12	5	2												4			1
subfloor to tepetate (1.7775 m <sup>3</sup> )	92	44	29				5							5	5	2	7	3
<i>Subtotals</i> (12.3 m <sup>3</sup> )	427	182	72				16						47	42	72	4	10	6

OPERATION 6—FINE CERAMICS (Page 10)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<b>Room O</b>																		
plowzone, surface to 5.0 cm over floor (2.275 m <sup>3</sup> )	70	30	10				1							10	7	12		2
directly over floor (0.235 m <sup>3</sup> )	4	3	1															
subfloor to tepetate (0.24 m <sup>3</sup> )	30	15	9				1								3	1		1
<i>Subtotals</i> (2.75 m <sup>3</sup> )	104	48	20				2							10	10	13		3
<b>Rooms O &amp; R—Wall</b>	9	8												1				
<b>Room P</b>																		
plowzone, surface to platform (0.0625 m <sup>3</sup> )	10	3	4				1									3		
subplatform to tepetate (0.73 m <sup>3</sup> )	13	4	5				2								1	3		
<i>Subtotals</i> (0.7925 m <sup>3</sup> )	23	7	9				3								1	6		
<b>Room P &amp; Q</b>																		
plowzone surface to wall height (0.4 m <sup>3</sup> )	101	50	24				2	2							10	16	1	3
material over PQ wall	8	2	4				1								1	1		
<i>Subtotals</i> (0.4 m <sup>3</sup> )	109	52	28				3	2							11	17	1	
<b>Room Q</b>																		
plowzone, surface to under floor (1.705 m <sup>3</sup> )	82	37	12		1		2							1	6	24	1	3
subsurface plowzone (0.21 m <sup>3</sup> )	27	9	7				1								3	8		2
plowzone, sub-surface to floor at 2456.18 masl (0.495 m <sup>3</sup> )	35	17	8				3			1				1	1	8		1
subfloor to smoothed tepetate (0.65 m <sup>3</sup> )	40	11	7				2								5	13	1	10
subfloor to tepetate (0.02 m <sup>3</sup> )	4	2	16															
<i>Subtotals</i> (3.08 m <sup>3</sup> )	188	76	36		1		8			1				2	15	53	2	4



OPERATION 6—FINE CERAMICS (Page 11)

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room Q &amp; Ext.</u>																		
plowzone (1.2 m <sup>3</sup> )	105	40	19				5	1					8	8	24	5	3	
<u>Ext. Adiac. to Room Q</u>																		
plowzone (1.56 m <sup>3</sup> )	82	43	12				3							14	10	2	1	1
floor near drain (0.35 m <sup>3</sup> )	2	1														1		
<u>Subtotals (1.595 m<sup>3</sup>)</u>	<u>84</u>	<u>44</u>	<u>12</u>				<u>3</u>							<u>14</u>	<u>10</u>	<u>3</u>	<u>1</u>	<u>1</u>
<u>Room R—north end</u>																		
plowzone, surface to 5.0 cm over floor (0.345)	46	24	5		1			2	1					9	8			
directly over floor (0.115 m <sup>3</sup> )	19	11	4								1			2	2			
subfloor to tepetate (0.89 m <sup>3</sup> )	48	20	7					1						5	12		13	
<u>Room R—midroom</u>																		
intrafloors (0.432 m <sup>3</sup> )	24	8	8				2							1	7			
<u>Room R—south end</u>																		
plowzone (1.02 m <sup>3</sup> )	53	18	12				2							11	9	1	4	1
over floor at 2455.9 masl (0.91 m <sup>3</sup> )	56	19	8				2							11	12	2	5	
to lower floor (2455.36 masl) & tepetate (0.73 m <sup>3</sup> )	86	49	9				5	1						5	14	8	2	
to tepetate (1.6 m <sup>3</sup> )	22	8	5		1									3	6			
<u>Subtotals (6.042 m<sup>3</sup>)</u>	<u>354</u>	<u>157</u>	<u>58</u>		<u>2</u>		<u>11</u>	<u>4</u>	<u>1</u>		<u>1</u>			<u>47</u>	<u>70</u>	<u>11</u>	<u>24</u>	<u>1</u>
<u>Rooms Q &amp; R—Wall</u>	6	2												1	3			
<u>Room R &amp; SSE Ext. (0.95 m<sup>3</sup>)</u>	27	11	2				1				1		2		8	3		
<u>SSE Ext. Adiac. to Room R (3.16 m<sup>3</sup>)</u>	137	69	25				1	1					6	13	22		1	

OPERATION 6—FINE CERAMICS (Page 12)

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<b>Rooms R &amp; S</b>																		
plowzone to floor (0.96 m <sup>3</sup> )	25	14	4				1	1					3	4			2	
directly over floor (0.2 m <sup>3</sup> )	23	10	7		1		1	2					2	4			2	
<i>Subtotals</i> (1.16 m <sup>3</sup> )	48	24	11		1		2	3					5	8			4	
<b>Rooms R &amp; S—Wall</b>	12	5	3										2	2			2	
<b>Room S</b>																		
plowzone to 2456.4 masl (1.12 m <sup>3</sup> )	45	10	6				3						1	12	16		1	
to floor at 2456.3 masl (0.62 m <sup>3</sup> )	41	21	7				2			1			2	9	1	5	3	
directly over adobes (0.48 m <sup>3</sup> )	12	4											2	1				
adobes & below	3	1	1														1	
plowzone to 2455.8 masl (1.066 m <sup>3</sup> )	47	14	11				2						5	15	2		2	
plowzone to floor at 2455.9 masl (2.4 m <sup>3</sup> )	119	47	36		2		8	1	1				12	20	3		7	
subfloor to tepetate (0.9536 m <sup>3</sup> )	127	28	39		2		13						12	44	4		2	
<i>Subtotals</i> (6.6396 m <sup>3</sup> )	394	125	100		4		28	1	1	1			1	45	105	15	16	
<b>SSE Ext. Adiac. to Room S</b> (0.88 m <sup>3</sup> )	50	18	6				2						17	5	3			
<b>Room T</b>																		
subsurface plowzone to floor at 2455.75 masl (1.316 m <sup>3</sup> )	326	145	52				14	2					1	49	54	13	27	
stove interior (0.04 m <sup>3</sup> )	47	22	8		2		2						2	9	5		1	
to wall bases (0.34 m <sup>3</sup> )																	2	
to tepetate (0.3125 m <sup>3</sup> )	49	21	13				2						6	7				2
<i>Subtotals</i> (2.0085 m <sup>3</sup> )	422	188	73		2		18	2					1	57	70	18	30	2

OPERATION 6—FINE CERAMICS (Page 13)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J							
<u>Rooms S &amp; T &amp; U</u>																			
plowzone (0.8 m <sup>3</sup> )	39	18	6		1		1							6	8		4		
<u>Rooms T &amp; U</u>																			
plowzone (0.275 m <sup>3</sup> )	48	22	7				3							6	11	1	4		
<u>Rooms T &amp; U &amp; V</u>																			
plowzone (1.48 m <sup>3</sup> )	141	65	13				3							12	21	29	1		
<u>Room U</u>																			
plowzone to 5.0 cm over floor at 2456.15 masl (0.875 m <sup>3</sup> )	42	22	10				1							1	7	2	3		
directly over floor at at 2456.15 masl (0.175 m <sup>3</sup> )	6	2	2											1	1				
directly under floor (0.072 m <sup>3</sup> )	9	3	2				2								4				
directly over floor at 2455.87 masl (0.26 m <sup>3</sup> )	40	27	6		1									1	4		2		
<u>Subtotals</u> (1.382 m <sup>3</sup> )	97	54	20		1		3							3	16	2	5		
<u>Rooms U &amp; S—Wall</u>	9	5	1												1	1	1	1	
<u>Rooms U &amp; V</u>																			
plowzone to 5.0 cm over floor (2.16 m <sup>3</sup> )	62	20	9											16	6	10		1	
directly over floor at 2456.16 masl (0.2 m <sup>3</sup> )	11	4	3												2	2			
<u>Subtotals</u> (2.36 m <sup>3</sup> )	73	24	12											16	8	12		1	
<u>Rooms T &amp; V</u>																			
plowzone (0.8 m <sup>3</sup> )	129	56	13				7							4	23	29	3	1	1

OPERATION 6—FINE CERAMICS (Page 14)

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room V</u>																		
plowzone from surface (10.1425 m <sup>3</sup> )	166	65	28				4		1		1		34	11	21	6	1	
plowzone to floor at 2456.4 masl (3.205 m <sup>3</sup> )	49	20	9				2						6	4	8		2	
directly over floor at 2456.4 masl (2.55 m <sup>3</sup> )	23	11	6				1						1	3	1	1		
plowzone, surface to floor at 2456.1 masl (4.355 m <sup>3</sup> )	103	61	10		1		2						8	10	14			
plowzone, sub-surface to floor at 2456.1 masl (2.2 m <sup>3</sup> )	34	18	6		1		2						1	4	4			
directly over floor at 2456.1 masl (0.715 m <sup>3</sup> )	136	58	15				1						1	17	39	4	1	
directly under floor at 2456.1 masl (0.66 m <sup>3</sup> )	58	18	22		2		2							5	13		1	
to floor at 2455.93 masl (0.295)	19	8	2												8	1		
subfloor to tepetate (1.817 m <sup>3</sup> )	121	49	39				3		1				1	9	21	2	1	
<u>Building Entry</u>																		
plowzone from surface (2.2 m <sup>3</sup> )	246	123	35				9		1				2	24	55	4	2	
plowzone, sub-surface (0.39 m <sup>3</sup> )	51	10	12				4							7	20		3	
to floors (0.6 m <sup>3</sup> )	7	5	1												1			
directly over floor at 2455.64 masl. (0.35 m <sup>3</sup> )	42	27	3				2							2	9			
plowzone from surface S of wall (0.18 m <sup>3</sup> )	7	4	2												1			
<u>Subtotals</u> (29.6595 m <sup>3</sup> )	1062	477	190		4		32		3		1		54	96	215	18	11	

OPERATION 6—FINE CERAMICS (Page 15)

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room V &amp; SSW Exterior</u>																		
plowzone	41	21	7				3		1		1			3	8	1		1
<u>Room W</u>																		
combined values (2.04 m <sup>3</sup> )	85	35	24		2		1		1					7	17		2	
<u>Room W &amp; West Exterior</u>																		
plowzone (2.09 m <sup>3</sup> )	27	8	7				1							2	9			
directly over floor (0.1 m <sup>3</sup> )	1	1																
<i>Subtotals</i> (2.19 m <sup>3</sup> )	28	9	7				1							2	9			
<u>Ext. West of Room W</u>																		
plowzone (1.93 m <sup>3</sup> )	97	56	14				3	1					1	8	13		2	
<u>Room X</u>																		
plowzone (1.035 m <sup>3</sup> )	12	3	4											1	4			
bench surface (0.195 m <sup>3</sup> )	6	3	1											1	1			
under bench (0.03 m <sup>3</sup> )																		
to floor 2456.75 masl (0.32 m <sup>3</sup> )	25	13	1										1	1	6		3	
to floor 2456.4 masl (0.35 m <sup>3</sup> )	28	12	7				1							8		1		
to tepetate 2456.16 masl (0.25 m <sup>3</sup> )	30	12	7		1		2	1					1		10			
<i>Subtotals</i> (2.18 m <sup>3</sup> )	101	43	20		1		3	1					2	11	21	1	3	
<u>Room Y</u>																		
plowzone to directly over floor (0.66 m <sup>3</sup> )	2												1		1			
plowzone to 5 cm above floor (1.3438 m <sup>3</sup> )	11	3											4	1	3			

OPERATION 6—FINE CERAMICS (Page 16)

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room Y</u> (Cont.)																		
plowzone, subsurface (0.95 m <sup>3</sup> )	33	18	5						1					2	8			
directly over floor (0.0625 m <sup>3</sup> )	1												1					
to tepetate (0.08 m <sup>3</sup> )	14	6	3				2								4			
<u>Subtotals</u> (3.0963 m <sup>3</sup> )	61	27	8				2		1				6	3	16			
<u>Room Y &amp; W Ext</u>																		
plowzone, surface to floors (1.1 m <sup>3</sup> )	7	4												1	2			
<u>Operation 6</u> Totals (209.6949 m <sup>3</sup> )	11069	4887	2018	3	54	1	391	53	29		30		354	1109	2088	183	355	2

Table 2.18. OPERATION 6—UTILITY CERAMICS

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room A</u>															
plowzone (3.68 m <sup>3</sup> )	619	24	8	8		4	575	4	9		5		1		
directly over floor (1.4 m <sup>3</sup> )	452	22		16	3	10	404	4	20	4	8	4			
floor zone & subfloor (0.843 m <sup>3</sup> )	355	25	4	10	1	8	308	1	3	2	7	3		1	
circular feature (0.5 m <sup>3</sup> )	17						17		7					1	
<u>Subtotals</u> (6.423 m <sup>3</sup> )	1443	71	12	34	4	22	1304	9	39	6	20	7	1	2	
<u>Room A &amp; N. Ext</u>															
surface to wall height (0.8 m <sup>3</sup> )	15	1	1	1		1	11		1						
surface to tepetate (1.0 m <sup>3</sup> )	304	16		17			271		15		3	1			
<u>Exterior N of "A"</u>															
surface to 10 cm deep (0.2 m <sup>3</sup> )	119	5		2	1		111		2		3		1		
subsurface to tepetate (0.72 m <sup>3</sup> )	149	12		6		1	130		5		2				
<u>Room A &amp; NE. Ext.</u>															
material over wall	31	2			1		29	1	2						
<u>Exterior E of "A"</u>															
plowzone (1.36 m <sup>3</sup> )	330	27		11	2	4	286	9	8	2	6	1	1	1	
to floor at 2457.05 masl. (0.15 m <sup>3</sup> )	50	1		4	1		44	4	3		1				1
to tepetate (0.35 m <sup>3</sup> )	19	1		5			13								
<u>Subtotals</u> (4.58 m <sup>3</sup> )	1017	65	1	46	5	6	895	14	36	2	15	2	2	1	1
<u>Rooms A &amp; B</u>															
surface to wall height (0.4 m <sup>3</sup> )	74	3	1		2		68				1				
<u>Rooms A &amp; B &amp; WNW Exterior</u>															
plowzone (0.8 m <sup>3</sup> )	41	3		1			37		1			1		1	

OPERATION 6—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Exterior WNW of "A" &amp; "B"</u>															
plowzone to floor (0.02 m <sup>3</sup> )	26	1		4	1		20				2				
plowzone to tepetate (1.24 m <sup>3</sup> )	31	2	2	1			26				1	1			
<i>Subtotals</i> (2.06 m <sup>3</sup> )	98	6	2	6	1		83		1		3	2			
<u>Room B</u>															
plowzone from surface (1.34 m <sup>3</sup> )	148	10	1	7		1	129				2	2			
plowzone, sub-surface over floor (1.295 m <sup>3</sup> )	237	14	1	6			216	15	20	2	5	1			
plowzone thru floor (0.675 m <sup>3</sup> )	165	11	2	3		7	142	2	4		4				1
directly over floor (0.15 m <sup>3</sup> )	44	8				1	35	5	1						
floor zone (0.14 m <sup>3</sup> )	7	1					6								
subfloor (0.15 m <sup>3</sup> )	52	6		2			44	4	1		2				1
<i>Subtotals</i> (3.75 m <sup>3</sup> )	653	50	4	18		9	572	26	26	2	13	3			2
<u>Rooms B &amp; C &amp; W Exterior</u>															
plowzone (2.0 m <sup>3</sup> )	61	6	6	3	1	1	44		2	2	2				
directly over floor (0.2 m <sup>3</sup> )	27	1		1			25	2			2				
floor zone (0.08 m <sup>3</sup> )	25	3					22	1	3						
<i>Subtotals</i> (2.28 m <sup>3</sup> )	113	10	6	4	1	1	91	3	5	2	4				
<u>Room C</u>															
plowzone from surface (2.456 m <sup>3</sup> )	265	18	4	4	2	1	236		3		4				
plowzone subsurface (2.0 m <sup>3</sup> )	76	9	4	4		59	2	6		1			1	1	



OPERATION 6—UTILITY CERAMICS (Page 3)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room C</b>															
<i>(Cont.)</i>															
wall height to floor (0.798 m <sup>3</sup> )	62	7	1	1		1	52	4	2						
directly over floor (0.595 m <sup>3</sup> )	131	18		7	1	3	102		8		1			1	
floor near metate	11	4					7	1							
doorway to Room D	82		1	2		1	78		8						
subfloor to tepetate of wall ledge (0.3 m <sup>3</sup> )	70	6				1	63		18						
subfloor to tepetate (1.309 m <sup>3</sup> )	258	18	8	5	1	4	222				3	2			1
<i>Subtotals</i> (7.467 m <sup>3</sup> )	<i>955</i>	<i>80</i>	<i>18</i>	<i>23</i>	<i>4</i>	<i>11</i>	<i>819</i>	<i>7</i>	<i>45</i>		<i>9</i>	<i>2</i>	<i>1</i>	<i>2</i>	<i>1</i>
<b>Room C &amp; WNW Ext.</b>															
plowzone (1.2 m <sup>3</sup> )	24		2		3		19								
<b>WNW Ext., Room C</b>															
directly over floor (0.28 m <sup>3</sup> )	23	5					18	1	5						
floor zone (0.04 m <sup>3</sup> )	42	2					40	4	3				1		
<i>Subtotals</i> (0.32 m <sup>3</sup> )	<i>65</i>	<i>7</i>					<i>58</i>	<i>5</i>	<i>8</i>				<i>1</i>		
<b>Room D</b>															
plowzone from surface (4.49 m <sup>3</sup> )	258	14		9		1	234		23		4				
plowzone, subsurface (0.231 m <sup>3</sup> )	18	1		2			15		1						1
directly over floor 1 (0.6825 m <sup>3</sup> )	124	9	1	3		3	108	1	4		2		1	2	
doorway to Room E	19	1		3			15		1		1				
intrafloor, upper (0.345 m <sup>3</sup> )	174	5	1	3			165	6	53	15	2				
directly over floor 2 (0.495 m <sup>3</sup> )	87	1	1	1			84	5	15						

OPERATION 6—UTILITY CERAMICS (Page 4)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room D (Cont.)</b>															
below floor 2 to tepetate (0.87 m <sup>3</sup> )	373	22		14	3	3	331	12	48	12	4	3			2
<i>Subtotals</i> (7.1135 m <sup>3</sup> )	1053	53	3	35	3	7	952	24	145	27	13	3	1	2	3
<b>Room E</b>															
plowzone from surface (2.34 m <sup>3</sup> )	103	7				1	95	4	18		2				
plowzone subsurface (0.964 m <sup>3</sup> )	138	4	1	5		4	124	1							
directly over floor 1 (0.2065 m <sup>3</sup> )	27	1					26		3		1				
to floor at 2456.95-.97 masl (0.11 m <sup>3</sup> )	9						9								
to floor at 2456.94 masl (0.06 m <sup>3</sup> )															
to floor at 2456.85 masl (0.12 m <sup>3</sup> )	12	1					11								
to floor at 2456.83 masl (0.02 m <sup>3</sup> )															
to floor at 2456.60 masl (0.25 m <sup>3</sup> )	29	6					23	1	6						
subfloor to tepetate (0.83 m <sup>3</sup> )	172	14		3	1		154	2	9						
<i>Subtotals</i> (4.9005 m <sup>3</sup> )	490	33	1	8	1	5	442	8	36		3				
<b>Rooms F &amp; G</b>															
plowzone, surface to wall height (0.36 m <sup>3</sup> )	11	1			1		9								
to tepetate (0.6 m <sup>3</sup> )	86	1	2	1	2		81	2	7	2					
<i>Subtotals</i> (0.96 m <sup>3</sup> )	97	2	2	1	3		90	2	7	2					
<b>Room H</b>															
plowzone (0.11 m <sup>3</sup> )	13			1			12		1						
<b>Rooms G &amp; H &amp; I</b>															
plowzone (1.2 m <sup>3</sup> )	85		4			1	80	5	12						

OPERATION 6—UTILITY CERAMICS (Page 5)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room I</u>															
plowzone to rubble (1.247 m <sup>3</sup> )	37	1				1	35		3		1				
above floor at 2457.2 masl (1.1835 m <sup>3</sup> )	39	1		1		1	36		3		1				
above floor at 2456.75 masl (0.705 m <sup>3</sup> )	75	2	1	1		1	70	4	5						1
above floor at 2456.67 masl (0.075 m <sup>3</sup> )															
above floor at 2456.63 masl (0.06 m <sup>3</sup> )	10						10								
above floor at 2456.60 masl (0.045 m <sup>3</sup> )	35			2			33	2							
subfloor to tepetate (0.86 m <sup>3</sup> )	171	17	5	7	2	4	138	7	4	1	1	1			
<i>Subtotals</i> (4.1755 m <sup>3</sup> )	367	21	6	11	2	7	322	13	15	1	3	1			1
<u>Room I &amp; W Ext.</u>															
plowzone (0.8 m <sup>3</sup> )	21			1			20	3							
<u>Ext. W of Room I</u>															
plowzone, surface to floor (0.6 m <sup>3</sup> )	12	1					11	1	1		1				
plowzone subsurface (0.9 m <sup>3</sup> )	38	3		1			35								
drain feature floor (0.15 m <sup>3</sup> )	12						12	1	1		1				
<i>Subtotals</i> (1.65 m <sup>3</sup> )	62	4		1			58	2	2		2				
<u>Room J</u>															
plowzone, surface to wall top (1.28 m <sup>3</sup> )	7			1			6								
plowzone, surface to 5 cm over floor (5.07 m <sup>3</sup> )	361	16	7	6	3		331	4	24		3	2		1	
directly over floor at ca. 2457.1 masl (0.49 m <sup>3</sup> )	559	15	16	17	2	10	499	10	38	1	2	2			

OPERATION 6—UTILITY CERAMICS (Page 6)

CONTEXT	Vessel type							Use			Handles		Spindle whorls		worked sherds
	total utility	comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room J</u> (Cont.)															
directly over floor at ca. 2457.0 masl (0.1 m <sup>3</sup> )	109		1	7	1		100	4	17		1				
directly over floor at ca. 2456.9 masl (0.2 m <sup>3</sup> )	238	15	3	2		2	216		31		3				
subfloor to wallbase (0.9 m <sup>3</sup> )	370	22		8		3	337	4	28		4		2		
plowzone, surface to wallbase (0.55 m <sup>3</sup> )	182	9		13	1	2	158		10		4	9			
subfloor to tepetate (0.56 m <sup>3</sup> )	326	29	2	16	2		279	4	27		1		1		
material over NNW wall	23	3		1			19		4						
<u>Subtotals</u> (9.15 m <sup>3</sup> )	2175	109	29	71	9	17	1945	26	179	1	18	13	4	1	
<u>NNE Ext. of Room J</u>															
plowzone (0.96 m <sup>3</sup> )	33	1					32		1		2				
directly over floor at 2457.03 masl (0.16 m <sup>3</sup> )	26	1	1				24								
<u>Subtotals</u> (1.12 m <sup>3</sup> )	59	2	1				56		1		2				
<u>Rooms J &amp; K</u>															
plowzone (1.08 m <sup>3</sup> )	27	1		1			25	3	1		1				
plowzone to floor ca. 2457.0 masl (0.5625 m <sup>3</sup> )	73	3		7	1		62		7		1	1			
directly over floor at 2456.91 masl (0.12 m <sup>3</sup> )	65	1	3	2			59		6		1		1		
directly over floor at 2456.83 masl (0.08 m <sup>3</sup> )	18						18		2						
wall	36	1	2	2			31	2		1					
<u>Subtotals</u> (1.8425 m <sup>3</sup> )	219	6	5	12	1		195	5	16	1	3	1	1		

OPERATION 6—UTILITY CERAMICS (Page 7)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Ext. NNE of Room K</u>															
plowzone (1.614 m <sup>3</sup> )	426	21	3	10	4		391	1	25	2	3	2	1		1
plowzone, surface to tepetate (1.34 m <sup>3</sup> )	311	7	1	8		8	287	4	20	2	3	1			1
plowzone, subsurface to tepetate (0.762 m <sup>3</sup> )	267	9		16		4	238	1	28	1	2			1	
<u>Subtotals (3.716 m<sup>3</sup>)</u>	<u>1004</u>	<u>37</u>	<u>4</u>	<u>34</u>	<u>5</u>	<u>12</u>	<u>916</u>	<u>6</u>	<u>73</u>	<u>5</u>	<u>8</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>2</u>
<u>Ext. E of Room K</u>															
plowzone (0.25 m <sup>3</sup> )	139	4	2	9			124	1	3	3					
<u>Ext. Wall of Room K</u>	39	1					38		4		1	1			
<u>Room K—NW Half</u>															
plowzone from surface (3.18 m <sup>3</sup> )	87	5	2	3	1	1	75	1	19		4	1		1	
plowzone, subsurface (0.2 m <sup>3</sup> )	57	1	1	4			51			1	1				1
over floor (1.45 m <sup>3</sup> )	214	11	10	9		3	191	4	41		8				
<u>Subtotals (4.83 m<sup>3</sup>)</u>	<u>358</u>	<u>17</u>	<u>13</u>	<u>16</u>	<u>1</u>	<u>4</u>	<u>307</u>	<u>5</u>	<u>60</u>	<u>1</u>	<u>13</u>	<u>1</u>		<u>1</u>	<u>1</u>
<u>Room K—Center</u>															
plowzone, to floor (0.96 m <sup>3</sup> )	154	11		4		5	134	3	20			1			
<u>Room K—SE Half</u>															
plowzone from surface (10.0575 m <sup>3</sup> )	1401	106	14	24	14	8	1235	27	116	19	80	9		1	2
above floor (2.552 m <sup>3</sup> )	239	11	4	11	1	2	210	1	16	1	4	1			
subfloor to tepetate (0.6 m <sup>3</sup> )	75	4		3			68	6	2	1	2				
<u>Subtotals (13.2095 m<sup>3</sup>)</u>	<u>1715</u>	<u>121</u>	<u>18</u>	<u>38</u>	<u>15</u>	<u>10</u>	<u>1513</u>	<u>34</u>	<u>134</u>	<u>21</u>	<u>86</u>	<u>10</u>		<u>1</u>	<u>2</u>
<u>Room K Subtotals (18.9995 m<sup>3</sup>)</u>	<u>2227</u>	<u>149</u>	<u>31</u>	<u>58</u>	<u>16</u>	<u>19</u>	<u>1954</u>	<u>42</u>	<u>214</u>	<u>22</u>	<u>99</u>	<u>12</u>		<u>2</u>	<u>3</u>

