

**CERAMIC CONTEXTS AND CHRONOLOGY
AT CHICHEN ITZA, YUCATAN, MEXICO**



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Statement of Authorship

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This investigation did not involve human or animal subjects.

Name:.....

Date:.....

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Summary

Ceramic Contexts and Chronology at Chichen Itza, Yucatan, Mexico.

The main goal of the present thesis is to construct a ceramic chronology for the site of Chichen Itza, with special attention to the contexts in which the collections were excavated. The bulk of the data comes from thirteen years of ceramic classification by the author at the site, on the collections made by the Chichen Itza Project INAH (1993 to date) directed by Peter Schmidt, but also including some available earlier collections. Due to considerations of space, the time span covered by this study is limited from the Late Classic to the Late Postclassic period (A.D. 600 to 1500), involving five different ceramic complexes.

The basis for the dating of the contexts relies on several different theories. The classification and analysis of sherds has been made in the Type-Variety system used by most archaeologists in the area. The contexts are defined by their composition and by their situation in the context-formation process. The dating system in this study is based on the seriation of frequencies of ceramic complexes. Then, the date derived from the seriation is adjusted by the positioning of the context in the architectural sequence. Once the architectural phases and the ceramic complexes are resolved, the sequence is fixed in time by absolute dates associated with the buildings (such as Hieroglyphic Inscriptions and Carbon 14 dates).

The results of this research settle the dispute of the chronology of the transition from Classic to Postclassic at Chichen Itza, a polemic issue of the northern Yucatan chronology. It shows three different sequential complexes (Motul, Cehpech and Sotuta) associated with different architectural styles and sets of absolute dates. It also sheds light into the understanding of the decadence of the city (Hocaba Complex) and its transformation into a pilgrimage center during the Late Postclassic (Tases Complex).

Chichen Itza was the largest and most important city of the northern plains during the Early Postclassic period, and its ceramic chronology has consequences to the history of the whole northern plains.

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Introduction

Introduction

During the last thirty years the debate about the correct chronology of the ancient Maya site of Chichen Itza, and the significance of its ceramic complexes, has become the subject of intense discussion by Maya archaeologists. Excavations have been carried on at the site since the nineteenth century, but many issues involving the chronology of Chichen Itza remain problematic.

This dissertation, based on the ceramic collections recently recovered by the Chichen Itza Project, 1993-2006 (sponsored by Mexico's Instituto Nacional de Antropología e Historia - INAH), presents a new analysis and seriation of ceramics from a range of contexts throughout the site. This analysis allows for the development of a more coherent ceramic sequence and, ultimately, will produce a better understanding of the site's historical development.

Chichen Itza is a major ancient Maya site located roughly in the center of the northern plains of the Yucatan peninsula (Map 1). Covering about twenty square kilometres, it contains many monumental architectural groups built on top of massive terraces and platforms. Around eighty causeways, known as *sacbe* in the Yucatec Maya language, connect each of these architectural groups to the nuclear zone.

One of the city's most distinguishing traits is the presence of two different architectural styles: the first one, traditionally labelled "Maya", has been linked with the cities of the Puuc area (see Map 1); the second style, traditionally known as "Toltec", has been compared with the city of Tula, Hidalgo, in the Central Mexican highlands (Seler 1915, Tozzer 1930; among others).

From the earliest ceramic studies of Chichen Itza until recent times (Vaillant 1927, 1935; Roberts 1931-1935; Brainerd 1958; Smith 1971), it has been accepted that the "Maya" or "Puuc" style buildings, which associated epigraphic inscriptions date to the ninth century A.D. (Terminal Classic period in the actual nomenclature), correspond to Terminal Classic ceramics of the Puuc region. Meanwhile, the "Toltec" style buildings, which generally lacked Maya inscriptions, were considered to be posterior than the "Maya" style structures and were dated to the tenth and eleventh centuries (Early Postclassic period). These buildings were associated with Chichen or "Mexican" ceramics.

Nevertheless, due to the accidental loss of most of the Chichen Itza ceramic collections of major past excavations, a totally satisfactory ceramic sequence for the city was never produced.

During the 1980s a number of Maya specialists called into question the traditional linear model of historical development, arguing that the two architectural styles might partially or totally overlap (Ball 1979; Lincoln 1986; Ball 1986; Sabloff and Willey 1986, among others). This view was based primarily on negative evidence, i.e. at that time no definitive proof existed (stratigraphic or typological) that the two different ceramic complexes (“Maya” and “Mexican”) existed in a sequential order at the site. The above-mentioned loss of most ceramic collections has made the resolution of this dispute impossible until now.

The ongoing excavations of the Proyecto Arqueológico Chichen Itza - INAH, directed by Dr. Peter J. Schmidt, began in 1993. The archaeological work includes the excavation of a large number of structures, such as the pyramid of El Osario, the Temple of the Big Tables, the Sacbe 1, and the Northeast Colonnade, all in the core of the city (Map 2). At the Initial Series Group (Map 3), located in the south of the city, the following buildings have been excavated: Temple of the Initial Series; the Phalli Complex (including the Phalli, Atlantean Columns and Dancing Jaguars buildings); the Temple of the Owls; Structures 5C1, 5C2, 5C8; the Turtle Platform, and a Patio-Gallery (Structure 5C11). Excavations at the Initial Series Group are still in progress at the following locations: the entrance Arch, the Snails Building, and the Gallery of the Monkeys.

Additionally, the Proyecto Arqueológico Chichen Itza has conducted surface collection and placed test pits in a number of architectural groups across the site. These investigations have produced a great number of archaeological collections. Thousands of pieces of flint, obsidian, and shell, and smaller collections of other materials (such as jade, copper, volcanic stone, calcite, hematite, turquoise, etc.), have been recovered and catalogued, and are in different stages of analysis.

Ceramics comprise the bulk of the material collected by the Proyecto Arqueológico Chichen Itza ; to date the project has amassed almost two million sherds. Because these materials come from well-controlled excavation collections, more secure connections can be established between the ceramic materials and the contexts to which they pertain.

Chichen Itza's dominance of the northern plains of Yucatan over a period of at least two centuries makes the site's chronology relevant for the entire northern region of the peninsula. By clarifying the ceramic chronology of Chichen Itza we hope to reach a better understanding of the transition from the Classic to Postclassic period in the northern Maya region.

Ceramics are of great importance in the dating of Maya history. Although ceramic dating is a relative system, historical interpretation must often depend on ceramic dating for lack of any other recovered dateable material. For this reason the ability to define shorter temporal periods is critical.

In this paper I propose a method that permits, using the Type-Variety System, the subdivision of Ceramic Complexes into Facets. I propose to use the chronological dimensions of the ceramic contexts to achieve an ordered sequence of the processes of occupation, construction and development of the site, as well as the processes of abandonment and reoccupation. The thesis to be proven is that the frequencies of the chronological components (expressed in percentages of ceramic complexes) of a context define the temporal position of that context. This position must be then adjusted by the external relations of the contexts; namely the stratigraphic position and the processes of formation of each context. Finally, the few available absolute dates from the site are employed, when possible, to fix in time the relative dates. The validity, exceptions and limits of this method are tested using Chichen Itza's ceramic data.

Chapter 1 describes in detail the methodology for dating ceramic collections used in this study.

Chapter 2 examines the dating of the transition of Classic to Postclassic periods at Chichen Itza. The first section (2.1) is a review of the data and arguments employed by previous scholars to date this transition. I choose to quote verbatim instead of rephrasing or editing the notions expressed by the archaeologists mentioned in the text. I did so because I was interested not only in showing their dating for the different periods, but also their reasoning and the data on which they support their chronologies.

This thesis provides new data that settles the dispute of the Overlap issue. It is not an academic discussion with other scholars around the same set of data. In these circumstances, I have refrained myself of critically discussing or criticizing their views

and dates. The data provided in the next section does it by itself. My thoughts are confined to the conclusions chapter.

Section 2.2 presents the ceramic data of my analysis, and is divided in three ceramic complexes: sub-section 2.2.1 is devoted to the Yabnal-Motul ceramic complex (Late Classic period); sub-section 2.2.2. to the Huuntun-Cehpech ceramic complex (Terminal Classic period); and sub-section 2.2.3 presents the Sotuta-Sotuta ceramic complex (Early Postclassic period).

The examination of data for each complex is achieved in five parts. First, there is an examination of the most characteristic ceramic ware of each complex, which is in this case the Slateware, in northern Yucatan. Then follows a presentation of the characteristics of that particular Slateware at Chichen Itza. The next part contains the data files available for the dating of each complex, followed by a presentation of the remaining ceramic groups of each complex, and an examination of the distribution of the collections of each period. The final part of each sub-section presents a summary for each ceramic complex, proposing a date for the beginning and the end of its local ceramic production.

The contexts examined for each period are presented in the form of individual files. Each file contains a map of the location of the associated structure, some basic data pertaining to the structure (such as architectural type or style, inscriptions, or other relevant characteristics), the stratigraphy of the context when available, a chart of the ceramic analysis with percentages by complex, pictures or drawings in the case of complete vessels, and finally a date is offered for each context.

Chapter 3 follows the same structure as Chapter 2, but analyzes the latest pre-Hispanic ceramic complexes at the site. Section 3.1 reviews the different positions adopted by scholars about the chronology of these latest periods. Section 3.2 presents the data for the Kulub-Hocaba ceramic complex (Middle Postclassic period) and the Chenku-Tases ceramic complex (Late Postclassic period), also in the form of context files.

The conclusions present an evaluation of the methodology proposed in Chapter 1, and a summary, complex by complex, of the resultant chronology. Evidence from sites outside Chichen Itza and their relevance to the site's ceramics is also discussed. Finally, some consideration is given to the graphic representation of ceramic chronologies and its implications.

Note on the ceramic collections. Most of the ceramics classified as “Not assigned” are eroded sherds. On the original tabulations each sherd is more finely described, including form, part, type and variety or if it was classified as eroded or just not identified. All of the ceramic material used in this thesis is stored by lot and is available for further examination by other scholars.

A note must be made about the “Maya” and “Toltec” architectural styles. First, I do not intend to express any ethnic affiliation whatsoever with the use of these terms. I agree with Peter Schmidt (personal communication 2006) that this division is rather simplistic. However in the absence of a new architectural classification of Chichen Itza’s constructions, I consider the Toltec-Maya division suitable for the purposes of this thesis.

Chapter 1

Methodology for the Dating of Ceramic Contexts

- 1.1 Ceramic Complexes and the Type-Variety System
- 1.2 Defining Ceramic Contexts
- 1.3 Context Formation Processes
- 1.4 Concepts of Dating Theory
- 1.5 A Method for Dating Ceramic Contexts
- 1.6 Archaeological Contexts at Chichen Itza

The system used for constructing the ceramic chronological sequence of Chichen Itza in this thesis consists of a seriation of the archaeological contexts excavated at the city, based on the frequencies of the ceramic complexes present in those contexts. The ordering of contexts produced by the seriation is then contrasted with their stratigraphic position, and finally tied if possible to absolute dates. The theoretical/ conceptual basis for this thesis rests on three different archaeological methods, which will be review below: the type-variety system, the context formation processes theory, and the dating theory.

1.1 Ceramic Complexes and the Type-Variety System

The system most commonly used to classify the ceramics of the Maya Area is the *type-variety system*, a method that has been extensively described (Smith, Willey and Gifford 1960; Gifford 1960; Smith and Gifford 1966; Willey, Culbert and Adams 1967; Adams 1971; Sabloff 1975; Gifford 1976), and is commonly used to establish ceramic chronologies.

The basic unit of the type-variety system is the “type”, defined by J. C. Gifford as a “*ceramic unit that is recognizably distinct as to certain visual or tactile characteristics. A type represents an aggregate of distinct ceramic attributes that is indicative of a particular category of pottery produced during a specific time interval within a specific region ... Although the essence of a type is a cultural abstraction, any given pottery type is the sum total of its established variety plus all other varieties within its range*” (Gifford 1976: 9). Each type can include several varieties; small but significant differences within a type determine the “variety”. According to Gifford, “*differences between one variety and another usually rest on one or several minor attributes*” (1976: 9).

The types are grouped in a higher level of integration called “ceramic group”. “*A ceramic group is a set of very similar and closely related pottery exhibiting a distinctive homogeneity in range of variation with respect to base color, surface-finish character, form repertoire and other allied attributes, but potentially encompassing a variety of secondary techniques and styles and cross-cutting two or more paste variants*” (Smith and Gifford 1965: 501). For its part, the ceramic “ware” has been described as “*a number of ceramic types sharing a cluster of technological attributes*” (Willey, Culbert and Adams 1967: 304). Types and varieties, groups, and wares are integrated into levels of higher abstraction, as ceramic complexes, horizons and spheres.

The concept of “ceramic complex” is of basic importance for the dating method used in this thesis. Gifford defines a ceramic complex as: “*the sum total of modes and*

types that comprises the full ceramic context of an archaeological unit, usually a phase. The content of any one ceramic complex is what is known of all the pottery utilized by an archaeological culture in a certain geographical setting and during a particular interval of prehistoric time” (1963: 11). “*A ceramic complex comprises the sum total of pottery and attributes thereof that can be associated as a discrete and readily distinguishable assemblage with a specific geographical locus or zone and a fixed chronological span. Theoretically, at least, its spatial extent should be limited and its temporal duration brief*” (Gifford 1976: 11-12).

Robert Smith (1971: 194) offers another definition of a ceramic complex, as “*the total ceramic manifestation present in a single cultural phase. Usually it is made up of utilitarian and fine wares, both locally made and trade. Under certain conditions, as in a kitchen midden, one would not be surprised at the lack of trade wares of even locally made fine wares. But one would expect to find both unslipped and slipped utilitarian wares with most types represented, not just one type of a single ware*”.

In summary, ceramic complexes are theoretical constructions, or abstractions, basically representing periods of coeval use of ceramic groups. Given its abstract essence, Ceramic Complexes cannot be excavated. What archaeologists excavate are contexts. A ceramic context can show the presence of only one complex, or of several complexes. In those cases the latest evidence (sherd or pot) dates the context. *The key sherd or late sherd is the one that dates the assemblage* (Orton, Tyers and Vince 1993: 187).

A problem for chronological construction arises from the definition of a ceramic complex as a temporary and spatial unit for a set of ceramics. As pointed out above, at any given time the ceramics used during a ceramic complex usually consist of both local and imported wares as well as remnants of pottery from earlier complexes. All the ceramic complexes from Chichen Itza yielded low percentages of imported wares; therefore, imported pottery has had little impact on the site’s seriation. Nevertheless, it is important to emphasize that the dating of ceramic complexes should rest on the production of local wares; imported pottery alone cannot be used to date a ceramic complex. Residuality of ceramics of previous complexes must also be acknowledged and factored to avoid dating confusions.

Complexes can be divided into “facets” or smaller, temporary subdivisions as well as Sub-Complexes, or subdivisions without a chronological value (Willey, Culbert and Adams 1967: 304-305), as for example functional sub-complexes. The ceramic complexes of different sites can be integrated into *ceramic horizons*, with some ceramics considered as “horizon markers”. The horizon markers are indicators of the cultural

contacts between two or more ceramic complexes during a specific period (Willey, Culbert and Adams 1967: 395). A *ceramic sphere* “exists when two or more complexes share a majority of their most common types. Whereas the horizon need imply no more than a few connections at the modal level, the sphere implies high content similarity at the typological level” (Willey, Culbert and Adams 1967: 306-307)

Finally, an *archaeological phase* is defined as “an archaeological unit possessing traits sufficiently characteristic to distinguish it from all other units similarly conceived, whether of the same or other cultures or civilizations, spatially limited to the order of magnitude of a locality or region, and chronologically- limited to a relatively brief interval of time” (Willey and Phillips 1958: 22). Sometimes archaeological phases receive the same name as a ceramic complex, but they are constructed on the basis of several lines of evidence including architecture, settlement pattern, lithic industry, sculpture, and ceramics.

The technique used to measure the frequencies in this thesis was by counting sherds. Despite the limitations of this technique, and of its possible implications for the evaluation of ceramic dimensions, as Orton, Tyers and Vince have argued:

“if our argument depends on different proportions of different types in two assemblages, and if our proportions are based on counts of shards, any observed differences may simply reflect the fact that one assemblage is more broken than the other- the true proportions may be the same” (Orton et al. 1993: 33).

Nevertheless, at the ceramic complex level the difference in “brokenness” affects less directly our understanding, especially if the complexes compared maintain a similitude at the Ware level (as is the case with Yabnal/Motul, Kakupakal/Cehpech, Sotuta/Sotuta and Kokom/Hocaba Complexes). The sheer number of sherds collected during the excavations – approximately two million, of which 700,000 have been analyzed – strongly influenced the decision to apply the technique of counting sherds. With this quantity of material, it is almost impossible to apply any other technique.

1.2 Defining Ceramic Contexts

In a general sense, an archaeological context can be defined as a determined dimension of analysis of the relations between a set of archaeological objects, or data. Context comes from the Latin *contexere*, meaning to intertwine, weave, or connect. The term applies in different forms to the interpretation of archaeological data by the relations between those data. The importance of the context arises at the beginning of the formulations of archaeological theory and the various theoretical approaches have included this concept as a basic tool to understand the material remains. It has been said that archaeology is defined by the importance conceded to the context (Hodder 1991).

Hodder (1991) considers that a context expresses a multidimensional reality, in which several basic dimensions can be defined: the chronological or temporary dimension, the spatial dimension, the typological dimension, and the deposition dimension. The totality of the relevant dimensions of variation of any object can be identified as the context of that object. The idea of typological similarity and difference is basic for defining temporary and spatial contexts. Therefore typology is essential for the development of contextual archaeology. It is also the element that links archaeology more strongly with its traditional objectives and methods. The contextual approach depends strongly on the data. A greater quantity of data allows the discovery of a higher number of similarities and differences, and more relevant dimensions of variation. Also, several levels of interpretation of a context can be made: the chronological, the functional-systemic, and the symbolic-ideational (Hodder 1991).

In this thesis I will use the term ceramic context to refer to the ceramic contents of the archaeological contexts. Since a context is a defined entity, some precisions must be made. First, a context can be defined by its internal relations and external relations; or intrinsic attributes and extrinsic attributes in the terminology of J. C. Gardin (1980: 65). In the case of the ceramic contexts, it means that we need to understand the relations between the ceramic types, wares and complexes present in a context, but also the position of that context in relation with the architecture or stratigraphic position in which it is found.

For chronological purposes the archaeological contexts of Maya cities can also be broadly divided into open, closed, and semi-closed contexts. The reliability of each type of contexts depends upon the integrity of the area; closed contexts are considered the best for the purposes of dating.

Open contexts are the contexts that were open to human activities until the excavations of the site. Terraces, plazas and platform surfaces, standing buildings and rooms, roads, and refuse deposits can be included in this category.

In contrast, *closed contexts* identify those areas sealed off from human activities during the occupation of the site until the moment of excavation. For example, they may refer to the interior of terraces, platforms, and buildings sealed by floors, and also burials, tombs, construction offerings, or caches.

Contexts originally sealed but whose floor cover has deteriorated due to erosion or others factors, and has become susceptible to contamination of posterior materials must be considered as *semi-closed*. In these cases, the possibility of filtration by later ceramics may occur and should be acknowledged. This arises frequently in the central sections of the floors of platforms and terraces, more exposed to weathering and destruction as well as in building floors with little maintenance and/or a high degree of use.

In addition, the location of each context serves to differentiate them one from another. For example, colonnades, palaces, caves, households, and temples each require the use of different archaeological techniques. Three basic archaeological techniques used in the recovery of ceramic collections are excavation, clearing and surface collection.

During *excavation* contexts are usually dug by following the architectural stratigraphy from the topmost floor, and define the ceramic and architectural associations. Here are included ceramics pertaining to the construction of terraces, platforms, buildings, annexes and re-modeling.

Although it is often assumed that the latest ceramics found in the interior of a construction date that construction, the reality is that the ceramics obtained in these excavation contexts may owe their presence to diverse causes, such as the deposits of dumps in the fill (displaced refuse), refuse deposits covered by terrace extensions, construction offerings, burials, etc., pertaining the majority to the first case.

Many ceramic collections are recovered during the *clearing* of the collapsed sections of ruined buildings, in order to restore them. Here we can differentiate between materials recovered from three distinct contexts. Material from *pre-collapse occupation* consists of the material evidence from the last human occupation prior to the collapse of the building, and usually lies over the latest floor or surface. It is usually excavated with great care after removing the collapsed sections, and even sometimes after the restoration of the standing walls. This material most likely relates either to the original builders of the structure or later inhabitants of that building. Material recovered from the *collapsed sections* of the building originates in the interior of vaults and walls of the collapsed

building, where it was deposited as fill or as offerings. These ceramics usually show traces of mortar material from the construction of the building.

Material dating to a *post-collapse occupation* pertains to the occupation of the building after the partial collapse of some sections. If the collapse happened in various phases, several of these occupations can be found.

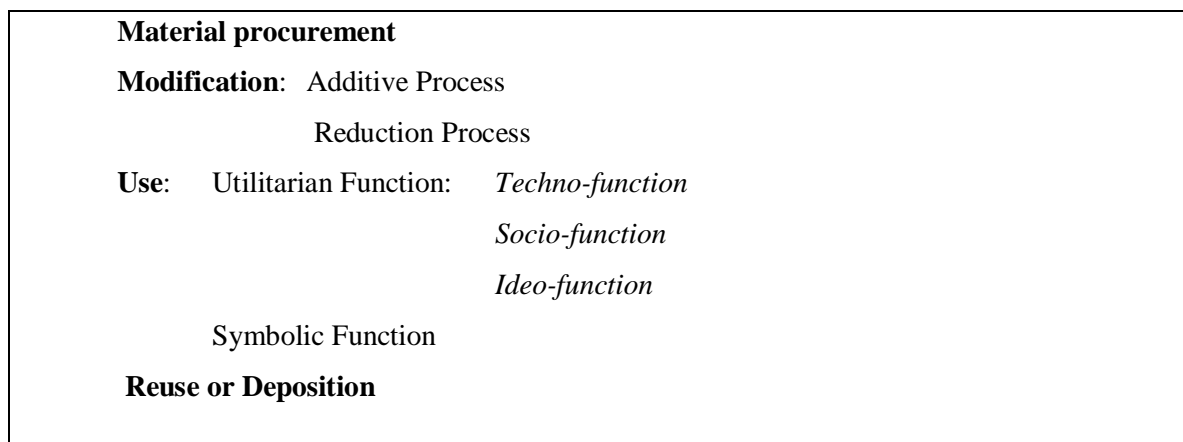
The associations of *surface collections* with specific context formations are never clear, but they can be used for constructing seriations, and therefore they contain an important potential for chronological purposes.

Finally, the process of the formation of each particular context must be considered. Since this issue has become of substantial importance in archaeological theory, it will be considered in a separate section.