OPERATION 6—UTILITY CERAMICS (Page 8)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room L</b>															
plowzone, surface to floor at 2456.80-.89 masl (0.24 m <sup>3</sup> )	4						4							1	
plowzone, surface to 5.0 cm over floor (12.6257 m <sup>3</sup> )	1813	118	19	79	19	10	1568	23	184	9	28	8	2	2	1
directly over floor at 2456.80-.89 masl (2.655 m <sup>3</sup> )	569	24	2	17	2	7	517	23	127		8	1	1	1	1
intrafloor to floor at 2456.65 masl (0.22 m <sup>3</sup> )	20						20		2						
intrafloor to floor at 2456.4 masl (3.635 m <sup>3</sup> )	454	19	1	17	3	10	404	23	58	1	6	1	1		1
subfloor to tepetate (1.38 m <sup>3</sup> )	154	15	2	5	3		129	2	16		7	2			
<b>burial feature</b>															
subfloor to top of burial (0.38 m <sup>3</sup> )	74	7	4	2	1	2	58	1	7						
burial (0.1 m <sup>3</sup> )	13	1					12	2	1						
burial floor (0.48 m <sup>3</sup> )	77	13	1	3		1	59	2	1		1				
soil sample from hole in 2456.80-.89 masl floor	11						11		2						1
contents of tlequilt	3						3								
<b>Subtotals</b> (21.7175 m <sup>3</sup> )	<b>3192</b>	<b>197</b>	<b>29</b>	<b>123</b>	<b>28</b>	<b>30</b>	<b>2785</b>	<b>76</b>	<b>398</b>	<b>10</b>	<b>50</b>	<b>12</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>Rooms E &amp; L—Wall</b>	3						3								
<b>Rooms J &amp; L—Wall</b>	3						3								
<b>Rooms L &amp; M—Wall</b>	1			1											
<b>Room M</b>															
plowzone, surface to 5.0 cm over upper floor (1.225 m <sup>3</sup> )	102	2	2	4		2	92		2		3			1	
plowzone, surface to upper floor (2.6 m <sup>3</sup> )	41						41	5	9		2				1

OPERATION 6—UTILITY CERAMICS (Page 9)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room M</u> (Cont.)															
directly over upper floor (0.39 m <sup>3</sup> )	29	2	1	1		1	24 (2 glz)	1	3		1				
plowzone, surface to middle floor (2.16 m <sup>3</sup> )	220	15		3		5	197	2	20		1		1		
platform fill to 5.0 cm over lower floor (0.324 m <sup>3</sup> )	17	7	5	3	1	1					2	1		1	1
platform fill to lower floor (0.95 m <sup>3</sup> )	43	4		1			38	2	4	3	3				
directly over lower floor (0.09 m <sup>3</sup> )	13			1			12	1							
subfloor to tepetate (1.78 m <sup>3</sup> )	63	5	2	3			53	5	16		1				
<u>Subtotals</u> (10.744 m <sup>3</sup> )	528	35	10	16	1	9	457 (2 glz)	16	54	3	13	1		3	2
<u>Rooms M &amp; N</u>															
plowzone (1.4 m <sup>3</sup> )	22			2	1										
<u>Room N</u>															
plowzone from surface (2.2 m <sup>3</sup> )	187	16		6			165 (27 glz)	1	6	7	2	1			
plowzone subsurface (3.298 m <sup>3</sup> )	188	13		16	1		158	4	2	3	2		1	1	1
plowzone, surface to 5.0 cm over floor (2.2 m <sup>3</sup> )	109	9	2	8	1	2	87 (5 glz)		1		2		1		
plowzone, surface to floor (0.31 m <sup>3</sup> )	62	3	2			1	56	14	4	3	1				
directly over floor (1.952 m <sup>3</sup> )	90	9	1	2	1	1	76 (1 glz)	4	5						
subfloor to base of step (0.5625 m <sup>3</sup> )	48	2				1	45	1	3						
subfloor to tepetate (1.7775 m <sup>3</sup> )	151	10	1	8	3		129	4	4	3	2				
<u>Subtotals</u> (12.3 m <sup>3</sup> )	835	62	6	40	10	5	716 (33 glz)	28	25	16	9	1	2	1	1

OPERATION 6—UTILITY CERAMICS (Page 10)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room Q</b>															
plowzone, surface to 5.0 cm over floor (2.275 m <sup>3</sup> )	90	3	6	11	3		70	1	22	2	1	1			
directly over floor (0.235 m <sup>3</sup> )	24				1		23								
subfloor to tepetate (0.24 m <sup>3</sup> )	42	3		2	1	1	36				3				
<i>Subtotals</i> (2.75 m <sup>3</sup> )	156	6	6	13	5	1	129	1	22	2	4	1			
<b>Rooms O &amp; R—Wall</b>	11						11								
<b>Room P</b>															
plowzone, surface to platform (0.0625 m <sup>3</sup> )	19						19	3	6		1				
subplatform to tepetate (0.73 m <sup>3</sup> )	45	1		2			42	1	6			1			
<i>Subtotals</i> (0.7925 m <sup>3</sup> )	64	1		2			61	4	12		1	1			
<b>Room P &amp; Q</b>															
plowzone surface to wall height (0.4 m <sup>3</sup> )	191	10		7	1		173	1	37	3	1	1			
material over PQ wall	39	5		1			33	2	5						
<i>Subtotals</i> (0.4 m <sup>3</sup> )	230	15		8	1		206	3	42	3	1	1			
<b>Room Q</b>															
plowzone, surface to under floor (1.705 m <sup>3</sup> )	141	6		1			134	3	26	1	1				
subsurface plowzone (0.21 m <sup>3</sup> )	36	7		1 glz			28	8	18	2	2	1			
plowzone, sub-surface to floor at 2456.18 masl (0.495 m <sup>3</sup> )	63	3		3	1	2	54	4	11						
subfloor to smoothed tepetate (0.65 m <sup>3</sup> )	72	4		2		1	65	3	2		1				
subfloor to tepetate (0.02 m <sup>3</sup> )	3						3								
<i>Subtotals</i> (3.08 m <sup>3</sup> )	315	20		7 1 glz	1	3	284	18	47	3	4	1			



OPERATION 6—UTILITY CERAMICS (Page 11)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room Q &amp; Ext.</u>															
plowzone (1.2 m <sup>3</sup> )	232	15	9	7		2	199	3			4	2			
<u>Ext. Adiac. to Room Q</u>															
plowzone (1.56 m <sup>3</sup> )	233	16		4	2		211	2	7		1			1	
floor near drain (0.35 m <sup>3</sup> )	5						5								
<u>Subtotals (1.595 m<sup>3</sup>)</u>	<u>238</u>	<u>16</u>		<u>4</u>	<u>2</u>		<u>216</u>	<u>2</u>	<u>7</u>		<u>1</u>			<u>1</u>	
<u>Room R—north end</u>															
plowzone, surface to 5.0 cm over floor (0.345)	57	3			1		53		4		1	1			
directly over floor (0.115 m <sup>3</sup> )	40			5			35				1				
subfloor to tepetate (0.89 m <sup>3</sup> )	94	1	1	2	3		87	1			3			1	
<u>Room R—midroom</u>															
intrafloors (0.432 m <sup>3</sup> )	61	5					56		17			1			
<u>Room R—south end</u>															
plowzone (1.02 m <sup>3</sup> )	123	8	1			2	112	3	15	1	2			1	
over floor at 2455.9 masl (0.91 m <sup>3</sup> )	127	10	1	4		2	110	4	8						
to lower floor (2455.36 masl) & tepetate (0.73 m <sup>3</sup> )	106	9	2	3	1		91				1	1			1
to tepetate (1.6 m <sup>3</sup> )	48	3		1		2	42	8	7						
<u>Subtotals (6.042 m<sup>3</sup>)</u>	<u>656</u>	<u>39</u>	<u>5</u>	<u>15</u>	<u>5</u>	<u>6</u>	<u>586</u>	<u>16</u>	<u>51</u>	<u>1</u>	<u>8</u>	<u>3</u>		<u>3</u>	<u>1</u>
<u>Rooms Q &amp; R—Wall</u>	13														
<u>Room R &amp; SSE Ext. (0.95 m<sup>3</sup>)</u>	67	10	2	4 1 glz			51	6	6		1			1	1
<u>SSE Ext. Adiac. to Room R (3.16 m<sup>3</sup>)</u>	218	16		9		3	190	3	44	2	2			1	

OPERATION 6—UTILITY CERAMICS (Page 12)

CONTEXT	Vessel type							Use			Handles		Spindle whorls		worked sherds
	total utility	comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Rooms R &amp; S</b>															
plowzone to floor (0.96 m <sup>3</sup> )	109	7		3		3	96	1	15	1		1			
directly over floor (0.2 m <sup>3</sup> )	58	2		2			54		6		1		1		
<i>Subtotals</i> (1.16 m <sup>3</sup> )	167	9		5		3	150	1	21	1	1	1	1		
<b>Rooms R &amp; S—Wall</b>	50	1				2	47	2	10						
<b>Room S</b>															
plowzone to 2456.4 masl (1.12 m <sup>3</sup> )	76	11					65		16		1				
to floor at 2456.3 masl (0.62 m <sup>3</sup> )	56	2	1	2			51	1	4						
directly over adobes (0.48 m <sup>3</sup> )	55	1		1		1	52	1	2						
adobes & below	6			1			5								
plowzone to 2455.8 masl (1.066 m <sup>3</sup> )	101	5		3			93				1				
plowzone to floor at 2455.9 masl (2.4 m <sup>3</sup> )	210	12	2	4	1	1	190	10	26		1	2			
subfloor to tepetate (0.9536 m <sup>3</sup> )	331	31		9	3	4	284	26	78	3	1	1			
<i>Subtotals</i> (6.6396 m <sup>3</sup> )	835	62	3	20	4	6	740	38	126	3	4	3			
<b>SSE Ext. Adiac. to Room S</b> (0.88 m <sup>3</sup> )	116	7		4			105	3	19		3				
<b>Room T</b>															
subsurface plowzone to floor at 2455.75 masl (1.316 m <sup>3</sup> )	416	23		7	1	8	377	15	60	6	2	1			
stove interior (0.04 m <sup>3</sup> )	345	2	4	12	1	5	321	3	40		3				
to wall bases (0.34 m <sup>3</sup> )															
to tepetate (0.3125 m <sup>3</sup> )	163	1				3	159								
<i>Subtotals</i> (2.0085 m <sup>3</sup> )	924	26	4	19	2	16	857	18	100	6	8	1			

OPERATION 6—UTILITY CERAMICS (Page 13)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Rooms S &amp; T &amp; U</u>															
plowzone (0.8 m <sup>3</sup> )	166	7		5		4	150	1	18						
<u>Rooms T &amp; U</u>															
plowzone (0.275 m <sup>3</sup> )	88	1		7			80							1	
<u>Rooms T &amp; U &amp; V</u>															
plowzone (1.48 m <sup>3</sup> )	276	19		13	1	2	241				2	1	1		1
<u>Room U</u>															
plowzone to 5.0 cm over floor at 2456.15 masl (0.875 m <sup>3</sup> )	65	1		3			61		1	1	1			1	
directly over floor at at 2456.15 masl (0.175 m <sup>3</sup> )	24	1					23		8						
directly under floor (0.072 m <sup>3</sup> )	13		1				12	1			2				
directly over floor at 2455.87 masl (0.26 m <sup>3</sup> )	40	6		1											
<u>Subtotals</u> (1.382 m <sup>3</sup> )	142	8	1	4			96	1	9	1	3			1	
<u>Rooms U &amp; S—Wall</u>	20			1	1	1	17		3			1	1		
<u>Rooms U &amp; V</u>															
plowzone to 5.0 cm over floor (2.16 m <sup>3</sup> )	404	10		7		4	383 (6 glz)	12	9						
directly over floor at 2456.16 masl (0.2 m <sup>3</sup> )	34	2				1	31		2						
<u>Subtotals</u> (2.36 m <sup>3</sup> )	438	12		7		5	414 (6 glz)	12	11						
<u>Rooms T &amp; V</u>															
plowzone (0.8 m <sup>3</sup> )	466		6	8		7					2				

OPERATION 6—UTILITY CERAMICS (Page 14)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room V</u>															
plowzone from surface (10.1425 m <sup>3</sup> )	443	29	7	24	1	3	379	4	33	3	4	1			1
plowzone to floor at 2456.4 masl (3.205 m <sup>3</sup> )	125	3		2	1		119	2	6		2				
directly over floor at 2456.4 masl (2.55 m <sup>3</sup> )	36	1	1 rec pl or				34								
plowzone, surface to floor at 2456.1 masl (4.355 m <sup>3</sup> )	291	12		19			260	5	42		1				
plowzone, sub-surface to floor at 2456.1 masl (2.2 m <sup>3</sup> )	116	3	3	1			109	1	13		4	1			
directly over floor at 2456.1 masl (0.715 m <sup>3</sup> )	213	7	3	5			198		11	2					
directly under floor at 2456.1 masl (0.66 m <sup>3</sup> )	126	6		3		2	115	7	22	5	2			1	
to floor at 2455.93 masl (0.295)	41		2		2		38								
subfloor to tepetate (1.817 m <sup>3</sup> )	226	5	2	10	1		209	2	18	1	4	1			1
<u>Building Entry</u>															
plowzone from surface (2.2 m <sup>3</sup> )	415	29	1	23	1	3	358	5	34		6	1		1	
plowzone, subsurface (0.39 m <sup>3</sup> )	53	11		1		2	39	2	9		1				
to floors (0.6 m <sup>3</sup> )	23	1				1	21		3						
directly over floor at 2455.64 masl. (0.35 m <sup>3</sup> )	141	7	5			1	128	1	16		1	1			
plowzone from surface S of wall (0.18 m <sup>3</sup> )	14			1			13	1							
<u>Subtotals</u> (29.6595 m <sup>3</sup> )	2263	114	24	89	6	12	2020	30	207	11	25	5		2	2

OPERATION 6—UTILITY CERAMICS (Page 15)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room V &amp; SSW Exterior</u>															
plowzone	71	2	1	4	1		67	1							
<u>Room W</u>															
combined values (2.04 m <sup>3</sup> )	190	3	7	7			173	1	21	2	1				
<u>Room W &amp; West Exterior</u>															
plowzone (2.09 m <sup>3</sup> )	75	3		4			68	2	13						
directly over floor (0.1 m <sup>3</sup> )	6	1				1	4								
<i>Subtotals</i> (2.19 m <sup>3</sup> )	<i>81</i>	<i>4</i>		<i>4</i>		<i>1</i>	<i>72</i>	<i>2</i>	<i>13</i>						
<u>Ext. West of Room W</u>															
plowzone (1.93 m <sup>3</sup> )	235	13	2	3	3	2	212	6	11	3	4	1			
<u>Room X</u>															
plowzone (1.035 m <sup>3</sup> )	30						30		2		2				
bench surface (0.195 m <sup>3</sup> )	40						40		13						
under bench (0.03 m <sup>3</sup> )															
to floor 2456.75 masl (0.32 m <sup>3</sup> )	44	4	3				37		6						
to floor 2456.4 masl (0.35 m <sup>3</sup> )	73	7	7	4			55	2	5						
to tepetate 2456.16 masl (0.25 m <sup>3</sup> )	62			6			56	2			1				1
<i>Subtotals</i> (2.18 m <sup>3</sup> )	<i>249</i>	<i>11</i>	<i>10</i>	<i>10</i>			<i>218</i>	<i>4</i>	<i>26</i>		<i>3</i>				<i>1</i>
<u>Room Y</u>															
plowzone to directly over floor (0.66 m <sup>3</sup> )	4						4								
plowzone to 5 cm above floor (1.3438 m <sup>3</sup> )	24			1			23								

OPERATION 6—UTILITY CERAMICS (Page 16)

CONTEXT	Vessel type							Use			Handles		Spindle whorls		worked sherds
	total utility	comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room Y</u> (Cont.)															
plowzone, subsurface (0.95 m <sup>3</sup> )	53	2		2			49 (1 glz)	4	10		1	1			
directly over floor (0.0625 m <sup>3</sup> )	4		1				3								
to tepetate (0.08 m <sup>3</sup> )	69	1					66		20	10					
<u>Subtotals</u> (3.0963 m <sup>3</sup> )	154	5	1	3			145 (1 glz)	4	30	10	1	1			
<u>Room Y &amp; W Ext</u>															
plowzone, surface to floors (1.1 m <sup>3</sup> )	24	2		1			21					1			
<u>Operation 6</u> Totals (209.6949 m <sup>3</sup> )	26259	1467	260	841 2 glz	131	237	23407 (42 glz)	502	2201	151	373	89	23	28	27

## OPERATION 7

### Setting

About 20 m west of Operation 6 lay a mound about 20 m across, rising to a level about 0.5 m above the terrace (Figure 2.9). This was the last set of structural remains on this terrace—others had been Structures 4, 5 East, 5 West, and 6, and on the same terrace, east of the north-south road, Structures 1 and 2 and the jaguey. The whole terrace was in agricultural use, and in the area of Operation 7, soil was shallow, varying from 20 cm to 70 cm deep over the tepetate (greatest depth of soil accumulating around the structure wall joints).

### Method

Excavations in this area took place from March 23 through March 26, 1984, with crew size averaging eight. The first three trenches were placed in a line near the crest of the mound, and these came down on Rooms A and C and walls A-northeast and AC. Continued excavations delineated features of the interior of the structure and also explored exterior areas on all sides of the structure; 28.31 m<sup>3</sup> of earth was excavated over an exposed area of 99 m<sup>2</sup>.

The shallowness of the average depth of excavations, 28.6 cm, testifies to the general shallowness of soil depth here, and plow scars found in the tepetate evidence a high degree of disruption of cultural contexts, although much of one floor level in the narrow back rooms of the structure was preserved.

### Architecture and Features

The destruction of the downslope part of this structure makes reconstructing the size and orientation of the building difficult, but evidence from the southeastern and southwestern trenches suggests that Room C is about 4 m in width (southwest to northeast), and that there are no other downslope rooms.

Therefore, the general building plan is reconstructed as three rooms, with the building entrance thought to have been in the southwest, leading into Room C. This is presumably the main hall, possibly unroofed, with Room A to its rear and Room B an adjunct to Room A. The gross dimensions of this building are assumed to be 6.8 by 10.2 m. The following descriptions of the rooms begin with Room C and Room C's exterior and then describe Rooms A and B, and their exteriors (Figure 2.10).

### Structure 7, Room C

*Architecture and Features.* Room C is 6.5 x 4 m (26 m<sup>2</sup>), and has three very low (about 20 cm) lines of walls consisting of mostly rough cobbles. These wall bases are in some places set into a shallow trench in the tepetate, and elsewhere rest on a hard packed surface just above the tepetate. The front wall to this room (also, presumably, the front wall of the structure) is missing, and its hypothetical location is based on the location of the end of wall C-southeast and the presence of wall fall (and absence of a floor) in Trenches 14, 25, 27, and 24.

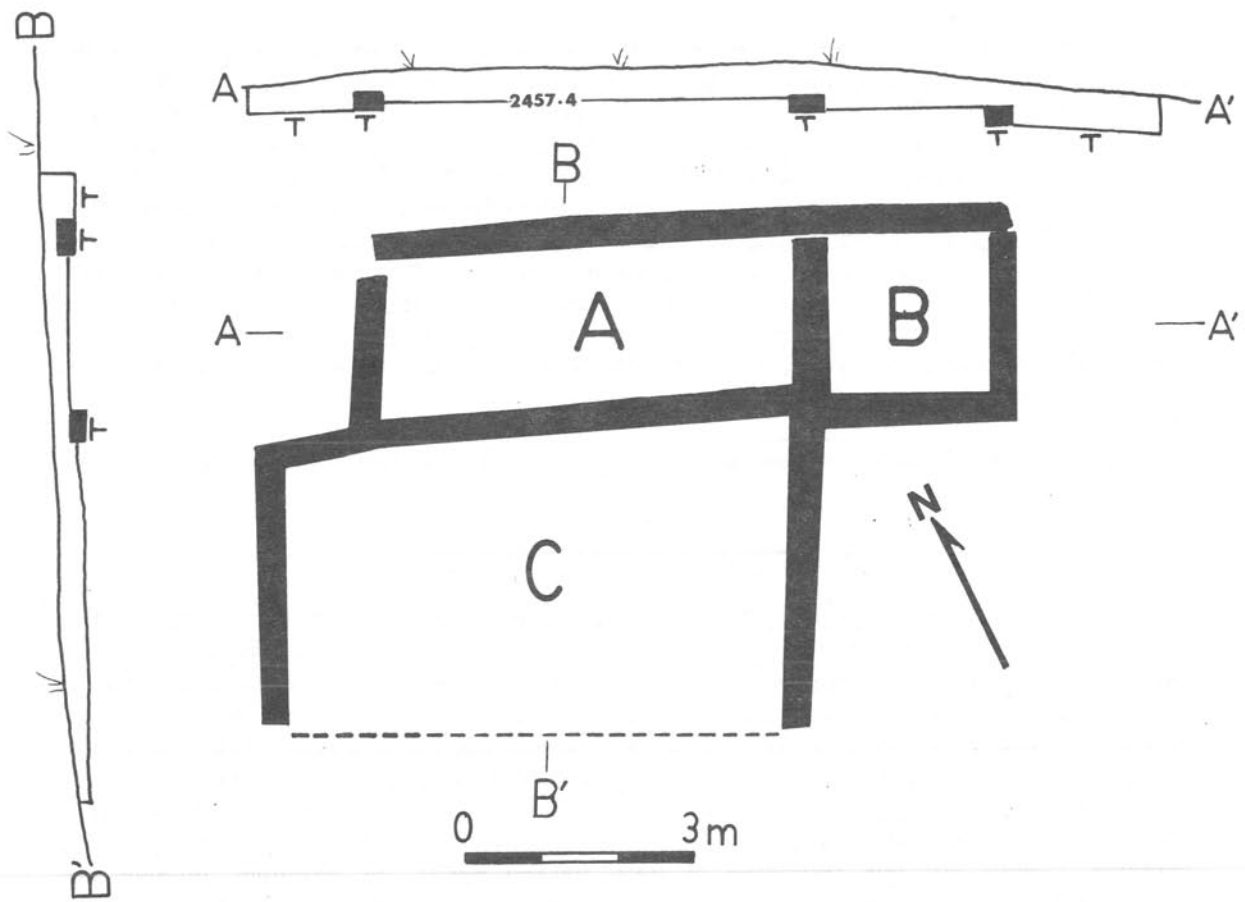


Figure 2.9

**CIHUATECPAN, STRUCTURE 7**

(Black areas indicate solid construction; dashed lines indicate extrapolation; "T" indicates tepetate.)



The extant wall bases vary from 30 cm to 40 cm wide, but these values are of little utility in reconstructing the actual wall width.

The single extant floor level is uneven and occurs between 2457.12 and 2457.27 masl. (rising over a distance of about 3 m, with the upslope of the terrace). Near the AC wall, the floor was approximately 10 cm above tepetate.

Artifacts. Ceramic remains included 992 sherds (163 m<sup>3</sup>), about 75% of them utility wares (slightly higher than the Operation 7 average of 72%, and the excavation season average of 70%; artifact counts are presented in Tables 2.19, 2.20, and 2.21). Utility wares included all common functional types. Fine wares also included a full range of common wares, including two glazed sherds. The presence of this post-conquest type stands in contrast to the chronological range of Black/Orange wares, which shows "B", "D", and "E" types, divided equally among Aztec II and III categories. In the plowzone immediately over the floor were other ceramic artifacts including one large spindle whorl, and a worked sherd, and four figurine fragments. Two of the six small ceramic cones found in or near Structure 7 were found in this room, including the one with the death's head motif. Another, slightly larger cone with incomplete perforations at the narrow end was also found in the area of Room C.

Lithic artifacts included a small ball and grey-black and green obsidian (6.8:1 ratio).