1.3 Context Formation Processes

The basic concepts of the context formation theory were developed by Michael Schiffer (in several contributions summarized in 1987) and will be reviewed here because they have a decisive influence in the correct dating of archaeological contexts. In order to avoid diluting the importance of these concepts, the original definitions will be cited.

An important distinction has been made between the “systemic context”, which refers to “*artifacts when they are participating in a behavioral system*”, and the “archaeological context”, which refers to “*artifacts that interact only with the natural environment ... Systemic contexts are knowable only through the process of inference. An inference is a statement about the past supported by relevant principles and relevant evidence*” (Schiffer 1987: 3-4). To make justifiable inferences the investigator must consider and take into account the factors that have introduced variability into the historical and archaeological records. These factors are known as *formation processes*. They are of two kinds: cultural and natural. The cultural factors include: loss, discard, reuse, decay, and archaeological recovery (Schiffer 1987: 7). M. Schiffer (1987: 14) proposed a flow model for the archaeological materials which is summarized below.



Flow Model of the archaeological materials (after Schiffer 1987)

Data referring material procurement and production of ceramics at Chichen Itza remains unavailable, and many questions remain unsolved about the use and distribution of pottery vessels. Therefore, this thesis will concentrate on the discard processes which affect the formation of the archaeological record.

“Refuse disposal itself consists of many diverse processes, varied combinations of which result in quite dissimilar deposits. Many additional processes, including loss, abandonment, disposal of the dead, and caching

*behavior, also contribute to accumulations of cultural materials. This large family of processes transforms artifacts from systemic context to archaeological context and is known as **cultural deposition***” (Schiffer 1987: 47).

Discard Processes must then be studied to understand the archaeological contexts.

“Artifacts may have several functions. If an artifact cannot perform any of these functions (utilitarian or symbolic), and reuse does not occur, then it is usually transformed to archaeological context. This process, which may involve several storage and transportation steps, is called discard” (Schiffer 1987: 47). *“**Breakage** is an abrupt mechanical failure of an artifact or one of its parts, and is the major cause of discard for ceramic and glass containers ... **Wear** is a universal process that gradually reduces the ability of artifacts or their parts to perform techno-functions”* (Schiffer 1987: 48). *Ceramics have a wide range of **use-lives**. For example, pots employed in everyday cooking tend to last about six months to a year, whereas large jars used for water storage can endure for a decade or more* (1987: 49).

*“Artifacts discarded at their locations of use are termed **primary refuse**: those discarded elsewhere are known as **secondary refuse**. The clean-up of an activity area is called **maintenance**; discarded items are removed and deposited elsewhere as secondary refuse”* (Schiffer 1987: 58-59). *“Small artifacts not removed by maintenance processes in activity areas are termed **residual primary refuse** ... In activity areas that are infrequently maintained, larger items of residual primary refuse tend to accumulate, especially outdoors ... Many artifacts ... remains as a primary refuse along the paths that cut across vacant lots. Such materials were termed **in transit refuse**”* (Schiffer 1987: 62-64). *“Regardless of their frequency, the maintenance processes of activity areas are the starting points of **waste streams**. These flows of refuse, which can combine in various ways and often involve provisional refuse areas or facilities, terminate in secondary refuse areas ... A household can contain many activity areas, each of which is the starting point of a waste stream ... Waste streams, of course, can lead to one or more secondary refuse areas”* (Schiffer 1987: 66).

“After discard processes are initiated, refuse is sometimes subjected to various treatments, including compacting, burning, and use as construction material ... The Maya are especially noted for treating refuse as a construction material for temples and housemounds. It is unlikely that refuse was used for these purposes “fresh”. Household refuse generally contains a large component of organic wastes (“garbage”), the slow decay of which would cause much shrinkage of deposits. Most likely, refuse had aged somewhat or was burned before it was quarried for use in construction” (Schiffer 1987: 70).

“Ritual Caches” constitute another type of context.

“For such a deposit to be called a ritual cache by the archaeologist, it must be a reasonably discrete concentration of artifacts, usually not found in a secondary refuse deposit; in addition, ritual caches generally contain complete artifacts, sometimes unused, that are intact or easily restored ... One of the most common caches encountered archaeologically is the dedicatory cache, an object or set of objects deposited ceremonially at the dedication of a construction site ... Offertory or votive caches (Bradley 1982) are also known to the archaeologist. Such caches appear to represent the (often periodic) placement of artifacts in a special location, perhaps as an offering. One of the most famous assemblages of offertory caches is that contained in the Great Cenote of Sacrifice at Chichen Itza where, probably over a considerable time period, an enormous number of exquisite Maya artifacts –and human remains– accumulated” (Schiffer 1987: 79-80).

Another set of processes with weight in the definition of contexts are the “abandonment processes”.

*“Abandonment is the process whereby a place –an activity area, structure, or entire settlement– is transformed to archaeological context ... The abandonment of places set in motion another set of processes that deposit artifacts ... **De facto refuse** consists of the tools, facilities, structures, and other cultural materials that, although still usable (or reusable), are left behind when an activity area is abandoned. **Curate behavior** ... designates the*

process of removing and transporting still-usable or repairable items from the abandoned activity area for continued use elsewhere” (Schiffer 1987: 89, 90).

Finally, Schiffer (1987: 100-110) offers a set of definitions for *occupational variability and reoccupation*. An “occupation” is defined as the continuous and uninterrupted use of a place by a particular group. The shortest unit of occupation is the “visitation”. They can be brief or extended. “Encampment” ranges from several days to several weeks. Occupations having a continuous duration of more than a year are termed “habitations”: short (1-10 years), extended (10-100 years), supra-extended (more than 100 years). Occupation can be unique or recurrent.

1.4 Concepts of Dating Theory

Several concepts of dating theory should also be considered in order to date the contexts.

The term *dating* refers to the placement in time of events relative either to one another or to any established scale of temporal measurement. *Dates* are the “values” that specify the temporal placement of a dated event (Dean 1989: 375).

“Time is ... a continuum ... that we sense as a succession of events. Our points of reference are those events we view as in some sense marking a change in the state of things ... Change permits us to divide the continuum of time into discrete temporal segments, or periods. These temporal segments are units of time within which no significant change occurs ... Such a period of time is treated as a synchronic segment- as a period within which all temporal points are regarded as contemporaneous” (Michels 1973: 9).

*“**Time** is always an inferred dimension of the data ... Customarily, considerations of the time are divided into two categories: absolute time and relative time. Absolute time methods stipulate the temporal dimension in terms of a unique position in a calendric system ... The primary use of absolute-dating methods is the correlation of local chronologies constructed by means of relative chronology. Relative-dating methods stipulate the temporal dimension of the data by placing a given unit in a sequence of similar units. There are but two methods of this kind which are of general applicability, stratigraphy and seriation ... Stratigraphy is applicable only to single sites”* (Dunnell 1970: 305).

Both seriation and stratigraphy are used in this thesis, and a short definition of those methods is necessary.

***Seriation** as a scaling technique produces a formal arrangement of units, the significance of which must be inferred. Arrangement per se is a statistical matter, while the inference of significance is archaeological method ... Seriations must be inferred to be chronologies when and only when: (1) the*

comparisons are conducted using historical classes; (2) the units ordered are of comparable duration; (3) the units ordered are from the same cultural tradition; and (4) when the order is repeated through several independent seriations” (Dunnell 1970: 305).

The basic assumption for the seriation of archaeological data is that:

“types of artifacts originate at different times and increase and decrease in popularity at different times ... The term seriation means the placing of items in a series so that the position of each best reflects the degree of similarity between that item and all other items in the data set. Thus seriation is a form of scale analysis. It arranges items by position alone, and does not use variation in metric distance between item positions as an expression of degree of similarity” (Michels 1973: 66-67).

“The units of a seriation must always be conceived as events rather than objects (Rouse 1967: 158) ... Objects as objects cannot be dated, for they persist from the time of their creation to the present. In a formal sense, a single kind of event is dated by seriation regardless of the interpretation of the event or whether the units are single objects, collections, or groups of collections. The event dated is always the creation of the group, the time at which the various constituents of the group came together as a physical aggregate. Clearly too, the event is a mean between the earliest and latest additions to the group. The temporal range between first and last additions is the duration of the unit. In the case of single objects, this event, often inferred to be manufacture or fabrication, is the time at which the attributes come together to make up the object. The duration of these units is typically minimal” (Dunnell 1970: 307).

The second method, *stratigraphy* is based in the observation that:

“vertical sequences of sediments can be read in timelike fashion ... everything else being equal, things deposited first are at the bottom of a column of sediments, and those deposited last are on top. Thus we have a measure of relative time” (O’Brien and Lyman 1999: 144).

The essential term to understand stratigraphy is the *stratum*,

“which we define as a three-dimensional unit of sediment of any origin that represents a depositional event and is distinguishable from other such units ... But strata are not cultures ... They are units that comprise individual depositional events that may or may not be the result of human activity. Where units are superposed, or layered, the principle (some would say) “law” of superposition states that the one on the bottom was deposited first and the one on top deposited last. Everything in between falls in relative chronological (depositional) order” (O’Brien and Lyman 1999: 144).

According to Dean, four types of events can be recognized:

*“**Dated Event** is the event that is actually dated by any chronometric technique in a particular situation” (Dean 1989: 376). “The **Reference Event** is the potentially datable event that is most closely related to the phenomenon to which the date is to be applied ... The **Target Event** is the event to which the date is to be applied by the chronometrician or other scientist ... Usually, but not always, the target events are not directly related to the dated or reference events” ... Finally, “**Bridging Events** are events used to establish a link between a dated event and a target event” (Dean 1989: 378).*

***Relative placement** involves the positioning of sequential events in the order of their occurrence. Thus, an event can be recognized as being earlier than, contemporaneous with, or later than other events, but the magnitudes of the temporal intervals separating events is unknown ... **Dating potential** refers to the likelihood of an object’s yielding a date to some chronometric method. **Dating error** applies to situations in which a date is actually wrong owing to human mistakes, equipment malfunction or uncontrolled factors. Dating error is distinguished from dating anomaly (Dean 1989: 375-376).*

*The term **dating anomaly** refers to a condition in which the chronometric date is not applicable to the dating event. Four terms specify the nature of dating anomalies ... The **disjunction** is the temporal interval between the Dated Event and the Target Event. The **gap** is the interval between the Dated Event and the Reference Event. The **hiatus** is the temporal*

*interval between the Reference Event and the Target Event. The sum of the gap and the hiatus equals the disjunction. The **disparity** is the temporal interval between the Target Event and the Dated Event, when the latter is later than the former (Dean 1989: 378-379).*

*“Two terms specify the relationship between Dated Event and the Target Event. **Convergence** exists when the two are coeval ($E_d = E_t$) ... **Relevance** refers to the degree to which the date is applicable to the Target Event ... *Relevance is a relative rather than an absolute concept, and it must be demonstrated or argued on the basis of archaeological or other evidence. Other aspect of relevance specification is the estimation of the magnitude of the disjunction or disparity between E_d and E_t ” (Dean 1989: 379).**

1.5 A Method for Dating Ceramic Contexts

Usually ceramic chronologies are represented as a sequence of complexes, divided by horizontal lines to denote substitution, and diagonal lines to denote gradual transitions or overlaps (see Figure 1). Such a graphic communicates a succession of complexes and estimates the beginning and end dates for each complex. The implicit assumption underlying this graph is that the information represented is the beginning and the end of production of the local ceramics of that complex. In that sense, chronologies constructed with straight lines are a very general abstraction, useful for comparisons between complexes of different sites, but poorly representative of the life of the complex. Also, somehow, by using the type-variety system, and dating a collection by the latest ceramics present, ceramic chronologies represented by straight lines act as ‘dating boxes’, usurping a role which does not correspond to a communication graphic.

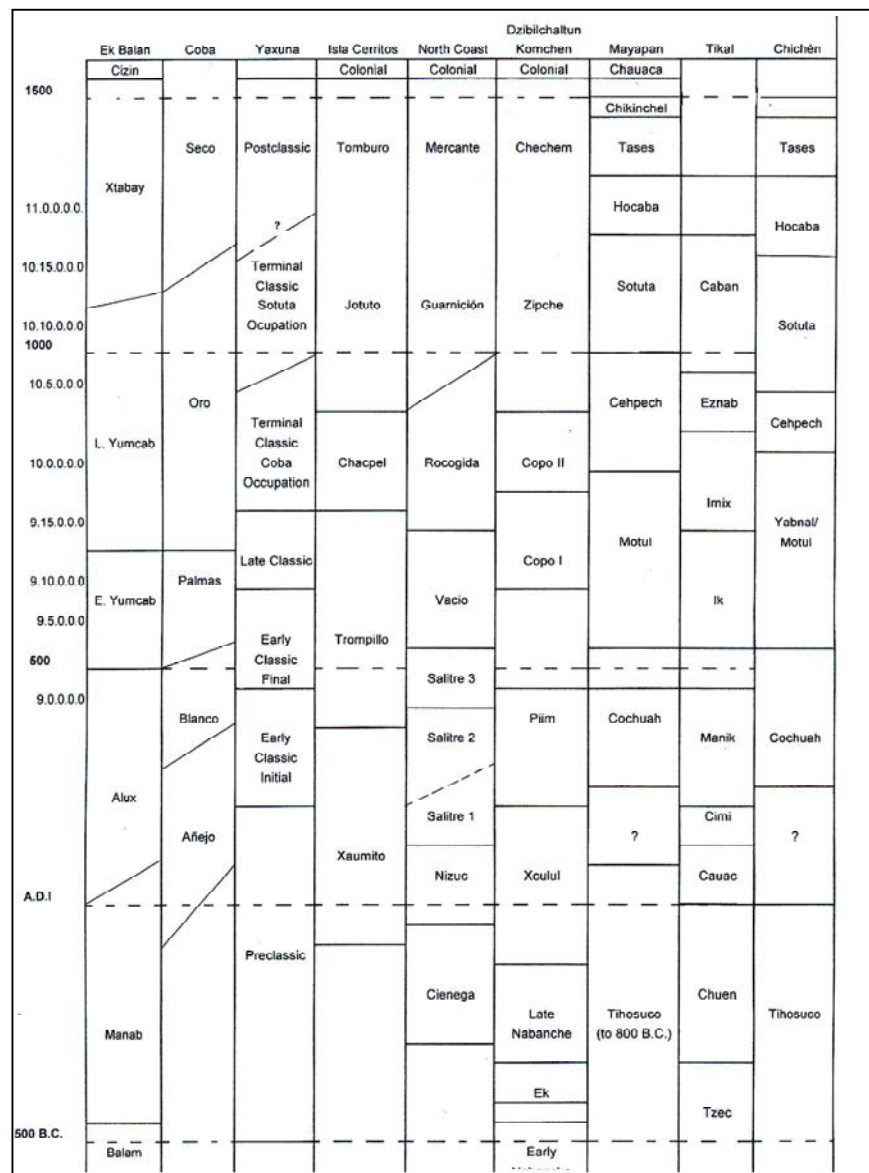


Figure 1: Traditional representation of ceramic complexes

A graphic representation of ceramic chronologies employing curves rather than horizontal lines can better illustrate different aspects of the ceramic phenomenology related with time. For example, since the beginning and the end of ceramic complexes rarely can be dated with total precision, the curves can be used to illustrate the range of uncertainty of each point. For example, in Figure 2 the beginning of production of the Cehpech complex is dated between A.D. 800 and 830, and the end of production of the same complex between A.D. 900 and 950.

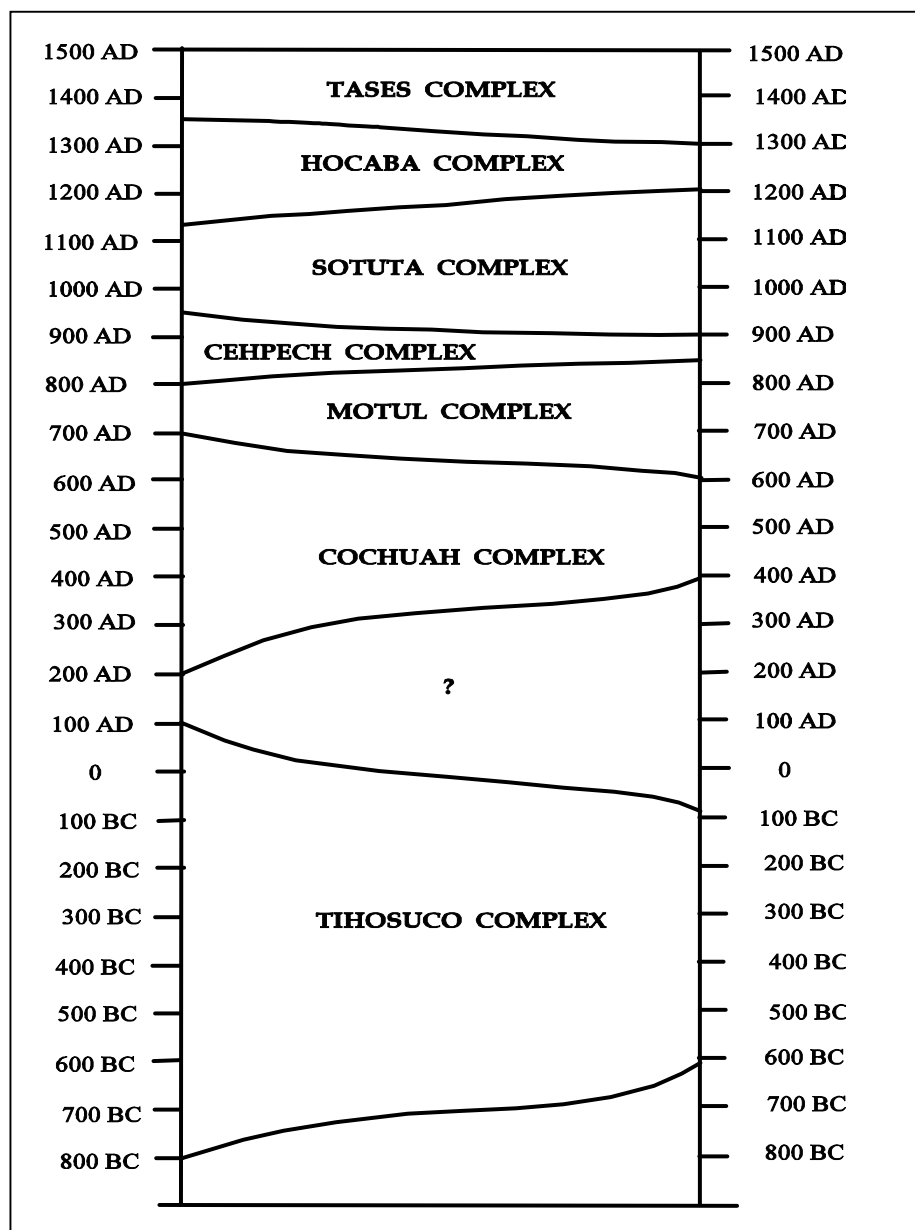


Figure 2: Chichen Itza's Ceramic Sequence (Perez de Heredia 2004)

Another kind of graphic can be created by using curves. Instead of representing the range of uncertainty of the dates of the complexes, the points of the curves can be used to represent four different moments in the life of a complex: the beginning of production, the end of production, the first appearance in archaeological context, and the last appearance in systemic context (See Figure 3).

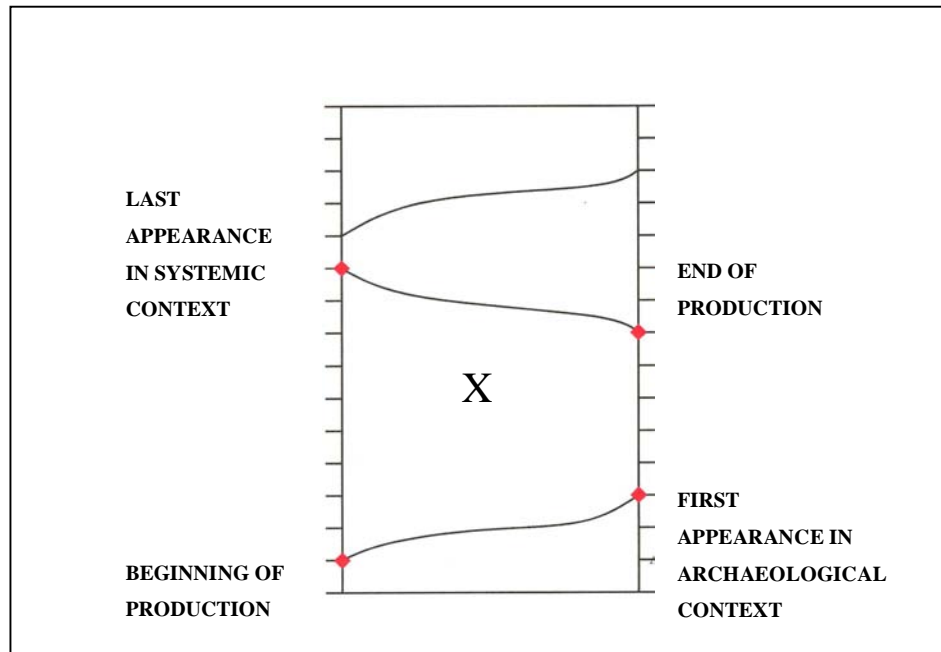


Figure 3: Four moments to date in a Ceramic Complex

As stated before, ceramic complexes are abstractions, and, being so, represent a simplification of a more complex reality, or in graphic terms, they only show a detail of a wider landscape. This wider panorama is the “systemic context”, which refers to the artifacts when participating in a behavioral system. The “systemic context” is also an abstraction, which can only be seen through the “archaeological context” (Schiffer 1987; See Figure 4). As it was explained before, the “archaeological context” refers to the artifacts interacting only with the natural environment (Schiffer 1987). What archaeologists excavate, and have to explain, is the archaeological context. The systemic contexts can only be accessed through inference processes from data obtained from the archaeological context.

In simple terms, the systemic context corresponds to the real past life, where the vessels were produced, distributed, used, cleaned, stored, re-used, broken and discarded. A ceramic complex is the set of ceramics in contemporary use at some location in the past. The first is inferred, and the second defined using as basis the archaeological record (refuse deposits, offerings, kilns, etc).

The beginning and end of production of the pottery of a ceramic complex occur in the systemic context, and it is very difficult, if not impossible, to date these events with total precision. However the dates corresponding to these phenomena may be estimated in reference to other events which can be determined in the archaeological context: the first appearance in archaeological context, and the last appearance in systemic context. The fixing of these events in the timetable should be established by reference to absolute dating, such as C-14 or dated hieroglyphic texts. Also it must be noted that the end of production of a complex can, and usually does correspond with the beginning of production of the next complex.