#### Structure 7, Room C—Exterior

Architecture and Features. It was noted above that the location of Room C's southwest wall was difficult to determine. Whether this wall had a doorway, and where this was, is difficult even to conjecture about, but it is possible that Structure 7 has a pattern similar to that of Structure 1 (though on a more modest scale). Thus, Room C would be a courtyard, Room A would open off of it, and the building entry would be on the downslope, southwest side of the courtyard, opposite the entry to Room A. The southwest wall would have been stone, judging from the wall fall found in Trench 25. This was a fortunate find because the shallowness of the soil has resulted in few protected behavioral contexts. There are few remnants of hard packed earth, for example, outside the structure, because surviving floors owe their existence to nearby wall stubs. East of Room C, however, there are remnants of a very disturbed floor at 2457.00 masl.

Artifacts. Plowzone areas to the east, west, and south of Room C had sherd density counts of 136/m<sup>3</sup>, 270/m<sup>3</sup>, and 291/m<sup>3</sup>, respectively. These areas would have made logical choices for trash dumps if the building's entry was in the southwest wall, and from the sherd density it is clear that they were probably serving as such. Utility ceramics include all common functional wares except for braziers. Fine wares also represent all major types, including nine glazed sherds. Black/Orange wares include "B", "D", "E", and "H". Neither spindle whorls nor worked sherds are found, but one unusual figurine head shows a man wearing a headdress similar to those worn by the tlatoque.

#### Structure 7, Room A

Architecture and Features. Measuring 5.5 x 2 m (11 m<sup>2</sup>), Room A had a single hard-packed earth floor whose level was about 2457.40 masl. This floor intersected the level of tepetate in the north corner of the trench. The walls consist of one or two courses of stone (and at least one adobe), set into shallow wall base trenches. The northern corner of the

wall is broken, which is not surprising since the wall top is only about 20 cm below ground surface. The room level is perhaps 20 cm higher than that of Room C, and the entryway may have been centered in the AC wall (the wall is only one course high in this presumed doorway). The spatial relations of these rooms suggests that they follow the "sunken courtyard" pattern found in Structures 1, 4, and 6, where slightly elevated rooms surround an unroofed courtyard.

*Artifacts.* Sherd density overall in this room averaged 131/m<sup>3</sup>. Utility sherds account for about 76% of the total, slightly higher than the proportions for Operation 7 (72%) and for all excavations this season (70%). All functional utility types are represented, but the fine ware repertoire is more limited than usual. Black/Orange diagnostic types include "B", "D", and "F". No other ceramic artifacts were found. Lithic artifacts were limited to obsidian of grey-black and green types (12:1 ratio).

### Structure 7, Room A—Mixed Contexts and Exterior

*Features and Artifacts.* Testing in the exterior area west of Room A uncovered a hard surface which seemed to be leveled tepetate. Tepetate occurred a mere 25 cm beneath ground surface in the area northeast from the AB wall, and 30 cm to 40 cm beneath the surface in trenches 2 m further east. In this shallow zone of soil, sherd densities are high (exterior north of Room A is 212/m<sup>3</sup>, exterior west of Room A is 281/m<sup>3</sup>), but these values may be exaggerated from soil deflation, wind erosion being a common problem in the upper Teotihuacan Valley. The sherds from this exterior area (and from the mixed plowzone contexts around Room A) represent the standard range of functional and fine wares. Lithics are generally limited to obsidian, and the grey-black obsidian variety out numbers the green. Some interesting figurine elements were found here: a seated figure, a flat female torso, a head with an elaborate headdress. Another find was another of the small ceramic cones, this one about 3.5 cm long.

### Structure 7, Room B

*Architecture and Features.* This 2.3 x 2.1 m (4.83 m<sup>2</sup>) small side room had walls of the same crude type as the rest of the structure, set into shallow trenches in the tepetate. A single floor was at about 2457.25 masl. It is adjacent to Room A, but the location of the doorway isn't known.

In the western corner of the room, the plowzone just above the floor held a burial consisting of the cranium and some post-cranial bones of a child 6 - 18 months old (Abrams based this approximation of age on comparison of these remains with data in Brothwell 1981:60). The bones were partially covered by an inverted Plain Orange bowl about 20 cm in diameter.

*Artifacts.* The sherd density in this room is quite high, 476/m<sup>3</sup>, with 69% being utility wares, a value somewhat lower than in the structure as a whole, and much lower than the value for Room A. This rather high proportion of fine wares in a small room off to one side of the house recalls Structure 1, Room E, although in this case we lack evidence of work features (such as the ashy lens in the corner of Structure 1, Room E) which substantiate this area's use as a kitchen work and storage area. Utility ceramics include relatively few sherds of identifiable type, but all standard utility forms are present. Fine wares are also generally represented, with "D" and "F" Black/Orange types present. No spindle whorls or worked sherds are present, nor were there any figurine fragments. Lithics include two manos, and grey-black and green obsidian (4.9:1 ratio).

### Structure 7, Room B—Mixed Contexts and Exterior

Features and Artifacts. Like the area around Room A, the exterior to Room B was investigated. The plowzone in this area is shallow, and sherd densities fairly high, averaging 175/m<sup>3</sup>. All common utility types are found, as were the commonest fine wares. Three spindle whorls and a worked sherd were found. Figurine fragments include a seated female carrying a standard and a figurine fragment with a diamond-patterned skirt. Another of the small cones was found 2 m northeast of Room B. Lithics are limited to grey-black and green obsidian (7.8:1 ratio).

Table 2.19. OPERATION 7—ARTIFACT SUMMARY

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>Room A</u>													
plowzone (2.96 m <sup>3</sup> )	377	285	92			2			91	14			
directly over floor (0.03 m <sup>3</sup> )	15	14	1						5				
<i>Subtotals</i>	<i>392</i>	<i>299</i>	<i>93</i>			<i>2</i>			<i>96</i>	<i>14</i>			
<u>Rooms A &amp; B</u>													
plowzone (0.07 m <sup>3</sup> )	8	5	3						2				
<u>Room A &amp; C</u>													
plowzone (1.39 m <sup>3</sup> )	240	157	83	1					12	1			
<u>Room A &amp; Ext. N</u>													
plowzone (1.48 m <sup>3</sup> )	239	178	61	3		2			29	2			
<u>Exterior N of Room A</u>													
plowzone (2.9 m <sup>3</sup> )	577	443	134	5		1			59	10			1 unknown
plowzone-over ext. surface (0.2 m <sup>3</sup> )	80	59	21			1			5				
<i>Subtotals</i>	<i>657</i>	<i>502</i>	<i>155</i>	<i>5</i>		<i>2</i>			<i>64</i>	<i>10</i>			<i>1 unknown</i>
<u>Exterior W of Room A</u>													
plowzone (0.72 m <sup>3</sup> )	166	134	32	1		1			43	8			
plowzone-over ext. surface (0.2 m <sup>3</sup> )	93	67	26						42	6			
<i>Subtotals</i>	<i>259</i>	<i>201</i>	<i>58</i>	<i>1</i>		<i>1</i>			<i>85</i>	<i>14</i>			
<u>Room B</u>													
plowzone (0.72 m <sup>3</sup> )	343	237	106		1	1			44	9	2		
burial under floor (0.004 m <sup>3</sup> )													
<u>Room B &amp; Ext</u>													
plowzone (1.09 m <sup>3</sup> )	211	164	47	2					53	4			
<u>Exterior S of Room B</u>													
plowzone (0.84 m <sup>3</sup> )	35	18	17						9	2			

OPERATION 7—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>E of Room B</u>													
plowzone (1.76 m <sup>3</sup> )	385	281	104	4					59	5			
<u>N of Room B</u>													
plowzone (1.41 m <sup>3</sup> )	135	43	92			1	1		80	9			
<u>Away from structure</u>													
plowzone (3.12 m <sup>3</sup> )	673	478	195	5	1	4			72	15			
<u>Room C</u>													
plowzone (5.28 m <sup>3</sup> )	880	662	218	6	2	5			158	23			1 ball
plowzone-over floor (0.8 m <sup>3</sup> )	112	83	29						32	5			
<i>Subtotals</i>	<i>992</i>	<i>745</i>	<i>247</i>	<i>6</i>	<i>2</i>	<i>5</i>			<i>190</i>	<i>28</i>			<i>1 ball</i>
<u>Room C &amp; Ext</u>													
plowzone (1.13 m <sup>3</sup> )	299	198	101	1		2			40	6			1 scraper
<u>Exterior—Room C</u>													
plowzone--east (0.66 m <sup>3</sup> )	90	72	18			1			30	1			
plowzone--west (0.61 m <sup>3</sup> )	165	110	55	3					16	3			
plowzone--south (1.12 m <sup>3</sup> )	326	228	98						26	2			
<i>Subtotals</i>	<i>581</i>	<i>410</i>	<i>171</i>	<i>1</i>		<i>1</i>			<i>72</i>	<i>6</i>			
<u>Operation 7 Totals</u> (28.31 m <sup>3</sup> )	<i>5468</i>	<i>3915</i>	<i>1553</i>	<i>29</i>	<i>4</i>	<i>21</i>	<i>1</i>		<i>466</i>	<i>125</i>	<i>2</i>		<i>1 unknown 1 ball 1 scraper</i>

**Table 2.20. OPERATION 7—FINE CERAMICS**

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room A</u>																		
plowzone (2.96 m <sup>3</sup> )	92	34	31		2		12		4					7	17			1
directly over floor (0.03 m <sup>3</sup> )	1														1			
<i>Subtotals</i>	<i>93</i>	<i>34</i>	<i>31</i>		<i>2</i>		<i>12</i>		<i>4</i>					<i>7</i>	<i>18</i>			<i>1</i>
<u>Rooms A &amp; B</u>																		
plowzone (0.07 m <sup>3</sup> )	3		2												1			
<u>Rooms A &amp; C</u>																		
plowzone (1.39 m <sup>3</sup> )	83	48	14		1		3		1					9	12			
<u>Room A &amp; Ext. N</u>																		
plowzone (1.48 m <sup>3</sup> )	61	28	14		2			2						8	11			
<u>Exterior N of Room A</u>																		
plowzone (2.9 m <sup>3</sup> )	134	60	31		1		2	1	1					16	23	2		2
plowzone-over ext. surface (0.2 m <sup>3</sup> )	21	10	6				1							1	4			
<i>Subtotals</i>	<i>155</i>	<i>70</i>	<i>37</i>		<i>1</i>		<i>3</i>	<i>1</i>	<i>1</i>					<i>17</i>	<i>27</i>	<i>2</i>		<i>2</i>
<u>Exterior W of Room A</u>																		
plowzone (0.72 m <sup>3</sup> )	32	14	5											4	7			1
plowzone-over ext. surface (0.2 m <sup>3</sup> )	26	11	6				1								9			
<i>Subtotals</i>	<i>58</i>	<i>25</i>	<i>11</i>				<i>1</i>							<i>4</i>	<i>16</i>			<i>1</i>
<u>Room B</u>																		
plowzone (0.72 m <sup>3</sup> )	106	42	29				6		1					6	24	2		1
burial under floor (0.004 m <sup>3</sup> )	20	20																
<u>Room B &amp; Ext</u>																		
plowzone (1.09 m <sup>3</sup> )	47	16	13	1			2		1					8	8			
<u>Exterior S of Room B</u>																		
plowzone (0.84 m <sup>3</sup> )	17	6	1											5	5			

OPERATION 7—FINE CERAMICS (Page 2)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<u>E of Room B</u>																		
plowzone (1.76 m <sup>3</sup> )	104	40	30		6		5							10	20	2	1	
<u>N of Room B</u>																		
plowzone (1.41 m <sup>3</sup> )	92	38	23				1		1					8	23			
<u>Away from structure</u>																		
plowzone (3.12 m <sup>3</sup> )	195	108	27				4							13	41	2	3	
<u>Room C</u>																		
plowzone (5.28 m <sup>3</sup> )	218	92	41		5		5	1					1	23	61			
plowzone--over floor (0.8 m <sup>3</sup> )	29	14	3		1								1	2	6	1	2	
<u>Subtotals</u>	247	106	44		6		5	1					2	25	67	1	2	
<u>Room C &amp; Ext</u>																		
plowzone (1.13 m <sup>3</sup> )	101	50	11				1							16	17	4		1
<u>Exterior—Room C</u>																		
plowzone--east (0.66 m <sup>3</sup> )	18	9	4											1	4			
plowzone--west (0.61 m <sup>3</sup> )	55	23	11							1			1	6	14			
plowzone--south (1.12 m <sup>3</sup> )	98	34	16		2		3	1					8	6	30	2		1
<u>Subtotals</u>	171	66	31		2		3	1		1			9	13	48	2		1
<u>Operation 7 Totals</u> (28.31 m <sup>3</sup> )	1553 697	318	1	20		46	5	9		1		11	149	338	15	11	5	

Table 2.21. OPERATION 7—UTILITY CERAMICS

CONTEXT	Vessel type							Use			Handles		Spindle whorls		worked sherds
	total utility	comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room A</u>															
plowzone (2.96 m <sup>3</sup> )	285	7	1	11	3	2		4	11		5	1			
directly over floor (0.03 m <sup>3</sup> )	14	7	2	11											
<i>Subtotals</i>	<i>299</i>	<i>14</i>	<i>3</i>	<i>22</i>	<i>3</i>	<i>2</i>		<i>4</i>	<i>11</i>		<i>5</i>	<i>1</i>			
<u>Rooms A &amp; B</u>															
plowzone (0.07 m <sup>3</sup> )	5		1												
<u>Rooms A &amp; C</u>															
plowzone (1.39 m <sup>3</sup> )	157	15	1	3		2			3						
<u>Room A &amp; Ext. N</u>															
plowzone (1.48 m <sup>3</sup> )	178	6	1	1		1		5	5	1	3				
<u>Exterior N of Room A</u>															
plowzone (2.9 m <sup>3</sup> )	443	15	3	8		2		7	14	2	8	2			
plowzone--over ext. surface (0.2 m <sup>3</sup> )	59	1			1			1	4			1			
<i>Subtotals</i>	<i>502</i>	<i>16</i>	<i>3</i>	<i>8</i>	<i>1</i>	<i>2</i>		<i>8</i>	<i>18</i>	<i>2</i>	<i>8</i>	<i>3</i>			
<u>Exterior W of Room A</u>															
plowzone (0.72 m <sup>3</sup> )	134	1	5	1	2	1		4	6	3		1		1	
plowzone--over ext. surface (0.2 m <sup>3</sup> )	67			3		1		5	5						
<i>Subtotals</i>	<i>201</i>	<i>1</i>	<i>5</i>	<i>4</i>	<i>2</i>	<i>2</i>		<i>9</i>	<i>11</i>	<i>3</i>		<i>1</i>		<i>1</i>	
<u>Room B</u>															
plowzone (0.72 m <sup>3</sup> )	237	14	8	1	1	1			1						
burial under floor (0.004 m <sup>3</sup> )															
<u>Room B &amp; Ext</u>															
plowzone (1.09 m <sup>3</sup> )	164	11	1	6		1					5				
<u>Exterior S of Room B</u>															
plowzone (0.84 m <sup>3</sup> )	18					1			3		1	1			



OPERATION 7—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>E of Room B</u>															
plowzone (1.76 m <sup>3</sup> )	281	17	2	4	2	7		3	5		5	2			
<u>N of Room B</u>															
plowzone (1.41 m <sup>3</sup> )	43	13		8		7		1	1		2	3			
<u>Away from structure</u>															
plowzone (3.12 m <sup>3</sup> )	478	34		15		2		6	2		5	1	2	1	1
<u>Room C</u>															
plowzone (5.28 m <sup>3</sup> )	662	31	8	29	1	9		13	44	1	5	3		1	
plowzone-over floor (0.8 m <sup>3</sup> )	83	2	2	2				1	3		1	1			1
<i>Subtotals</i>	744	33	10	31	1	9		14	47	1	6	4		1	1
<u>Room C &amp; Ext</u>															
plowzone (1.13 m <sup>3</sup> )	198	16	2	3				2	13	2	1				
<u>Exterior—Room C</u>															
plowzone--east (0.66 m <sup>3</sup> )	72	2	1	1					3	1	1				
plowzone--west (0.61 m <sup>3</sup> )	110	9		2		2		6	5						
plowzone--south (1.12 m <sup>3</sup> )	228	8	3	6		2		7	28	2	2				
<i>Subtotals</i>	410	19	4	9		4		13	36	3	3				
<u>Operation 7 Totals</u> (28.31 m <sup>3</sup> )	3915	209	41	115	10	41		65	155	12	44	16	2	3	2

## OPERATION 9

### Setting

Two mounds 55 m apart on a terrace on the southwest slope of Cerro San Lucas were the foci of our last two excavations, Operations 9 and 10. These mounds were about 350 m west of Structures 6 and 7. Operation 9 involved the excavation of the eastern mound, which was about 25 m across and rose approximately 0.5 m above the surface of the mound.

### Method

After laying out the grid and taking surface elevations, we began excavation on the southeastern part of the mound, and came down on one of the central walls of the structure. From this point, we traced the wall lines and investigated interior and exterior contexts. In all, 45 trenches were opened up, most of them 2 x 2 m, and 57.3472 m<sup>3</sup> of earth were excavated by ten workmen in 5 days.

### Architecture and Features

Excavations revealed a structure 14.55 m long and 9.8 m wide (142.59 m<sup>2</sup>) with five rooms: four relatively small rectangular rooms in the southeastern end of the building and a courtyard covering the northwestern part of the structure. As Figure 2.10 shows, the plan of this structure differs from some of the others at the site: the open courtyard (which may have been bifurcated by a wall, or distinct change in level) is in a lateral position with respect to the smaller rooms, rather than the central position the courtyard has in Structures 1, 6, 7, and 10. It may be that Structure 9's plan follows the type Vaillant describes,

two rooms deep. . . The back room, which contained a hearth for cooking, was completely enclosed save for the door to the outer chamber which was left largely open on the patio side (1966:143).

Structure 9's easternmost (and highest) room, Room B, has a centered tlequil, and Rooms B and C may be back rooms, facing onto the "outer chambers" A and D, which in turn lead out to the courtyard, E. Courtyard E lacks a wall along its northwest side; northeast and southwest walls extend out from the ABCD cluster in equal lengths. This is an area of very shallow soil (20 cm to 30 cm above tepetate) and the west end of the southwest wall consisted of just one course of large stones resting on tepetate, so it is possible that the northwest wall once existed but has been plowed away. On the other hand, much of the ghost northwest wall's probable location was tested, and no trace existed, not even near the ephemeral interior wall of Courtyard E, which is 2.45 m long and neatly bisects the west end of the room (the purpose of this isolated wall line is not known).

Several drainage features are found in and around Structure 9: a trench in Room A, near the AB wall, and a trench running parallel with the building's northeast wall, 1.1 m away. Both trenches are about 12 cm across and about 10 cm deep.

The rooms are described in the following order: E, the large courtyard, then Rooms A and B and then Rooms D and C. Artifacts are summarized in Tables 2.22, 2.23, and 2.24.

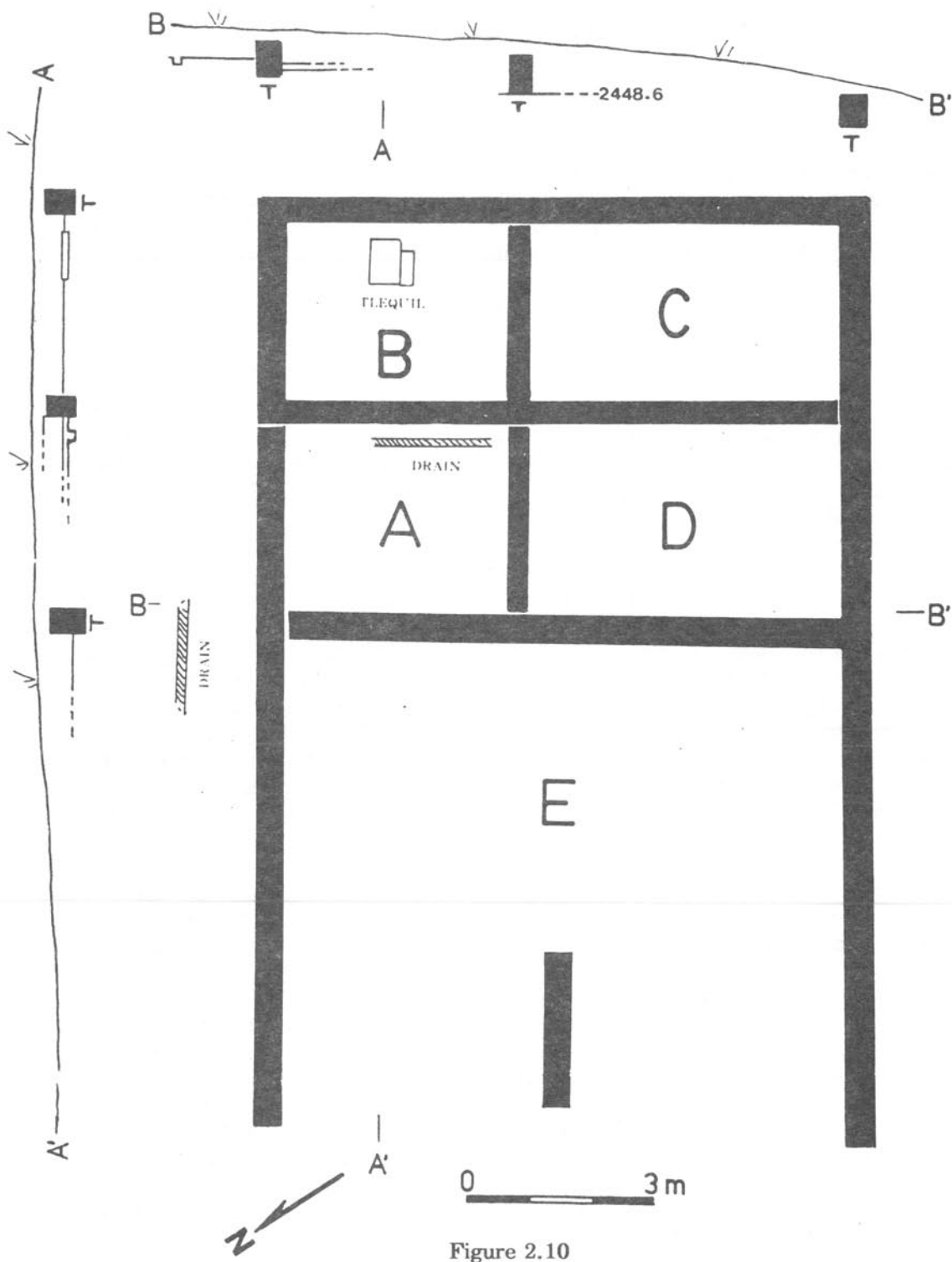


Figure 2.10

**CIHUATECPAN, STRUCTURE 9**

(Black areas indicate solid construction; dashed lines indicate extrapolation; "T" indicates tepetate.)

## Structure 9, Courtyard E

Architecture and Features. At 9 x 7.75 m (69 m<sup>2</sup>), the interior dimensions of this courtyard exceed the combined area of the building's other four rooms. In the general discussion above, we noted that there is no northwest wall, but that a short wall line of unknown function bisects the northwest end of this courtyard. The northeast wall is three to four courses high, many of the exterior stones are faced. The downslope southwest wall attenuates to one course at its western end, and here the soil is very shallow (about 20 cm, surface to tepetate). These walls are about 40 cm wide.

There is one floor, which slopes with the slope of the hill: its upper, northernmost level is about 2448.90 masl., (the level of the wall base and tepetate at the western end of the northeast wall of Courtyard E), and the floor level in the southern corner of this room is 2448.65 masl. Here the floor is about 50 cm over tepetate. Thus, the floor is a platform whose upper surface is flattened tepetate, which then immediately grades to compacted earth, which slopes 35 cm over a distance of 11.75 cm (Figure 2.11).

No other structural features were detectable in this room. The material from excavation has been divided into three contexts, based on the dividing wall: northeast end of the room, southwest end of the room, and midroom (southeast of and in a line with the dividing wall).

Artifacts. Northeast: A very low density of 40.9 sherds/m<sup>3</sup> was found in this area. Most of the common utility wares are present (the exception is salt-making wares). In fine wares, several common types were not found, but three glazed ware sherds occurred in the plowzone, as did two Black/Orange "J" sherds. Other ceramic artifacts include one small spindle whorl and ten figurine fragments. Lithics include a mano, a maguey scraper, and 92 pieces of obsidian (3.38:1, greyblack to green ratio).

Southwest: The sherd density in this part of Courtyard E was higher: 101.2 sherds/m<sup>3</sup>. All common utility vessels were represented except braziers, and the more common fine wares were found. Two spindle whorls (large and small) and seven figurine fragments complete the ceramic artifact component. Lithics include a mano and metate and obsidian (in a 4.5:1 ratio).

Midroom: This small section (0.2 m<sup>3</sup>) had a few sherds (5 from utility vessels of unknown type, and one Plain Orange ware) and one piece of black obsidian.

## Structure 9, Room A

Architecture and Features. This 3 x 3.5 m (10.5 m<sup>2</sup>) room has a single known floor, of uneven level, elevation about 2449.10 masl.; this is about 30 cm above the adjacent floor level of Courtyard E. Under the floor was undifferentiated fill, down to tepetate, which varied from 2448.91 masl. at the base of the northeast wall to 2448.65 masl. at the base of the southwest wall.