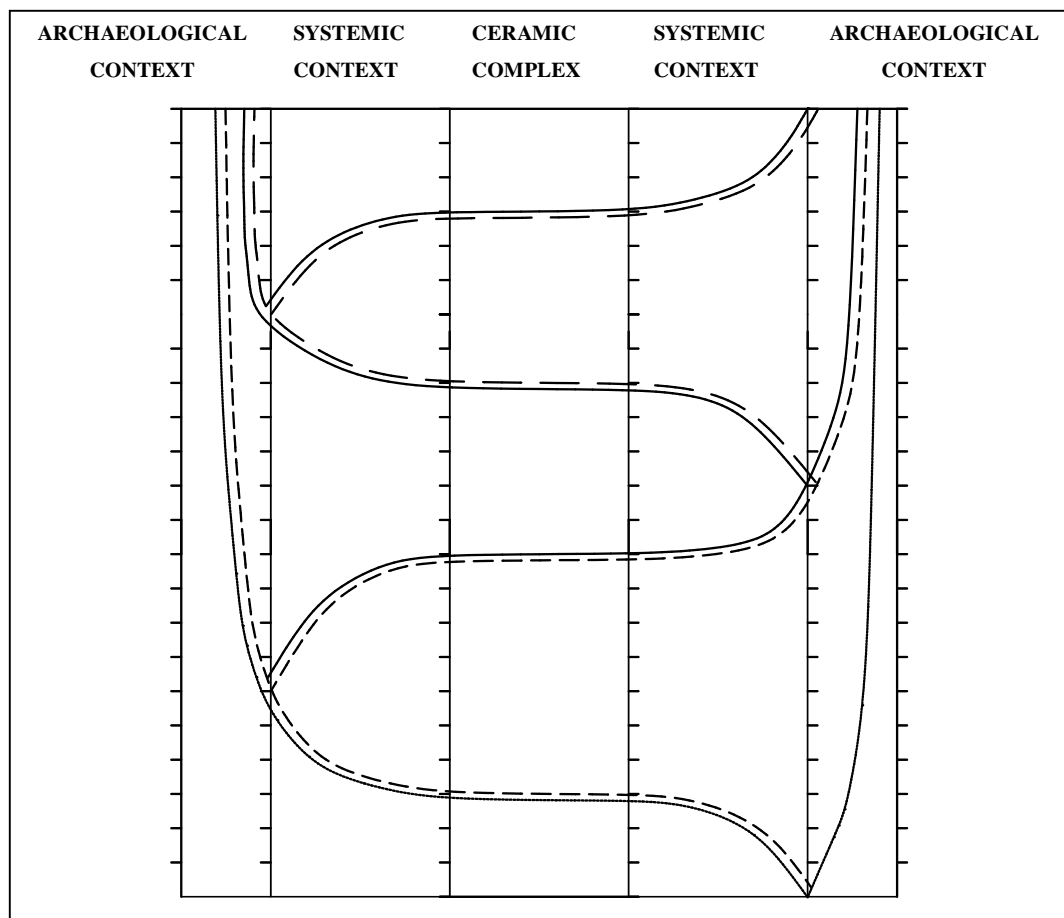


Figure 4: Levels of Abstraction of the Chronological Dimension

In the following pages I will examine the graph of a hypothetical “Red Complex”, in order to make these concepts more explicit. It starts with the beginning of production of ceramics of Red Complex (Figure 5). The first vessels produced of that Red Complex start their lives in the systemic context. They are used and cycled (Figure 6) until the first vessel of that complex gets broken (Figure 7). The breakage of that first vessel becomes “primary refuse” (Figure 8). That primary refuse will enter a waste stream, ending up in the first “secondary refuse deposit” of the Red Complex (Figure 9).

The appearance of the vessel (or parts of it) in the secondary refuse deposit marks the second key moment to date in the curved graph; the vessel has left the systemic context and entered the archaeological context (Figure 10). This point is referred to here as the “first appearance in the archaeological context”. This deposit, and subsequent ones, can be characterized as early middens or early dumps. If used as fill for constructions (displaced refuse) or covered by platforms or terraces, these early refuse deposits will show small quantities of Red Complex ceramics when excavated.

As the production continues, more vessels of the Red Complex appear in the systemic context, repeating the process of the first. They coexist in the systemic context with usable parts of broken ones, and will gradually become part of and increase the size of the early middens (Figure 11). Eventually, the production of ceramics of the Red Complex comes to an end. The end of production represents the third key moment to date in our graphic, though, of course, vessels and usable parts of the Red Complex will remain for some time in the systemic context (Figure 12). It seems logical to assume that, generally, refuse deposits formed during the middle and late facets will show bigger quantities of Red Complex ceramics than those formed in the early facet. This is shown also graphically in the column pertaining to the archaeological context as shown in Figure 12.

The last appearance of the Red Complex in the systemic context occurs with the breakage and discard of the last vessel of that complex, or with the refuse of the last usable part (Figure 13) marking the end of the Late Middens or Dumps of Red Complex (Figure 14). Following with this example, Red Complex is substituted by the “Blue Complex”, initiating the same process again (Figure 15 and 16).

As Figure 16 clearly demonstrates, the likelihood that the first vessels of the Blue Complex will coexist on the systemic context with remaining vessels and parts of the Red Complex is very high. It is important, then, to distinguish if the coexistence of ceramics of two complexes in a deposit occurs because normal remnants of earlier complexes vessels and parts persist in the systemic context, (and are) still (being) used along with

newly produced vessels of the following complex, or if a partial overlap exists as an actual co-existence of production of two different complexes at the same time. The first case is called Residuality as defined above, and must not be confused with the overlap of production.

Figure 5
EVOLUTION OF RED COMPLEX

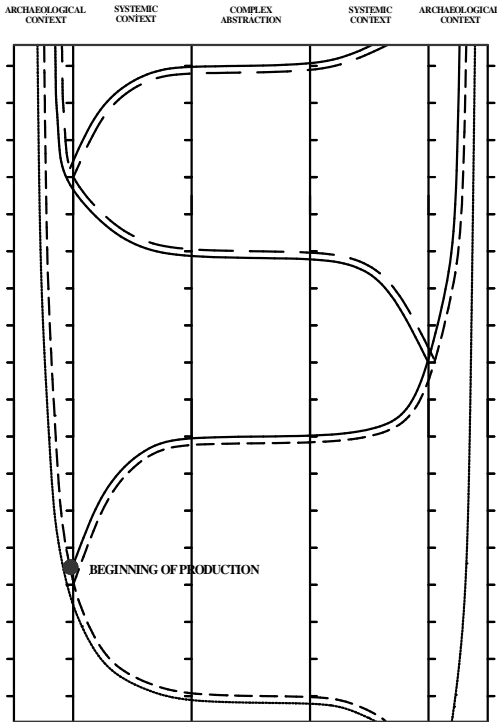


Figure 6
EVOLUTION OF RED COMPLEX

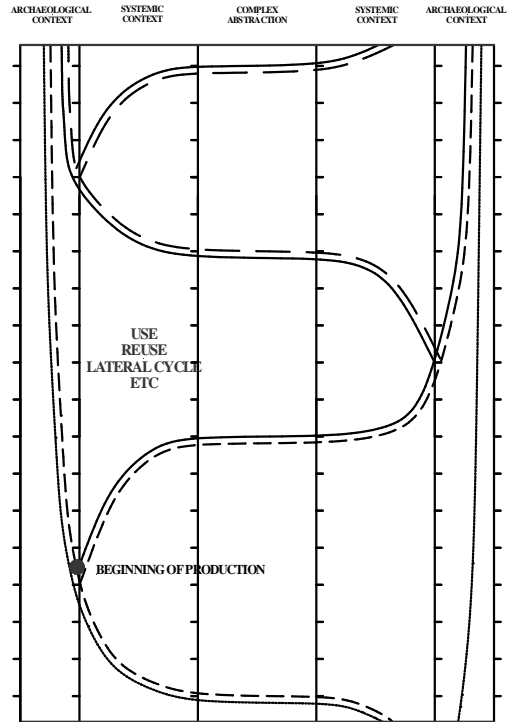


Figure 7
EVOLUTION OF RED COMPLEX

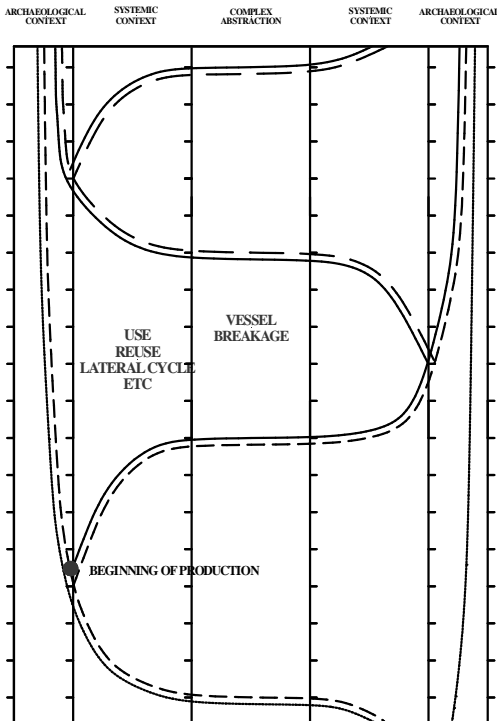
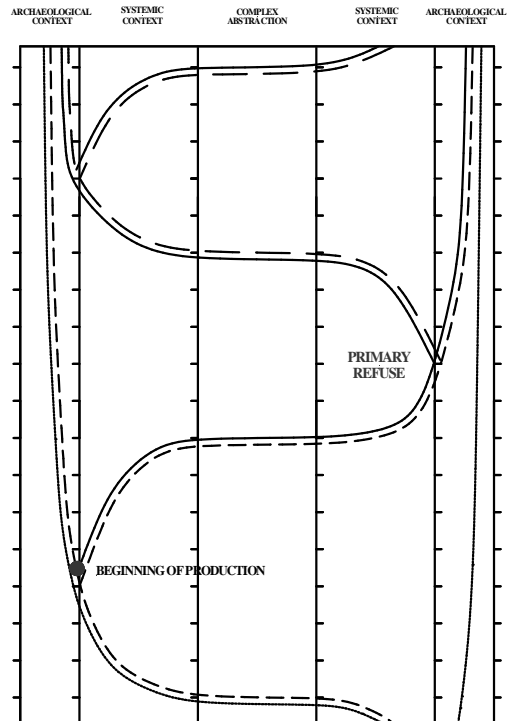


Figure 8
EVOLUTION OF RED COMPLEX



Figures 5, 6, 7 and 8

Figure 9
EVOLUTION OF RED COMPLEX

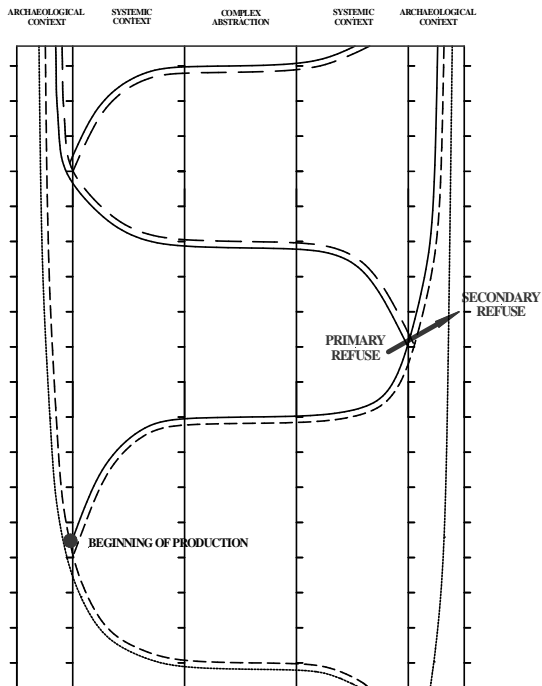


Figure 10
EVOLUTION OF RED COMPLEX

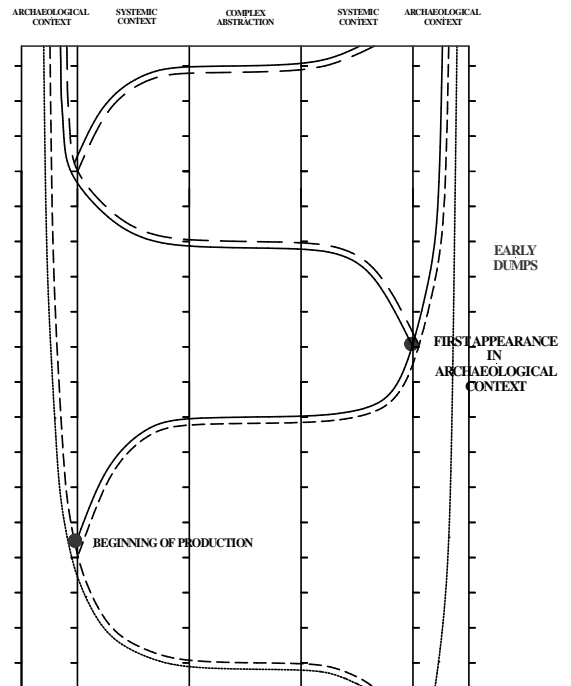


Figure 11
EVOLUTION OF RED COMPLEX

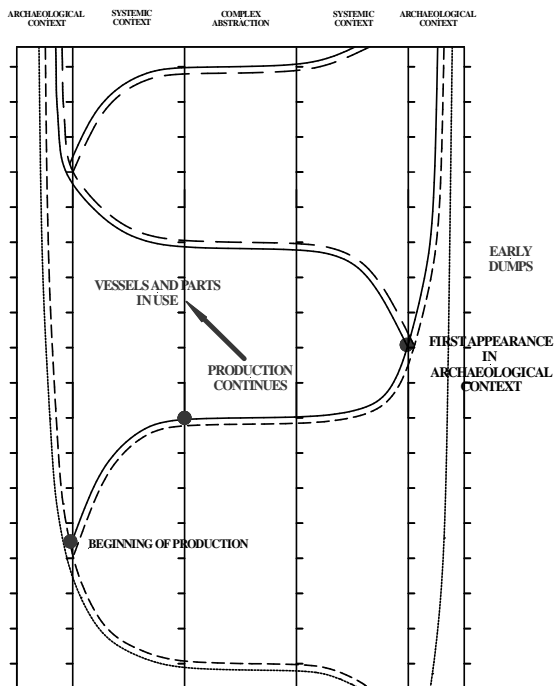
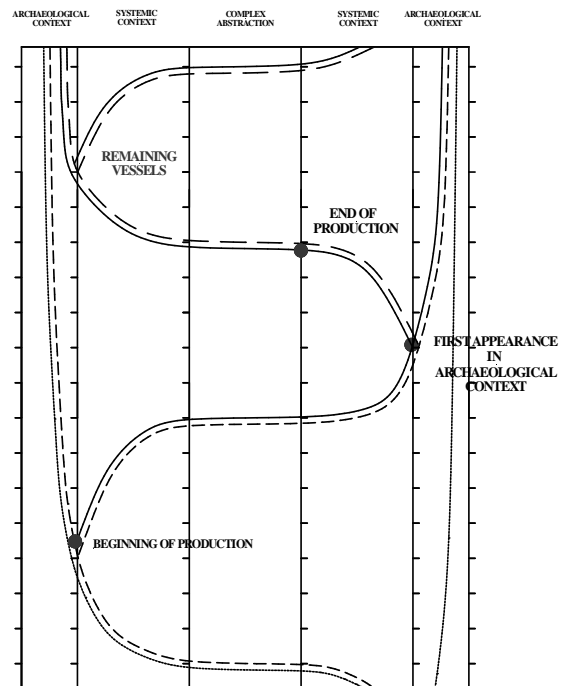
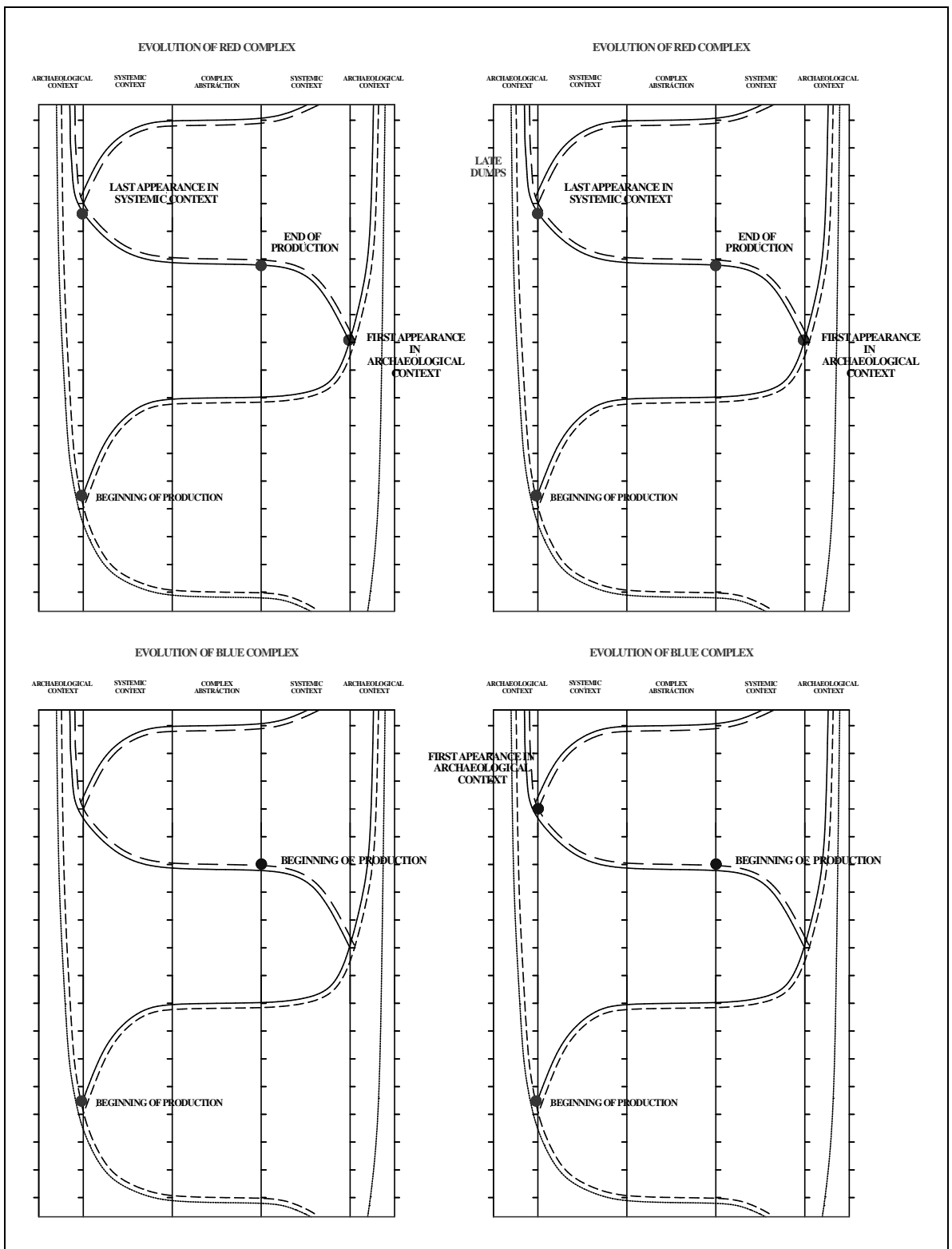


Figure 12
EVOLUTION OF RED COMPLEX



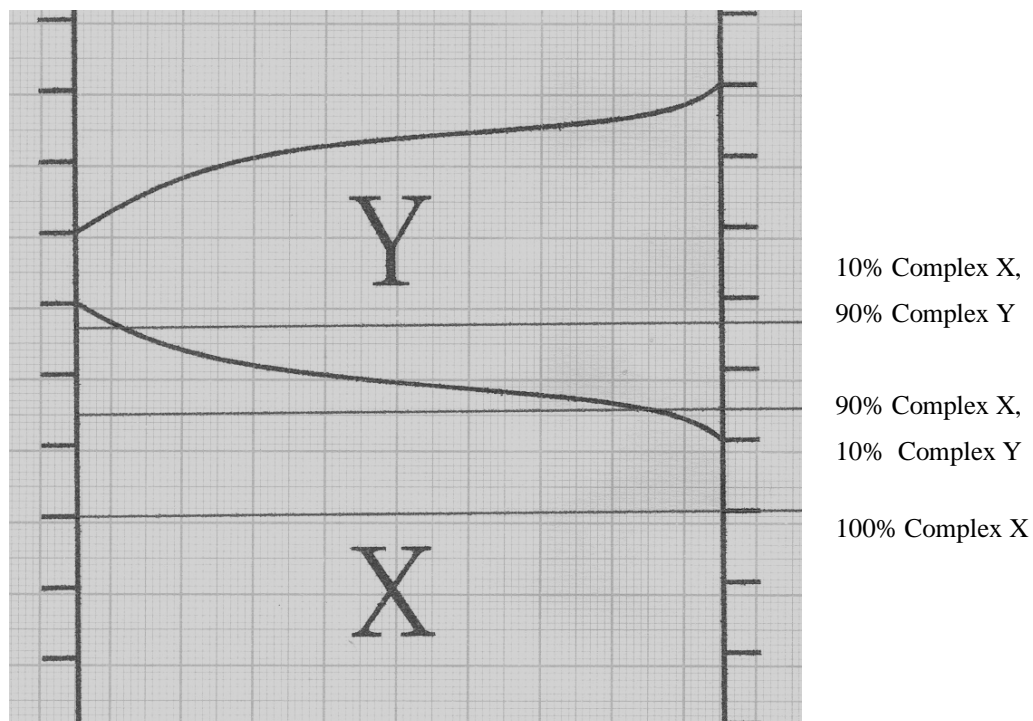
Figures 9, 10, 11 and 12



Figures 13, 14, 15 and 16

Apart from the two graphs of representation of complexes by curves presented above (which are Graphs of Communication, according to Jacques Bertin, 1981), I propose the use another Graph for the chronological placement of ceramic contexts (technically a Graph of Treatment, according to Bertin, 1981). This is accomplished by the placement of the percentages of complex sherds in a uni-modal curve (see Figure 17). The use of the percentage of the most recent Ceramic Complex to draw a line in a graph of curves over a ruled paper allows the precise placement of a context in a curve of popularity. This is to be considered as the Automatic Placement of the Context.

In the figure below we can see the placement of a collection in which all sherds pertain to Complex X will adjust the placement into a Late Facet of that complex, while a collection with 10% of sherds pertaining to Complex Y will place the context into an early facet of Complex Y, and so on.



Considerations have to be made in every case for the adjustment of the Automatic Placement for each specific context, applying considerations derives from the teory of Context Formation (see Schiffer 1987) and of Dating Theory (Dean 1989) that have been explained before. Using this method a minimal division of a ceramic complex into early, middle, and late facets can be easily accomplished. Additionally, a seriation of contexts may be obtained. The constant application of the system should eventually generate a sufficient quantity of samples of dated contexts in the seriation to validate it statistically. In doing so, we could estimate the chronological value of the temporal grouping of contexts, obtain statistical corroboration and enrich the obtained sequence of events.

One of the problems of this technique concerns deposits where all the fragments pertain to a single complex (*pure contexts*). In that case, no matter what the quantities of the sherds are, the percentage will always be 100%, even if the deposit occurred during the early facet of that complex. This also happens in burials where all the vessels pertain to a single complex. In these cases the adjustment of the facet depends more on the external relations of the context, which we will examine in the next section. In any case, the importance of pure contexts for the system is vital because they determine the groups and types that pertain to a complex.

Other frequencies with chronological significance can be measured using the type – variety system and a may be graphed on a curve. One of them occurs at the Group level. It is based on the “value” of the vessels of a group. Theoretically, fine and imported vessels, with more value and care attached to them, enter the archaeological record (get discarded) more slowly, and therefore later, than the common wares. Hayden y Cannon (1983: 126) proposed that the “value” influences the treatment of refuse. Fine or “valuable” vessels receive special attention, and are the object of more frequent repair. It follows that a context with high a percentage of fragments of “valuable” or fine vessels (including local and imports) may reflect a late facet of the ceramic complex.

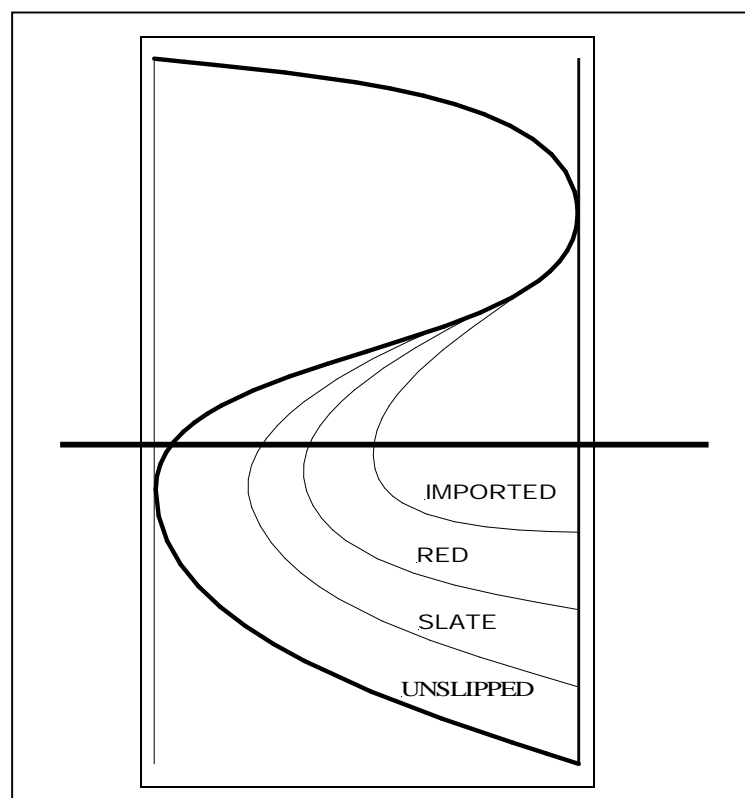


Figure 18: Ceramic Group Ideal Seriation for Sotuta Ceramic Complex

In Figure 18 a hypothetical seriation of ceramic groups is represented. The horizontal line shows the placement of a collection with high quantities of fine ceramics (Red and Imported).

The contrary case will be that represented by the “common wares”. Coarse wares, especially unslipped ones, of domestic use, are of less quality (have higher breakage rate), receive more frequent use (are more exposed to breakage) and enter the archaeological record more frequently and earlier than fine wares. As Schiffer (1987: 67) observed, objects with a low “value” and high hindrance potential are disposed of and discarded more rapidly.

Therefore, common wares have a great potential to date and identify early facets of complexes. Unfortunately, because of the scarce decorative treatment and the high similarity among sherds of unslipped wares associated with successive complexes, positive identification of many sherds (especially body-sherds) is still difficult. Figure 19 shows the position of an early facet collection of sherds.

An analysis of the chronological dimensions at the group level is not attempted in this thesis, but an example from Chichen Itza has been shown by the author (Perez de Heredia 2004a) where a late facet context of the Phalli Group contains unusually high quantities of ‘fine’ ceramics.

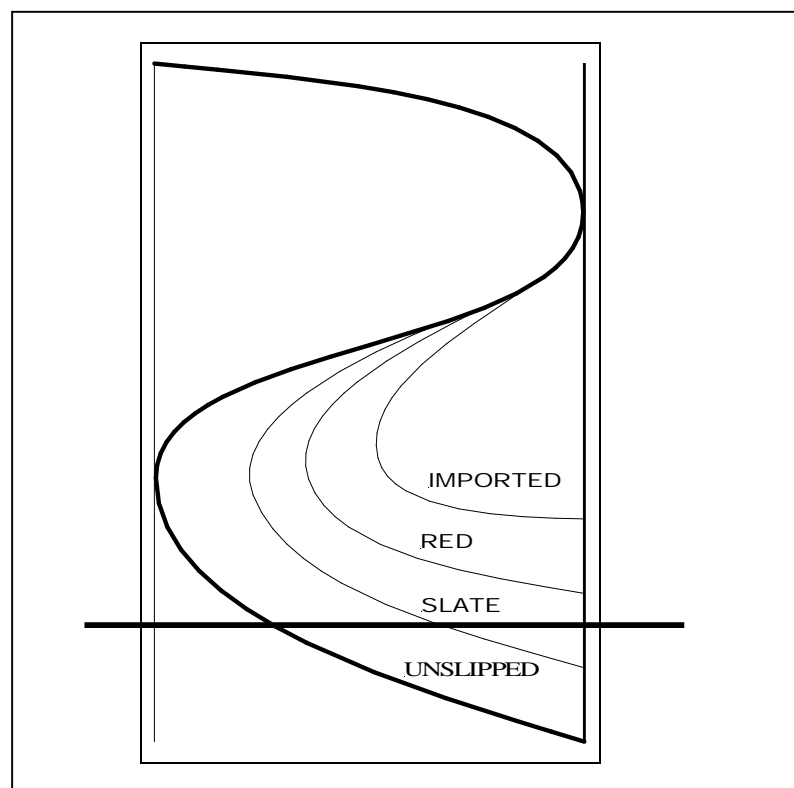


Figure 19: Ceramic Group Ideal Seriation for Sotuta Ceramic Complex

1.6 Archaeological Contexts at Chichen Itza

Several archaeological contexts with dating potential present at Chichen Itza are examined in this section.

1.6.1 Contexts of construction fill in Terraces and Platforms.

Because the Maya customarily integrate refuse (generally secondary refuse) within their constructions as the fill for terraces, platforms and mortars, the ceramic sequence can be tied to the architectural, sculptural, and sometimes even the epigraphic sequences, allowing a temporal frame for this ancient culture. As specified above, when presenting contexts formation theory material found in construction fills is referred to as “displaced refuse” (Schiffer 1987). The ceramic dating of the construction of Maya buildings is based on the ceramics found in the interior of the constructive fills.

In Figure 20, the inhabitants of a building (a) create a secondary refuse deposit of a single ceramic complex (b), which in turn is used as fill in the construction of a new terrace (c).

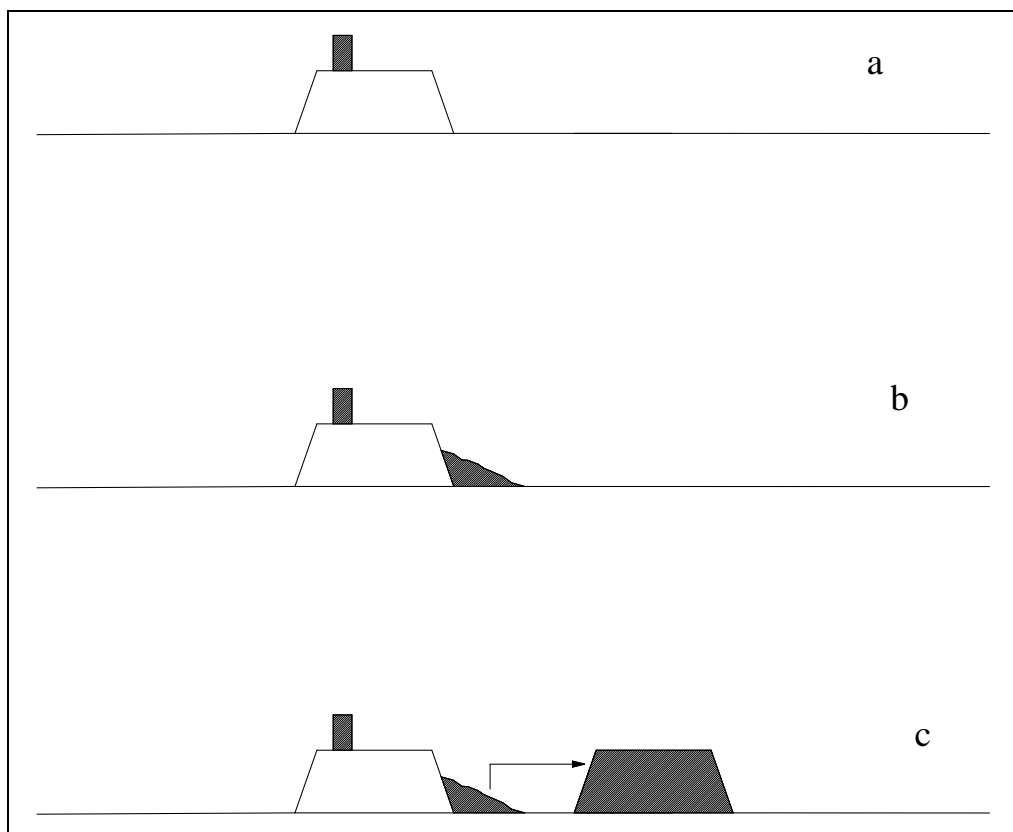


Figure 20

If we analyze the ceramics of a test-pit in the new terrace, we will recover the materials of the refuse deposit. This implies that, using the method suggested above, the automatic placement of these ceramics will date the formation of the Refuse Deposit from which the ceramics originally came. Jeffrey Dean (1989) defines this as the “dated event”. Thus, in order to date the construction of the terrace, which Dean terms the “target event” the date should be adjusted to a later moment. The amount of time lapsed between the events (Dean 1989) must be established arbitrarily. Each case should be considered independently; nevertheless, when no better bridge events can be found to link both events, calculating a 10-20 year lapse between the “dated event” and the “target event” is reasonable as a standard rule (considering the archaeological “visibility” of these events; the precision of ceramic dating, see Orton et al. 1993; and the time-span of the ceramic complexes at Chichen Itza).

Usually, the technique for dating a construction is to make a test pit in the interior of terraces, platforms and buildings, assuming that the content of these constructions are sufficiently homogeneous to obtain a reliable date. Nevertheless, a look at the mechanics of construction fill with displaced refuse shows more complexity than that in the example of Figure 20. The example shown in Figure 21 (a) illustrates the formation of a refuse deposit during an early ceramic complex. During the construction of a later building inhabitants deposit the refuse ceramics of a later complex on top of the previous deposit (b). Finally, a new terrace is constructed, and filled with the refuse formed during both ceramic complexes (c). Because the process of retrieving the refuse will reach first the later ceramic complex of the deposit, and in filling the new terrace it will be deposited on the bottom, we can expect a process of general stratigraphic inversion. Also we can see that the distribution is not likely to be homogeneous. Test-pits placed in different sectors will show different percentages of both complexes, affecting then the chronological placement of the context.

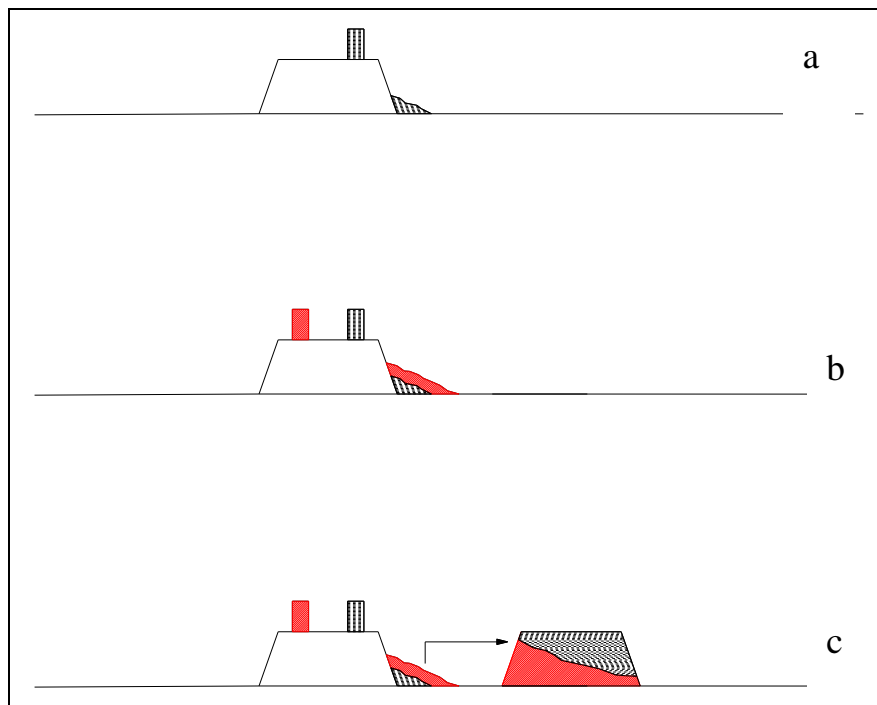


Figure 21

A more complicated scenario is presented by the use of the so called “construction boxes”, (also called “task-walls”), which appeared frequently in the construction of big terraces and platforms to add stability to the construction and possibly to rationalize the task of filling. In Figure 22 the same scenario of a refuse deposit formed during two different complexes is used to construct a new terrace, but in this case construction boxes are employed. If the existence of construction boxes goes undetected, a single test-pit can easily miss the materials pertaining to one of the complexes.

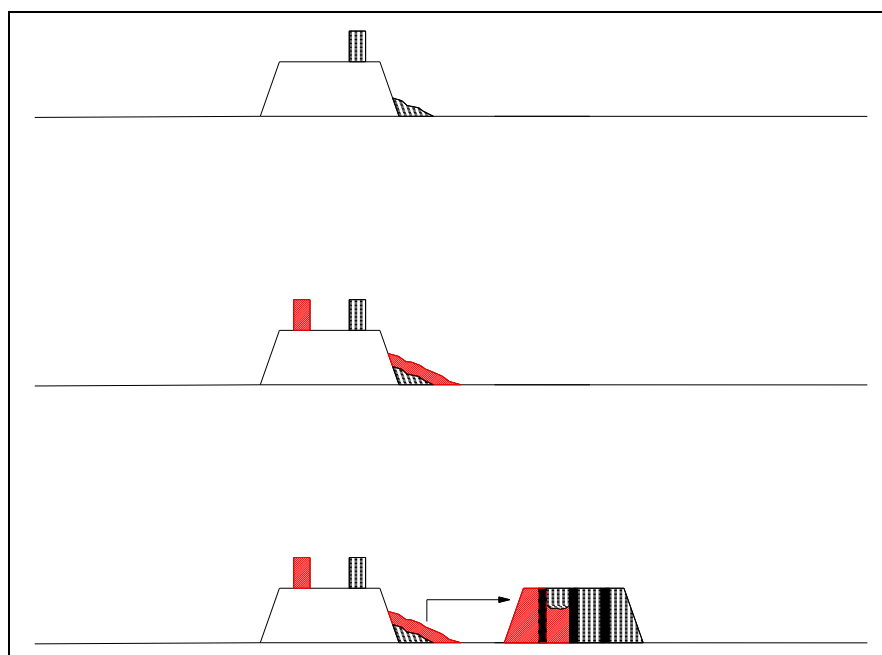


Figure 22

As this example and the previous one demonstrate, certainty about the composition of the fill in Maya constructions depends highly on the corroboration of the test-pits. Trenches through these constructions will be more appropriate to recover this type of context in big platforms and terraces, not only because they will recover a greater quantity of materials, and therefore a more representative collection, but also because trenches can better detect the presence of construction boxes, and allow comparisons between the contents of different boxes.

Figure 23 shows one more possible case of disturbance, in this case provoked by covering secondary refuse accumulations with constructions which in turn are filled with a chronologically different displaced refuse. Figure 23 (a) shows the refuse deposit accumulated by the inhabitants of a building during an early complex. Later on, during the next ceramic complex, a second building is constructed on the same terrace, but the refuse is deposited in a different place (b). Finally, an extension of the terrace is constructed on top of the first refuse deposit, and filled with materials from the second deposit (c).

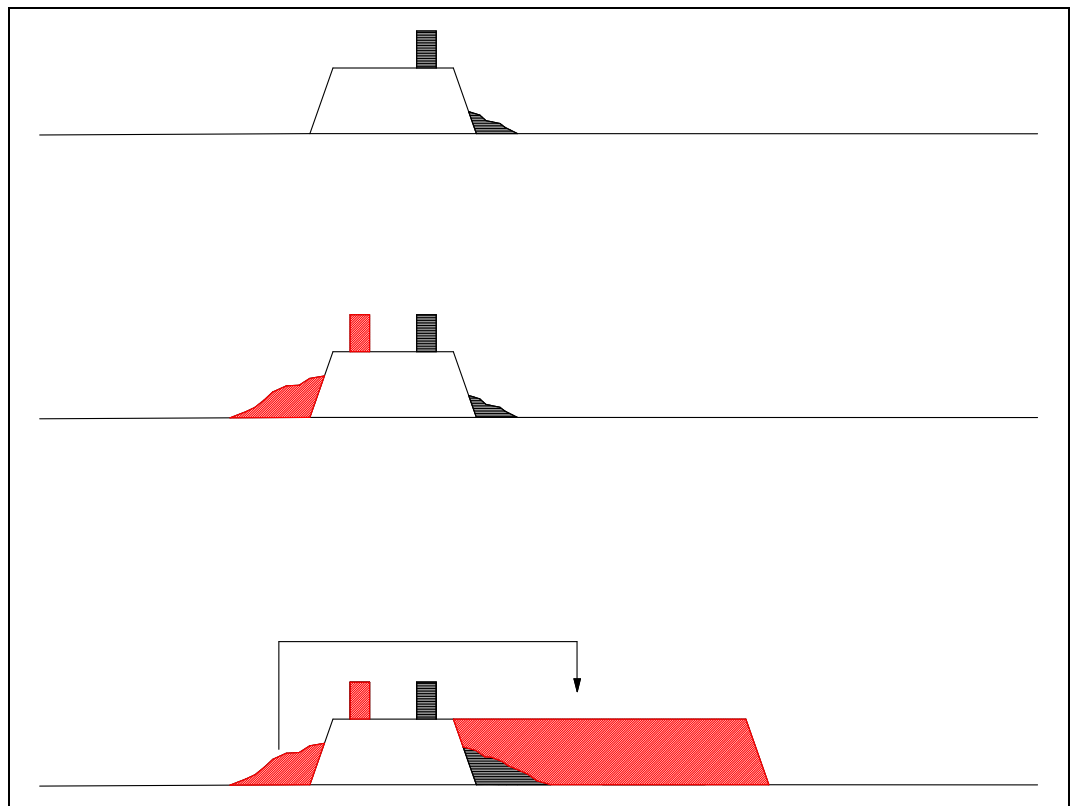


Figure 23

Although Figure 23 illustrates an earlier deposit covered with the fill of a later ceramic complex, the inverse case is also possible when a deposit of ceramics of a complex is covered by a platform or terrace which is filled with materials from an earlier complex. In either case, unless test-pits are excavated at the junction of the constructions, where the refuse deposit was accumulated, it will escape notice

To complicate it further, it is also possible to find substructures in the interior of terraces and platforms. Also offerings, burials and even tombs can be found, which can be previous, contemporary or posterior to the corresponding platforms and terraces. Finally, we must remember that because of their exposure to natural alterations, surfaces of platforms and terraces are often destroyed (forming semi-closed contexts), and allow materials from the surface to filtrate into the interior.

1.6.2 Contexts of construction fill in Buildings.

The construction of buildings is considered separately, mainly because it is more difficult to obtain collections from their fill. Maya buildings are usually constructed over large platforms and terraces. Usually they are raised over a low basement, which is an integral part of the building. These basements normally are not very high, limiting the amount of interior fill. The archaeological material (displaced refuse) integrated into the construction of the basement is therefore scarce. In some cases, where the basements of the buildings were constructed with special care, as in some examples from the core of Chichen Itza, not even displaced refuse was integrated into the fill. On the other hand, construction offerings can be found inside the basements, and, because of the usual scarcity of sherds, these are of special importance to date the buildings.

It is more common to find sealed contexts inside the rooms of the buildings than in terraces and platforms because the collapse of the roof protects the floor from weather exposure and prevents extensive vegetal root growth. Collections also can be obtained during the process of dismantling wall sections, a task frequently conducted during the restoration of a building. The restoration of roofs can also yield ceramic collections, although roofs contain more volume of fill than basements, frequently the upper stucco surface is destroyed, allowing filtrations of materials.

Dating the buildings is even more important than dating platforms, because buildings occasionally contain calendric inscriptions, allowing the tying of the relative ceramic chronology to absolute dates. As in the cases of terraces and platforms, corroboration of collections and test-pits is recommendable.

1.6.3 Accumulations of Secondary Refuse outside Platforms

Secondary refuse deposits (some of them massive) are found at Chichen Itza and other northern Maya sites. Often they are excavated as part of the process of clearing and restoring the edges of platforms, and sometimes no special care is taken in their proper excavation. If the ceramic content of the constructive fill usually comes from secondary refuse formations, it is only logical to ask for more careful digging of these contexts as this will permit a better understanding of their formation processes. Only in doing so can we find regularities in the secondary refuse formation processes, and finally begin to produce better chronological placements.

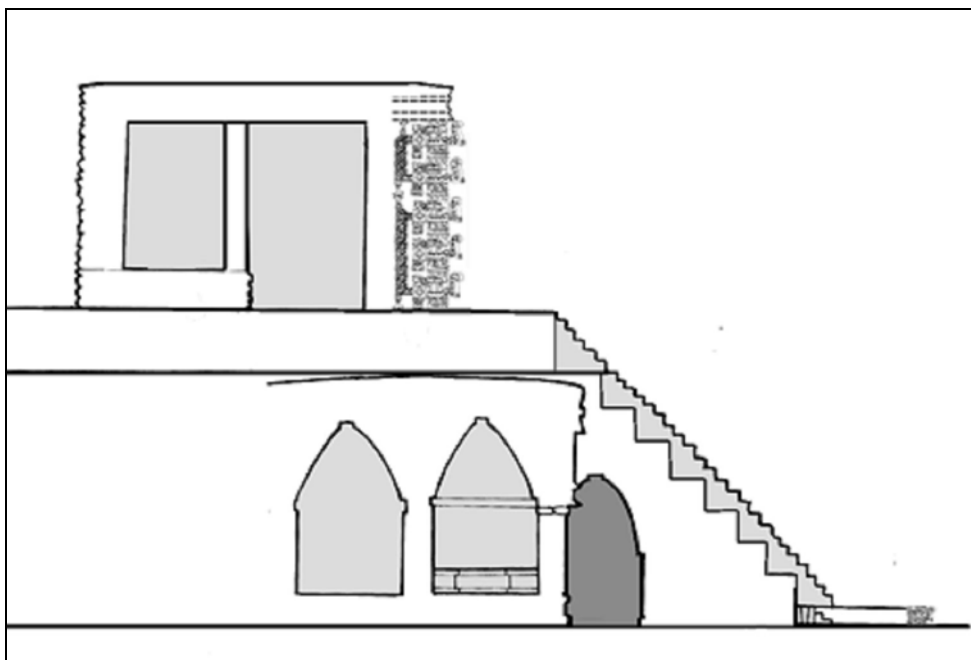


Figure 24: Schematic cross-section of a building of northern Yucatan. Notice the superposition of different construction phases.