The floor had two behavioral features: an ashy concentration in the center with no associated artifacts, and a trench, apparently for drainage, along the southeast wall of the room (see above).

The upper courses of the southeast wall were built of adobes, based on the presence of eroded adobes in the fill.

Artifacts. Sherd concentration in this area was fairly low: 78.6 sherds/m<sup>3</sup>. Utility wares account for 76% of the sherds (a value which is high compared to the excavation total, 70%, but which reflects Structure 9's distribution of pottery types). Room A produced sherds from the major utility types (comales, basins, jars) but no braziers and no salt-making ware. Fine wares were similarly limited, with Plain Orange and Black/Orange ("D", "E", "F", and "J"), and Red and Black/Red, the commonest wares, being the only ones found. Other ceramic artifacts include a large spindle whorl and a figurine fragment (standing figure of a man). Lithic artifacts were limited to obsidian, occurring in a grey-black to green ratio of 1.4:1 overall, but a 1:1 ratio in the two deepest contexts and the drain feature.

Mixed contexts around Room A reflect the same artifact proportions.

### Structure 9, Room B

Architecture and Features. Measuring 2.9 x 3.5 m (10.15 m<sup>2</sup>), this room had one good floor, at about 2449.10 masl. (about 45 cm below ground surface near the northeast wall). This floor, which seems to have had a surface of cascajo, would have been about the same level as the floor of Room A. Trenching beneath the floor revealed undifferentiated fill, with few sherds, down to tepetate level. The wall bases of the northeast and southeast wall rest on tepetate, or a few centimeters above it, while the interior wall bases (AB and BC walls) rest on compacted earth fill). The walls of this room, like those intact in the structure as a whole, are of excellent quality, made of stones which were either cut, or faced, or carefully placed so that the smoother surfaces faced outwards. These were then given a coat of mud plaster.

An important feature of Room B is the tlequil centered against the back (southeast wall). Its level is 9 cm below that of the floor, and on the southwest side a 42 cm long, 9 cm wide cut stone extends about 25 cm above floor level, acting as a reflector or wind screen.

Artifacts. With an average sherd density of 43/m<sup>3</sup>, Room B has relatively meager ceramic remains. Utility wares do not include the brazier form, and fine ceramics are limited to the simplest types, with one "D" sherd in the plowzone being the only recognizable Black/Orange diagnostic. No other ceramic artifacts (spindle whorls, figurines) were present. No ground stone artifacts were found, and the obsidian ratio was 2.5 grey-black to 1 green.

Mixed contexts containing materials from the plowzone over Room B, and the exterior, and unmixed contexts, from outside the building around Room B, had a greater density of artifact remains: about 88 sherds/m<sup>3</sup>, and about 86% of them utility sherds. Comales, jars, and braziers are represented. The fine ware repertoire is as skimpy as that of Room B itself: no recognizably diagnostic Black/Orange sherds were found, though one glazed sherd was found in the plowzone. The only other ceramic artifact of note was a small spindle whorl.

Lithics included a mano and obsidian (a 1.7:1 grey-black to green ratio).

### Structure 9, Room D

Architecture and Features. Measuring 3.1 x 5.0 m (15.5 m<sup>2</sup>), this room's single extant floor was at about 2448.60 masl. In the north end of the room this level intersects that of tepetate and the bases of the AD wall, in the south end, the floor is underlain by about 40 cm of undifferentiated fill over the tepetate level. The floor level is only about 5 cm above the adjacent floor level of Courtyard E, and 50 cm lower than that of Room A. The walls are well constructed of cut, or faced, or smooth stones, and a piece of painted stuccoed tezontle (Trench 1, Lot 3) indicates that some wall decoration beside mud plaster might have been present in this room. No other features were found in this room.

Artifacts. The sherd density here, 219/m<sup>3</sup>, is in sharp contrast to that of Rooms A and B. Utility wares account for 76% of all sherds, and all common vessel types are present. Similarly, fine wares are generally represented, and identifiable Black/Orange diagnostics here are "B", "D", "E", and "J", with "D" and "J" being found directly over the floor. Two large spindle whorls were found, and two figurine fragments, a pyramid base and a female head.

There were no ground stone artifacts, and the ratio of grey-black to green obsidian was 1.2:1.

The mixed contexts of Room D and the southwest exterior, and the unmixed southwest exterior had a low sherd density of 40/m<sup>3</sup>. The only artifact from these contexts worth noting here is the mano, since so few occurred in room contexts.

### Structure 9, Room C

Architecture and Features. This southernmost room (2.9 x 5 m, 14.5 m<sup>2</sup>) is the only one with two extant floors: an upper floor surfaced in cascajo survives in the eastern corner, its level about 2449.00 masl., and a lower floor with a sloping surface, whose general level averaged about 2448.50 masl. This is itself an important feature, since in general there are few sealed floor contexts in the houses found here at Cihuatecpan, the shallowness of the soil has often resulted in intersection of plowzone and floors. There are even time markers sealed in this floor. Three Black/Orange type "D" sherds indicate an Aztec III (or later) date for the upper floor. (The Black/Orange sherds in the subfloor fill were not interpretable.) Beneath the floor, undifferentiated dirt fill continues down to tepetate.

But besides this nicely delineated cultural context there were few features of note. The walls, like those in the other rooms here, are very good quality.

Artifacts. With 174 sherds/m<sup>3</sup> of excavation, this area had a fairly dense concentration of artifactual material, compared with the upslope Rooms A and B. About 76% were utility sherds, a rather high value for the village overall, which is typical for this structure. With the exception of braziers, all utility functional types were present and the general proportional distributions of these types were similar to general distribution proportions for the site as a whole and for the structure. Directly above the upper floor was a full domestic array of culinary ware sherds, with an abundance of basin sherds (among recognizable utility vessel sherds). Between floors, the sherd sample was 82% utility wares, with jars and salt-making ware recognizable.

I mentioned above that the fine wares found here included Black/Orange "D" sherds in the intrafloor context. The other Black/Orange sherds recognizable as to type are also "D", and no glazed ware is found here, all pointing to a consistent Aztec III date.

Other ceramic artifacts were a small spindle whorl in the plowzone, and a large one found just above the upper floor. Two worked sherds were also found, and so were two decorative elements from figurines.

The adjacent mixed contexts (Room C and exterior) and exterior contexts are not sufficiently dense with artifacts (exterior density is 127 sherds/m<sup>3</sup>) to suggest that this was a well established midden. The range of ceramics indicated by this set of sherds conforms to the general distribution of types (even the absence of brazier sherds). Decorated wares show similar conformity, with Black/Orange wares, however, including type "J".

Lithic artifacts from Room C were found in the plowzone: a beater and a maguey scraper. Obsidian was present at all levels, with an overall greyblack to green ratio of 1.8:1. Lithics in mixed and adjacent exterior contexts were limited to obsidian, in a 2.5:1 ratio.

### Structure 9, Northeast Midden

Setting and Features. A 2 x 2 m trench was excavated just north of (and encompassing some of) the Northeast wall of the building, at the corners of Courtyard E and Room A. This excavation established the integrity of the external face of the structure (and lack of a continuance of the AE wall). It also recovered considerable artifactual material, since the sherd density in this area was 450 sherds/m<sup>3</sup>. While at least some of this concentration results from the building wall acting as a dam for downslope erosion, the area also probably owes its artifact density to having been used as a trash dump. Over a meter away from the wall; about 30 cm below the surface (2449.20 masl.) was found a drain feature running parallel to the wall. This was 10 cm across and 7 cm deep. In other, adjacent, trenches along this wall the drain did not appear.

Artifacts. 86% of the sherds are utility wares, which show the full range of functional types. The commonest fine wares were found, including Black/Orange types "E", "F", and "H". A small spindle whorl was found, as were eleven figurine fragments. In the lithic repertoire were found three manos and obsidian in a 4.1:1 grey-black to green ratio.

Table 2.22. OPERATION 9—ARTIFACT SUMMARY

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	Conical				black	green	mano	metate	other
					slab	sol	hol	oth					
<b>Room A</b>													
plowzone (1.97 m <sup>3</sup> )	72	52	20						5	5			
plowzone to floor (0.925 m <sup>3</sup> )	95	69	26						11	3			
plowzone to 5.0 cm over floor (1.46 m <sup>3</sup> )	79	68	11						8	3			
5.0 cm to floor (0.61 m <sup>3</sup> )	163	123	40	1	1				17	17			
floor (0.07 m <sup>3</sup> )													
subfloor (0.06 m <sup>3</sup> )	5	3	2						2	2			
drain feature (0.67 m <sup>3</sup> )	39	30	9						3	3			
<i>Subtotals</i> (5.765 m <sup>3</sup> )	<i>453</i>	<i>345</i>	<i>108</i>	<i>1</i>	<i>1</i>				<i>46</i>	<i>33</i>			
<b>Room A &amp; NE Ext</b>													
plowzone & walltop (0.52 m <sup>3</sup> )	51	41	10						3	2			
<b>Rooms A &amp; B</b>													
plowzone & wall (0.56 m <sup>3</sup> )	85	68	17				1		7	1			
<b>Rooms A, B, C, &amp; D</b>													
plowzone (0.36 m <sup>3</sup> )	36	27	9	1					1	1			
<b>Room B</b>													
plowzone (0.915 m <sup>3</sup> )	58	40	18				1		7	2			
plowzone to floor (1.36 m <sup>3</sup> )	23	21	2						2	2			
floor zone (0.12 m <sup>3</sup> )	4	3	1										
subfloor (0.86 m <sup>3</sup> )	54	42	12						6	2			
<i>Subtotals</i> (3.255 m <sup>3</sup> )	<i>139</i>	<i>106</i>	<i>33</i>				<i>1</i>		<i>15</i>	<i>6</i>			
<b>Room B &amp; NE Ext</b>													
plowzone (1.01 m <sup>3</sup> )	35	32	3						6	1	1		
<b>Northeast Ext</b>													
plowzone (0.48 m <sup>3</sup> )	115	100	15		1	2			7	1			



OPERATION 9—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>East Exterior</u>													
plowzone (1.265 m <sup>3</sup> )	98	80	18						18				
<u>Room B &amp; SE Ext</u>													
plowzone (0.48 m <sup>3</sup> )	36	33	3			1	1						
<u>Room C</u>													
plowzone (1.58 m <sup>3</sup> )	228	175	53		1	3	2		10	13			1 beater 1 scraper
plowzone to floor (2.933 m <sup>3</sup> )	251	180	71	2					13	8			
plowzone to 5.0 cm over floor (1.14 m <sup>3</sup> )	140	79	61						7	3			
directly over floor 1 (0.20 m <sup>3</sup> )	283	242	41		2	2			17	6			
between floors 1 & 2 (0.5 m <sup>3</sup> )	152	125	27						14	5			
subfloor (0.5377 m <sup>3</sup> )	144	105	39						8	4			
<i>Subtotals</i> (6.8907 m <sup>3</sup> )	<i>1198</i>	<i>906</i>	<i>292</i>	<i>2</i>	<i>3</i>	<i>5</i>	<i>2</i>		<i>69</i>	<i>39</i>			<i>1 beater 1 scraper</i>
<u>Room C &amp; SE Ext</u>													
plowzone (0.8 m <sup>3</sup> )	27	22	5						2				
<u>Room C &amp; S Ext</u>													
plowzone (0.4 m <sup>3</sup> )	36	27	9						5	1			
<u>South Exterior</u>													
plowzone (0.72 m <sup>3</sup> )	48	34	14							3			
<u>SE Exterior</u>													
plowzone (0.9695 m <sup>3</sup> )	207	152	55		1				15	5			
plowzone to tepetate (1.15 m <sup>3</sup> )	107	90	17						6	2			
<i>Subtotals</i> (2.1195 m <sup>3</sup> )	<i>314</i>	<i>242</i>	<i>72</i>		<i>1</i>				<i>21</i>	<i>7</i>			
<u>Rooms C &amp; D</u>													
plowzone (0.24 m <sup>3</sup> )	74	60	14	1					5	5	1		

OPERATION 9—ARTIFACT SUMMARY (Page 3)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<b>Room D</b>													
plowzone (0.4 m <sup>3</sup> )	79	57	22	1	1				7	3			
plowzone to 5.0 cm over floor (2.491 m <sup>3</sup> )	406	288	118	1	2	3	2		24	16			
directly over floor (0.2905 m <sup>3</sup> )	224	144	80				1		7	12			
subfloor (0.05 m <sup>3</sup> )													
<b>Subtotals</b> (3.2315 m <sup>3</sup> )	<b>709</b>	<b>489</b>	<b>220</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>3</b>		<b>38</b>	<b>31</b>			
<b>Room D &amp; SW Ext</b>													
plowzone (0.2 m <sup>3</sup> )	45	34	11						2	1	1		
<b>Southwest Ext</b>													
plowzone (3.8725 m <sup>3</sup> )	117	103	14						13	7			
<b>Rooms D &amp; E</b>													
plowzone (2.43 m <sup>3</sup> )	76	54	22	2					2	1			
<b>Room E—Northeast</b>													
plowzone--upper (3.8 m <sup>3</sup> )	205	162	43	7		1	1		41	8	1		1 scraper
plowzone to floor (7.26 m <sup>3</sup> )	242	186	56	2		1			23	10			
plowzone to 5.0 cm over floor (0.648 m <sup>3</sup> )	33	21	12	1					4	2			
5.0 cm over floor (0.06 m <sup>3</sup> )	2	2							3	1			
<b>Room E—Southwest</b>													
plowzone--upper (2.03 m <sup>3</sup> )	281	212	69	4		1			31	6	1		1 ball
plowzone to floor (1.29 m <sup>3</sup> )	125	97	28			2			5	3		1	
plowzone to 5.0 cm over floor (1.07 m <sup>3</sup> )	30	24	6						5				
5.0 cm over floor (0.35 m <sup>3</sup> )	44	31	13	3					8	2			

OPERATION 9—ARTIFACT SUMMARY (Page 4)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical			black	green	mano	metate	other
						sol	hol	oth					
<u>Room E—midroom</u>													
floor (0.2 m <sup>3</sup> )	6	5	1						1				
<i>Subtotals</i> (16.718 m <sup>3</sup> )	<i>968</i>	<i>740</i>	<i>228</i>	<i>17</i>		<i>5</i>	<i>1</i>		<i>121</i>	<i>32</i>	<i>2</i>	<i>1</i>	<i>1 scraper</i> <i>1 ball</i>
<u>Room E &amp; SW Ext</u>													
plowzone (1.0 m <sup>3</sup> )	94	79	15				1		9	9			
<u>Room E &amp; West Ext</u>													
plowzone (1.2 m <sup>3</sup> )	66	45	21	2	2				10	5			
<u>Room E &amp; North Ext</u>													
plowzone to tepetate (0.18 m <sup>3</sup> )	9	9											
<u>Room E &amp; NE Ext</u>													
plowzone (0.4 m <sup>3</sup> )	95	79	16	1					7	3			1 ball
<u>Northeast Midden</u>													
plowzone (2.85 m <sup>3</sup> )	1282	1097	185	11	7	2			49	12	3		
<u>Operation 9</u> Totals (57.3472 m <sup>3</sup> )	<i>6215</i>	<i>4852</i>	<i>1363</i>	<i>40</i>	<i>18</i>	<i>19</i>	<i>9</i>		<i>456</i>	<i>201</i>	<i>8</i>	<i>1</i>	<i>1 beater</i> <i>2 scrapers</i> <i>2 balls</i>

Table 2.23. OPERATION 9—FINE CERAMICS

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<b>Room A</b>																		
plowzone (1.97 m <sup>3</sup> )	20	15	4												1			
plowzone to floor (0.925 m <sup>3</sup> )	26	21	3				2								2			
plowzone to 5.0 cm over floor (1.46 m <sup>3</sup> )	11	7	4															
5.0 cm to floor (0.61 m <sup>3</sup> )	40	21	11				4	1	1			1			6	2		
floor (0.07 m <sup>3</sup> )																		
subfloor (0.06 m <sup>3</sup> )	2	2																
drain feature (0.67 m <sup>3</sup> )	9	6	1						1						2			
<b>Subtotals</b> (5.765 m <sup>3</sup> )	<b>108</b>	<b>72</b>	<b>23</b>				<b>6</b>	<b>1</b>	<b>2</b>			<b>1</b>			<b>8</b>	<b>5</b>		
<b>Room A &amp; NE Ext</b>																		
plowzone & walltop (0.52 m <sup>3</sup> )	10	6	1								1				2	1		
<b>Rooms A &amp; B</b>																		
plowzone & wall (0.56 m <sup>3</sup> )	17	8	3				1		1						5	1		
<b>Rooms A, B, C, &amp; D</b>																		
plowzone (0.36 m <sup>2</sup> )	9	6	2													1		
<b>Room B</b>																		
plowzone (0.915 m <sup>3</sup> )	18	15	1				1								2			
plowzone to floor (1.36 m <sup>3</sup> )	2	1	1															
floor zone (0.12 m <sup>3</sup> )	1	1																
subfloor (0.86 m <sup>3</sup> )	12	9	2															1
<b>Subtotals</b> (3.255 m <sup>3</sup> )	<b>33</b>	<b>26</b>	<b>4</b>				<b>1</b>								<b>2</b>			<b>1</b>
<b>Room B &amp; NE Ext</b>																		
plowzone (1.01 m <sup>3</sup> )	3	2													1			
<b>Northeast Ext</b>																		
plowzone ((0.48 m <sup>3</sup> )	15	13													2			

OPERATION 9 - PINK CERAMICS (Page 2)

CONTEXT	Black on Orange																	
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<b>East Exterior</b>																		
plowzone (1.265 m <sup>3</sup> )	18	16	1												1			
<b>Room B &amp; SE Ext</b>																		
plowzone (0.48 m <sup>3</sup> )	3	3																
<b>Room C</b>																		
plowzone (1.58 m <sup>3</sup> )	53	31	11				3							6	2	2	1	
plowzone to floor (2.933 m <sup>3</sup> )	71	42	17				1							4	6		2	
plowzone to 5.0 cm over floor (1.14 m <sup>3</sup> )	63	43	7											3	5		1	
directly over floor 1 (0.20 m <sup>3</sup> )	41	22	11												7		1	
between floors 1 & 2 (0.5 m <sup>3</sup> )	27	15	8				3							3	1			
subfloor (0.5377 m <sup>3</sup> )	39	17	6											10	6			
<b>Subtotals</b> (6.8907 m <sup>3</sup> )	<b>294</b>	<b>170</b>	<b>60</b>				<b>7</b>							<b>26</b>	<b>27</b>	<b>2</b>	<b>5</b>	
<b>Room C &amp; SE Ext</b>																		
plowzone (0.8 m <sup>3</sup> )	5	3	1												1			
<b>Room C &amp; S Ext</b>																		
plowzone (0.4 m <sup>3</sup> )	9	5	2												2			
<b>South Exterior</b>																		
plowzone (0.72 m <sup>3</sup> )	14	6	1											5	2			
<b>SE Exterior</b>																		
plowzone (0.9695 m <sup>3</sup> )	55	31	15								1			5	3		1	
plowzone to tepetate (1.15 m <sup>3</sup> )	17	7	2					1						4	4			
<b>Subtotals</b> (2.1195 m <sup>3</sup> )	<b>72</b>	<b>38</b>	<b>17</b>					<b>1</b>			<b>1</b>			<b>9</b>	<b>7</b>		<b>1</b>	
<b>Rooms C &amp; D</b>																		
plowzone (0.24 m <sup>3</sup> )	14	5	5				2							1	3			

OPERATION 9—FINE CERAMICS (Page 3)

CONTEXT	Black on Orange											glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H						
<b>Room D</b>																	
plowzone (0.4 m <sup>3</sup> )	22	11	2				1							1	8		
plowzone to 5.0 cm over floor (2.491 m <sup>3</sup> )	120	52	30		1		7	1			1	1		10	22		2
directly over floor (0.2905 m <sup>3</sup> )	80	44	10				1					1		12	14		
subfloor (0.05 m <sup>3</sup> )																	
<b>Subtotals</b> (3.2315 m <sup>3</sup> )	222	107	42		1		9	1			1	2		23	44		2
<b>Room D &amp; SW Ext</b>																	
plowzone (0.2 m <sup>3</sup> )	13	4												2	2		1
<b>Southwest Ext</b>																	
plowzone (3.8725 m <sup>3</sup> )	14	7	2											2	3		
<b>Rooms D &amp; E</b>																	
plowzone (2.43 m <sup>3</sup> )	22	15	4								1			1	1	1	
<b>Room E—Northeast</b>																	
plowzone--upper (3.8 m <sup>3</sup> )	43	22	5						2					3	5	8	
plowzone to floor (7.26 m <sup>3</sup> )	56	38	8				2	1						5	5		
plowzone to 5.0 cm over floor (0.648 m <sup>3</sup> )	12	7	3									2		2			
5.0 cm over floor (0.06 m <sup>3</sup> )																	
<b>Room E—Southwest</b>																	
plowzone--upper (2.03 m <sup>3</sup> )	70	40	11						1					12	5		
plowzone to floor (1.29 m <sup>3</sup> )	28	19	1					1						2	5		1
plowzone to 5.0 cm over floor (1.07 m <sup>3</sup> )	6	5												1			
5.0 cm over floor (0.35 m <sup>3</sup> )	13	11												1	1		

OPERATION 9—FINE CERAMICS (Page 4)

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Room E—midroom</u>																		
floor (0.2 m <sup>3</sup> )	1	1																
<u>Subtotals</u> (16.718 m <sup>3</sup> )	229	143	28				2	2	3			2	3	28	24		1	
<u>Room E &amp; SW Ext</u>																		
plowzone (1.0 m <sup>3</sup> )	16	4	2				1		1				1	4	3			
<u>Room E &amp; West Ext</u>																		
plowzone (1.2 m <sup>3</sup> )	21	15	1								1					5		
<u>Room E &amp; North Ext</u>																		
plowzone to tepetate (0.18 m <sup>3</sup> )																		
<u>Room E &amp; NE Ext</u>																		
plowzone (0.4 m <sup>3</sup> )	16	5	2				1						2	2	5			
<u>Northeast Midden</u>																		
plowzone (2.85 m <sup>3</sup> )	188	119	21					2	4		6		16	25		1		
<u>Operation 9</u> Totals (57.3472 m <sup>3</sup> )	1374	803	224		1		30	7	11		10	6	7	138	160	8	12	

Table 2.24. OPERATION 9—UTILITY CERAMICS

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room A</u>															
plowzone (1.97 m <sup>3</sup> )	52	2		3			47		1						
plowzone to floor (0.925 m <sup>3</sup> )	69	5	2				62	2	8		2	1			
plowzone to 5.0 cm over floor (1.46 m <sup>3</sup> )	68	2		3			63	4	13			1		1	
5.0 cm to floor (0.61 m <sup>3</sup> )	123	4		1			118	8	13	5					
floor (0.07 m <sup>3</sup> )															
subfloor (0.06 m <sup>3</sup> )	3						3								
drain feature (0.67 m <sup>3</sup> )	30		2				28		6		2				
<i>Subtotals</i> (5.765 m <sup>3</sup> )	345	13	4	7			321	14	41	5	4	2		1	
<u>Room A &amp; NE Ext</u>															
plowzone & walltop (0.52 m <sup>3</sup> )	41	4		1			36		6						
<u>Rooms A &amp; B</u>															
plowzone & wall (0.56 m <sup>3</sup> )	68	5					63		6						
<u>Rooms A, B, C, &amp; D</u>															
plowzone (0.36 m <sup>2</sup> )	27						27	2	4			1			
<u>Room B</u>															
plowzone (0.915 m <sup>3</sup> )	40	2		2		1	35		2						
plowzone to floor (1.36 m <sup>3</sup> )	21	1	3				17		2						
floor zone (0.12 m <sup>3</sup> )	3						3								
subfloor (0.86 m <sup>3</sup> )	42	4		2		1	35		5		1				
<i>Subtotals</i> (3.255 m <sup>3</sup> )	106	7	3	4		2	90		9		1				
<u>Room B &amp; NE Ext</u>															
plowzone (1.01 m <sup>3</sup> )	32			4	1		27		2						
<u>Northeast Ext</u>															
plowzone ((0.48 m <sup>3</sup> )	100	2		3			95		3		1	1			