One of the more important questions that can be asked about the formation of a secondary refuse context is the length and character of its formation. Was it a steady, slow accumulation of refuse? Or was it the result of a single sudden formation or various, sudden formations? The question is important because sudden formations reflect alterations of the normal pattern of slow-steady formation expected in normal conditions. Alterations resulting in the sudden breakage and disposal of many differently valued items can for example be linked to periods of violence.

What are the parameters to determine those events from a secondary refuse context? Joseph Ball, in the case of the Sacred Well of Chichen Itza's ceramics, tried to link functional homogeneity and formal redundancy with a temporary discrete episode (Ball and Ladd 1992). Nevertheless, it is my opinion that functional homogeneity, and formal redundancy are characteristics that can appear during sudden formations as well, as in slow-steady formations, and, therefore, cannot be used to differentiate one from the other. I do think, however, that another approach can be used to determine the character of the formation. This is the analytical level referred to as *parts of vessels*.

It has been shown that "clutter refuse" is constituted by artifacts that had some value as materials, such as broken pots or axe heads; such items were kept handy for long periods, often in provisional discard areas, because of their potential for future use (Hayden and Cannon 1983: 131).

The most useful parts of vessels selected to receive posterior use are:

- Complete bottoms that can still be used as a recipient
- Big regular shards to be used as bases or covers
- Complete Handles and Necks of Jars, sometimes integrated in house constructions as curtain holders (handles), or drainages (necks and handles)

It follows that a secondary refuse formation created by a slow and steady process will receive a lesser quantity of these “valued parts” than one formed suddenly by the swift cleaning of areas after an unusual event of destruction. This behavior should reflect itself in the archaeological record. It also follows that the capacity to join again vessel fragments will be higher in the sudden formations than in the slow formations, and this will be evident in the ceramic analysis.

1.6.4 Contexts of Collapsed Monumental Constructions

The process of excavating the collapsed debris of Maya buildings is normally called *clearing* in English, or *liberación* by Mexican archaeologists, meaning the freeing of the building of its collapsed parts. Ceramics from the clearing of buildings involves many problems when trying to obtain well controlled collections.

In monumental and decorated buildings is necessary to maintain a record of the collapsed stones in order to achieve an accurate restoration. This activity is done with different grades of skill by different projects. The record of the collapsed stones and architectural elements, and the application of the theory of stereotomy (study of the cut of the stone) allow the archaeologists to understand the order of collapse of a construction, and to identify the elements conforming to structural elements as well as decorated parts, such as friezes. Complete cases of anastylosis are very rare, but it is frequently possible to determine partial sequences of ordered collapsed sections of stones. It is a reality that an important part of the available resources are dedicated to architectural restoration. In many occasions, the imperatives of architectural restoration (in time and resources) act to the detriment of the quality of the archaeological technique to recover data; this can divert attention away from the real objectives of archaeology.

The recovery of contexts during the excavation of collapsed sections of Maya buildings has been severely neglected by many archaeologists. This attitude is based on the misconception that a control in the clearing process will not be of help in the general interpretation of the structure, or in the reconstruction of its chronology. On the contrary, ceramics obtained during the clearing process, when collected in layers, afford archaeologists the opportunity to observe, if not very clear breaks between complexes, at

least the tendency of those complexes to overlap or mix (Pérez de Heredia 2000). If a grid control is used during clearing, the results of the analysis of those collections, when plotted in a map, are of great importance for determining the spatial dimensions of the ceramics and other evidence recovered. It is also a misconception that a control in the clearing process record will take too much time. In reality, a good control of the clearing process, using squares and layers, can be achieved without interfering with work of restoration (Pérez de Heredia 2000).

Ceramics from the clearing process can relate theoretically to at least three phenomena, as is shown in Figure 25:

Last Occupation Pre-Collapse (Figure 25-1)

Materials from the inside (fill) of the collapsed building (Figure 25-4, 3, 2)

Post-Collapse Occupation (Figure 25-5)

1.6.5 Excavations of floor surfaces

Materials directly above floors can be related with the last occupation of the structures before abandonment. In the case of Chichen Itza these materials cannot be linked directly with the original constructors and occupants of the buildings, since the city was occupied until the end of the pre Hispanic era. As in the case of Tula, Hidalgo (Healan 2000) Chichen Itza presents a case of gradual abandonment. Materials from excavation of floor surfaces, among which *de facto* refuse can be found, may be even related with the activities of the occupants of the Late Postclassic period, and in some cases to the Middle Postclassic period.

1.6.6 Excavations on natural sediment outside Platforms

Test-pits in deposits of natural sedimentation, such as aguadas and rejolladas (sinkholes with permanent or seasonal water deposits), cannot date nearby buildings. They can, however, deliver sometimes more complete ceramic sequences than those collections from inside buildings.

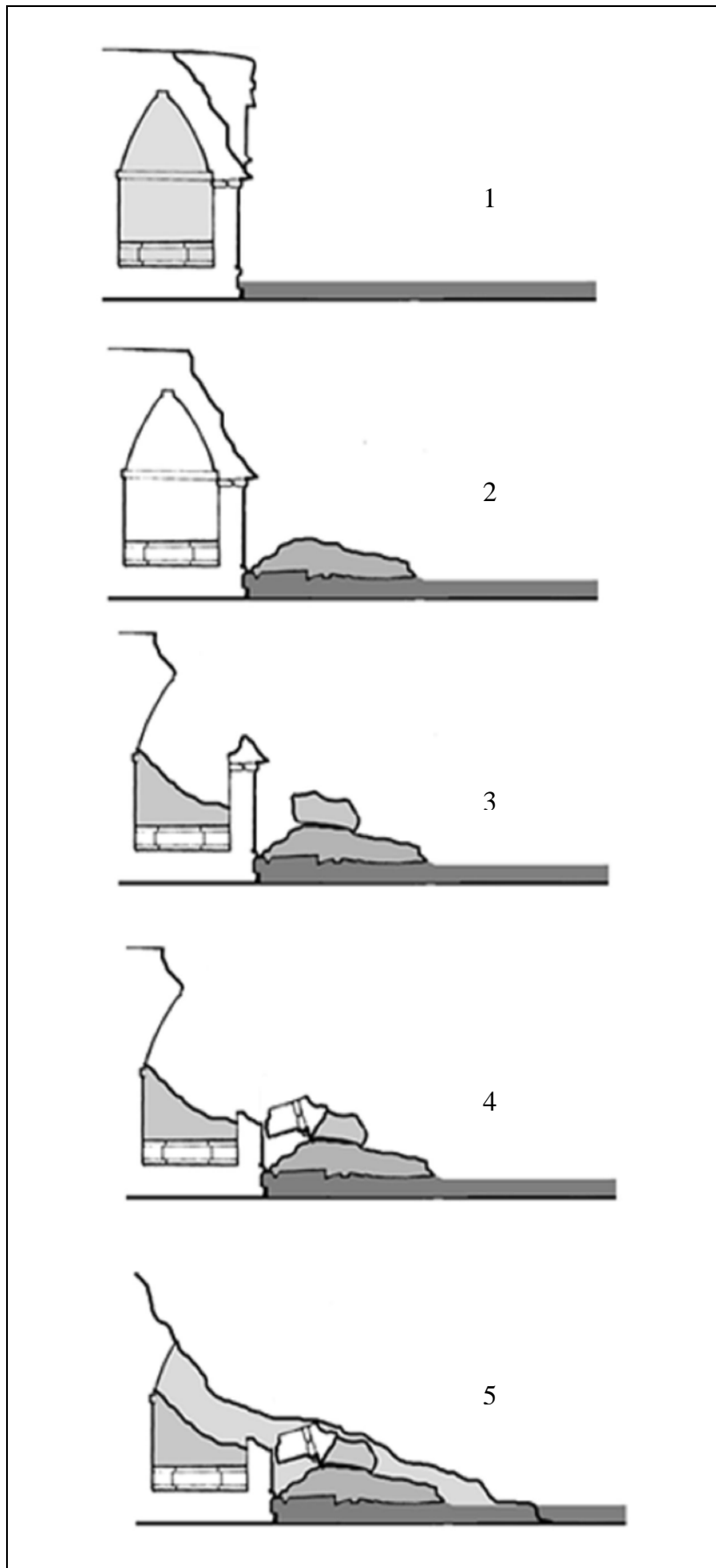


Figure 25

Chapter 2

Dating Chichen Itza: Late Classic to Early Postclassic

- 2.1. Previous Chronologies
- 2.2. Ceramic Contexts at Chichen Itza: Classic to Postclassic

Previous Chronologies

<i>Fitting in with the Chronicles</i>	1920-1940
<i>The Traditional Models</i>	1940-1970
<i>Seeds of Doubt</i>	1970-1980
<i>A Model under Attack</i>	1980-1990
<i>Adjusting the New Model</i>	1990-2005
<i>Summary</i>	

The construction of the chronology of Chichen Itza is a long and complicated story. The first archaeological projects started in the 1920s, following the idea, first proposed by Seler (1915), that Chichen Itza was formed by two sequential cities. But the demonstration of that thesis was going to prove a difficult task.

The principal factor to be blamed for this difficulty is the loss of most of the archaeological collections by the two biggest projects carried on in the 1920s and 1930s: the Carnegie Institution of Washington Project and the Dirección de Monumentos Prehispánicos de México Project. Complete collections of ceramics, obsidian, flint, shell (and other materials) from such important buildings as the Temple of the Warriors, the Thousand Columns Colonnade, The Castillo Pyramid, the Great Ballcourt, the Sacred Well (collections dredged by E. Thompson), the Mercado, the Observatory, and the Monjas Complex, among others, are not to be found anymore.

The impact of the loss of these collections, and specially the ceramic materials, caused a serious problem, since the ceramic evolution proposed by the early studies could not be tested against the architectural and stratigraphic sequence. As a consequence, by the 1970s the traditional sequence was under serious questioning, and in the 1980s two new alternative sequences were proposed: the partial overlap and the total overlap models. Unfortunately, this attack on the traditional sequence was not supported by new material evidence, but exploited the inconsistencies of the traditional ceramic and architectural sequences. Some new ceramic collections were obtained from the outskirts of Chichen Itza (Lincoln 1990), but they failed to present a clear stratigraphic ceramic sequence. In order to support the alternative models, data from sites outside Chichen Itza was included in the discussion of Chichen Itza's chronology.

It was not until the Chichen Itza Project –INAH, directed by Peter J. Schmidt since 1993, that excavations were conducted to address these problems, and the impotence created by the absence of material evidence began to be compensated. The preliminary results of the analysis of the project's ceramics is presented in following chapters, but before examining the new data it is appropriate to review the history of Chichen Itza's chronology construction.

A note must be made about the correlation between the Maya and the Christian Calendar. There exist two most possible correlations: The Goodman-Martinez-Thompson (GMT) correlation makes the Katun 13 Ahau 11.16.0.0 end in A.D. 1539, just before the conquest of Yucatan by the Spaniards, and is supported by most scholars. Another option equates the Katun 13 Ahau of the Conquest with the Maya Long Count 11.3.0.0.0, a difference of 260 years earlier than the GMT correlation.

Excavations at Chichen Itza started in the 19th Century, but a serious chronological placement for this city was not proposed until George Vaillant (1927, 1935) formulated the first ceramic sequence of the Yucatan Peninsula, dividing it in three periods (after a former period of “very late old Empire influence”). They were: the *Carved Slate Ware* period, followed by a period characterised by the *Fine Orange and Plumbate Wares*, and finally a period of *Porous Censers* and wares, including what he termed the ‘slipped lacquer wares’. Vaillant named these periods *Mexican Contact*, *Mexican Occupation* and *Maya Reoccupation*. He found stratigraphic evidence for the two final periods at Chichen Itza. The first period was placed after the latest central Maya area period, characterized by polychrome figure painting, on the basis of stylistic resemblances between the Carved Slateware and polychrome figures.

The terminology of Vaillant was based “*on the then current chronicle reconstructions*”. Later, “*the interpretation of the chronicles was altered to some degree and clarified by Roys (1933) who, as a supplement to his translation of the Chilam Balam of Chumayel, gave a chronology*” (Brainerd 1958: 1).



Figure 26: Aerial view of Chichen Itza (Morris 1931)

The book of T. A. Willard (1930) about Chichen Itza and its Cenote is an account of Edward Thompson memories of his explorations at the site from the late 19th to the early 20th centuries. It became popular reading during the middle 20th century, and is responsible for the spreading of many popular myths of Chichen Itza, such as the sacrifices of young virgin girls in the Sacred Well. The book reflects Thompson's assumptions, beliefs and interpretations of Chichen Itza, adorned with local lore and a spoonful of historical references.

Maybe the most important assumption for this study is that: "*Chichen Itza is really two cities ... The whole, including the older and the newer city, covers an area of about twelve square miles*" (1930: 60; emphasis is mine). By itself, this assumption of two cities forms the basis for the sequential or traditional model. "*The ancient city consists of two parts, the southern, which is ruined ... and the newer city built to the north, which contains many buildings – some of them almost perfectly preserved. I believe that much of the older city was built at least a thousand years prior to most of the buildings in the newer city*" (Willard 1930: 47). On the subject of Chichen Itza's chronology, Willard followed an interpretation of dates provided by the Books of Chilam Balam. He presented the arrival of one or several tribes of Nonual (Nonoalco) to an already inhabited Chichen Itza after A.D. 445, living there until A.D. 600, when they abandoned it and migrated to Chakanputun. Some of these Itza reestablished themselves at Chichen Itza in A.D. 950, while others founded the city of Uxmal or went to Mayapan. The second residence lasted for some two hundred years. About A.D. 1200, the Itzas, under the ruler Ulumil, invaded the city of Mayapan, and at about this same time Chichen Itza was attacked and depopulated by foreigners – in all probability the Nahuas (Mexicans), who came down from the north (Willard 1930: 43).

Willard repeated some of Diego de Landa's accounts of the Itzas and their ruler Kukulcan, as well as the stories about Chichen Itza being ruled by three brothers who came from the West.

"In speaking of the three eras of Mayan culture in Chi-chen Itza, it is at least reasonable to suppose that the most ancient preceded the coming of the Itzas to the city; legend says there was a flourishing city here before the influx of the Itzas. The second period includes the rise of art under the Itzas, ending with the nahuatl-Aztec dominance. The third period approaches oblivion - the centuries following the decay of the Maya nations when "campers", as Don Eduardo calls them, inhabited sparsely the old cities" (Willard 1930: 212)

The first chronology dedicated to the site of Chichen Itza, based on architectural evidence, was proposed by S. Morley (1931) who recognised several sequential periods: Period II being a “Maya Period”, then a “Transitional Period”, and the Period III or the “Period of Mexican Influence”. The Maya period corresponds to Vaillant’s Mexican Contact period, while the Period of Mexican Influence corresponds to the Mexican Occupation period of Vaillant. A hypothetical Period I, representing the “Old Empire” would only be represented by the Initial Series Lintel.



A. Tozzer (1930) tried to divide the Mexican Occupation Period of Vaillant (or Mexican Influence Period of Morley) on the basis of cultural content and style of the sculptures in the “Toltec” buildings of Chichen Itza, while E. H. Morris (1931: 165-177), with data from his excavations at the Temple of the Warriors, was able to subdivide the same period in an architectural stratigraphic sequence for that building.



The work of H. Roberts followed that of Vaillant on the ceramics excavated at Chichen Itza by the Carnegie Institution (Roberts 1931, 1932, 1933, 1934, 1935). It allowed him to present a ceramic chronology for the site which basically agreed with Vaillant’s one, “*but which established for the first time a definite contemporaneity between the Puuc ruins and the earlier ceramics of ‘Maya’ Chichen Itza*” (Brainerd 1958: 2).



In 1933 the publication of R. L. Roys of “The Book of Chilam Balam of Chumayel”, a translation of colonial indigenous documents, provided a chronology of events which will have much influence in the traditional chronologies. The most important dates for Chichen Itza’s chronology presented by Roys are:

A.D. 433/452	Chichen Itza discovered
A.D. 689	Chichen Itza abandoned
A.D. 985	Chichen Itza occupied by Kukulcan and the Itza
A.D. 1201	Chichen Itza conquered by Hunac Ceel
A.D. 1458	Destruction of Mayapan

Two scholars, Beyer and Thompson, attempted independently to decipher the inscriptions of Chichen Itza in 1937. Beyer (1937), based on stylistic arguments, produced an ordering of the inscriptions which he related to the chronicles. Also in 1937, Eric Thompson proposed a method for the decipherment of the Yucatecan calendar system called the “Tun-Ahau”. His method was widely accepted, providing a correct placement of the Yucatecan epigraphic dates. He placed almost a dozen dates of Chichen Itza in the third Katun of Cycle 10, all of them falling within a span of 12 years, between A.D. 869 and A.D. 881 (10.2.0.15.3 and 10.2.12.2.4 in the Maya Long Count). The next date was 10.8.10.11.0 (A.D. 998), carved about a century later in the High Priest’s Pyramid, a building in the then called “Toltec” style. The dates obtained with Thompson’s system *“discarded Morley’s 1931 placement of the Chichen Itza Initial Series lintel as earlier than the Maya (Puuc equivalent) period at Chichen Itza. Morley’s early placement of this date was made reasonable by the use of the 12.9.0.0.0 Maya-Christian correlation, which was abandoned by him and by most other workers during the 1930s ...*

In his “The Maya New Empire” (1938), Morley elaborated his earlier reconstructions of the history of this part of the northern Yucatan Peninsula. He defined Maya culture as characterized by the “typical architecture and unique hieroglyphic writing” which he believed were introduced together from the south in the sixth century A.D. as evidenced by the earliest northern Initial Series stela at Tulum, followed by later dates also in the eastern part of the peninsula. He noted that the Yucatecan inscriptions are late and clearly related to those of the Peten, and therefore must be derived from them, and assumed that the architecture was likewise derived from the south. The distinctive, indigenous character of the Yucatan slate pottery was discussed by Morley, who suggested that it denoted the early presence of a people who were probably Maya-speaking agriculturalists of Maya racial stock who adopted southern stone architecture, hieroglyphic writing, astronomic learning, and religious philosophy (Morley’s “Maya Culture”) but retained their local ceramic craft, and developed the Yucatecan florescence of the Maya culture. Morley documented this story of the introduction of Maya culture into Yucatan by Lizana’s account of a Maya tradition of the populating of Yucatan by two migrations, a “lesser descent” from the East, and a “greater descent” from the West, and later (1946, p. 76) fitted the 9.2.0.0.0 Oxkintok lintel (Pollock 1940) to this reconstruction” (Brainerd 1958: 2).

Eric Thompson published in 1941 “Coordination of the History of Chichen Itza with Ceramic Sequences in Central Mexico”, where he “*buttressed Roys (1931) suggestion of the early decline of Chichen Itza, and from his 1937 readings of Puuc and Maya Chichen dates suggested dating schemes for the beginnings of the newly identified Toltec period in Mexico*” (Brainerd 1958: 2).



The ideas of S. Morley (1946) were very influential during the mid - 20th century. He thought that all the architecture at Chichen Itza was later than the Initial Series date of 10.2.9.1.9. 9 Muluk 7 Zak (A.D. 878), and divided it in three sequential periods: *Maya, Transitional and Mexican Influence*. Based on the historical sources of Yucatan, which record two migrations, one from the East and other from the West, and the ten Initial Series inscriptions known then from the region, Morley suggested two routes used by the southern Maya to colonize the north of the peninsula, an area considered as peripheral by this author. The “Old Empire” moved north, to the Río Bec and Chenes areas. Coinciding with the intrusion of the “Toltec” to Chichén Itzá, the Maya resurged in sites as Uxmal, sharing the power with the “New Empire”. So, the Puuc architecture was a product of the Maya renaissance under the rule of Mayapan, which should be dated, according to the chronicles, between A.D. 997 and 1194 (Morley 1946).

Years later, Brainerd criticized Morley’s view:

“Morley’s scheme depends upon Initial Series Maya dates and documentary sources for its chronological framework, and upon dirt archaeology only for detail. The chronological placement of his Puuc and Mexican periods do not fit the archaeological framework, and his cultural dynamics, notably the relationships between the Peten, Chenes, and Puuc areas, and among Uxmal, Chichen Itza and Mayapan, also do not fit the ceramic evidence. Thompson (1945), using many of the same data, has produced a scheme archaeologically more acceptable” (Brainerd 1958: 3).



Tozzer (1957) in his book *Chichen Itza and its Cenote of Sacrifice* fixed his position about the chronology of Chichen Itza, and northern Yucatan in general. It has been noted, and criticized, that aside from art history, and archaeological data (especially

ceramics), Tozzer based his reconstruction in part on interpretations of Maya “history” as found in the native chronicles, in particular the Books of Chilam Balam (Lincoln 1986: 144).

Tozzer viewed the northern Yucatán chronology as follows:

For the **GREAT OR CLASSIC STAGE**, dated between A.D. 300 - 900 (based on Initial Series Inscriptions), evidence from the northern territory starts in the Late Classic Period, dated A.D. 600-900/1000. It starts with the Pre-Puuc sites of Acanceh, Izamal and Ake, to be followed by the architectural styles of Rio Bec, Chenes and Puuc (1957: 12). *“Puuc is here called Yucatán-Maya, in strong contrast to the Tula-Toltec Yucatán or Toltec Maya which follows”* (1957: 13). The Puuc occupation is characterized by the use of slate wares and an imported Fine Orange [Brainerd’s type Z] (Tozzer 1957: 14).

“The almost complete lack of Plumbate pottery of the effigy type and of Fine Orange, Type X, so very characteristic of the succeeding Mexican period, seems to show, as Thompson has pointed out, that the Puuc sites were abandoned before the beginning of that era” (Tozzer 1957: 14). During this Classic Stage at Chichen Itza, Tozzer postulated the period Chichen I: *“the first architecture here belongs in the Late Classic period and it mostly nearly resembles that of the Puuc”* (Tozzer 1957: 14; It must be noted here that Fine Orange X of Brainerd is today known as Silho Fine Orange, and Fine Orange Z is known as Balancan Fine Orange).