OPERATION 9—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>East Exterior</u>															
plowzone (1.265 m <sup>3</sup> )	80	1		1			78		3		1	2			
<u>Room B &amp; SE Ext</u>															
plowzone (0.48 m <sup>3</sup> )	33			1			32	5	7				1		
<u>Room C</u>															
plowzone (1.58 m <sup>3</sup> )	175	12		10			153	2	39	12	1		1		
plowzone to floor (2.933 m <sup>3</sup> )	180	12	9	6		1	152	8	19	2	1	2			
plowzone to 5.0 cm over floor (1.14 m <sup>3</sup> )	79	4		2		3	70		8	3					
directly over floor 1 (0.20 m <sup>3</sup> )	242	8	11	5		1	217	5	38	9	1	1		1	1
between floors 1 & 2 (0.5 m <sup>3</sup> )	125	4				3	118	11	17			2			
subfloor (0.5377 m <sup>3</sup> )	105	4	1	7			93	7	4		4				1
<i>Subtotals</i> (6.8907 m <sup>3</sup> )	<i>906</i>	<i>44</i>	<i>21</i>	<i>30</i>		<i>8</i>	<i>803</i>	<i>33</i>	<i>125</i>	<i>26</i>	<i>7</i>	<i>5</i>	<i>1</i>	<i>1</i>	<i>2</i>
<u>Room C &amp; SE Ext</u>															
plowzone (0.8 m <sup>3</sup> )	22	2		2			18	1	2						
<u>Room C &amp; S Ext</u>															
plowzone (0.4 m <sup>3</sup> )	27	3	2	1			21		3						
<u>South Exterior</u>															
plowzone (0.72 m <sup>3</sup> )	34	1		4			29	1	1						
<u>SE Exterior</u>															
plowzone (0.9695 m <sup>3</sup> )	152	5		8		5	134	4	11		2				
plowzone to tepetate (1.15 m <sup>3</sup> )	90	1				1	88	2	5		1				
<i>Subtotals</i> (2.1195 m <sup>3</sup> )	<i>242</i>	<i>6</i>		<i>8</i>		<i>6</i>	<i>222</i>	<i>6</i>	<i>16</i>		<i>3</i>				
<u>Rooms C &amp; D</u>															
plowzone (0.24 m <sup>3</sup> )	60	5		1			54	6	14		2				

OPERATION 9—UTILITY CERAMICS (Page 3)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room D</b>															
plowzone (0.4 m <sup>3</sup> )	57	4					53		4						1
plowzone to 5.0 cm over floor (2.491 m <sup>3</sup> )	288			6	1		281	17	70		3				1
directly over floor (0.2905 m <sup>3</sup> )	144	8	1	3		1	131	4		18		1			
subfloor (0.05 m <sup>3</sup> )															
<b>Subtotals</b> (3.2315 m <sup>3</sup> )	<b>489</b>	<b>12</b>	<b>1</b>	<b>9</b>	<b>1</b>	<b>1</b>	<b>465</b>	<b>21</b>	<b>74</b>	<b>18</b>	<b>3</b>	<b>1</b>		<b>2</b>	
<b>Room D &amp; SW Ext</b>															
plowzone (0.2 m <sup>3</sup> )	34	3	2	2			27				1				
<b>Southwest Ext</b>															
plowzone (3.8725 m <sup>3</sup> )	103	8	9	1			85	6	8	1	3				
<b>Rooms D &amp; E</b>															
plowzone (2.43 m <sup>3</sup> )	54	4	5			1	44	1	5						
<b>Room E—Northeast</b>															
plowzone--upper (3.8 m <sup>3</sup> )	162	9	5	9	1		138	5	18		4	2	1		
plowzone to floor (7.26 m <sup>3</sup> )	186	8	3	3	1		171	1	17		5	1			
plowzone to 5.0 cm over floor (0.648 m <sup>3</sup> )	21						21		8						
5.0 cm over floor (0.06 m <sup>3</sup> )	2						2								
<b>Room E—Southwest</b>															
plowzone--upper (2.03 m <sup>3</sup> )	212	14	5	8		2	183	4	41	4	2		1	1	
plowzone to floor (1.29 m <sup>3</sup> )	97	3	3	1			90		6	2	2				
plowzone to 5.0 cm over floor (1.07 m <sup>3</sup> )	24			6			18								
5.0 cm over floor (0.35 m <sup>3</sup> )	31	1					30	2	4						

OPERATION 9—UTILITY CERAMICS (Page 4)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Room E—midroom</u>															
floor (0.2 m <sup>3</sup> )	5						5								
<u>Subtotals</u> (16.718 m <sup>3</sup> )	740	35	16	27	2	2	658	12	94	6	13	3	2	1	
<u>Room E &amp; SW Ext</u>															
plowzone (1.0 m <sup>3</sup> )	79	5		1		1	72	1	15					1	
<u>Room E &amp; West Ext</u>															
plowzone (1.2 m <sup>3</sup> )	45	9		2			34	1	2						
<u>Room E &amp; North Ext</u>															
plowzone to tepetate (0.18 m <sup>3</sup> )	9						9								
<u>Room E &amp; NE Ext</u>															
plowzone (0.4 m <sup>3</sup> )	79	5	3	2	2		67		10						
<u>Northeast Midden</u>															
plowzone (2.85 m <sup>3</sup> )	1097	78	27	28	2	7	955	6	82		12	5	1		
<u>Operation 9</u> Totals (57.3472 m <sup>3</sup> )	4852	252	93	139	8	28	4332	117	532	56	51	20	5	6	2

## OPERATION 10

### Setting

This operation entailed the excavation of a mound about 20 m across, on the same terrace as, and about 50 m west of Operation 9. The mound was about 0.5 m high, distinguished by the low rise, and the density of cobbles on the surface, as well as by concentrations of sherds and obsidian. As we pointed out in the description of Operation 9, the soil in this area is shallow, resulting in the disturbance by plowing of archaeological contexts. For Structure 9, this meant that the western walls of Courtyard E were only one course high, and that resting on tepetate. The damage to the structure underlying the mound in Operation 10 has been much more severe: as Figure 2.11 shows, few wall lines remain completely intact, and much of the reconstruction of the outer walls is hypothetical.

### Method

Excavation began on the southeast side of the mound, uncovering the DF wall. From there, 2 x 2 m trenches were extended over the mound's surface, delineating the existing wall lines, testing for hypothetical extensions of these, and uncovering room contexts. In all, an area of 113m<sup>2</sup> was uncovered, and 35.39m<sup>3</sup> was excavated by eight workers in 4 days.

### Architecture and Features

It is unfortunate that so much of the structure has been destroyed, since the remaining wall patterns are suggestive of a house plan which departs from the norm in some interesting ways, featuring (among other things) column bases and a problematical round feature similar to those found in the rear of Structure 6. If we assume Room E to be a main/entry hall, then we reconstruct the other rooms as leading off from this. Abrams, who directed the excavations here, hypothesizes a back wall to the structure, closing off Rooms C and D. Since the only solid corner here is Room B's eastern corner, and excavation in the CD area came up with no surviving wall lines, we must be cautious about projecting enclosed spaces where perhaps only hard-packed surfaces existed.

For these reasons, estimating the size of the building is difficult. Based on the linear dimensions of parallel wall lines at their most extensive, which are 9 m southwest-northeast and 13 m northwest-southwest, the area covered by the structure might have been about 117 m<sup>2</sup>. But the actual area was considerably smaller, since the house had a distinctly eccentric shape, with no evidence of a room to the west of the main room, E, which would have symmetrically balanced the eastern extension, Room F.

Floors in this house were of packed earth, and several rooms have two superimposed floor levels.

Discussion of the rooms will begin with the main hall, Room E, and then proceed to its adjacent extension, Room F. Then Rooms A and B will be discussed, and finally, Rooms, (or perhaps more properly, areas) C and D. Artifacts are summarized in Tables 2.25, 2.26, and 2.27.

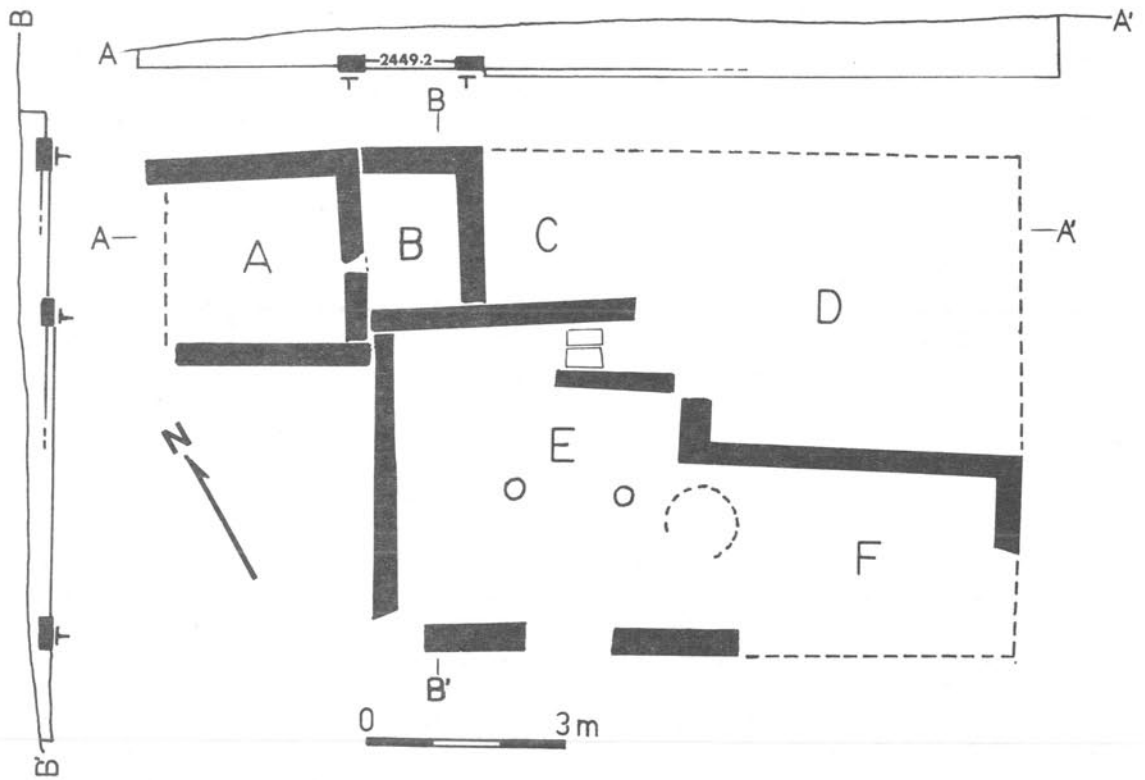


Figure 2.11

**CIHUATECPAN, STRUCTURE 10**

(Black areas indicate solid construction; dashed lines indicate extrapolation;  
"T" indicates tepetate)

## Structure 10, Room E

Architecture and Features. Roughly 5.1 x 4.4 m, this room has an eccentric shape, especially since there is no wall separating this area from Room F, to the southeast. If we use the presumed pillar bases as central points, from which the room would extend symmetrically outward in both directions, the area is about 21 m<sup>2</sup>.

The walls around this room are discontinuous, and seem to be the result of a patchwork process of construction; this, and the poor preservation of the walls, make interpretation of the relations of features more difficult. Let us assume that Room E was the entry room of the building: the doorway was clearly indicated by a 1.25 m gap in the southwest wall. This doorway was also symmetrically positioned, with regard to the two pillars. Behind the pillar bases, against the back wall, was a tlequil (hearth) with a line of stone in front of it (this placement of the tlequil is reminiscent of the plan of Room L in Structure 6). Since the corner separating Room E from Room D is missing, we do not know if these rooms connected near the tlequil. Given the low height of the wall remnants in general, the wall base in front of the tlequil may possibly be interpreted as the foundations of a true wall (for a passage from Room E to Room D), but this is unlikely given the presence of the hearth. This wall base is probably a low dividing wall, marking off the hearth area.

The pillar bases are a unique feature, not found in the other structures excavated this season. These pillar bases are discs of tezontle, about 24 cm across and rising about 10 cm above the floor, into which they are cemented with a mixture of clay mortar and tezontle gravel. They are reminiscent of the round pillars found by Sisson in the Tehuacan Valley at the Coxcatlan Road Site (described in Fowler and MacNeish 1972, and in Sisson 1973), and also recall the stone bases for roof columns found at the Corral Locality at Tula (Diehl 1983:94).

At the Coxcatlan Road Site, Room 66 of Structure 152 (occupied during Late Venta Salada and into Colonial times) had eight pillars. Six of these "had round cut stone discs at their base" (Fowler and MacNeish 1972:329) and above the disc, there alternated cylindrical sections of adobe and cut stone discs, and then all were stuccoed over.

At Tula, stone bases were found, leading Diehl to speculate that the columns were made of wooden beams. The method of construction here at Cihuatepan isn't known; there is no corroborating evidence, as of other stone discs. Perhaps the two in Room E served as the bases of wooden pillars. In any case, the effect of the pillars and the tlequil in the background would have been aesthetically pleasing. Room E had two superimposed hard-packed earth floors, at 2449.11 masl. and 2449.00 masl., the same levels as the floors in Rooms C, D, and F. Room E's wall bases rest on the lower of these surfaces.

Between Rooms E and F and dividing them spatially (there was no evidence of a wall) is a partial problematical round feature. This feature consisted of a single course of tezontle cobbles, a quarter-circle about 64 cm long (its projected diameter is about 1.75 m). This rests on the upper floor.

Artifacts. Ceramics recovered in the context of this room included 1414 sherds (given 6.8m<sup>3</sup> excavated, the average density is 208 sherds/m<sup>3</sup>). Utility sherds accounted for 69%, a value close to the general average. All common utility types are represented, with comales accounting for a whopping 72% of recognizable utility sherds. In fine wares, most of the commonest types were present, and Black/Orange diagnostics included "D",

"E", "F", and "H". Three "D" sherds were found right over the lower floor. Sherds in the wall adjacent to the clequil included "D" and "F" types. Three small spindle whorls and one worked sherd also appeared in the upper levels, and seven figurine fragments were found.

The lithic repertoire includes four maguey scrapers and a ground stone (tezontle) tripod artifact (possibly a mortar), 10 cm high and 8 cm across. Obsidian occurred in all levels with a grey-black to green ratio of 1.6:1.

### Structure 10, Room E—Adjacent Exterior

*Features and Artifacts.* The southwest exterior of the building was its entry area, if our reconstruction of the main door into Room E is correct. This was characterized by a hard-packed earth surface with a fairly dense concentration of artifacts: 217 sherds/m<sup>3</sup>. Of these sherds, 72% are from utility vessels, and the functional types represented are limited to camales, jars, and salt-making wares. The fine ceramic sherds cover all the common types and include a glazed ware sherd in the plowzone. Black/Orange types cover the same range as in Room E, reflecting Aztec III and IV categories. Five figurine fragments were found, and obsidian in a grey-black to green ratio of 3.8:1.

### Structure 10, Room F

*Architecture and Features.* With its southern walls lacking, Room F is difficult to reconstruct in terms of size. Only a remnant of the southeastern wall remains, and nothing of the southwestern wall. The two floor levels found in Room E continue here.

*Artifacts.* The sherd density here is moderate, 117/m<sup>3</sup>. Eighty percent of the sherds represent utility wares, an unusually high proportion. Only nine of the 162 utility sherds were recognizable as to functional type, and they are comales and jars. Fine wares include most common types, and the one recognizably diagnostic Black/Orange sherd was a type "F" from directly over the upper floor. One small spindle whorl was found in the plowzone. The only lithics were obsidian in a grey-black to green ratio of 4.8:1.

*Artifacts, Room F—East Exterior.* In this area, the sherd density was low (52/m<sup>3</sup>).

### Structure 10, Room A

*Architecture and Features.* This small (2.9 x 2.3 m, 6.67 m<sup>2</sup>) room appears, from the nature of the wall bonding, to have been tacked on to the house (and Room B seems to have then been "tacked on" to the house and to Room A). Its entire northwestern wall is missing, and Abrams points out in his notes that the southwest-northeast oriented walls seem to have suffered the greatest damage here, because they are perpendicular to the direction of plowing.

This room has a single hard-packed earth floor, at 2449.18 masl., and the wall bases rest on it.

Artifacts. Much of the artifact material from Room A comes from mixed contexts, but the material coming from directly over the floor and from the floor fill represents an extremely dense concentration of sherds, averaging 768/m<sup>3</sup>. The ceramic repertoire encompassed by the sherds from these Room A contexts follows the usual array of functional types (except for basins) and fine wares. A Black/Orange "D" sherd occurred in the level directly over the floor, and "D" and "E" sherds were found in the mixed and exterior settings. A few figurine fragments occurred. Lithics in these contexts were limited to obsidian, which occurred in a 6.3:1 grey-black to green ratio in the room itself and a 2.6:1 ratio in the mixed and exterior contexts.

### Structure 10, Room B

Architecture and Features. Measuring 1.6 x 1.9 m (3.04 m<sup>2</sup>), this is one of the smallest rooms in any of these structures. Though the walls are so low that reconstruction of the construction sequence is difficult, the northeast and southeast walls seem to abut the (presumably) already established AB and BE walls, therefore indicating that this room was a later addition.

The room has two floor levels, at 2449.20 masl., and at 2449.03 masl.

Artifacts. Sherd density in the Room B contexts is high, 185 sherds/m<sup>3</sup>, and it is even higher in some of the adjacent mixed contexts, for example, the Rooms B and E mixed plowzone, with 380 sherds/m<sup>3</sup>. Room B had typical proportions of utility and fine wares, and ceramics included the commonest types, with Black/Orange "D" sherds occurring directly over both floors. Two large spindle whorls were found in Room B and the adjacent mixed plowzone. Lithics were limited to obsidian, in nearly a 1:1 ratio in Room B and in adjacent mixed contexts.

### Structure 10, Rooms C and D

Architecture and Features. These areas are northeast of Rooms E and F, and entirely lack northeast and southeast walls to define their extent, and also lack an interior wall to divide them. Abrams found two clear hard-packed earth floors (2449.10 and 2449.00 masl.) which are at the same levels as those of Rooms E and F. His decision to divide these into separate zones was based on the desirability of maintaining different contexts in order to delineate different activity areas. Except for the floors (the upper floor in C had a cascajo surface), no features were discernable here.

Artifacts. Sherd densities here in these areas and in adjacent mixed and exterior contexts average 287 sherds/m<sup>3</sup>. This concentration results from erosion effects, as the northeast walls of the building act as a dam blocking the downslope progression of dirt and sherds. It is less clear whether this area served as a trash dump. "Room" C, for example, has no artifactual material of any kind in the two lowest levels (and discounting the 0.81/m<sup>3</sup> of fill here brings the overall sherd density up to 309/m<sup>3</sup>).

Utility types show some interesting anomalies in distributions; Rooms C and D lack basins and only one brazier sherd (in the plowzone for Room D) was found in the room contexts. This absence of basin sherds persists in the mixed and exterior contexts. The commonest fine ware types are represented, and Black/Orange "D" and "E" types are found in the floor contexts. Only one spindle turned up in this area, a large one directly over the floor of Room D. Numerous figurine fragments were found. Lithics include a maguay scraper and a pestle, and obsidian in a 1.6:1 grey-black to green ratio.



Table 2.25. OPERATION 10—ARTIFACT SUMMARY

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Room A</u>													
directly over floor (0.2 m <sup>3</sup> )	136	116	20	1		1			14	3			
fill of floor (0.27 m <sup>3</sup> )	225	198	27			2			5				
<i>Subtotals</i>	<i>361</i>	<i>314</i>	<i>47</i>	<i>1</i>		<i>3</i>			<i>19</i>	<i>3</i>			
<u>Room A &amp; Ext-S</u>													
plowzone (1.4 m <sup>3</sup> )	11	8	3	1					16	5			
<u>Room A &amp; Ext-N</u>													
plowzone (1.5 m <sup>3</sup> )	125	85	40	1	1	1			10	7			
<u>Room A &amp; Ext-W</u>													
plowzone (1.62 m <sup>3</sup> )	137	89	48			2			19	4			
<u>Exterior</u>													
directly over surface (0.31 m <sup>3</sup> )	216	171	45	1					17	8			
fill of surface (0.17 m <sup>3</sup> )	30	26	4			1							
<i>Subtotals</i>	<i>246</i>	<i>197</i>	<i>49</i>	<i>1</i>		<i>1</i>			<i>17</i>	<i>8</i>			
<u>Room B</u>													
plowzone (1.44 m <sup>3</sup> )	176	134	42	2		1			9	7			
directly over upper floor (0.4 m <sup>3</sup> )	166	117	49	1		3			6	5			
fill of upper floor (0.04 m <sup>3</sup> )	22	13	9							2			
fill of lower floor (0.11 m <sup>3</sup> )	5	5							2	1			
<i>Subtotals</i>	<i>369</i>	<i>269</i>	<i>100</i>	<i>3</i>		<i>4</i>			<i>17</i>	<i>15</i>			
<u>Rooms B &amp; E</u>													
plowzone (0.68 m <sup>3</sup> )	259	193	66			1			8	9			
<u>Room B &amp; Ext-N</u>													
plowzone (0.24 m <sup>3</sup> )	122	82	40		1	3			7	5			

OPERATION 10—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Rooms B &amp; C &amp; Ext-N</u>													
plowzone (0.81 m <sup>3</sup> )	36	27	9						2	2			
<u>Room C</u>													
plowzone (1.12 m <sup>3</sup> )	303	235	68			2			11	10			
directly over upper floor (0.35 m <sup>3</sup> )	150	110	40						5	5			
fill of upper floor (0.33 m <sup>3</sup> )													
fill of lower floor (0.48 m <sup>3</sup> )													
<i>Subtotals</i>	<i>453</i>	<i>345</i>	<i>108</i>			<i>2</i>			<i>16</i>	<i>15</i>			
<u>Rooms C &amp; D</u>													
plowzone (1.72 m <sup>3</sup> )	335	231	104	3		2			18	7			1 scraper
directly over upper floor (0.2 m <sup>3</sup> )	135	86	49				1		5	1			
<i>Subtotals</i>	<i>470</i>	<i>317</i>	<i>153</i>	<i>3</i>		<i>2</i>	<i>1</i>		<i>23</i>	<i>8</i>			<i>1 scraper</i>
<u>Room C &amp; Ext-N</u>													
plowzone (0.44 m <sup>3</sup> )	138	113	25						6	5			
<u>Room D</u>													
plowzone (3.58 m <sup>3</sup> )	978	735	243	1		2			35	29			
plowzone adj. to tlequijl (0.46 m <sup>3</sup> )	163	132	31			1			1	3			
directly over floor at 49.30 (0.6 m <sup>3</sup> )	312	208	104	1					5	4			
fill of floor (0.68 m <sup>3</sup> )	58	48	10	1					9	2			
<i>Subtotals</i>	<i>1511</i>	<i>1123</i>	<i>388</i>	<i>3</i>		<i>3</i>			<i>50</i>	<i>38</i>			

OPERATION 10—ARTIFACT SUMMARY (Page 3)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Rooms D &amp; F</u>													
plowzone (0.52 m <sup>3</sup> )	118	112	6						11	3			
directly over floor at 49.30 (0.4 m <sup>3</sup> )	141	85	56	2					18	8			
fill of floor (0.48 m <sup>3</sup> )	227	193	34						6	8			1 unknown 1 pestle
<i>Subtotals</i>	<i>486</i>	<i>390</i>	<i>96</i>	<i>2</i>					<i>35</i>	<i>19</i>			<i>1 unknown 1 pestle</i>
<u>Exterior</u>													
plowzone east of Room D (0.01 m <sup>3</sup> )	207	155	52	1		1			13	4			
<u>Room E</u>													
plowzone (5.49 m <sup>3</sup> )	971	673	298	4	1	3			44	21			1 scrapper
directly over floor at 49.11 (0.5 m <sup>3</sup> )	264	187	77	1					8	12			1 unknown
directly over floor at 49.00 (0.6 m <sup>3</sup> )	153	103	50						12	8			2 scrapers
fill of floor at 49.00 (0.18 m <sup>3</sup> )	11	10	1	2					1				1 scrapper
under east column support (0.03 m <sup>3</sup> )	15	6	9						1				
<i>Subtotals</i>	<i>1414</i>	<i>979</i>	<i>435</i>	<i>7</i>	<i>1</i>	<i>3</i>			<i>66</i>	<i>41</i>			<i>4 scrapers 1 unknown</i>
<u>Room E—Walls</u>													
front wall (0.03 m <sup>3</sup> )	6	5	1						1				
wall adjacent to tlequil	32	19	12						1	2			
<u>Room E &amp; Ext-W</u>													
plowzone (0.44 m <sup>3</sup> )	85	46	39			1	1 Maz		3	2			
<u>Room E &amp; Ext-S</u>													
plowzone (0.68 m <sup>3</sup> )	88	70	18						8	1			1 scrapper

OPERATION 10—ARTIFACT SUMMARY (Page 4)

CONTEXT					Supports				Obsidian pcs		Ground Stone		
	total sherds	total utility	total fine	figurines	slab	Conical		oth	black	green	mano	metate	other
						sol	hol						
<u>Ext—Room E</u>													
plowzone, west (0.84 m <sup>3</sup> )	179	124	55					1	8	1			
plowzone, south (2.04 m <sup>3</sup> )	491	365	126	3					26	16			
directly over ext surface, west (0.42 m <sup>3</sup> )	89	71	18						6				
directly over ext surface, south (0.24 m <sup>3</sup> )	85	53	32	2				1	24	1			
fill of ext surface, south (1.14 m <sup>3</sup> )	76	46	30						16	3			
<u>Room F</u>													
plowzone (1.14 m <sup>3</sup> )	145	119	26						17	2			
directly over floor at 49.30 (0.14 m <sup>3</sup> )	19	14	5						1				
fill of floor at 49.30 (0.32 m <sup>3</sup> )	24	18	6						5	2			
fill of floor at 49.11 (0.14 m <sup>3</sup> )	15	11	4						1	1			
<i>Subtotals</i>	<i>203</i>	<i>162</i>	<i>41</i>						<i>24</i>	<i>5</i>			
<u>Room F &amp; Ext-E</u>													
plowzone (0.88 m <sup>3</sup> )	46	10	36						1				
<u>Exterior</u>													
plowzone, east (0.15 m <sup>3</sup> )	150	148	2						14	7			
<u>Operation 10</u> Totals (35.39 m <sup>3</sup> )	7875	5805	2070	28	2	28	2	1	456	226			2 unknown 6 scrapers 1 pestle

Table 2.26. OPERATION 10—FINE CERAMICS

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<b>Room A</b>																		
directly over floor (0.2 m <sup>3</sup> )	20	10	4				2									6		
fill of floor (0.27 m <sup>3</sup> )	27	18	1													4	4	
<i>Subtotals</i>	<i>47</i>	<i>28</i>	<i>5</i>				<i>2</i>								<i>4</i>	<i>10</i>		
<b>Room A &amp; Ext-S</b>																		
plowzone (1.4 m <sup>3</sup> )	3	1	1														1	
<b>Room A &amp; Ext-N</b>																		
plowzone (1.5 m <sup>3</sup> )	40	30	6				2								1	3		
<b>Room A &amp; Ext-W</b>																		
plowzone (1.62 m <sup>3</sup> )	48	40	6				1	1								2		
<b>Exterior</b>																		
directly over surface (0.31 m <sup>3</sup> )	45	12	14				2								2	13	4	
fill of surface (0.17 m <sup>3</sup> )	4	1	1				1									2		
<i>Subtotals</i>	<i>49</i>	<i>13</i>	<i>15</i>				<i>3</i>								<i>2</i>	<i>15</i>	<i>4</i>	
<b>Room B</b>																		
plowzone (1.44 m <sup>3</sup> )	42	25	7				2	1	1						5	4	1	
directly over upper floor (0.4 m <sup>3</sup> )	49	32	8				2								4	3	2	
fill of upper floor (0.04 m <sup>3</sup> )	9	4	4				2									1		
fill of lower floor (0.11 m <sup>3</sup> )																		
<i>Subtotals</i>	<i>100</i>	<i>61</i>	<i>19</i>				<i>6</i>	<i>1</i>	<i>1</i>						<i>9</i>	<i>8</i>	<i>3</i>	
<b>Rooms B &amp; E</b>																		
plowzone (0.68 m <sup>3</sup> )	66	58	5				2									3		
<b>Room B &amp; Ext-N</b>																		
plowzone (0.24 m <sup>3</sup> )	40	32														7	1	

OPERATION 10—FINE CERAMICS (Page 2)

CONTEXT	Black on Orange												glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J						
<b>Rooms B &amp; C &amp; Ext-N</b>																		
plowzone (0.81 m <sup>3</sup> )	9	4	2												1	1	1	
<b>Room C</b>																		
plowzone (1.12 m <sup>3</sup> )	68	39	10				4		1						2	17		
directly over upper floor (0.35 m <sup>3</sup> )	40	19	5				1	1							4	5	1	
fill of upper floor (0.33 m <sup>3</sup> )																		
fill of lower floor (0.48 m <sup>3</sup> )																		
<i>Subtotals</i>	<i>108</i>	<i>58</i>	<i>15</i>				<i>5</i>	<i>1</i>	<i>1</i>						<i>6</i>	<i>22</i>	<i>1</i>	
<b>Rooms C &amp; D</b>																		
plowzone (1.72 m <sup>3</sup> )	104	70	13				2								7	13	1	
directly over upper floor (0.2 m <sup>3</sup> )	52	24	10				2								1	5	6	
<i>Subtotals</i>	<i>156</i>	<i>94</i>	<i>23</i>				<i>4</i>								<i>8</i>	<i>18</i>	<i>7</i>	
<b>Room C &amp; Ext-N</b>																		
plowzone (0.44 m <sup>3</sup> )	25	11	7												1	6		
<b>Room D</b>																		
plowzone (3.58 m <sup>3</sup> )	243	146	39				6	1							18	35	5	
plowzone adj. to tlequil (0.46 m <sup>3</sup> )	31	25	2				1									4		
directly over floor at 49.30 (0.6 m <sup>3</sup> )	104	65	9				4	1							14	12	4	
fill of floor (0.68 m <sup>3</sup> )	10	6	1					1								2	1	
<i>Subtotals</i>	<i>388</i>	<i>232</i>	<i>51</i>				<i>11</i>	<i>3</i>							<i>32</i>	<i>53</i>	<i>10</i>	

OPERATION 10—FINE CERAMICS (Page 3)

CONTEXT	Black on Orange											glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H						
<b>Rooms D &amp; F</b>																	
plowzone (0.52 m <sup>3</sup> )	6		4		1		2									2	
directly over floor at 49.30 (0.4 m <sup>3</sup> )	56	34	6				1	1						3	7	6	
fill of floor (0.48 m <sup>3</sup> )	35	11	6				2							3	8	5	
<i>Subtotals</i>	97	45	16		1		5	1						6	15	13	
<b>Exterior</b>																	
plowzone east of Room D (0.01 m <sup>3</sup> )	52	28	14				1							1	6	3	
<b>Room E</b>																	
plowzone (5.49 m <sup>3</sup> )	301	139	43				13	1	4		1			28	57	28	
directly over floor at 49.11 (0.5 m <sup>3</sup> )	77	53	7				2	1						7	5	5	
directly over floor at 49.00 (0.6 m <sup>3</sup> )	50	34	8				3							1	5	2	
fill of floor at 49.00 (0.18 m <sup>3</sup> )	1														1		
under east column support (0.03 m <sup>3</sup> )	9													5	4		
<i>Subtotals</i>	438	226	58				18	2	4		1			41	72	35	
<b>Room E—Walls</b>																	
front wall (0.03 m <sup>3</sup> )	1														1		
wall adjacent to tlequil	13	5	5				3		1						3		
<b>Room E &amp; Ext-W</b>																	
plowzone (0.44 m <sup>3</sup> )	39	28	6				3	1							3	2	
<b>Room E &amp; Ext-S</b>																	
plowzone (0.68 m <sup>3</sup> )	18	11	1											5	1		

OPERATION 10—FINE CERAMICS (Page 4)

CONTEXT	Black on Orange											glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
	total fine	plain orange	tot	A	B	C	D	E	F	G	H						
<u>Ext—Room E</u>																	
plowzone, west (0.84 m <sup>3</sup> )	56	31	9				4				1			5	8		1
plowzone, south (2.04 m <sup>3</sup> )	126	83	17				3		1				1	8	15	1	1
directly over ext surface, west (0.42 m <sup>3</sup> )	18	7	9				1	1	1					1	1		
directly over ext surface, south (0.24 m <sup>3</sup> )	32	23	5											2	2		
fill of ext surface, south (1.14 m <sup>3</sup> )	30	19	5				3							4	1		1
<u>Room F</u>																	
plowzone (1.14 m <sup>3</sup> )	26	17	2											2	4		1
directly over floor at 49.30 (0.14 m <sup>3</sup> )	5	2	1						1						2		
fill of floor at 49.30 (0.32 m <sup>3</sup> )	6	3	1											1	1		
fill of floor at 49.11 (0.14 m <sup>3</sup> )	4														1		3
<i>Subtotals</i>	<i>41</i>	<i>22</i>	<i>4</i>						<i>1</i>					<i>3</i>	<i>8</i>		<i>4</i>
<u>Room F &amp; Ext-E</u>																	
plowzone (0.88 m <sup>3</sup> )	37	12	7				4							9	7		
<u>Exterior</u>																	
plowzone, east (0.15 m <sup>3</sup> )	3	1															
<u>Operation 10 Totals</u>	<b>2080</b>	<b>1213</b>	<b>311</b>		<b>1</b>		<b>87</b>	<b>11</b>	<b>10</b>		<b>2</b>		<b>2</b>	<b>154</b>	<b>288</b>	<b>3</b>	<b>89</b>



Table 2.27. OPERATION 10—UTILITY CERAMICS

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<b>Room A</b>															
directly over floor (0.2 m <sup>3</sup> )	116	4		6	2	1		3	7						
fill of floor (0.27 m <sup>3</sup> )	198	7						4	18						
<i>Subtotals</i>	<i>314</i>	<i>11</i>		<i>6</i>	<i>2</i>	<i>1</i>		<i>7</i>	<i>25</i>						
<b>Room A &amp; Ext-S</b>															
plowzone (1.4 m <sup>3</sup> )	8	1													
<b>Room A &amp; Ext-N</b>															
plowzone (1.5 m <sup>3</sup> )	85			4							1	1			
<b>Room A &amp; Ext-W</b>															
plowzone (1.62 m <sup>3</sup> )	89	2			1			1			2				
<b>Exterior</b>															
directly over surface (0.31 m <sup>3</sup> )	171	8		2	1	1			2			1			
fill of surface (0.17 m <sup>3</sup> )	26	2						1	1		1				1
<i>Subtotals</i>	<i>197</i>	<i>10</i>		<i>2</i>	<i>1</i>	<i>1</i>		<i>1</i>	<i>3</i>		<i>1</i>	<i>1</i>			<i>1</i>
<b>Room B</b>															
plowzone (1.44 m <sup>3</sup> )	134	6	6	6					5			3			
directly over upper floor (0.4 m <sup>3</sup> )	117	6		1				5	6						1
fill of upper floor (0.04 m <sup>3</sup> )	13							2	2						
fill of lower floor (0.11 m <sup>3</sup> )	5														
<i>Subtotals</i>	<i>269</i>	<i>12</i>	<i>6</i>	<i>7</i>				<i>7</i>	<i>13</i>			<i>3</i>			<i>1</i>
<b>Rooms B &amp; E</b>															
plowzone (0.68 m <sup>3</sup> )	193	6		5				1			3	1			1
<b>Room B &amp; Ext-N</b>															
plowzone (0.24 m <sup>3</sup> )	82	7	1	4	1	1						1			

OPERATION 10—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Rooms B &amp; C &amp; Ext-N</u>															
plowzone (0.81 m <sup>3</sup> )	27	2													
<u>Room C</u>															
plowzone (1.12 m <sup>3</sup> )	235	2		7		1		10	33		6	2			
directly over upper floor (0.35 m <sup>3</sup> )	110	10		4				4	4		1				
fill of upper floor (0.33 m <sup>3</sup> )															
fill of lower floor (0.48 m <sup>3</sup> )															
<i>Subtotals</i>	<i>345</i>	<i>12</i>		<i>11</i>		<i>1</i>		<i>14</i>	<i>37</i>		<i>7</i>	<i>2</i>			
<u>Rooms C &amp; D</u>															
plowzone (1.72 m <sup>3</sup> )	231	17		3	6	2					5	1			
directly over upper floor (0.2 m <sup>3</sup> )	86	5		2		1		1	1						
<i>Subtotals</i>	<i>317</i>	<i>22</i>		<i>5</i>	<i>6</i>	<i>3</i>		<i>1</i>	<i>1</i>		<i>5</i>	<i>1</i>			
<u>Room C &amp; Ext-N</u>															
plowzone (0.44 m <sup>3</sup> )	113	6		11		2									
<u>Room D</u>															
plowzone (3.58 m <sup>3</sup> )	735	33		15	1	2		15	45	1	9	1			
plowzone adj. to tlequil (0.46 m <sup>3</sup> )	132	7				3		4	13		1				
directly over floor at 49.30 (0.6 m <sup>3</sup> )	208	2		7		2		3	16		2	1		1	1
fill of floor (0.68 m <sup>3</sup> )	48	4													
<i>Subtotals</i>	<i>1123</i>	<i>42</i>		<i>22</i>	<i>1</i>	<i>7</i>		<i>22</i>	<i>74</i>	<i>1</i>	<i>12</i>	<i>2</i>		<i>1</i>	<i>1</i>

OPERATION 10—UTILITY CERAMICS (Page 3)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Rooms D &amp; F</u>															
plowzone (0.52 m <sup>3</sup> )	112	9			1	2		5	6						
directly over floor at 49.30 (0.4 m <sup>3</sup> )	85	3		2	1						1				
fill of floor (0.48 m <sup>3</sup> )	193							9	21		2				
<i>Subtotals</i>	<i>390</i>	<i>12</i>		<i>2</i>	<i>2</i>	<i>2</i>		<i>14</i>	<i>27</i>		<i>3</i>				
<u>Exterior</u>															
plowzone east of Room D (0.01 m <sup>3</sup> )	155	8		4				4	8						
<u>Room E</u>															
plowzone (5.49 m <sup>3</sup> )	673	35		10	2	1		12	57	3	7	1	2		1
directly over floor at 49.11 (0.5 m <sup>3</sup> )	187	11	1	2				1	18	2	1	1			
directly over floor at 49.00 (0.6 m <sup>3</sup> )	103	2			1			6	5				1		
fill of floor at 49.00 (0.18 m <sup>3</sup> )	10			2					4						
under east column support (0.03 m <sup>3</sup> )	6								6		1				
<i>Subtotals</i>	<i>979</i>	<i>48</i>	<i>1</i>	<i>14</i>	<i>3</i>	<i>1</i>		<i>19</i>	<i>90</i>	<i>5</i>	<i>9</i>	<i>2</i>	<i>3</i>		<i>1</i>
<u>Room E—Walls</u>															
front wall (0.03 m <sup>3</sup> )	5			1											
wall adjacent to tlequil	19							1							
<u>Room E &amp; Ext-W</u>															
plowzone (0.44 m <sup>3</sup> )	46	3													
<u>Room E &amp; Ext-S</u>															
plowzone (0.68 m <sup>3</sup> )	70	6		5				2			1				

OPERATION 10—UTILITY CERAMICS (Page 4)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Ext—Room E</u>															
plowzone, west (0.84 m <sup>3</sup> )	124	6		2				7	13		1				
plowzone, south (2.04 m <sup>3</sup> )	365	9		7		3		10	32		1				
directly over ext surface, west (0.42 m <sup>3</sup> )	71	2						5	2						
directly over ext surface, south (0.24 m <sup>3</sup> )	53	2						1	3		1				
fill of ext surface, south (1.14 m <sup>3</sup> )	46	2							6		2				
<u>Room F</u>															
plowzone (1.14 m <sup>3</sup> )	119	5		1				6	12		1	2	1		
directly over floor at 49.30 (0.14 m <sup>3</sup> )	14	1		1					1						
fill of floor at 49.30 (0.32 m <sup>3</sup> )	18								1						
fill of floor at 49.11 (0.14 m <sup>3</sup> )	11	1													
<i>Subtotals</i>	<i>162</i>	<i>7</i>		<i>2</i>				<i>6</i>	<i>14</i>		<i>1</i>	<i>2</i>	<i>1</i>		
<u>Room F &amp; Ext-E</u>															
plowzone (0.88 m <sup>3</sup> )	10														
<u>Exterior</u>															
plowzone, east (0.15 m <sup>3</sup> )	140	5		8	1	1		2	9						
<u>Operation 10</u> Totals	5805	243	8	122	18	23		125	357	6	50	16	4	3	3

## OPERATIONS 11 - 24

Each of the fourteen mounds in this sample (Operations 11 - 24; see Figure 2.1) was gridded off into 10 x 10 m units, and completely surface collected on that basis. In Tables 2.28, 2.29, and 2.30, sherd counts and ground stone frequencies are summarized for each operation, and the most striking feature of these values is the overwhelming preponderance of decorated wares (93%). Decorated wares account for only 30% of sherds from excavated contexts, so the surface collection obviously missed considerable utility material. Of the 74 utility sherds, 53 were of a recognizable type (1 basin sherd, 3 salt vessel sherds, and 49 brazier sherds) so that assessing possible patterns of functional variability among Operations 11 - 24 on the basis of utility wares was impossible. The decorated wares included stylistic types found in the rest the site, with a chronological range from the Late Toltec Mazapan period into the Colonial period. Black/Orange wares accounted for 52% of decorated wares from Operations 11 - 24, compared with 19% for the excavated operations. The bias toward decorated wares, and the distinctive Black/Orange types, is obviously an artifact of differential visibility. The high visibility of the Black/Orange wares gives us good basis for chronology: all types of Black/Orange ware at the site are represented in these operations (types "A" through "J") with type "D", probably dating from the fifteenth century, having the greatest frequency.

The 100 m<sup>2</sup> collection units for each of these operations will serve as the basis for further analysis of the artifacts. Several of these mounds will be excavated in the future, and discernable patterns of sherd concentration will help guide research strategy.

**Table 2.28. OPERATIONS 11 - 24—ARTIFACT SUMMARY**

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Op 11</u>													
surface collection (1100 m <sup>2</sup> )	108	7	101	2	6	4					1		
<u>Op 12</u>													
surface collection (1100 m <sup>2</sup> )	50	6	44	9	16	5						2	
<u>Op 13</u>													
surface collection (1300 m <sup>2</sup> )	205	14	191	9	10	23							
<u>Op 14</u>													
surface collection (600 m <sup>2</sup> )	90	19	71	5	6	14	1				2		
<u>Op 15</u>													
surface collection (900 m <sup>2</sup> )	94	15	79	10	5	10	2						1 bowl
<u>Op 16</u>													
surface collection (400 m <sup>2</sup> )	111		111	5								1	1 scraper
<u>Op 17</u>													
surface collection (600 m <sup>2</sup> )	33	2	31	7	1								2 scrapers
<u>Op 18</u>													
surface collection (600 m <sup>2</sup> )	170	5	165	17							1		
<u>Op 19</u>													
surface collection (400 m <sup>2</sup> )	76	2	74	2									
<u>Op 20</u>													
surface collection (400 m <sup>2</sup> )	51	1	50	1							1		
<u>Op 21</u>													
surface collection (400 m <sup>2</sup> )	26	2	24		1						2		
<u>Op 22</u>													
surface collection (400 m <sup>2</sup> )	10		10	1	2								

OPERATIONS 11 - 24—ARTIFACT SUMMARY (Page 2)

CONTEXT					Supports								
	total sherds	total utility	total fine	figurines	slab	Conical			Obsidian pcs		Ground Stone		
						sol	hol	oth	black	green	mano	metate	other
<u>Op 23</u>													
surface collection (400 m <sup>2</sup> )	25	1	24	2	1								
<u>Op 24</u>													
surface collection (400 m <sup>2</sup> )	9		9	1									
<u>OPS 11 - 24</u> Totals (9200 m <sup>2</sup> )	1068	84	984	71	48	56	3				7	3	1 bowl 3 scrapers

**Table 2.29. OPERATIONS 11 - 24—FINE CERAMICS**

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Op 11</u>																		
surface collection (1100 m <sup>2</sup> )	101	27	46		1		20	3	3		4			4	20		2	1
<u>Op 12</u>																		
surface collection (1100 m <sup>2</sup> )	44		29								1		3		5	5		1
<u>Op 13</u>																		
surface collection (1300 m <sup>2</sup> )	191		98	1	7	1	51	8	4		1		3	1	39	15	6	4
<u>Op 14</u>																		
surface collection (600 m <sup>2</sup> )	71	3	31		1		13	2			1			2	22	2	6	1
<u>Op 15</u>																		
surface collection (900 m <sup>2</sup> )	79		49		1		18	13			2		1		15	5	3	2
<u>Op 16</u>																		
surface collection (400 m <sup>2</sup> )	111	3	56		2		21	6	2		4				33	7	2	2
<u>Op 17</u>																		
surface collection (600 m <sup>2</sup> )	31		19				6	2	1		2				1	1	1	
<u>Op 18</u>																		
surface collection (600 m <sup>2</sup> )	165	3	83	2	2		25	7	3		5		1		66	4	4	1
<u>Op 19</u>																		
surface collection (400 m <sup>2</sup> )	74	1	41	1	1		18				1	1	3	1	4	7	1	
<u>Op 20</u>																		
surface collection (400 m <sup>2</sup> )	50		21				14	2	1				21			1	4	
<u>Op 21</u>																		
surface collection (400 m <sup>2</sup> )	24		16				3	3	3		1		1		2	2	2	
<u>Op 22</u>																		
surface collection (400 m <sup>2</sup> )	10		8				5											



OPERATIONS 11 - 24—FINE CERAMICS (Page 2)

CONTEXT			Black on Orange															
	total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
<u>Qp 23</u>																		
surface collection (400 m <sup>2</sup> )	24		9				6	1					12	1	1			
<u>Qp 24</u>																		
surface collection (400 m <sup>2</sup> )	9		7				4											
<u>QPS 11 - 24</u> Totals (9200 m <sup>2</sup> )	1058	37	513	4	15	1	20	47	17		21	2	45	9	208	49	31	12

**Table 2.30. OPERATIONS 11 - 24—UTILITY CERAMICS**

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
<u>Op 11</u> surface collection (1100 m <sup>2</sup> )	7		1		6									2	
<u>Op 12</u> surface collection (1100 m <sup>2</sup> )	6				2		4							2	
<u>Op 13</u> surface collection (1300 m <sup>2</sup> )	14				5		9					1	3	4	
<u>Op 14</u> surface collection (600 m <sup>2</sup> )	19				16		3					1	6	1	
<u>Op 15</u> surface collection (900 m <sup>2</sup> )	15				9		6							4	
<u>Op 16</u> surface collection (400 m <sup>2</sup> )														1	
<u>Op 17</u> surface collection (600 m <sup>2</sup> )	2				2									2	
<u>Op 18</u> surface collection (600 m <sup>2</sup> )	5				2	3							1		
<u>Op 19</u> surface collection (400 m <sup>2</sup> )	2				2								1		
<u>Op 20</u> surface collection (400 m <sup>2</sup> )	1				1								1		
<u>Op 21</u> surface collection (400 m <sup>2</sup> )	2				2										1
<u>Op 22</u> surface collection (400 m <sup>2</sup> )														1	

OPERATIONS 11 - 24—UTILITY CERAMICS (Page 2)

CONTEXT	total utility	Vessel type						Use			Handles		Spindle whorls		worked sherds
		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	
Qp 23 surface collection (400 m <sup>2</sup> )	1				1										
Qp 24 surface collection (400 m <sup>2</sup> )															
QPS 11 - 24 Totals (9200 m <sup>2</sup> )	84		1		48		35						2	13	17

### 3. INVESTIGATION OF AN OBSIDIAN MIDDEN AT CIHUATECPAN, MEXICO

by

**Elliot M. Abrams**

---

In the course of conducting the settlement survey and excavation of structures and features at the Aztec village of Cihuatecpán in 1984, two dense concentrations of obsidian debitage were encountered, and one of these, designated Operation 8, was investigated further. Operation 8 was located on the same broad terrace as were five of the excavated structures (Operations 4, 5 [two sets of structural remains], 6, and 7), and was just northeast of Operation 15 (a housemound which had, unfortunately, been reduced by half in the course of terrace embankment building using bulldozers). The conspicuous nature of this feature, as well as its obvious value in adding to our understanding of the economic structure of Cihuatecpán, strongly encourage investigation.

The concentration was distributed over an oval area roughly 25 x 35 m. This was gridded off in 2 m<sup>2</sup> units, and surface collected; two of these units were excavated to tepetate, about 40 cm below the surface. The obsidian collected has not yet been analyzed except for a preliminary size breakdown. It is of the local grey-black type, and the nature of the debitage and broken tools suggests a biface blade industry. The debitage collected from the surface of this area and from the two shallow test pits weighs 692.98 kg and no doubt represents the manufacturing midden from an important village activity, the manufacturing of utility knives and scrapers from the obsidian mined from the Barranca de los Estetes outcrop in the hills 3 km to the south of the site.

#### Setting

Unlike most other operations, Operation 8 did not involve any architectural excavation; rather, it involved the surface collection and test excavation of a discrete and dense scatter of primarily grey-black obsidian. Located 60 m southwest of Operation 6 and covering a surface area of 464 m<sup>2</sup>, Operation 8 covered portions of both the main terrace as well as a contiguous portion of the abutting southern terrace, these terraces being separated by an intrusive bancale. In addition to the bulldozing involved in the construction of this bancale, this area is seasonally prepared for planting by the landowner, and in fact was being plowed as we finished collecting data from this operation.

#### Method

Work on Operation 8 was conducted between May 5 and May 11, 1984. As a result of the methodology employed and the fact that the field season was drawing to a close, the size of our crew was variable, with an average of 12 men.

Data collection in Operation 8 was divided into two stages: surface collection and test excavation. Surface collection involved first establishing an appropriate datum from Operation 7. From this datum a 2 x 2 m grid was laid. The boundary of the site was demarcated on the basis of the perceived drop-off in the quantity of surface obsidian,

confirmed by the surface collections. A crew of two workmen/unit then carefully and thoroughly collected every artifact—both obsidian and non-obsidian—visible on the surface. All artifacts were collected by hand and by gentle prodding with trowels, although no digging took place. As a result of this technique, all artifacts from the 464 m<sup>2</sup> surface area were collected. There was initial concern that, by collecting 100% of the surface artifacts, we had in essence "destroyed" the feature; this concern, however, was allayed after the next rain, which exposed an essentially equal number of artifacts as had been collected.

The second stage of investigation involved the test excavation of the feature, the goals being to obtain an obsidian sample which could then be used to project a comparative estimate of total density of obsidian, as well as to test the results of the surface collection. Two 2 x 2 m units were selected for excavation, one located within an area of high obsidian density, the other located within an area of low density. Excavation was conducted within 20 cm levels, with tepetate being reached at depths of 50 cm and 40 cm.