Later came the **MEXICAN OR POSTCLASSIC STAGES**. During the Toltec Invasion *“an entirely new ethnic group, originating in central Mexico, quickly made itself felt, especially at Chichen Itza. The “Toltec invasion”, about the year A.D. 1000, imposed itself ... at Chichen Itza. It is called here Chichen II”* (Tozzer 1957: 16). Tozzer was of the opinion that *“this intrusion was, in all probability, a generally peaceful one”* (Tozzer 1957: 16). He remarked that *“It is no longer possible to believe that peoples from Mexico entered the peninsula either as a single unit or at any one time. Increasing knowledge of this area has ended the simple story of a great, all powerful race of Toltec warriors invading Chichen Itza, conquering and ruling the country”* (Tozzer 1957: 17). It is clear that Tozzer still had many doubts about critical issues of northern Yucatan history. He himself posed the following questions: *“How many invasions were there? When and whence did they come? Can anyone of these intrusive people be given a name?”* (Tozzer 1957: 17)

Tozzer’s designation for the time following Chichen I was the Toltec Maya periods. The main Toltec period ran roughly from A.D. 948 to 1145; this has been called Chichen II, Stage A. In this period come the associations with Tula, Hidalgo. This was

followed by Chichen III, Stage B, beginning A.D. 1145 and ending A.D. 1263 with the founding of Mayapan. Chichen III witnesses the abandonment of the Toltecs and the arrival of the Itza (Tozzer 1957: 18).



In 1945 Eric Thompson divided the Maya cultural history of northern Yucatan into four main periods: Formative (before A.D. 320); Initial Series (A.D. 320-900); Mexican (A.D. 987-1204) and Mexican Absorption (A.D. 1204-1540). The Puuc architectural style was placed between 9.10.0.0 and 10.8.0.0 in the Maya Long Count notation, (A.D. 633-987). The absence of Fine Orange X and Plumbate wares in Puuc sites indicated a previous abandonment of these sites before the beginning of the Mexican Period at Chichen Itza.



In the early 1950s, several scholars (mainly Proskouriakoff 1950: 169-170; but see also Lothrop 1952: 111-113 and Rands 1954: 281-282), concerned about the weak points of the traditional chronology, presaged the chronological overlap model. Tatiana Proskuriakoff (1950, 1951) observed that a series of sculptures showing Toltec themes and motives appeared in Puuc sites, including Edzná, Oxkintok, Kabah, Uxmal and Halakal, and that in many cases they lack decadent traits. This allowed her to suggest that the Toltecs were present at Yucatan for a time before they established themselves at Chichen Itza. She argued also that certain sculptures at Chichen Itza, such as those from the Jaguar Temple, are closer to the Classic Maya art than others at the site. The arguments of Tatiana Proskouriakoff were later used by scholars defending the Overlap Models.



Despite these disagreements, a sequential view of two different cities was still accepted by most scholars during the 1950s. Brainerd summarized the state of the ceramic chronology of northern Yucatan before the publication of his work:

“three sequent periods had been recognised in the ceramic materials of Yucatan, although they had not been detailed in publication: (1) a Maya or pre-Mexican period represented by pottery from the Puuc sites, and from the “Maya style” buildings at Chichen Itza; (2) a Mexican period or period of Toltec influence,

represented by the majority of the pottery at Chichen Itza; and (3) a period variously called Maya Reoccupation or Maya Resurgence by Vaillant, and found in superficial postoccupational deposits at Chichen Itza and elsewhere. The first of these periods was believed either to postdate or slightly overlap the end of the Initial Series period on evidence of Thompson's readings of the Maya Chichen dates" (Brainerd 1958: 2).

George Brainerd (1958) divided the prehispanic history of northern Yucatan ceramics in four periods: Formative (1500 B.C. - A.D. 100); Regional (A.D. 278-751); Florescent (A.D. 672-889/987); and Mexican (A.D. 889/987-Spanish Conquest). Brainerd noted that the ceramics of the Puuc sites were remarkably homogeneous, with scarce material pertaining to non-Florescent periods, correlating this with the homogeneity of the Puuc architecture. He characterized the predominant pottery of the Puuc sites as Medium Slate, Thin Slate and Red Wares, as well as trade ceramics such as Fine Orange Z and rare polychrome examples, suggesting commercial links with the Motagua Valley, the Campeche-Chiapas area and more rarely the Peten.

The major occupation of the Puuc sites occurred, according to Brainerd, between A.D. 700 and 1000, and he did not find evidence of occupation of the Mexican Period in any of the Puuc sites.

Brainerd accepted that only scarce stratigraphic evidence existed for the succession of the Florescent and Mexican Periods, even at Chichen Itza. Nevertheless he continued supporting a ceramic sequence parallel to the architectural one proposed by Tozzer for Chichen Itza, in which the overlap between the two periods should be minimal. As Thompson, he favoured a beginning for the Toltec architecture at Chichen Itza in A.D. 987.

Formative:	1500 B.C.- A.D. 100
Regional:	278 - A.D. 751
Florescent:	672- A.D. 889/987
Mexican:	A.D. 889/987 - Spanish Conquest

Ceramic divisions by Brainerd (1958)

About the ceramic collections of Chichen Itza Brainerd wrote that:

“It would seem that the abundant ceramic material from Chichen Itza should furnish a legible, detailed, and accurate account of the culture history of the city. However, the widely varying methods of collecting samples and the secondary position to which ceramics were relegated during much of the excavation have complicated the task of their study. More serious has been the deterioration of labelling during the long period of time between my study and their excavation, and the fact that their initial study was in mid career; Henry Roberts’ ceramic analyses made from 1932 through 1935 were terminated by ill health ... The architecture from which we have samples dates almost exclusively from Florescent and Early Mexican times. As may be seen from the ware descriptions, the primary determinants between the native ceramics of these two periods are shape and decoration. The distinctions in paste, slip, and temper are of only limited and secondary value. It has not been possible in sherd collections to separate completely the ceramics of the two periods, since the known stylistic determinants are recognizable only on certain of the sherds. The stylistic criteria for the Early Mexican substage Chichén Itzá Medium Slate-wares and Medium Red-wares were selected from those not found on the same wares in the Puuc collections” (Brainerd 1958: 35; emphasis is mine).

The elusive Florescent stage at Chichen Itza was addressed by Brainerd as follows:

“The Florescent stage of the site of Chichen Itza is much less well known ceramically since few unmixed deposits of that period were recovered, doubtless due to the later disturbances of strata and the deposition caused by the heavy early Mexican occupation there. However there are other Florescent collections from sites near Chichen Itza. Our sample of the Florescent stage at Yaxuna is quite small but is probably classifiable as early florescent, as are the collection of whole vessels from Dzebtun to the north and the Mani Florescent pottery to the west. The Florescent occupation of Coba is represented so poorly in our collections as to offer little clue. However these collections are sufficient to establish the fact that the Florescent stage, as defined in western Yucatan, also existed in the area of

Chichen Itza. The dating of the probably later horizon of the Florescent stage shown by the major part of the Puuc site collections in relationship to the Early Mexican substage at Chichen Itza is discussed later in this section. I believe that they constitute a chronological sequence with little if any overlap between them ... Since Z Fine Orange pottery occurs in Florescent and not in Early Mexican deposits, and the reverse is true of X Fine Orange, the Florescent and Early Mexican deposits must be sequent rather than chronologically concurrent ... The Early Mexican collections contain strikingly varying frequencies of Florescent pottery, but this variation is usually independent of the chronological position of each collection in the Early Mexican substage. It seems rather to be a function of the amount of Florescent occupation which underlies the spot where the collection was found. There are some suggestions of transitional forms and decorations between Florescent and early Mexican ceramics at Chichen Itza, but most of the collections seem to be mixed rather than transitional” (Brainerd 1958: 43).

Brainerd even considered and discussed the possibility of an overlap:

“The hiatus between Thompson’s Chichen Itza dates and the traditional date for the arrival of the Toltecs (Thompson, 1937, p. 190) may be used quite neatly to cover the hiatus between early Florescent and Early Mexican stages in the Monjas materials. This hiatus in dates (10.3.0.0.0 to 10.8.0.0.0) occurs at about the right time if we place the span of our early Florescent ceramics from 9.14.0.0.0 to perhaps 10.3.0.0.0. Using Thompson’s 10.3.0.0.0 as an intermediate point, we may consider 10.8.0.0.0 as the end of the Florescent stage and the beginning of Early Mexican, as Thompson has suggested (1941, Scheme B). This allows about 180 years for the early Classic ceramics and 100 years for the fully evolved Puuc ceramic assemblage, during which span the Monjas and probably the rest of Chichen Itza showed only a light occupation, demonstrated ceramically by a few ceramic sherds of the more elaborate, later Puuc types. An alternative hypothesis, favored by Proskouriakoff ... is to overlap Toltec Chichen Itza with the Puuc occupation. This reconstruction has support from certain documentary interpretations. Although the ceramic evidence can be interpreted to allow some overlapping for these occupations, I believe that the evidence seems to favor a minimum of such overlap” (Brainerd 1958: 44, emphasis is mine).

The biggest problems for the construction of Chichen Itza's chronology were explained by Brainerd:

“Some of the major lacks in ceramic sampling to date include the absence of the following: (a) demonstrably pure Florescent samples, (b) pure Middle Mexican substage samples, (c) subfloor (construction period) samples from certain structures, the dating of which is important” (Brainerd 1958: 35).



In the 1960s the northern Yucatan chronology was influenced by the views from Dzibilchaltun of E. W. Andrews IV (1960-1965). He proposed 4 historic-cultural stages for that site, extending them to all the northern area.

The Early Period corresponds with the Classic in the southern Maya Lowlands, and it is divided in two facets. During the late facet, corresponding to Tepeu 1 and 2 of Uaxactún, Slate ceramics and vaulted architecture appeared at Dzibilchaltún, coinciding with the major growth of the site. The *Pure Florescent Period* developed between A.D. 600 and 900 (Spinden correlation) or between A.D. 900 and 1100 (GMT correlation), the first one being favored by Andrews IV. Pure Florescent could also be called Puuc Period, since at that time the Puuc architecture characterize the Northern Plains. The *Modified Florescent Period* occurs between A.D. 900 and 1200. It is marked by a strong wave of Central Mexico, possibly Tula's, influence, as evidenced at Chichen Itza. The Puuc cities were abandoned and no overlap between the periods existed. Finally, the *Decadent Period*, between A.D. 1200 and 1540, sees a reaffirmation of the old traditions after Chichen Itza's collapse. The power vacuum was filled by Mayapan from the demise of Chichen Itza until A.D. 1440. The next hundred years saw the political fragmentation of Northern Yucatán into a number of small bellicose provinces.

VALIANT 1927	BRAINERD 1958	CULTURAL PERIODS	DATES A.D.	SMITH 1971
MAYA REOCCUPATDN MEXICAN OCCUPATDN MEXICAN CONTACT OLD EMPIRE INFLUENCE	LÆ MEXICAN	LÆ POSTCLASSIC	1500	TASES
	MIDDLE MEXICAN	MIDDLE POSTCLASSIC	1350	HOCABA
	EARLY MEXICAN	EARLY POSTCLASSIC	1200	SOTUTA
	FLORESCENT	TERMINAL CLASSIC (EPICLASSIC)	1000	CEHPECH
		LÆ CLASSIC	800	MOTUL
	REGIONAL	MIDDLE CLASSIC	600	COCHUAH
		EARLY CLASSIC	300	CHAKAN
		PRECLASSIC	100	THOSUCO

Figure 27: Comparison of Traditional Ceramic Chronologies

A discordant voice was that of Parsons (1969), who, based on his excavations at Bilbao, Guatemala, placed several Mesoamerican phenomena, traditionally considered as Epi-Classic or Terminal Classic, such as Chichen Itza's architecture, into his Middle Classic phase, dating the Big Ballcourt at Chichen Itza to the seventh century.



J. E. S. Thompson's book *History and Religion of the Maya* (1970) enjoyed a strong popularity on the 1970s. He proposed that the founders of Chichen Itza were the Putun or Chontal Maya, from the southern Campeche and the vast delta of the Usumacinta and Grijalva rivers in Tabasco. One branch established itself at Cozumel, conquering later on a certain number of sites, including Chichen Itza. Two waves of foreigners were supposed to have arrived at Chichen Itza: one around A.D. 918, and the other, later, with Kukulcan around A.D. 980. Other Putun groups, according to Thompson, established a trading base at Altar de Sacrificios, from where they dominated sites like Seibal, up to Ucanal, almost on the present day border with Belize. The rest of the Putun settled south of the Pasion River.



In 1959, an important find appeared in some sealed chambers at the Cave of Balancanche, four kilometers to the west of Chichen Itza. It produced an impressive collection of complete vessels, mostly censers, of the Modified Florescent Period (see Context S40 in section 2.2.3). One of the censers was dated by Andrews IV (1970). "*The sample inside the censer was dated A.D. 860±200 (LJ-272); that from the hearth below (LJ-273) yielded an identical date and variation. Combining the two gives a reading of A.D. 860±130*" (Andrews IV 1970: 63).

Andrews IV considered this "*in agreement with other radiocarbon dates of Modified Florescent material from Chichen Itza. Two runs on a zapote lintel from the Castillo yielded dates of A.D. 790±70 (Y-626) and A.D. 810±100 (Y-626b); and a beam from the East Patio of the Monjas dated A.D. 780±200 (LJ-87)*" (Andrews IV 1970: 63-64).

In his 1970 publication of the Balancanche Cave Andrews IV produced a recapitulation of his views on the northern Maya cultural periods:

"The second phase of the Early period (Tepeu at Uaxactun) saw the height and then the decline and fall of the southern cities. Art, architecture and hieroglyphic writing were much the same in the northern and southern lowlands, and, although local pottery styles continued their wide divergence,

trade inside the area was intensive. ... Strong northern continental influences appear in Yucatan well back into the first or pure Puuc phase of the Florescent ... The intensity of continental influence in Yucatan certainly increased vastly late in the 9th century. There is much archaeological and historic evidence to indicate that those responsible for these changes, called "Toltecs", established hegemony over the northwestern corner of the peninsula centered at Chichen Itza. It either followed or caused the abandonment of the many great cities of the Puuc ... These "Toltecs" profoundly modified the external aspects of the culture they came to dominate temporarily, but their influence seems to have been superficial. Form and decoration in pottery, sculpture, and architecture were radically changed, but the basic techniques in all remained the same. This is a sure indication that, whoever these controllers of the area were, they brought strong aesthetic prejudices in every field of material endeavor, which they successfully enforced. They failed however, to bring artisans to translate their whims into actuality ... Basic techniques of the Pure and the Modified Florescent resemble each other much more closely than those of the preceding Early period or the following Decadent period. This unity of the two phases of the Florescent, including the strong incipient external influence in the earlier phase, has led me to discard the arbitrary classification of Pure Florescent as "Classic", and Modified Florescent as "Postclassic" (Andrews IV 1970: 66).

Andrews' IV conclusion was that:

"We suffer greatly from a lack of controlled stratigraphic excavation at Chichen Itza. The bits and pieces gathered in the preceding paragraphs are in no case decisive, but together, and combined with radiocarbon dates from Balankanche and Chichen Itza, they would seem to indicate a Modified Florescent period of some length, perhaps divisible into phases (as Tozzer suggested), and a continuation of the highland-inspired cult at the cave, although clearly clandestine, over a considerable time" (Andrews IV 1970: 68).

In 1971 Robert E. Smith published a revision of Northern Yucatan ceramics, with special attention to Mayapan, applying the Type-Variety system. The Puuc ceramic assemblage is named Cehpech, and placed between A.D. 800 and 1000, correlating with Tepeu 3 of the Peten area. The principal wares were the Puuc Slate, Thin Slate, Red Puuc and Puuc Unslipped. The trade wares Balancan Fine Orange (Z), and Altar Fine Orange were associated with this complex. The Chichen Itza ceramic assemblage is named Sotuta, characterised by the trade wares Fine Orange Silho and Plumbate. Smith agreed with Brainerd in dating the Puuc period (associated with Cehpech ceramic complex) between A.D. 800 and 1000, and the Mexican (Sotuta complex) between A.D. 1000 and 1200.

Smith explained his approach to the ceramics of Chichen Itza as follows:

“Brainerd (1958, fig. 71, legend) states, “The sorting of the Medium Slateware at Chichen Itza suffers as does all sorting there, from lack of pure deposits of Florescent date. The Puuc collections were substituted for such a standard in the sorting and non-Puuc-like Medium Slateware assumed to be Early Mexican.” We have approached the problem somewhat differently. Instead of worrying about not finding pure deposits of Chichen Itza Cehpech pottery, we felt that at a site where the principal part of the visible architecture was Sotuta Phase, there must exist refuse dumps containing pottery representative of this cultural phase, unencumbered by earlier or later sherds in any quantity” (Smith 1971: 170-171).

At a regional level, Smith was of the opinion that:

“Beginning with the Cehpech Ceramic Complex we find a number of important facts. This complex appears to have lasted the longest of any in the Yucatan Peninsula, having its beginning in the Classic period and enduring until around A.D. 889-987 when the Puuc area was abandoned. It is more widely spread over the entire peninsula than any other complex, for it is found abundantly over all of Yucatan, almost everywhere in northern Campeche, and is well represented all along the east coast as far south as Calderitas. There is a strong link between the Cehpech as found in the Puuc and Tepeu 3 as reported from Uaxactun, at least sufficient to show contemporaneity ... Although the Puuc was abandoned, Chichen Itza was not, and in the late

twelfth century the Toltecs apparently took over. However, it would seem reasonably certain that Maya potters continued manufacturing pottery because there is little change in the Sotuta material. The Cehpech and Sotuta complexes are closely linked through unslipped ware, slate ware, red ware, and fine orange ware. The pottery changes as to form, design, temper to some extent, and decorative techniques, some of which were discarded and others added ... it may be deduced that the Chichen Itza Sotuta pottery was made by Maya potters with relatively little influence from Tula or Mexico” (Smith 1971: 253).

Since the end of the 1970s several archaeological projects took place in Yucatan, many of them on the Eastern side of the peninsula and along the coast (see Andrews and Robles 1986 for a detailed list). Archaeologists working in those projects questioned the traditional sequence, and attempts to redefine it become more frequent. By the end of the decade the mounting disagreement found its way into publications. For example, M. Cohodas argued in 1978 that the Ball-courts at Chichen Itza should be dated to the second half of the eighth century, contemporary to the Early Puuc architecture (Cohodas 1978).



More influential was the article published by Joseph Ball in 1979 “*Ceramics, Culture History and the Puuc Traditions: Some Alternative Possibilities*” as a contribution to the book *The Puuc: New Perspectives*. The issue of the available ceramic data of northern Yucatan was severely criticized by Ball:

“In complete actuality, our knowledge of the Puuc ceramic situation is based upon a somewhat jumbled and highly selected sample of approximately only some 65,000 sherds deriving from 123 non-architectural test trenches and pits excavated by several different members of the Carnegie Institution of Washington at the sites of Uxmal, Kabah, Sayil, and Labna over the years between 1932 and 1956” (Ball 1979: 18).

Ball cited Brainerd (1958: 26) to note that no body-sherds of those collections were saved, and that of the rest, less than two thirds of the rims were labelled. Also he cited Smith’s quote that:

“a considerable portion of the potsherds collected at these sites had to be discarded because the paper identification tags had been destroyed by insects, and the provenience lost, before Brainerd could examine the material” (Smith 1971: 5).

Continuing with his tirade, Ball (1979: 18) wrote:

“Supplemental to them are a number of equally selected whole vessel and sherds collections recovered as incidental by-products of architectural clearing, consolidation, and restoration programs carried out by the Instituto Nacional de Antropología e Historia de México at Uxmal. In passing, it is

worth noting that the picture for Chichen Itza is even more unsatisfactory. Needless to say, reconstructions of ceramic or culture history founded upon a data base of the size and nature just described are necessarily something less than reliable. What most non-Northern maya specialists still take for granted concerning the ceramic history of the Puuc in fact consists of little more than assumptions, speculations, and just plain guesswork, all firmly embedded in the archaeological literature and given apparent validization through continuous repetition and citation” (Ball 1979: 18; emphasis is mine).

And then Ball delivered a final criticism:

“The reconstruction of culture history and the analysis of culture process in the northern Maya lowlands has been complicated unnecessarily by attempts to generalize from the findings of particularistic local investigations to the Yucatan peninsula as a whole ... We must admit to the monumental inadequacy of the actual ceramic situations at Uxmal and her sister centers of the Puuc tradition, or at Chichen Itza, or of the development and temporal relationships of Chichen Itza and the Puuc centers” (Ball 1979: 19-20; emphasis is mine).

For the first time, Ball voiced formally the alternatives to the traditional interpretations:

“I shall present two alternatives to our traditional reconstruction of Terminal Classic into Late Postclassic ceramic history which have suggested themselves in varying degrees during the past five years to several active researchers – among them Norberto Gonzalez C., Fernando Robles C., E Wyllys Andrews V, Edward Kurjack and myself. As of yet, these alternatives cannot be validated nor even well-documented on the basis of available data, but they are tantalizingly and repetitively suggested by still unpublished findings” (Ball 1979: 20).

Ball’s two alternative models were named the Total Overlap and the Partial Overlap Model. According to the Partial Overlap Model, *“the Puuc florescent-related Cehpech ceramic configuration and the Chichen Itza-related Sotuta configuration are not*

successive but overlapping phenomena, perhaps coexisting in time for as much as a century” (Ball 1979: 33).

The non-linear or Total Overlap reconstruction, on the other hand, suggests a total contemporaneity between those configurations (Ball 1979: 33-34). Figure 28 reproduces the graphic models presented by Ball (1979; fig. 17).