### Obsidian

The results of the above methodology clearly indicate that Operation 8 was a large obsidian midden intermixed with relatively few non-obsidian artifacts. The total weight of the surface obsidian is 306.14 kg. This figure does not discriminate between grey-black and green obsidian, although preliminary analysis indicated that the obsidian is almost exclusively grey-black. The distribution of the surface obsidian reveals two loci of particularly heavy deposition—in the northwest and southeast section of the total scatter. Despite the post-deposition transformations associated with plowing and bulldozing, the surface concentrations of obsidian are confirmed by the subsurface testing—the test pit placed in the area of high surface concentration yielded very high amounts of obsidian (353 kg), while that placed in the area of low surface concentration yielded proportionately low amounts of obsidian (34 kg). The distribution of surface obsidian seems to indicate the greatest concentrations of obsidian to be on two sides of Mound 15, with density decreasing as distance from the mound increases. This suggests a behavioral association between Mound 15 and the obsidian deposit yet does not preclude additional association with other structures at the site.

Based on these data, a rough estimate of total obsidian for the deposit can be offered. The surface deposition suggests that about 20 of the 117 units had "high" amounts of obsidian—since 353 kg were recovered from the high density test pit, we can project an estimate of 7,060 kg of obsidian from the areas of highest obsidian deposition. The test pit placed in an area of relatively low deposition yielded a total of 34 kg and thus the remaining 97 units suggest a deposition of 3,298 kg of obsidian, for a projection of total obsidian deposited in this feature of 10,358 kg. Given an average depth of 45 cm, the density of obsidian is then projected to be about 50 kg/m<sup>3</sup>.

At present, a complete description and classification of the obsidian remains to be done; however, preliminary analysis suggests that all stages in the reduction process of obsidian bifacial tool production are present.

### Non-Obsidian Artifacts

The inventory of non-obsidian artifacts is quite interesting when viewed in comparison with other samples recovered. Relatively few non-obsidian artifacts were present in this feature. Only 371 sherds were collected, a surface density of 0.8 sherds/m<sup>2</sup>

(see Tables 3.1, 3.2, and 3.3). Also, of the total number of sherds found, 359 (97%) were fine sherds. This contrasts with the approximate 30% proportion of fine sherds found at excavated operations, and is similar to the high proportion (93%) of fine sherds from the surface collections of Operations 11-24. Some of these fine sherds were imported into the Teotihuacan Valley. Finally, 7 spindle whorls (2 small, 5 large) and 2 worked sherds were found. Chronologically, Operation 8 dates primarily to the Aztec III period, based on the higher percentage of Black/Orange Type "D" sherds.

### Interpretation

Based on current data, several interpretative remarks concerning Operation 8 can be offered. The quantity of obsidian, both in absolute weight and in density, clearly indicates that this feature was a midden deposit primarily of grey-black obsidian. The overwhelming presence of pressure and percussion flakes in the midden indicates that it served as the refuse area in the production of grey-black obsidian bifacial tools. The proximity of the deposit to Mound 15, with the areas of highest density being closest to the mound, suggests that the occupants of Mound 15 may have been responsible for producing, or overseeing the production of, grey-black obsidian tools. The fact that the source of this obsidian is only 3 km south of the site, in the flanking Sierra de Malpais, further suggests that procurement and production of this obsidian resource was controlled on a local level.

**Table 3.1. OPERATION 8—Artifact Summary**

				Supports							
				Conical				Obsidian pcs		Ground Stone	
total sherds	total utility	total fine	figurines	slab	sol	hol	oth	black & green	mano	metate	other
371	12	359		15				692.98			

**Table 3.2. OPERATION 8—Fine Ceramics**

		Black on Orange															
total fine	plain orange	tot	A	B	C	D	E	F	G	H	J	glazed	plain red	black/red	blk/wht red	Texcoco fillet	Chalco Cholula
359	2	140	2	2		58	6	6		2				98	26	12	3

**Table 3.3. OPERATION 8—Utility Ceramics**

		Vessel type					Use			Handles		Spindle whorls			
total utility		comal	basin	jar	brazier	salt	unknown	calc	burn	both	loop	strap	small	large	worked sherds
12				1									2	5	2

#### 4. PRELIMINARY DESCRIPTION OF FLOTATION SAMPLE MATERIALS FROM CIHUATECPAN, MEXICO

by

**Bruce Gregory McCoy**

and

**Susan T. Evans**

---

For several reasons which are elsewhere discussed, few behaviorally meaningful assemblages of artifacts were found at Cihuatecpan. In order to control for this lack, we took numerous soil samples for flotation analysis, reasoning that this method would reveal evidence of the use of various materials which would otherwise not be perceptible in the archaeological record. We collected 8 liter soil samples from 177 loci in excavated structures, selecting contexts (such as floor surfaces) likely to contain ground-in remains of household activities.

The soil samples were water-processed in Mexico, and the light and heavy fractions separated out. These were brought back to the U.S. and the component materials were identified and sorted. The tabulations appearing below summarize, on a structure by structure basis, the materials from these samples, divided into the broad categories of flora, fauna, lithics, and compounds.

##### Floral Materials

The floral classification consisted of charcoal, amaranth, maize, and other materials (including nut shell, leaf, rubber, and various unidentified seeds; see Table 4.1). Charcoal was almost ubiquitous in the soil samples, and often included pieces of wood large enough and complete enough for possible species identification. Amaranth seeds were found in three structures, and almost always occurred in a small group of seeds rather than as one seed in isolation.

McClung de Tapia noted that amaranth was fairly abundant throughout the archaeological samples from Classic period Teotihuacan (1979:143). It had an important role in the Aztec period food supply, but its use was suppressed soon after the conquest, so potent was its association with rituals (this is discussed in Aguilera 1985:132-134). Book 2 ("The Ceremonies") of the Florentine Codex has dozens of examples of such uses.

Maize was plentiful, found in all structures, mostly as kernel portions with some complete kernels. There were occasional isolated cupules or cob portions, including one nicely sliced section of cob and one complete small green cob (with cupules but without kernels). Nut shells were found in Structures 2 and 4, and were pecanlike, cracked rather than worn. The leaf (Structure 6) was a small unidentified portion. The rubber material (Structure 10) is twig-like, the pitch comprising the inner portion of what is apparently an absorbed-dust exterior. The unidentified seeds, from all structures except 5E, appear to include at least two varieties of beans, some cheno-ams not otherwise identified, and probably nopal cactus seed.



### Faunal Materials

Faunals consisted of skeletal portions of bird, fish, mammal, and reptile, as well as a catchall category of fragments so worn as to be unidentifiable (see Table 4.2). Also under this classification were pieces of various shells: turtle, bird egg, inner layers of mollusk, an ornament of nacre (Structure 2 midden), and a single tiny pearl (Structure 6, from in front of the tequil hearth in the center room, L).

After many different attempted subgroupings, mammal remains were simply listed as "dog and larger" or "rodent." Some human remains were found (in the sample from the area of the burial in Structure 7), and as they were already referenced in the excavation notes, they were counted as "Mammal: dog and larger." Rodent and reptile remains were almost entirely neonatal, and, as they were rarely in association with probable human meal contexts, they were considered to have been intrusive, from burrows or nests into the overburden.

### Lithic Materials

Lithics consisted of calcium carbonate, obsidian, quartz crystals, several stone pellets, mica, possible examples of copper, silver, and gold, and several unidentified rocks (see Table 4.3). Cal was fairly widespread among the samples, and almost always appeared as nuggets, pea-sized or smaller. Obsidian occurred in almost every sample, mostly as debitage and some flakes. There were, however, many fine obsidian artifact fragments, mostly of prismatic blades, and some of biface tools. The obsidian is grey-black, green, and meca (mottled red and black). A number of quartz crystals were recovered, the highest concentration (7 examples) located in Room L of Structure 6. The several stone pellets were uniform in size and shape and from numerous contexts. The possible metallic examples were: a tiny fragment of silver tissue (Room T of Structure 6), two small thin discs of copper (also from Room T), and a piece of stone with flecks of gold ore embedded in it (Structure 9, Room B). The unidentified rocks include chert, jasper, and basalt.

### Compound Materials

The compound classification consisted of adobe fragments, ceramics, plaster, and a few pieces of ochre (see Table 4.4). Adobe fragments ranged from small bits to larger, smoothed portions of wall or flooring, and included one fine piece which was finished with whitewash and red painted striping. Ceramics were mostly small, worn sherds, although many were identifiable. A few pieces were censer handles and decorative features, and a small pendant fragment (from Room B of Structure 7). Plasters were mostly very small bits, many with fine spreader stroke marks. Ochres were all ovoid, and approximately the size of peas.

### Discussion

The results of flotation analysis amply justify the labor involved in processing. This preliminary description has only referred to particular contexts in a few instances, since our purpose here is simply to present the range of materials, and to suggest in a general way the extent of their presence in the archaeological record. In gathering the flotation samples, we took advantage of intact floor fragments, which were far more numerous than

artifact assemblages remaining on them, but were not necessarily present in every room of every structure. For this reason, it was impossible to take samples in a "systematic" manner, for example, testing all parts of each room of each building; we sampled those contexts regarded as sufficiently intact as to be useful.

Flotation analysis enabled us to confirm the importance of maize in the local diet, and to document the presence of amaranth, a grain which fell into disuse soon after the conquest. The lithic samples revealed that obsidian debitage was as widespread at Structure 6 as at other buildings; this evidence was an important control on the material record from excavation, which showed Structure 6 to be curiously lacking in obsidian remains. The reasons for this anomaly may have to do with the history of the building's construction and its long use (probably well after other buildings at Cihuatecpan had been abandoned); whatever model is developed to account for this odd situation, the material from flotation samples permitted us another source of evidence.

The next phase of research using these data will entail spatial plotting of finds, so as to identify possible activity areas. The collection of these samples has already proved to be a key feature of the research program, and will be continued in the future.

Acknowledgements Several people helped with the process of sorting and identification. We appreciate Armando Matos' enthusiasm and diligence in these efforts. A number of undergraduate students at Catholic University gave their time to this project, and our special thanks go to Ivan Krsul, Roland Legault, and Susan Novakowski. Professor William Gardner, Dr. David Clark, and Dr. Robert Verrey of the Archaeology Laboratory at Catholic University lent us valuable equipment and advice.

**Table 4.1. FLORAL MATERIALS FROM FLOTATION SAMPLES**

STRUCTURE	CHARCOAL (ml)	AMARANTH (seeds)	MAIZE		OTHER
			(cob or cupule)	(kernel)	
1 (14 samples)	37.78	33	7	16	8
2 (6 samples)	130.80	20	--	69	2
4 (25 samples)	100.10	--	--	5	1
5E (5 samples)	10.50	--	2	9	--
6 (80 samples)	291.90	--	--	149	23
7 (11 samples)	3.18	--	--	3	5
9 (9 samples)	10.66	--	--	18	13
10 (27 samples)	29.96	17	--	22	2
<b>TOTAL</b> (177 samples)	614.88	70	9	291	54

÷

**Table 4.2. FAUNAL MATERIALS FROM FLOTATION SAMPLES**

STRUCTURE	BIRD	FISH bone shell		MAMMAL dog & lger rodent		REPTILE	UNIDENT. BONE FRAGS.	OTHER
1 (14 samples)	4	17	--	4	20	5	50	--
2 (6 samples)	--	17	2	3	13	--	47	2
4 (25 samples)	--	57	4	8	17	2	89	1
5E (5 samples)	2	--	--	--	1	1	3	--
6 (80 samples)	13	65	3	167	53	12	380	8
7 (11 samples)	--	--	--	51	--	--	11	--
9 (9 samples)	--	18	--	1	3	--	22	--
10 (27 samples)	1	--	--	8	3	1	25	--
<b>TOTAL</b> (177 samples)	20	174	9	242	110	21	627	11

+

**Table 4.3. LITHIC MATERIALS FROM FLOTATION SAMPLES**

STRUCTURE	CAL (ml)	OBSIDIAN			QUARTZ CRYSTAL	OTHER
		artifact fragment	core	debitage or flake		
1 (14 samples)	4.70	4	1	100	8	15
2 (6 samples)	17.40	2	--	37	--	3
4 (25 samples)	44.47	12	2	228	1	17
5E (5 samples)	2.38	1	--	31	--	--
6 (80 samples)	187.38	60	2	2,737	49	24
7 (11 samples)	3.59	3	--	222	--	2
9 (9 samples)	5.18	6	1	60	2	--
10 (27 samples)	36.02	43	3	147	3	3
<b>TOTAL</b> (177 samples)	301.12	131	9	3,562	63	63

**Table 4.4. COMPOUND MATERIALS FROM FLOTATION SAMPLES**

STRUCTURE	ADOBE (ml)	CERAMIC			PLASTER (ml)	OTHER
		vessel sherd	figurine fragment	other		
1 (14 samples)	42.90	74	--	--	--	--
2 (6 samples)	8.80	50	--	--	9.6	--
4 (25 samples)	506.00	192	--	--	13.15	--
5E (5 samples)	147.60	18	--	--	34.00	--
6 (80 samples)	428.10	789	2	2	107.70	11
7 (11 samples)	22.27	34	--	--	0.07	--
9 (9 samples)	213.29	83	--	1	0.04	--
10 (27 samples)	234.43	112	--	--	0.23	1
<b>TOTAL</b> (177 samples)	1,603.39	1,352	2	3	164.79	12

÷

## 5. AFTERWORD

by

Susan T. Evans

---

In producing a preliminary summary of project results, there is a great temptation to postpone publication until more is known, until another part of data analysis is complete, or until another set of descriptive sources is read. But at some point the researcher must stop exploring and learning and tinkering long enough to share the results of the research effort, and for the first phase of the Cihuatecpan project, this monograph represents the state of our present knowledge. The monograph is long on data and short on generalizations, which is as it should be, since the value of a research report is factual rather than interpretative. I look forward to putting the pieces of information together to make satisfying "just so" stories as well as to formulate the inevitable puzzles, but for now our purposes are served if our colleagues find the information useful.

The information on ceramics at the site permits a better understanding of the demographic trends that were crucial in shaping the culture history of the area. The data on architecture is an important body of information for its own sake, since this is an area about which we know little. Abrams' description of the obsidian dump brings home to us the sheer magnitude of obsidian production at these rural villages; little work has been done, to date, on Aztec period obsidian tool production, and the materials from Operation 3 will be further analyzed so as to elucidate this local industry. The flotation samples provide an important complement to other excavated materials, and the two bodies of information must be integrated. Flotation data will be even more useful when such samples are gathered from a wide range of sites.

Some of the in-depth studies now proceeding are in the following areas: analysis of Structure 6 as the possible tecpan (Evans n.d.b); analysis of materials collected from 112 mounds at Cihuatecpan during the 1964 survey; measurement of hydration rims of a sample of obsidian artifacts found in the houses (planned for summer 1988); description and analysis of the figurine collection; study of the spindle whorl collection and of the Aztec period textile industry in the upper Teotihuacan Valley; description of the bone rasp; and a description of the jaguey, and analysis of its role in supplying water to the village.

And of course, Cihuatecpan invites further field research, especially considering the rate of ongoing site destruction. I hope that the continued analysis and publication of the materials from this village contributes toward our better understanding of Aztec culture in particular, and the Mesoamerican world in general.

## BIBLIOGRAPHY

---

- Acosta, Jorge  
1964 El Palacio de Quetzalpapalotl. Mexico: INAH.
- Aguilera, Carmen  
1985a Flora y Fauna Mexicana: Mitología y Tradiciones. Mexico: Editorial Everest Mexicana.  
  
1985b Mueble Prehispánico. In C. Aguilera et al., El Mueble Mexicano: Historia, Evolución e Influencias, pp. 14-24. Mexico: Fomento Cultural Banamex.
- Anawalt, Patricia  
1981 Indian Clothing Before Cortes. Norman: University of Oklahoma Press.
- Anonymous Conqueror  
1917 Narrative of Some Things of New Spain and of the Great City of Temestitan Mexico .M.H. Saville (translator and annotator). New York: The Cortes Society.
- AGN Congregaciones  
1603 Congregaciones Serie Vol. I, Expediente 48. Mexico: Archivo General de Nación.
- Arenas, Pedro de  
1982 Vocabulario Manual de las Lenguas Castellana y Mexicana. Edición facsimilar de la publicada por Henrico Martinez en la Ciudad de México, 1611. Con un estudio introductorio de Ascensión H. de Leon-Portilla. Mexico: Universidad Nacional Autónoma de México.
- Bandelier, A.F.  
1884 Report of an Archaeological Tour in Mexico in 1881. Papers of the Archaeological Institute of America, American Series II. Boston: Cupples, Upham, and Co.
- Barlow, Robert H.  
1949 The Extent of the Empire of the Culhua Mexica. IberoAmericana No. 28.
- Barlow, Robert and Henri Lehmann  
1954-55 Statuettes-Grelots Azteques de la Vallee de Mexico. Tribus T. 4/5:157-176.
- Barnett, Franklin  
1973 Dictionary of Prehistoric Indian Artifacts of the American Southwest. Flagstaff: Northland Press.
- Bawden, Garth  
1982 Community Organization Reflected by the Household: a Study of Pre-Columbian Social Dynamics. Journal of Field Archaeology 9:165-181.
- Berdan, Frances  
1987 The Economics of Aztec Luxury Trade and Tribute. In E. Boone (ed.) The Aztec Templo Mayor, pp. 161-183. Washington D.C.: Dumbarton Oaks.



- Blanton, Richard E. and Jeffrey R. Parsons  
1971 Ceramic Markers Used for Period Designations. Appendix I in J.R. Parsons, Prehistoric Settlement Patterns in the Texcoco Region, Mexico, pp. 255-313. *Memoirs of the Museum of Anthropology, University of Michigan*, No. 3. Ann Arbor.
- Boone, Elizabeth Hill  
1985 The Color of Mesoamerican Architecture and Sculpture. In E.H. Boone (ed.) *Painted Architecture and Polychrome Monumental Sculpture in Mesoamerica*, pp. 173-186. Washington D.C.: Dumbarton Oaks.
- Borah, Woodrow and Sherburne F. Cook  
1960 The Population of Central Mexico in 1548. An Analysis of the *Suma de visitas de pueblos*. *Ibero-Americana* 43.
- Bray, Warwick  
1972 Land-use, Settlement Pattern and Politics in Prehispanic Middle America: a review. In P. Ucko, R. Tringham, and G.W. Dimbleby (eds.) *Man, Settlement and Urbanism*, pp. 909-926. London: Duckworth.
- Brumfiel, Elizabeth  
1986 The Division of Labor at Xico: The Chipped Stone Industry. *Research in Economic Anthropology, Supplement 2*, pp. 245-279. Greenwich, Ct.: JAI Press.
- Calnek, Edward E.  
1972 Settlement Pattern and Chinampa Agriculture at Tenochtitlan. *American Antiquity* 37:104-115.  
  
1974 Conjunto urbano y modelo residencial en Tenochtitlan. In *Ensayos sobre el desarrollo urbano de México*, pp. 11-65. Mexico: Secretaria de Educación Pública.  
  
1982 Patterns of Empire Formation in the Valley of Mexico, Late Postclassic Period, 1200-1521. In Collier, Rosaldo, and Wirth (eds.), *The Inca and Aztec States 1400-1800*, pp. 43-62. New York: Academic Press.
- Carrasco, Pedro  
1964 Family Structure of Sixteenth Century Tepoztlan. In R.A. Manners (ed.) *Process and Pattern in Culture: Essays in Honor of Julian H. Steward*, pp. 185-210. Chicago: Aldine.  
  
1971a The Peoples of Central Mexico and Their Historical Traditions. R. Wauchope (ed.) *Handbook of Middle American Indians*, V. 11:459-473. Austin: University of Texas Press.  
  
1971b Social Organization of Ancient Mexico. In R. Wauchope (ed.) *Handbook of Middle American Indians*, Vol. 10:349-375. Austin: University of Texas Press.  
  
1972 La Casa y la Hacienda de un Señor Tlahuica. *Estudios de Cultura Náhuatl*, V.X:225-244.  
  
1976 The Joint Family in Ancient Mexico: The Case of Molotla. In H.C. Nutini, P. Carrasco, and J. Taggart (eds.), *Essays on Mexican Kinship*, pp. 45-64. Pittsburgh: University of Pittsburgh Press.

Chadwick, Robert

1971 Postclassic Pottery of the Central Valleys. In R. Wauchope (ed.) Handbook of Middle American Indians, V. 10:228-257. Austin: University of Texas Press.

Charlton, Thomas

1969 Texcoco Fabric Marked Pottery, Tlalteles, and Salt Making. *American Antiquity* 34:73-76.

1970 Contemporary Agriculture of the Valley. In The natural environment, contemporary occupation and 16th century population of the Valley. The Teotihuacan Valley project final report, V. 1. University Park: The Pennsylvania State University Occasional Papers in Anthropology 3.

1972a Population Trends in the Teotihuacan Valley, A.D. 1400-1969. *World Archaeology* 4(1): 106-123.

1972b Post-Conquest Developments in the Teotihuacan Valley, Mexico. Report 5. Iowa City: Office of the State Archaeologist.

n.d. Excavations at T.A. 40, Tlatel 15. To be included in the Teotihuacan Valley Final Report: The Aztec Occupation of the Valley. University Park: The Pennsylvania State University Occasional Papers in Anthropology.

Charlton, Thomas and Michael W. Spence

1982 Obsidian Exploitation and Civilization in the Basin of Mexico. *Anthropology* 6:7-86.

Charnay, Desiré

1888 The Ancient Cities of the New World, Being Voyages and Explorations in Mexico and Central America from 1857-1882. New York: Harper and Brothers.

Cline, Howard F.

1949 Civil Congregation of the Indians in New Spain, 1598-1606. *The Hispanic American Historical Review*, V. XXIX:349-369.

1972 The Relaciones Geográficas of the Spanish Indies, 1577-1648. In H. Cline (ed.) Handbook of Middle American Indians, V. 12:183-242. Austin: University of Texas Press.

Codex Magliabechiano

1983/1903 The Book of the Life of the Ancient Mexicans. Reproduced in Facsimile with Introduction, Translation, and Commentary by Zelia Nuttall. Part I. Introduction and Facsimile. Berkeley: University of California.

Codex Mendoza

1980/1925 Códice Mendoza. Facsimile by F. del Paso y Troncoso, with notes by J. Galindo y Villa. Mexico: Editorial Innovación.

Codex Nuttall

1975 A Picture Manuscript from Ancient Mexico. The Peabody Museum Facsimile Edited by Zelia Nuttall. With a New Introductory Text by Arthur G. Miller. New York: Dover.

Colinvaux, Paul A.

1973 Introduction to Ecology. New York: John Wiley & Sons.

- Conrad, Geoffrey W. and Arthur A. Demarest  
1984 Religion and Empire. Cambridge: Cambridge University Press.
- Cook, Sherburne F. and Woodrow Borah  
1971 Family and Household in Mexican Enumerations since the Spanish Conquest. In Essays in Population History: Mexico and the Caribbean, Vol. I, Part III. Berkeley: University of California Press.
- Cook de Leonard, Carmen  
1971 Minor Arts of the Classic Period in Central Mexico. In R. Wauchope (ed.) Handbook of Middle American Indians, V. 10:206-227. Austin: University of Texas Press.
- Cornfeld, Gaalyahu  
1976 Archaeology of the Bible. New York: Harper and Row.
- Cortes, Hernan  
1986 Letters from Mexico. Anthony Pagden, translator and editor. New Haven: Yale University Press.
- anon.  
1945 Costumbres, Fiestas, Enterramientos y Diversas Formas de Proceder de Los Indios de Nueva Espana. Folio 339R of the Biblioteca of the Escorial. Tlalocan V. II:36-63.
- Cowgill, George L.  
1974 Quantitative Studies of Urbanization at Teotihuacan. In N. Hammond (ed.) Mesoamerican Archaeology: New Approaches, pp. 363-396. Austin: University of Texas Press.
- Cressey, Pamela J.  
1975 Post-Conquest Developments in the Teotihuacan Valley Mexico: The Early Colonial Obsidian Industry. Occasional Publications in Mesoamerican Anthropology No.8. Greeley: Museum of Anthropology of the University of Northern Colorado.
- Cresson, Frank M. Jr.  
1938 Maya and Mexican Sweat Houses. American Anthropologist V. 40:88-104.
- Crónica Mexicana  
1975 Crónica Mexicana. In M. Orozco y Berra, Crónica Mexicana-Códice Ramírez, pp. 223-701. Mexico: Editorial Porrúa.
- Davies, Nigel  
1977 The Aztecs. London: Abacus.  
  
1980 The Toltec Heritage. Norman: University of Oklahoma Press.
- Díaz del Castillo, Bernal  
1963 The Conquest of New Spain. Baltimore: Penguin Books.
- Diehl, Richard  
1983 Tula: The Toltec Capital of Ancient Mexico. London: Thames and Hudson.

Dirección General de Geografía del Territorio Nacional

1981 Carta Geológica. Mexico: Secretaria de Programación y Presupuesto.

Donkin, R.A.

1979 Agricultural Terracing in the New World. Viking Fund Publications in Anthropology, No. 56. New York: Wenner-Gren Foundation for Anthropological Research.

Durán, Fray Diego

1964 The Aztecs: The History of the Indies of New Spain. Translated, with notes, by Doris Heyden and Fernando Horcasitas. New York: Orion.

Enciso, Jorge

1953 Design Motifs of Ancient Mexico. New York: Dover.

Evans, Susan T.