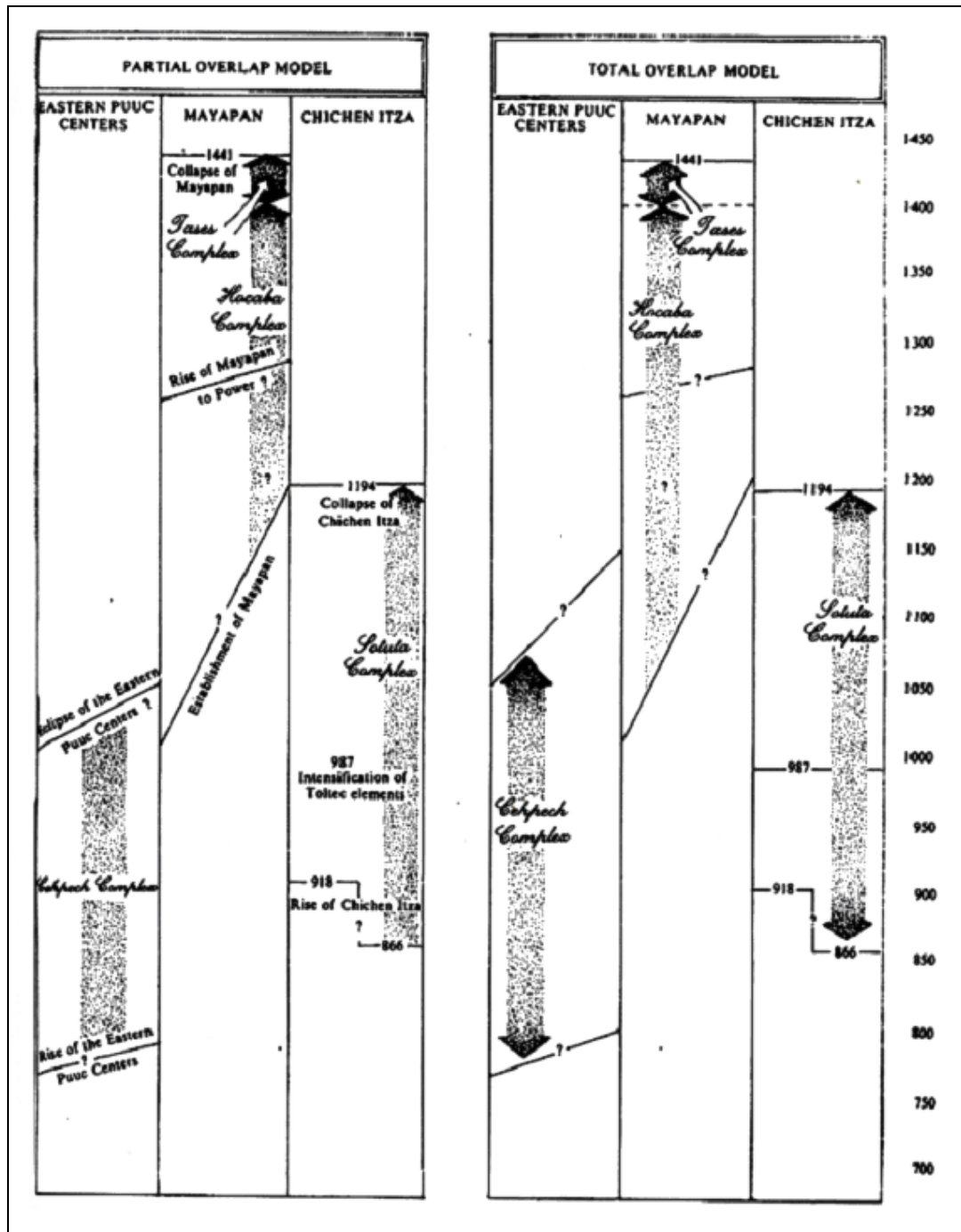


Figure 28: The alternative models (after Ball 1979; fig. 17)

Finally, Ball produced a map of the so called Cehpech ceramic system and its suspected routes of expansion (1979: fig. 14).

Since 1979 archaeologists have embraced different positions, ranging from the Total Overlap supporters (i.e. Chase and Chase 1983; Lincoln 1986, Ringle, Gallareta and Bey 1998, Cobos 2004) to the more cautious Partial Overlap supporters (i.e. Andrews and Sabloff 1986, Schmidt 1991).

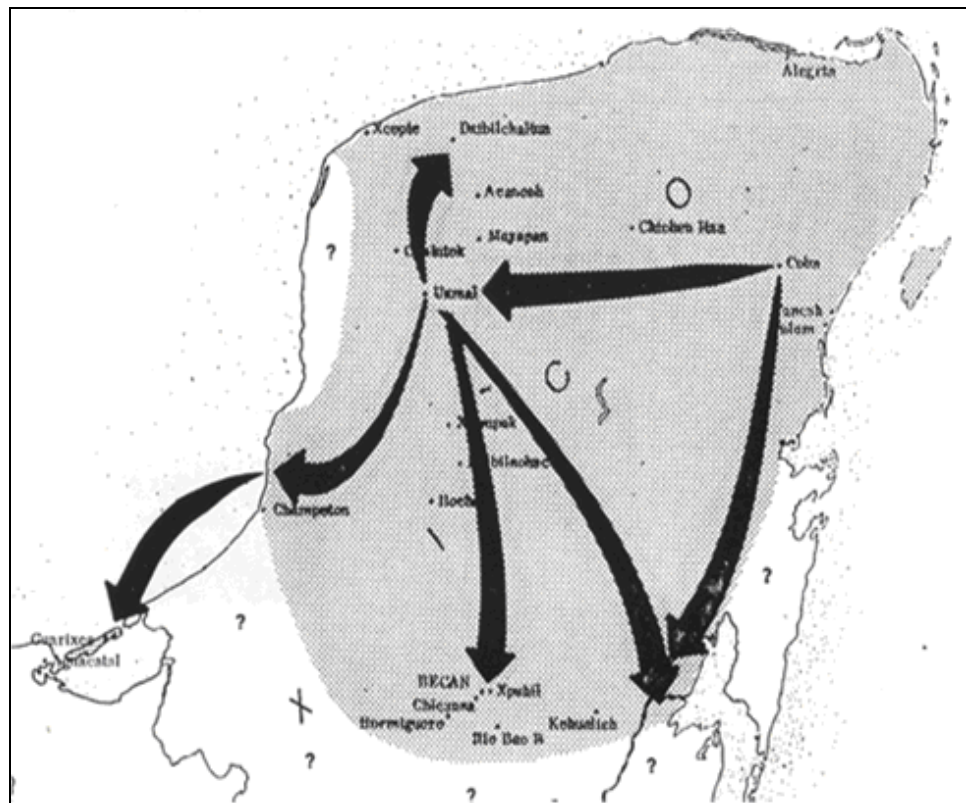


Figure 29: The Cehpech system (Ball 1979; fig. 14)

During the decade of the 1980s the debate of the correct chronology of Chichen Itza became the focus of northern Yucatan archaeology, and many publications were devoted to this subject. Revisions were made of the old data, and new data from all the northern plains was used to substantiate the alternative models.

Based on the excavations of the C.R.S.- I.N.A.H in the site of Coba, Fernando Robles (1980; later published in 1990) proposed a ceramic sequence for that city. The ceramic complexes defined by this scholar are the following:

AÑEJO COMPLEX 100 BC. - A.D. 300/350 CHAKAN SPHERE - EARLY AND LATE FACETS
BLANCO COMPLEX A.D. 300/350 - 550/600 COCHUAH SPHERE
PALMAS COMPLEX A.D. 550/600 -700/730 TEPEU SPHERE
ORO COMPLEX A.D. 700/730 - 1100/1200 CEHPECH SPHERE
SECO COMPLEX A.D. 1100/1200 -1500/1550 TASES SPHERE

Ceramic Complexes from Coba (Robles 1980)

According to Robles (1990), at Coba there is no “Toltec” period. Chichen Slate types appear in limited numbers, mixed with bigger quantities of Oro-Cehpech ceramic complex. Robles offered his view of Coba’s Muna Group as a different phenomenon from that of the western part of the peninsula.

“Based on the evidence of the Nohoch Mul site, there is not the slightest doubt that in the region of Coba (and probably in all the northeast of Yucatan’s peninsula) the ceramic traditions of the Cehpech horizon, mainly represented by the “Puuc Slate” ceramics, are not displaced by those of the Sotuta Horizon. These last ones only form an intrusion of some ceramic types of the Itza capital into Coba. Both ceramic horizons cohabit in Coba (being Cehpech preponderant) until they are displaced between 1100 and 1200 by the new ceramic manifestations of the Postclassic” (Robles 1990: 190; my translation).

In contrast, at El Meco on the north coast, the Sotuta complex is represented at least in the same quantity than the Cehpech ceramics, but they are inextricably mixed, and in association with the Peto Cream Ware, characteristic at Mayapan of the Hocaba

Complex (dated between A.D. 1200 and 1300 by Smith 1971). This association of complexes is found by Robles at several sites in northern Quintana Roo. He concluded that “the Sotuta ceramics are a regional or zonal manifestation, limited to the north-central part of Yucatán peninsula” (Robles 1980: 46-47, my translation).



The final publication on the excavations of Dzibilchaltun (Andrews IV and Andrews V 1980) was dominated by the ideas of Andrews V. A chronological chart was produced in this publication, in which the first column corresponds to cultural periods, broadly applied to the entire northern lowlands, while the second corresponds to the sequence of the ceramic complexes of Dzibilchaltun (see Figure 30).

GREGORIAN CALENDAR	NORTHERN MAYA LOWLANDS CULTURE PERIODS	DZIBILCHALTUN CERAMIC COMPLEXES	G. W. BRAFFERD CERAMIC STAGES (1964)	R. I. SMITH CERAMIC COMPLEXES (1971)	TIXAL	PALENQUE	MAYA LONG COUNT
1400	COLONIAL		COLONIAL	CHUACA			12. 0. 0. 0
1300				CHICHMUEL			11. 15. 0. 0
1200	DECADENT (LATE POSTCLASSIC)	CHECHEM	LATE (CHITAN)	TABE			11. 10. 0. 0
1100			MEXICAN MIDDLE	HOGABA			11. 5. 0. 0
1000	MODIFIED FLORESCENT (EARLY POSTCLASSIC)	1 SIPCHE	EARLY (TOLTEC CENTER)	SOTUTA	?	?	11. 0. 0. 0
900	PURE FLORESCENT (TENUAL CLASSIC)	2 COPO	(PWC)	CENPECH	CABAN	PCRY-BALANTE	10. 15. 0. 0
800		1	FLORESCENT		IXNAB	BALANTE	10. 5. 0. 0
700	EARLY PERIOD II (LATE CLASSIC)		(CHENB)	(TEPE 2) MOTUL	IXN	MURCIELAGOS	9. 15. 0. 0
600				(TEPE 1)	IX	OTOLUH	9. 10. 0. 0
500	EARLY PERIOD I (EARLY CLASSIC)	PIB	REGIONAL	OCHUAB (TEARL)		MOTTEPA	9. 5. 0. 0
400							9. 0. 0. 0
300						PICOTA	8. 15. 0. 0
200		2 XOULUL		?	CIM		8. 10. 0. 0
100	LATE FORMATIVE	1	FORMATIVE		CAUAC	PRE-PICOTA	
0						?	
100 B.C.		KONCHEN		TINHO'CO (CHICAMEL)			
200					CHVEN		
300		2					
400	MIDDLE FORMATIVE	----- KABA'CHE			TIEC		
500							
600					IB		
700		1					
800							

Figure 30: Ceramic sequence of Dzibilchaltun (Andrews IV and Andrews V 1980)

These authors dated the beginning of Ceramic Complex Copo 2 of the Florescent Period at Dzibilchaltun at:

“about the end of Tepeu 2, or somewhere near A.D. 830 (10.0.0.0.0)” though *“its adoption in the Puuc Hills to the south seems to have been somewhat earlier ... The appearance of Copo 2 ceramics at Dzibilchaltun coincided roughly with that of Pure Florescent architecture, although it is clear that a precise correlation does not exist. The ceramic change from one subphase to the next was gradual, being marked by different frequencies of ceramic wares and vessel forms”* (Andrews IV and Andrews V 1980: 274).

Andrews IV and Andrews V followed Smith’s Cehpech Complex span for the duration of Copo 2, dating A.D. 800-1000:

“Although we prefer a beginning date of A.D. 839 for Puuc architecture and its associated Copo 2 ceramic complex, this date is intended to refer to Dzibilchaltun only, where Pure Florescent architecture apparently begins some years later than it does in the Puuc Hills. Neither date will apply to each and every site, but Smith’s may be a better average for northwestern Yucatan as a whole. For the end of the Pure Florescent and Copo 2 and the beginning of the Modified Florescent at Dzibilchaltun, with its Zipche ceramic complex, we have chosen to retain the traditional date of 987, rounded off to 1000 ... The dividing line between Zipche I and Zipche 2 is placed somewhat arbitrarily at about A.D. 1125-1150. Zipche 2 is marked by increased frequencies of certain wares and by the first appearance of Peto Cream Ware, as well as a modest resumption of building near the center of the site” (Andrews IV and Andrews V 1980: 274-275).



In the early 1980s, Diane and Arlen Chase (1982) considered that they had found evidence of an overlap at the site of Nohmul. They report two structures close to the center of the site, clearly related in their opinion to the ‘Toltec’ architectural style. They see Structure 20 as a “patio-quad”, similar to a patio-gallery, while Structure 9 is a circular building which they compare with the Observatory at Chichen Itza. Nevertheless, the associated ceramic includes types San José V, Puuc Slate and Peto Cream, but no Chichen Slate. Therefore, they argue that the ‘Toltec’ structures correspond to the Terminal Classic (Tepeu 3 Horizon), and that San José V-Tepeu 3 and Sotuta complexes are overlapping, if not coeval.

The question of the northern Yucatan chronology was finally addressed in a Conference at Santa Fe in 1982, later published in 1986 as *Late Lowland Maya Civilization: Classic to Postclassic*. Edited by Sabloff and Andrews (1986), several authors contributed with their particular views.

Gordon Willey (1986) took a traditional standing in the chronological placement of northern Yucatan cultural periods:

“We have to view Lowland Maya culture history against the background of these two interrelated conditions -political instability and “foreign” involvements- to understand the events of the Terminal Classic and Postclassic periods ... The establishment of Chichen Itza as the great center of the Early Postclassic Period was a climax to the Terminal Classic buildup of Lowland Maya “Mexicanization”. Almost certainly, this was a power manoeuvre involving military force. Whoever or whatever the nature of the contending parties at this time, the event inaugurated a new socioeconomic and politico-religious regime in the Northern Maya Lowlands that was to persist for two centuries, dominating the north and keeping the south in the shadows” (Willey 1986: 48-49).



A. Andrews and F. Robles (1986) presented a *“Review and Synthesis of recent Postclassic Archaeology in Northern Yucatan”* in which they revisited the data generated by archaeological projects of the last decade. They admitted a

“substantial chronological overlap between materials of the Terminal Classic (or Pure Florescent) and Early Postclassic (or Modified Florescent) periods” (Andrews and Robles 1986: 54). “Viewed together, the data now available suggest that the Cehpech sphere remains may date later than A.D. 1100, whereas the Sotuta sphere ceramics and architecture may have originated sometime prior to A.D. 900; in short, the data favour an overlap of more than 200 years, or 100 or more years in each direction” (Andrews and Robles 1986: 67).

Andrews and Robles proposed a division of northern Yucatan into spheres.

“Recent archaeological research suggest that Classic period northern Yucatan can be divided, primarily on the basis of ceramics and architecture, into at least two major cultural spheres: a Western sphere, comprising most of the northwestern and north-central Yucatecan plain and Puuc Hills region, and an Eastern Sphere, which encompassed what is today far eastern Yucatan and northern Quintana Roo” (Andrews and Robles 1986: 75).

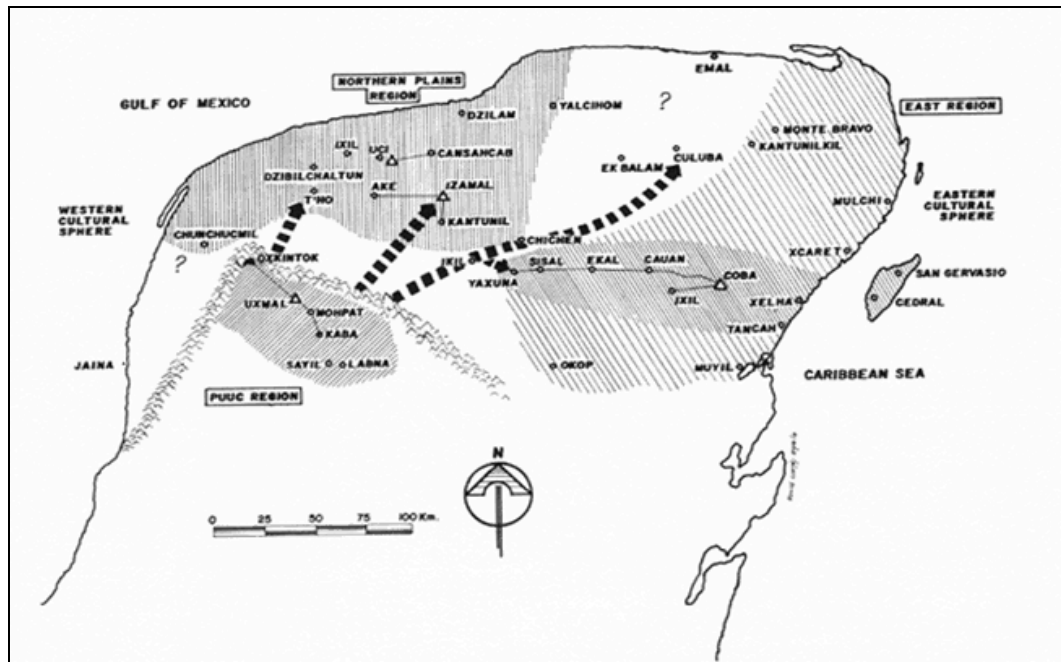


Figure 31: Yucatan Cultural Spheres during the Late-Terminal Classic and the Early Postclassic periods (Andrews and Robles 1986)

A more strident voice in this book is that of Charles Lincoln (1986: 142), who believing “that ceramic stratigraphy will ultimately prove the key to unraveling the sequence of development at Chichen Itza” tried to prove that the traditional sequential model was completely wrong.

Lincoln argued that “ building function and the social status of the intended consumers of the information carved in the glyphic or iconographic panels would serve to explain the difference between the Maya and Toltec modes at Chichen Itza” (Lincoln 1986: 155). He proposed then a Total Overlap between Puuc and Toltec architectural styles in Chichen Itza. He also favored the use of the 11.3.0.0.0 Correlation between the Maya and Christian Calendars, instead of the 11.16.0.0.0 (GMT) Correlation. Based upon the apparent absence of pure Puuc ceramic contexts at Chichen Itza, and the fact that radial causeways link “Toltec” and “Maya” groups, Lincoln offered a view of Chichen

Itza as an integrated and complete community, instead of two temporal different complexes.

He conceded that “*it is undeniable that in general, Maya and Toltec Maya glyphs and art/iconography do not appear in the same structures*” (Lincoln 1986: 151). Nevertheless, he pointed out that a handful of Maya texts are carved on the same stones as figures and motifs traditionally defined as Toltec, and some Maya texts appear in “Toltec” buildings (a fact previously noted by Proskouriakoff 1950: 170, 171; 1970; and Tozzer 1959: 35). These cases of direct association are:

- 1.- Column 4 at the summit of Structure 3C1
- 2.- Tenoned circular stone from the Caracol
- 3.- Altar from the Great Ball Court
- 4.- Column from Structure 6E1 (Hieroglyphic Jambs Group)
- 5.- West Jamb from superstructure at 5B18 (Castillo Viejo)



D. Pendergast (1986) reported a series of Carbon 14 dates at Lamanai (Belize) which fall around A.D. 1140, associated with a Fine Orange Silho vessel, from the Sotuta Ceramic Complex. This is one of the few firm bases to date this ceramic ware.



Finally, in the same publication Joseph Ball (1986) proposed an interesting exercise of historical reconstruction, showing that the historical Books of Chilam Balam can be used coherently to create more than one image of the late prehispanic history of Northern Yucatan, especially when using the 11.3.0.0.0. Correlation.



After the various positions were laid on the table of the Santa Fe Conference, W. Andrews V and J. Sabloff, editors of the volume, summarized the situation and offered their own position on the issue of the overlap. They tried to weigh all the evidence and offer a prudent position. On the issue of the correlation question they definitively supported the 11.16.0.0.0. Correlation. They acknowledged that

“despite extensive excavations at Chichen Itza, archaeologists of the Carnegie Institution did not encounter pure deposits of the Cehpech (Puuc) ceramic complex underlying levels with Sotuta (Toltec) materials, nor did they find incontrovertible evidence for a sequential relationship of the two architectural styles” (Andrews and Sabloff 1986: 438).

The Toltec masonry of Chichen Itza shows the closest similarities to the latest buildings of Uxmal, suggesting to Andrews and Sabloff that the span of time separating both of them cannot be long. To them, the inception of “Toltec” architecture began at Chichen Itza shortly after the end of the series of Early Cycle 10 inscriptions, perhaps by A.D. 890 (Andrews and Sabloff 1986: 445). They considered the High Priest Pyramid, with a date A.D. 998, as late in the Toltec architectural evolution.

Andrews and Sabloff accepted the radiocarbon dates from Balankanche Cave published by Andrews IV (1970), which could support a Toltec presence in northern Yucatan by or before A.D. 900. Other radiocarbon dates of the site they dismissed as too early: “*We do not think they bear on the question of the overlap*” (Andrews and Sabloff 1986: 439).

“In summary, we see varying amounts of overlap among the different components of the Puuc and Toltec traditions. Toltec sculptural traits are found in late contexts at several Puuc sites. They may precede in time the Toltec buildings at Chichen Itza. The construction of buildings in the Puuc and Toltec styles overlapped less than 50 years. In some zones the overlap of Cehpech and Sotuta was partial and in others it was total” (Andrews and Sabloff 1986: 447).

Andrews and Sabloff considered

“The strong possibility that major Puuc construction ceased not long after A.D. 900, after which Chichen Itza continued as a potent force in northern Yucatan; and the spread of the Sotuta ceramic sphere at about this time to many sites (including Uxmal, Dzibilchaltun and Cozumel Island) ... It seems more probable that groups of nonclassic, Mexicanized Maya, as they have been called at Altar de Sacrificios and Seibal, from unknown areas near the southern Gulf Coast, were in large part responsible for the new cultural configuration that we call Toltec, and that they channelled Mexican influences into northern Yucatan” (Andrews and Sabloff 1986: 450-451).

The result of the publication of “*Classic to Postclassic...*” was the general acceptance of the partial overlap model as a strong candidate to explain the history and role of Chichen Itza at the end of the Classic period. But this book did not stop the controversy. More data, seemingly favorable to the Total Overlap Model, was presented

after the Santa Fe Conference. F. Robles, (1986) presented the ceramic sequence of San Gervasio, at Cozumel Island, in 1986. There, the stratigraphy runs from Cehpech levels to levels with a mixture of Sotuta and Hocaba (Peto Cream), to reach levels of Hocaba and Tases and finally Tases levels, with Mayapan Red and Tulum Red, but without Peto Cream. The dispersion of the Sotuta Sphere represents to Robles an expansion of the political power of Chichen Itza, and the Toltec presence an intrusion that coexisted with local cultural traditions, rather than a different period.



More important were the findings at Isla Cerritos (see Figure 32) by A. Andrews, T. Gallareta, F. Robles, R. Cobos and P. Cervera (1989), where some C14 dates associated with Sotuta levels suggested an overlap between the Cehpech and Sotuta complexes. Ceramic data of this project was first presented at the 1985 Maya Ceramic Conference (published later as Robles 1987). The resulting ceramic complexes defined at Isla Cerritos are:

Xaumito Chicanel	100 B.C. – A.D. 400
Trompillo Cochuah	A.D. 300 – 750
Chacpel Cehpech	A.D. 700 – 900
Jotuto Sotuta	A.D. 850 – 1150/1200
Tomburro Tases	13th to 16th centuries

Ceramic Complexes at Isla Cerritos (after Robles 1988)

There were no Chacpel-Cehpech contexts associated with formal architecture. *“It is clear that during the first part of this phase (Chacpel complex) the predominant ceramic materials are closely related with Cehpech pottery (Terminal Classic) of the Puuc sites, and not so much with the sites of the eastern part of the same ceramic sphere like Coba, Xelha, or San Gervasio”* (Gallareta et al. 1989: 315-316). Robles dated the end of the Jotuto Sotuta complex *“around 1200, the moment that traditionally dates the fall of Chichen Itza, and judging by the stratigraphical evidence, also the permanent occupation of Isla Cerritos”* (Robles 1987: 106).