1980 A Settlement System Analysis of the Teotihuacan Region, Mexico, A.D. 1350 - 1520. Unpublished Ph.D. dissertation (Anthropology), The Pennsylvania State University. Ann Arbor: University Microfilms.

1985 The Cerro Gordo Site: A Rural Settlement of the Aztec Period in the Basin of Mexico. *Journal of Field Archaeology*, V. 12:1-18.

1986 Analysis of the Surface Sample Ceramics. In W.T. Sanders (ed.) *The Teotihuacan Valley Project Final Report, Vol. 4: The Toltec Period Occupation of the Valley, Part 1, Excavations and Ceramics: 283-366*. University Park: Occasional Papers in Anthropology, Department of Anthropology, The Pennsylvania State University.

n.d.a The Aztec Period Teotihuacan Valley: How Ethnohistory Informs Archaeology. Ms. on file, Department of Anthropology, The Pennsylvania State University.

n.d.b Architecture and Authority in an Aztec Village: Form and Function of the Tecpan. To appear in H. Harvey (ed.) *Land and Politics in the Valley of Mexico*.

Evans, Susan T. and Peter Gould

1982 Settlement Models in Archaeology. *Journal of Anthropological Archaeology*, 1:275-304.

Field, Frederick

1967 Thoughts on the Meaning and Use of Pre-Hispanic Mexican Sellos. *Studies in Pre-Columbian Art and Archaeology* No. 3. Washington D.C.: Dumbarton Oaks.

Fowler, Melvin and Richard S. MacNeish

1972 Excavations in the Coxcatlan Locality in the Alluvial Slopes. In R.S. MacNeish (et al.) *Prehistory of the Tehuacan Valley, V. 5: Excavations and Reconnaissance*, pp. 219-340. Austin: University of Texas Press.

Fraunfelner, George

1972 Obsidian Specimens. Appendix in *Miscellaneous Studies in Mexican Prehistory*, p. 31. *Anthropological Papers of the Museum of Anthropology*, No. 45. Ann Arbor: University of Michigan.

- Gage, Thomas  
 1958 *Travels in the New World*. J.E.S. Thompson (ed.). Norman: University of Oklahoma Press.
- Gamio, Manuel  
 1972 *La Población del Valle de Teotihuacan*. Facsimile of 1922 Edition. Clásicos de la Antropología Mexicana, No. 8, 5 volumes. Mexico: Instituto Nacional Indigenista.
- García Cubas, Antonio  
 1858 *Atlas geográfico, estadístico e histórico de la República Mexicana*. Mexico: J.M.G. de Lara.
- Garza de González, Silvia  
 1982 *La arquitectura en los códices genealógicos*. In D. Schávelzon (ed.) *Las Representaciones de Arquitectura en la Arqueología de América*, V. I:241-258. Mexico: Universidad Nacional Autónoma de México.
- Gibson, Charles  
 1956 *Llamamiento General, Repartimiento, and the Empire of Acolhuacan*. *Hispanic American Historical Review* 36:1-27.  
  
 1964 *The Aztecs Under Spanish Rule*. Stanford: Stanford University Press.
- Harvey, H.R.  
 1972 *The Relaciones Geográficas, 1579-1586: Native Languages*. In R. Wauchope (ed.) *Handbook of Middle American Indians*, V. 12: pp. 279-323. Austin: University of Texas Press.  
  
 1984 *Aspects of Land Tenure in Ancient Mexico*. In H. Harvey and H. Prem (eds.) *Explorations in Ethnohistory*, pp. 83-102. Albuquerque: University of New Mexico Press.  
  
 1985 *Household and Family Structure in Early Colonial Tepetlaoztoc: An Analysis of the Códice Santa María Asunción*. *Estudios de Cultura Náhuatl* V. 18: 275-294.
- Hassig, Ross  
 1985 *Trade, Tribute, and Transportation*. Norman: University of Oklahoma Press.
- Hawks, Henry  
 1972 *A Relation of the Commodities of Nova Hispania, and the Manners of the Inhabitants, Written by Henry Hawks, Merchant, Which Lived Five Years in the Said Country, and Drew the Same at the Request of M. Richard Hakluyt, Esquire, of Eyton in the Country of Hereford, 1572*. In D.F. Hawke (ed.) *Haykluyt's Voyages to the New World*, pp. 144-160. Indianapolis: Bobbs Merrill Co.
- Healan, Dan M.  
 1977 *Architectural Implications of Daily Life in Ancient Tollan, Hidalgo, Mexico*. *World Archaeology* 9:140-156.  
  
 1986 *Technological and Nontechnological Aspects of an Obsidian Workshop Excavated at Tula, Hidalgo*. *Research in Economic Anthropology, Supplement 2*, pp. 133-152. Greenwich, Ct.: JAI Press.

Heyden, Doris and Paul Gendrop

1973 *Pre-Columbian Architecture of Mesoamerica*. New York: Harry N. Abrams.

Hicks, Frederic

1986 *Prehispanic Background of Colonial Political and Economic Organization in Central Mexico*. In V.R. Bricker (ed.) *Supplement to the Handbook of Middle American Indians*, V. 4:35-54. Austin: University of Texas Press.

Isaac, Barry L.

1986a *Introduction*. In B. L. Isaac (ed.), *Research in Economic Anthropology, A Research Annual, Supplement 2-1986: Economic Aspects of Prehispanic Highland Mexico*, pp. 1-19. Greenwich, Ct: JAI Press.

1986b *Notes on Obsidian, the Pochteca, and the Position of Tlatelolco in the Aztec Empire*. *Research in Economic Anthropology, Supplement 2*, pp. 319-343.

Ixtlilxochitl, Fernando de Alva

1985 *Obras Históricas*, Vol. I and II. Edmundo O'Gorman, ed. Fourth edition. Mexico: Universidad Nacional Autónoma de México.

Kelly, Isabel T.

1944-45 *Ixtle Weaving at Chiquilistan, Jalisco*. Carnegie Institute of Washington, *Notes on Middle American Archaeology and Ethnology* 2: 106-112.

Kubler, George

1948 *Mexican Architecture of the Sixteenth Century*. 2 vols. New Haven: Yale University Press.

Lombardo de Ruiz, Sonia

1973 *Desarrollo Urbano de Mexico-Tenochtitlan Según las Fuentes Históricas*. Mexico: SEP-INAH.

Macazaga Ordoño, Cesar

1981 *Iztapalapan en el Agua Atravesada*. Mexico: Editorial Innovación.

Manzanilla, Linda (ed.)

1986 *Unidades Habitacionales Mesoamericanas y Sus Areas de Actividad*. Mexico: Universidad Nacional Autónoma de México, Imprenta Universitaria.

Margain, Carlos R.

1971 *Pre-Columbian Architecture of Central Mexico*. In R. Wauchope (ed.) *Handbook of Middle American Indians*, Vol. 10, No. 2:45-91. Austin: University of Texas Press.

Marquina, Ignacio

1951 *Arquitectura Prehispánica*. *Memorias del Instituto Nacional de Antropología e Historia*, N. 1. Mexico: SEP-INAH.

Matheny, Ray

1978 *Northern Maya Lowland Water-Control Systems*. In P. Harrison and B. Turner (eds.) *Pre-Hispanic Maya Agriculture*, pp. 185-210. Albuquerque: University of New Mexico Press.

- McAndrew, J.  
1965 *The Open-Air Churches of Sixteenth Century Mexico*. Cambridge: Harvard University Press.
- McClung de Tapia, Emily  
1979 *Plants and Subsistence in the Teotihuacan Valley, A.D. 100 - 750*. Unpublished Ph.D. dissertation, Department of Anthropology, Brandeis University. Ann Arbor: University Microfilms.  
1984 *Ecología y Cultura en Mesoamérica*. Mexico: UNAM.
- Miller, Arthur G.  
1973 *The Mural Painting of Teotihuacan*. Washington, D.C.: Dumbarton Oaks.
- Millian, Alva C.  
1981 *The Iconography of Aztec Ceramic Figurines*. Unpublished M.A. thesis, Department of Art History, Columbia University.
- Millon, René  
1976 *Social Relations in Ancient Teotihuacan*. In E. Wolf (ed.), *The Valley of Mexico*, pp. 205-248. Albuquerque: University of New Mexico Press.  
1981 *Teotihuacan: City, State, and Civilization*. In J. Sabloff (ed.) *Supplement to the Handbook of Middle American Indians*, Vol. 1:198-243. Austin: University of Texas Press.
- Molina Montes, Augusto F.  
1987 *Templo Mayor Architecture*. In E. Boone (ed.) *The Aztec Templo Mayor*, pp. 97-107. Washington D.C.: Dumbarton Oaks.
- Motolinía (Fray Toribio de Benavente)  
1950 *History of the Indians of New Spain*. Berkeley: The Cortes Society.  
1971 *Memoriales*. Mexico: Universidad Nacional Autónoma de México.
- Muller, Florencia  
1963 *Costumbres Funerarias del Valle de Tulancingo, Hgo.* *Revista Mexicana de Estudios Antropológicos* XIX:27-36.
- Nicholson, Henry B.  
1973 *The Late Pre-Hispanic Central Mexican (Aztec) Iconographic System*. In *The Iconography of Middle American Sculpture*, pp. 72-97. New York: The Metropolitan Museum of Art.
- Noguera, Eduardo  
1962 *Correlación de la Arqueología y la Historia en la porción norte del Valle de México*. *Anales* XV:39-65.  
1971 *Minor Arts in the Central Valleys*. In R. Wauchope (ed.) *Handbook of Middle American Indians*, Vol. 10:258-269. Austin: University of Texas Press.

Nuttall, Zelia

1926 Official Reports on the Towns of Tequizistlan, Tepechpan, Acolman, and San Juan Teotihuacan Sent by Francisco de Castaneda to His Majesty, Phillip II, and the Council of the Indies, in 1580. Cambridge Papers of the Peabody Museum, Harvard University 11:45-86.

Offner, Jerome

1984 Household Organization in the Texcocan Heartland: The Evidence in the Codex Vergara. In H.R. Harvey and H.J. Prem (eds.) Explorations in Ethnohistory, pp. 127-146. Albuquerque: University of New Mexico Press.

Origo, Iris

1963 The Merchant of Prato: Francesco di Marco Datini. Harmondsworth: Penguin Books.

Paredes, Blanca

1986 La Unidad Habitacional en la Cuenca de Mexico. Período Postclásico. In Manzanilla (ed.) pp. 221-256.

Parsons, Jeffrey R.

1966 The Aztec Ceramic Sequence in the Teotihuacan Valley, Mexico. Ph.D. dissertation (Anthropology), University of Michigan. Ann Arbor: University Microfilms.

1987 Arqueología Regional en la Cuenca de México: una Estrategía para la Investigación Futura. Ms on file, Museum of Anthropology, University of Michigan, Ann Arbor.

Parsons, J.R., E. Brumfiel, M.H. Parsons, and D.J. Wilson

1982 Prehispanic Settlement Patterns in the Southern Valley of Mexico: The Chalco-Xochimilco Region. Memoirs of the Museum of Anthropology, University of Michigan, No. 14. Ann Arbor: Museum of Anthropology, University of Michigan.

Parsons, Jeffrey R. and Mary H. Parsons

1985 Otomi Maguey Utilization: An Ethnoarchaeological Perspective. Preliminary Report to the National Geographic Society. Ann Arbor: University of Michigan Museum of Anthropology.

1987 Maguey Sap Utilization in Highland Central Mexico: An Archaeological Ethnography. Preliminary Report to the National Geographic Society. Ann Arbor: University of Michigan Museum of Anthropology.

Parsons, Mary H.

1972a Aztec Figurines from the Teotihuacan Valley, Mexico. In Miscellaneous Studies in Mexican Prehistory, pp. 81-117. Anthropological Papers of the Museum of Anthropology, University of Michigan, No. 45. Ann Arbor.

1972b Spindle Whorls from the Teotihuacan Valley, Mexico. In M. Spence, J.R. Parsons, and M.H. Parsons, Miscellaneous Studies in Mexican Prehistory, pp. 45-80. Museum of Anthropology, University of Michigan, Anthropological Papers No. 45. Ann Arbor.

1975 The Distribution of Late Postclassic Spindle Whorls in the Valley of Mexico. American Antiquity 40:207-15.



Paso y Troncoso, Francisco del

1905 Papeles de Nueva España. Segunda Serie: Geografía y Estadística. Tomo III: Descripción del Arzobispado de México. Madrid: Est. Tipográfico "Sucesores de Rivadeneyra".

1979/1890 Papeles de Nueva España: Segunda Serie, Geografía y Estadística: Relaciones Geográficas de la Diócesis de México, 1579-1582. Mexico: Editorial Cosmos.

Prescott, William H.

(1843) History of the Conquest of Mexico and History of the Conquest of Peru. New York: Modern Library.

Price, Barbara

1976 A Chronological Framework for Cultural Development in Mesoamerica. In E. Wolf (ed.) The Valley of Mexico, pp. 13-21. Albuquerque: University of New Mexico Press.

Robelo, C.A., M. de Olaguibel and A. Peñafiel

1966 Nombres Geográficos Indígenas del Estado de Mexico. Mexico: Biblioteca Enciclopédica del Estado de México.

Robertson, Donald

1959 Mexican Manuscript Painting of the Early Colonial Period. New Haven: Yale University Press.

1977 Domestic Architecture of the Aztec Period. Del Arte: Homenaje a Justino Fernandez, 1. Mexico: Arte Prehispánico, Instituto de Investigaciones Estéticas.

Rodriguez Vallejo, Jose

1982 Ixcatl, El Algodon Mexicano. Mexico: Fondo de Cultura Económica.

Rojas, Jose Luis de

1986 Mexico Tenochtitlan Economía y Sociedad en el Siglo XVI. Mexico: Fondo de Cultura Económica.

Rojas Rabiela, Teresa

1984 Agricultural Implements in Mesoamerica. In H. Harvey and H. Prem (eds.) Explorations in Ethnohistory, pp. 175-204. Albuquerque: University of New Mexico Press.

Ruiz de Alarcón, Hernando

1984 Treatise on the Heathen Superstitions That Today Live Among the Indians Native to This New Spain, 1629. Translated and edited by J. Richard Andrews and Ross Hassig. Norman: University of Oklahoma Press.

Rybczynski, Witold

1987 Home. New York: Penguin Books.

Sahagún, Fray Bernardino de

1950-63 General History of the Things of New Spain (Florentine Codex), A. Anderson and C. Dibble, translators. 12 volumes. Santa Fe: The School of American Research and the University of Utah.

- Sanders, William T.  
1965 *The Cultural Ecology of the Teotihuacan Valley*. University Park: Department of Sociology and Anthropology, The Pennsylvania State University.
- 1976 *The Agricultural History of the Basin of Mexico*. In E. Wolf (ed.) *The Valley of Mexico*, pp. 101-159. Albuquerque: University of New Mexico Press.
- 1981 *Ecological Adaptation in the Basin of Mexico: 23,000 B.C. to the Present*. In J.A. Sabloff (ed.), *Supplement to the Handbook of Middle American Indians*, V. 1:147-197. Austin: University of Texas Press.
- Sanders, W.T., J.R. Parsons and R. Santley  
1979 *The Basin of Mexico: The Cultural Ecology of a Civilization*. New York: Academic Press.
- Saunders, R.J. and J.J. Warford  
1976 *Village Water Supply*. Baltimore: Johns Hopkins.
- Séjourné, Laurette  
1983 *Arqueología e Historia del Valle de México: de Xochimilco a Amecameca*. Mexico: Siglo Veintiuno Editores.
- Simpson, Lesley B.  
1934 *Studies in the Administration of the Indians in New Spain. II. The Civil Congregation*. Berkeley: University of California Press.
- Sisson, Edward B.  
1973 *First Annual Report of the Coxcatlan Project*. Andover: Robert S. Peabody Foundation for Archaeology.
- Smith, Michael E.  
1984 *The Aztlan Migrations of the Nahuatl Chronicles: Myth or History?*. *Ethnohistory* 31:153-186.
- Soustelle, Jacques  
1937 *La Famille Otomí-Pame du Mexique Central*. Université de Paris, Institut d'Ethnologie, Travaux et Memoires 26. Paris.
- Spence, Michael W.  
1985 *Specialized Production in Rural Aztec Society*. In W.J. Folan (ed.) *Contributions to the Archaeology and Ethnohistory of Greater Mesoamerica*, pp. 76-125. Carbondale: Southern Illinois University Press.
- Spence, Michael W. and Jeffrey R. Parsons  
1972 *Prehispanic Obsidian Exploitation in Central Mexico: A Preliminary Synthesis*. In *Miscellaneous Studies in Mexican Prehistory*, pp. 1-29. *Anthropological Papers of the Museum of Anthropology*, No. 45. Ann Arbor: University of Michigan.
- Spores, Ronald  
1965 *The Zapotec and Aztec at Spanish Contact*. In Wauchope (ed.) *Handbook of Middle American Indians*, Vol. 3, Part 2 (*Archaeology of Southern Mesoamerica*), pp. 962-987. Austin: University of Texas Press.

- 1984 *The Mixtecs in Ancient and Colonial Times*. Norman: University of Oklahoma Press.
- Stevenson, Robert  
1952 *Music in Mexico*. New York: Crowell.
- Sullivan, Thelma D.  
1982 *Tlazolteotl-Ixcuina: The Great Spinner and Weaver*. In E. Boone (ed.) *The Art and Iconography of Late Post-Classic Central Mexico*, pp. 7-35. Washington D.C.: Dumbarton Oaks.
- Tolstoy, Paul  
1958 *Surface Survey of the Northern Valley of Mexico: The Classic and Postclassic Periods*. *Transactions of the American Philosophical Society*, n.s., V. 48, Pt. 5. Philadelphia: American Philosophical Society.  
  
1971 *Utilitarian Artifacts of Central Mexico*. In R. Wauchope (ed.) *Handbook of Middle American Indians Vol. 10:270-296*. Austin: University of Texas Press.
- Torres, Beatriz Braniff and Maria Antonieta Cervantes  
1966 *Excavaciones en el Antiguo Acueducto de Chapultepec*. *Tlalocan* V:161-168, 265-266.
- Townsend, Richard F.  
1979 *State and Cosmos in the Art of Tenochtitlan*. *Studies in PreColumbian Art and Archaeology*, No. 20. Washington D.C.: Dumbarton Oaks.
- Vaillant, George  
1935 *Report on the 1935 Excavation at Chiconautla*. On file, American Museum of Natural History, New York.  
  
1966 *Aztecs of Mexico*. Revised by S.B. Vaillant. Baltimore: Penguin Books.
- Vega Sosa, Constanza  
*Forma y Decoración en Las Vasijas de Tradición Azteca*. Mexico: SEP-INAH Departamento de Monumentos Prehispanicos Colección Científica 23.
- Wauchope, Robert  
1938 *Modern Maya Houses: a Study of Their Architectural Significance*. Washington, D.C.: Carnegie Institution.
- Whalen, Michael E. and Jeffrey R. Parsons  
1982 *Ceramic Markers Used for Period Designations*. In J.R. Parsons, et al. *Museum of Anthropology, University of Michigan, No. 14, Prehispanic Settlement Patterns in the Southern Valley of Mexico*, Appendix I, pp. 385-459. Ann Arbor: University of Michigan.
- Williams, Barbara J.  
1984 *Mexican Pictorial Cadastral Registers*. In H.R. Harvey and Hanns J. Prem (eds.) *Explorations in Ethnohistory*, pp. 103-125. Albuquerque: University of New Mexico Press.
- Zantwijk, Rudolph van  
1985 *The Aztec Arrangement*. Norman: University of Oklahoma Press.

Zorita, Alonso de

1963 *Life and Labor in Ancient Mexico: the Brief and Summary Relations of the Lords of New Spain*. Translated and with an introduction by Benjamin Keene. New Brunswick: Rutgers University Press.

# PROYECTO ARQUEOLOGICO CIHUATECPAN: RESUMEN

---

## INTRODUCCION

El presente proyecto se inició para adquerir datos para una reconstrucción mas detallada de la vida rural azteca en el area nuclear de la Cuenca de México, por medio de excavaciones de tlatales en uno de los asentamientos rurales aztecas en el Valle de Teotihuacan, Estado de México. Aquí, 5 kilómetros al este de Otumba, está ubicado el Cerro San Lucas, y el asentamiento del periodo azteca forma un anillo continuo alrededor del pie del cerro, con la concentración de montículos mas densa en el sur, y mas dispersa en el norte. Este sitio se designó T.A. 81 en el reconocimiento conducido por el Teotihuacan Valley Project durante los años sesenta (Sanders 1965), y probablemente se conoció con el nombre Cihuatecpán antes de la conquista ("San Lucas Cihuatecpán" está listado en un Orden de Congregación de 1603 como un pueblo congregado en Ahuatepec, 2 kilómetros al sur; "Sant Lucas" aparece como un sujeto de Otumba en "El Doctrina de Otumpan" de 1571, en el Arzobispado de México).

Este sitio fué escogido para investigaciones mas intensivos tanto por su estado de conservación relativamente bueno, como por sus atributos especiales, tales como la variabilidad de los tamaños de sus montículos y de su densidad, la localización del sitio sobre un camino antiguo entre el Valle de Teotihuacan y la región de Tlaxcala, su proximidad a la mina de obsidiana de Barranca de los Estetes (uno de los yacimientos mas importantes de obsidiana en la Cuenca de México), y por la evidencia de actividades económicas especializadas que se mostró, por la extensa distribución de obsidiana en la superficie, y por otros artefactos de producción.

## EL PROYECTO

Las investigaciones de campo en la primavera de 1984, bajo la dirección de Dra. Susan Evans (de Pennsylvania State University) y Dr. Elliot Abrams (de Ohio University) y con una tripulación de 12 a 18 obreros, consistió de un reconocimiento intensivo y completo de Cerro San Lucas, mas recolecciones de superficie de 14 montículos (Operaciones 11 - 24), y una concentración de obsidiana (Operación 8), y la excavación de nueve montículos (Operaciones 1 - 7, 9 y 10).

### 1. Reconocimiento de Superficie:

En esta fase del proyecto, cada terraza en el Cerro San Lucas fué recorrido para localizar los montículos residenciales y otras concentraciones de materiales arqueológicos. El mapa que resultó muestra 206 montículos distribuidos sobre un sistema de terrazas, el cual abarca 3 km<sup>2</sup>. La parte del sitio mas densamente habitada, por la ladera sur del cerro, destaca una concentración de montículos mas grandes en las cercanías del camino antiguo. Dentro de esta concentración de montículos también se encuentran varias areas muy densas de desperdicios de obsidiana.

## 2. Recolección de Superficie:

Esta fase de la investigación consistió de cuadricular 14 de estos montículos en unidades de 100 m<sup>2</sup> y recolectar todos los materiales culturales de la superficie. Esto proveyó una muestra de cerámicas y materiales líticos de cada montículo, la cual, conjunto con las dimensiones de montículo, permitirá generalizar acerca de su función, cronología, y el estatus socioeconómico de sus residentes. Además de la recolección intensiva de las superficies de los montículos, se hizo una colección de Operación 8, un área de 25 m por 35 m que estaba cubierto de una capa de desperdicios de obsidiana. Esta colección se hizo a través de unidades de 2 por 2 metros.

## 3. Excavaciones

Se excavaron nueve montículos usando calas de 2 por 2 m y siguiendo la estratificación cultural. Ocho de estos era estructuras y el novena (Operación 3) parece haber sido una excavación antigua, posiblemente una antigua jagüey.

Las estructuras varían en tamaño, de 3 a 21 cuartos, de 28.28 m<sup>2</sup> (Estructura 5 Oeste) a 363.07 m<sup>2</sup> (Estructura 6). Son rectangulares, y en Estructuras 1, 4, 6, y 10 los cuartos están colocados alrededor de un patio central. La función de estas estructuras fué residencial, basado en los artefactos domésticos y en la presencia de rasgos como bancales de adobe, hogares, tlecuiles, un horno (Estructura 6), y, posiblemente, temascales (Estructura 6). Estos rasgos son semejantes a esos notado por Paredes (1986:243-252) para el período Azteca en la Cuenca de México.

La cronología de estas estructuras está derivada de cerámicas. Unos pocos tiestos del estilo Mazapa y Atlatongo indican que habí un pequeño asentamiento aquí en la fase Tolteca Tardío, y tiestos vidriosos del período Temprano Colonial confirma la documentación de fuentes etnohistóricas respecto a ocupación en los siglos XVI y XVII. Mas de los tiestos están del período Azteca, y Negro Sobre Naranja, tipos A por F, H, y J están respresentado. De Negro Sobre Naranja tiestos, 66% son de tipo D, fechado de la fase Chimalpa (D.C. 1400 - 1500).

Las excavaciones han proveido grandes colecciones de tiestos y obsidiana, que serán analizados intensivamente. Otras colecciones de artefactos que están siendo analizados incluyen artefactos rituales (figurillas, y un omichicahuaztli), y los artefactos asociados con producción de tejidos (grandes y pequeños malacates, y raspadores para hacer hilo de magüey).

## CONCLUSION

De claro, este pueblo fué un centro próspero de producción de herramientas de obsidiana, y de tejidos, durante los siglos antes de, y inmediatamente después de la Conquista, y las excavaciones han proveido datos que permiten un entendimiento mas amplia de la vida de los campesinos rurales del período azteca.