Figure 32: Isla Cerritos (Andrews and Robles 1986)

That same year, M. Cohodas, (1989) stated that:

“Although the reduction of Chichen Itza to a one-phase site is clearly incorrect, as yet there is little ceramic evidence for distinguishing chronological stages ... Clear distinctions mark two stylistic phases that precede the Terminal Classic overlap with Uxmal, and the final Early Post-Classic contact with Tula, resulting in an overall four-phase sequence for the site ... The Mexicanized style of Chichen Itza developed before the end of early Puuc architecture in the Puuc region ... by the early eighth century” (Cohodas 1989: 229-230).



In his doctoral dissertation, Charles Lincoln (1990) presented a series of assertions in order to substantiate the total overlap model:

“the sum total of the major excavations of the Carnegie Institution of the 1920s, Robert Smith’s stratigraphic trenches on the 1950s, and my own test pits of 1985, provide no evidence of more than one major period of occupation within the known limits of Chichen Itza” (Lincoln 1990: 210).

“The platforms tested during the 1985 excavations at Chichen Itza all yielded the same ceramic inventory, and can be considered coeval ... In the samples recovered from our 1985 test pits, we observe minor variations in the

occurrence and frequency of certain types. We thus tentatively divide the principal phase of occupation into two facets based on the presence or absence of certain types which occur only in trace quantities. The types –rare but found scattered through our study area—suggestive of the earlier facet are (1) Ticul Thin Slate, (2) Holactun Cream, (3) an unnamed Red-Hematite slipped ceramic (Lincoln 1990: 212).

Lincoln acknowledged that though “*we sought to provide a basis for a new evaluation of the ceramic sequence of Chichen Itza as a whole*”, given the limited number and scale of excavations, the completion of that goal was not achieved (Lincoln 1990: 217; emphasis is mine). Nevertheless, based on his collections, he asserted that:

“it is one of the strongest, and most important, conclusions of this ceramic study that Chen Mul Modelled, Mayapan Red, and Kukula Cream must be analyzed as contemporaneous, at least in the early stages of the development of these wares, with Dzibiac Red and associated types, Silho Orange, Tohil Plumbate, and Balantun Black-on-Cream” (Lincoln 1990: 356).

Adjusting the New Model **1990-2005**

Peter Schmidt presented his view of the chronological problem of Chichen Itza in 1990:

“Though I reject the extreme position that wants to collapse Cehpech and Sotuta in only one period, and dating both for the Terminal Classic (A.D. 800-1000), it is necessary to accept the possibility that Sotuta ceramics, more than a temporal division, reflects also a strong regional development in the ceramic tradition characterized by the use of Slate wares” (Schmidt 1990: 11; my translation).

Based on his collections at the site (1979, 1980, 1985), he directed the attention to the physical condition of the two ceramic sets (Cehpech and Sotuta) at Chichen Itza. Cehpech material appears more deteriorated and removed, generally in the form of isolated shards which do not join to form vessels, so *“the two deposition processes seem different”* (Schmidt 1990: 16; my translation).

In the architecture and iconography he observed a *“gradual displacement in construction and art production in Puuc style by a new style that absorbs strong influences from Central Mexico”* (Schmidt 1990: 13; my translation). Schmidt concluded that

“a model of overlap ...is the more reasonable way to explain the development of Chichen Itza during the Terminal Classic and Early Postclassic” (Schmidt 1990: 13; my translation). *“The end of the 9th century must be the critical moment when Chichen Itza developed beyond its position as one of many Puuc cities. A continuous growth of 150 years to reach the role of leading capital, and a period of 300 years to enjoy and lose this predominance do not seem exaggerated, considering the amount of construction, remodelling, demolition and planning changes observed in many parts of the site”* (Schmidt 1990: 19; my translation).



With the Total Overlap Model gathering acceptance, the problem to be resolved was to reconcile this view with the dates in the hieroglyphic inscriptions. Since a shift to the 11.3.0.0.0 Correlation was ruled out by a majority of scholars, other solutions had to be found.

Schele and Freidel (1990) proposed that Chichen Itza, during the Terminal Classic, “*witnessed the birth of a social and political order based upon a new principle of governance, mul tepal, ‘joint rule’. For a few centuries, Chichen Itza ruled the Maya of the north without rival*” (Schele and Freidel 1990: 348). Following an overlap model position, they were convinced that Chichen Itza shows evidence of having always “*been a single city occupied by a remarkable, increasingly cosmopolitan nobility ... What the archaeology of Chichen Itza does suggest is that several generations of rulers built public architecture and sculpture to commemorate their increasing success in war and trade* (Schele and Freidel 1990: 354-355). After the founding of Chichen Itza “*the Puuc cities fell and Coba slowly dwindled to insignificance*” (Schele and Freidel 1990: 374).

These scholars also contributed to the ammunition of arguments of the overlap models, by proposing a new reading for the inscription on the High Priest’s Grave (also called the Osario Pyramid; Structure 3C1), traditionally dated A.D. 998, and regarded as the latest inscription of the site. “*We suggest instead that this date fell on 10.0.12.8.0 (June 20, 842) and is thus the earliest date in the city ... At the same time, the High Priest’s Temple is architecturally a prototype of the four sided Castillo*” (Schele and Freidel 1990: 356).



Exploring the consequences of the Total Overlap Model, Ringle, Bey, and Peraza (1991) based on the site of Ek Balam, proposed a solution in which the Sotuta Complex, and the apogee of Chichen Itza ended around A.D. 1000 (Ringle et al. 1991). They accepted an early dating for Sotuta wares at Isla Cerritos, where it can be found (supposedly) in levels dating A.D. 685-740, and considered the low percentages of Cehpech ceramics at Chichen Itza as evidence of the non-existence of such period at the city. In their view there is also no evidence to support an Itza pan-Peninsular Empire able to impose an ideology and bureaucratic administration. Sotuta complex ceramics at Ek Balam are reported by these authors to be very scarce.

Therefore, one of the consequences of the Total Overlap Model was to contract the chronology, and impose a view of Chichen Itza as totally contemporary with other important sites of the Terminal Classic period. Chichen Itza was, in this new panorama, only one site among peers.

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In a discussion on the Great Ballcourt Altar of Chichen Itza, Wren and Schmidt (1991) argued that a placement of the altar in 10.1.15.3.6 (A.D. 864) gives support for a Partial Overlap Model at Chichen Itza.

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In 1992, M. Rivera, based largely in the ceramic analysis of Carmen Varela (Varela 1994) published a chronological sequence for Oxkintok, a Puuc site in the west of the Peninsula, which basically adheres to a sequential model. According to Varela (1994), the Nak Phase is characterized by the Classic Puuc style in the Mosaic variant. The ceramic sphere associated to the Mosaic style is Cehpech, and the panelled stelae of the site should pertain to this period. During the Tokoy Phase the site is abandoned, shortly after the beginning of the 11th century. Sotuta complex ceramics are reported for this Phase (in the groups of Ah Canul and Dzib). Presence of the Sotuta Complex at Oxkintok showed a limited typological repertoire of Dzitaz Slate and Silho Fine Orange ceramic wares. Varela admitted the possibility of some overlap between the Terminal Classic and the Early Postclassic.

SIHIL PHASE	B.C. 500 -300
BUT PHASE	B.C. 300– A.D. 300
ICHPA PHASE	A.D. 300 -550
NOHEB PHASE	A.D. 550 -710
UKMUL PHASE	A.D. 710 -850
NAK PHASE	A.D. 850 -1000
TOKOY PHASE	A.D. 1000 - 1500

The Oxkintok ceramic sequence (in Rivera 1992)

—◆—

In 1993, Carlos Peraza, contradicting his previous stand of 1991 (see Ringle et al. 1991), presented the ceramic study of the materials from San Gervasio, Cozumel, adopting the traditional model in admitting a Sotuta occupation during Arrecife Complex (A.D. 1000-1200), when *“the island became a “province” of Chichen Itza’s Empire”* (Peraza 1993: 41).

This apparent contradiction can be explained because, despite its mounting acceptance, the Total Overlap Model was never sanctioned formally, in any Congress or by the senior archaeologists on the field, and some of his Mexican adherents resorted, and still resort, at least on excavation reports and local publications, to the presentation of the ceramic data in the traditional, sequential fashion.



Based on new excavations of INAH at Ek Balam, in 1994 Vargas, Sierra and Peraza interpreted the Itza presence at Ek'Balam as a very late phenomenon, when monumental construction almost ceased, and ceramics of the Sotuta complex show a re-occupation of the public buildings in the interior of the walled quarter of the city (Vargas et al. 1994: 96).



In Yula, a settlement five kilometres south of Chichen Itza, according to P. Anderson (1998) most of the occupation pertains to the Terminal Classic, according to the ceramics, the stratigraphy and the hieroglyphic inscriptions. Of a collection of Cehpech and Sotuta ceramics of almost 15.000 shards, only 522 are Cehpech. With that evidence at hand, Anderson determined a Halach Winik (Sotuta) complex and a Cehpech sub-complex (Anderson 1998).



Suzan Kepecs (1998) presented evidence of Sotuta pottery for the Chikinchel area, north of Chichen Itza, based on her surface collections. There, Sotuta prevails over Cehpech, with a wide distribution of Sotuta ceramics, showing a concentration of Red Dzibiac ware in the central and west areas (closer to Chichen Itza). Prestige ceramic items are virtually absent from the author's collections.



One of the most recent presentations of the ceramics of Ek Balam is that of Bey, Bond and Ringle (Bey et al. 1998). They define a late Yumcab Ceramic Complex, dated between A.D. 700 and 1000/1050, with a predominance of Muna Slate and Chum/Encanto Unslipped groups. This is associated to the apogee of construction at Ek Balam, and the majority, if not all, the final constructions at the site. This complex would be associated to at least three different architectural styles at the site. The first is a pre-Florescent style of monumental construction with relatively poor cut stone, slab vaults and extensive use of stuccoes. The second one is of high quality, a Florescent architecture characterized by buildings dressed with well cut stone and specialized vault stones. The third is

architecture of substantially less quality showing similarities to that of the Postclassic. There is almost no evidence linking the last style with Sotuta ceramics, which represents only 1% of the collections of the authors at Ek Balam.



According to excavations at Kabah, Carrasco and Pérez de Heredia (1993) proposed that this site underwent a longer period of growth during the Terminal Classic than the neighbouring city of Uxmal. Kabah experienced a sudden and abrupt end of monumental construction possibly around A.D. 1050. My own excavations at the building of Manos Rojas (Str. 1A1) showed the best documented (to the present day) Sotuta occupation in the Puuc area, linked possibly with the end of Terminal Classic Puuc construction (Pérez de Heredia 2000).



In 1998, Gallareta, Peraza and Cervera reported a total of 12 unmistakably Sotuta sherds at Labna, placing them in the León Negra (Sotuta) Complex in the Terminal Classic (A.D. 1000-1200; Gallareta et al. 1998). This position seems to reflect a Partial Overlap Model support, with references to the traditional dates.



According to the materials published by Suhler, Ardren and Johnstone (1998) of the site of Yaxuna, there is no clear evidence of the coexistence of Sotuta and Cehpech complexes. Yaxuna, according to them, was violently conquered by Chichen Itzá, resulting in an occupation of the city including, perhaps, some minor construction.



Excavations conducted at Izamal by Luis Millet (pers. comm. 1999) found an important “Itza” occupation, with architectural elements of Chichen Itza style, such as staff-bearers and roof ornaments or “almenas”, concentrated around Structure 24 (House of the Rabbit). A general re-modelling of the city was detected that could be dated between A.D. 900 and 1100. The ceramicist of the project, Lucia Quiñones (pers. comm. 1999) reported an almost complete typology of the Sotuta Complex, including the following types: Espita, Cumtún, Pisté, Dzitás, Balantún, Balan Canché, Timak, Chacmay, Tekom, Mopilá, Dzibiac, Xucú, Chankom, Silho, Yalton, Cumpich, Calkiní, Nunkiní, Kilikan, Pocboc, Tumbador, Porvenir, Malacatán and Tinum. To my knowledge, this is the most varied list of types of the Sotuta complex reported, so far, outside Chichen Itza.

In an interesting work, Ringle, Gallareta and Bey (1998) presented a Mesoamerican view of the Epiclassic Period (Terminal Classic) and pay special attention in placing Chichen Itza and northern Yucatan in this wider panorama. They base their interpretation on a placement of Chichen Itza's main construction in the "*Late Classic period ca. A.D. 700-1000, rather than the early Postclassic*" (Ringle et al. 1998: 183). They view Chichen Itza as an Epiclassic city, and stated that:

"A full understanding of its distinctiveness can come only from an appreciation of its participation in the still poorly known network of centers flourishing along the Gulf Coast and inland to Puebla and Morelos between A.D. 700 and 1000. Most of the traits usually considered "Toltec", we contend, are in fact Epiclassic in origin". The mechanism responsible was "the spread of a regional cult focused upon Quetzalcoatl/Kukulcan ... Chichen Itza would seem to have been the chief eastern node and Cholula its western counterpart, later to be supplanted by Tula. El Tajin apparently was another major node. ... This religion seems to have spread by means of the active founding of new cult centers, often fortified and often by means of aggressively militaristic proselytism. To this secondary tier we would assign Xochicalco, Cacaxtla and Uxmal, among others ... The cult probably did not involve extensive population movements and replacements, but instead spread from several centers by means of mercenaries, pilgrimage, and local political alliances ... commercial linkages also may have been important" (Ringle et al. 1998: 184-185).

With respect to Chichen Itza's chronology, these authors considered that:

"Because radiocarbon and epigraphic dates from Cehpech and Sotuta contexts date no later than the tenth century, and because the earliest dates for Peto Cream range between A.D. 900 and 1000, we place the cessation of monumental activity at Chichen at ca. 950-1000" (Ringle et al. 1998: 192).

Graña-Behrens, Prager and Wagner (1999) published the most recent and accurate drawing of the High Priest Grave hieroglyphic inscription. They demonstrated that

Thompson's reading was correct, and the date should be read as 10. 8.10.11.0 2 Ajaw - 18 Mol, A.D. 998. This date is now accepted by most epigraphers.



The recent paper by Andrews, Andrews V, and Robles (2003) intended to settle Chichen Itza's chronology as a pure Terminal Classic phenomenon. According to these authors,

“the collapse of the entire Classic-period societal structure throughout the lowlands can now be compressed into a 200- or 250-year period and seen as a progressive chain of events that began in the south and culminated with the fall of Chichen Itza in the eleventh century. This new reconstruction has led us to propose eliminating the Early Postclassic period, the existence of which was based largely on a purportedly late occupation of Chichen Itza. We assign this final occupation of the Itza capital to the Terminal Classic period, which ended sometime in the eleventh century in the northern Maya Lowlands” (Andrews et al. 2003: 151).

They present an explanation of the history of northern Yucatan during these times:

“First, Chichen Itza is now correctly viewed as a Late Classic Maya capital - it can no longer be seen as representing a major break with the Classic past and the beginning of a new Postclassic era. Its demise was the product of the same processes that characterized the end of the Classic horizon. Second, it is no longer appropriate to consider the “southern Classic collapse” as a regionally restricted phenomenon. We believe there was a pan-lowland collapse. Third, if we accept Chichen Itza as the last of the Classic-period states, the term “Early Postclassic” must then refer to a period that is transitional. This time witnessed the decline and abandonment of many northern cities, a likely dark age in which the worst prophecies of Maya priests came to be, and at the same time, the stirrings of a new era (especially on the Caribbean coast). We think that the term “Early Postclassic” is too laden with obsolete associations and that it has lost much of its meaning. It no longer signifies the beginning of a new era, and it does not convey a sense of the collapse and chaos of the tenth and eleventh centuries in the northern lowlands. We therefore believe the term should no longer be used. The

eleventh century was a transition -an interregnum- from a Late or Terminal Classic period, characterized by Cehpech, Sotuta, and Hocaba ceramics and related styles of architecture, to a Postclassic period defined by Hocaba and Tases ceramics and a Mayapan-East coast style of architecture” (Andrews et al. 2003: 154).

While I was writing this thesis, another book was published on the topic of the end of the Classic period: *The Terminal Classic in the Maya Lowlands*, edited by A. Demarest, P. Rice and D. Rice, and released in 2004. It contains 23 chapters by multiple authors, and part of the contributions are focused on, or related to, Chichen Itza’s chronology.

In the contribution “Terminal Classic-Period Lowland Ceramics”, P. Rice and D. Forsyth (2004) reviewed the available data for this period. In concerning the northern lowlands they conclude that:

“It appears that Cehpech and Sotuta are largely coeval spheres that share what might be called similar “technological styles” of wares (slate wares, red wares) but different resources (red –versus gray-firing clays, calcite versus volcanic ash). Careful stratigraphic excavations and ceramic analyses appear to have revealed that in some sites/areas there are geographical subspheres of Cehpech (eastern and western) as well as chronological faceting that can be correlated with different architectural styles. It also appears that Sotuta either lasts longer than Cehpech or replaces it at several sites” (Rice and Forsyth 2004: 48).

In the same volume, R. Cobos (2004), who carried on small scale mapping and diggings on the peripheral area of Chichen Itza during 1998, elaborated his particular version of the Total Overlap Model. He proposed an Early Sotuta Period (A.D. 700/800 - 900) and a Late Sotuta period (A.D. 900 – 1050), instead of the Cehpech and Sotuta complexes, and tried unsuccessfully to differentiate them at a typological level. He did not consider the existence of a Motul ceramic complex of the Late Classic Period at Chichen Itza, and this time span is instead labelled “Late Cochuah”. He asserts in his conclusions that *“two interesting aspects of the data on Sotuta ceramics show that they were already in usage during the eighth century A.D., and in the particular case of Chichen Itza, they do not seem to have replaced the Cehpech ceramics of the site” (Cobos 2004: 542).*

Summary

I shall now try to summarize all these different views on the transition of Classic to Postclassic at Chichen Itza using some graphics. The traditional model (Figure 33) groups all the scholars who understood Chichen Itza as two different sequential sites. Though the exact dates offered by each author differ, there is an agreement between the traditional model supporters in that the city started its urban development during the Terminal Classic period, associated with Cehpech ceramics and “Maya-Puuc” style architecture. Then followed the Early Postclassic period, associated with Sotuta Complex ceramics and “Toltec” style buildings, and then followed the Middle Postclassic period, associated with Hocaba ceramics and “Toltec” style buildings.

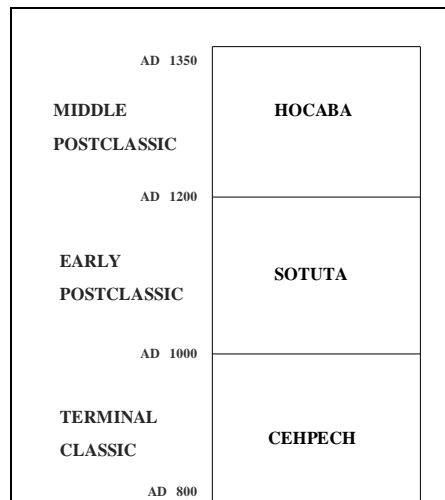


Figure 33: The Traditional Sequential Model

The two alternative models as proposed by Ball (1979) are shown in Figure 34.

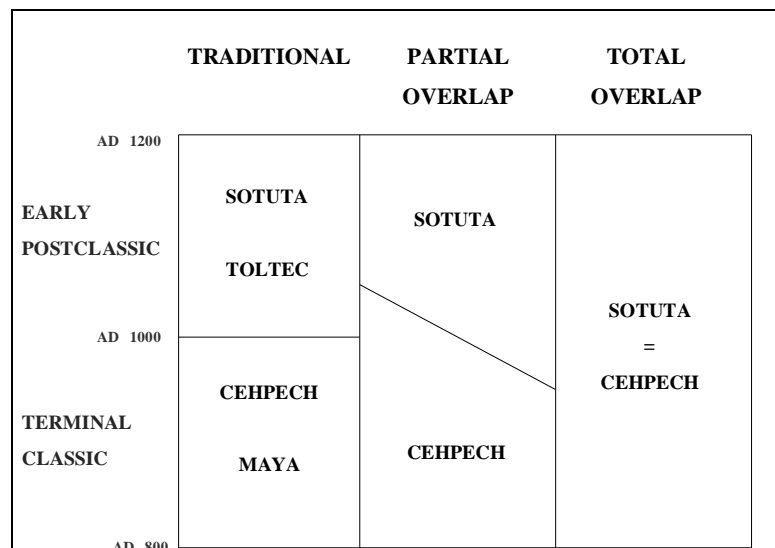


Figure 34: The three models of Chichen Itza's Chronology

Figure 35 shows a contraction of the chronology derived from a Total Overlap Model, by ending the Sotuta Complex earlier than the traditional date A.D. 1200.

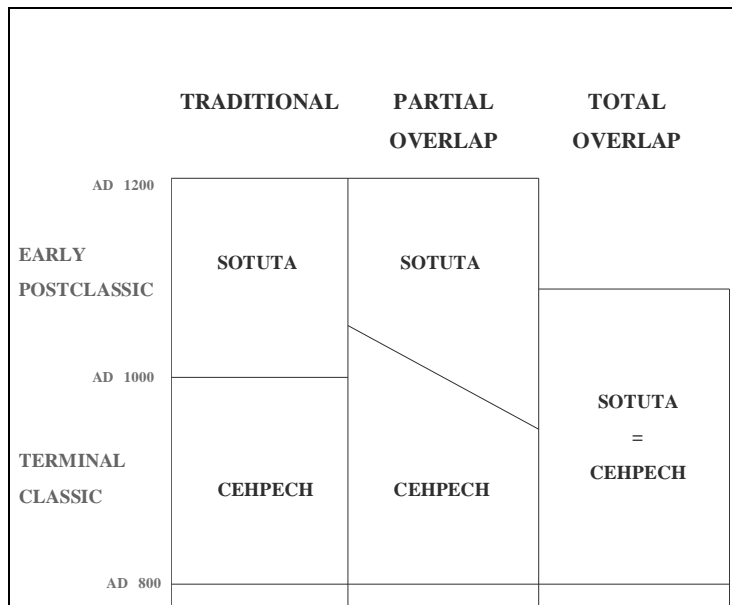


Figure 35: The Total Overlap Contraction

Finally, Figure 36 shows the disappearance of the Early Postclassic period as the more radical branch of the Total Overlap Model.

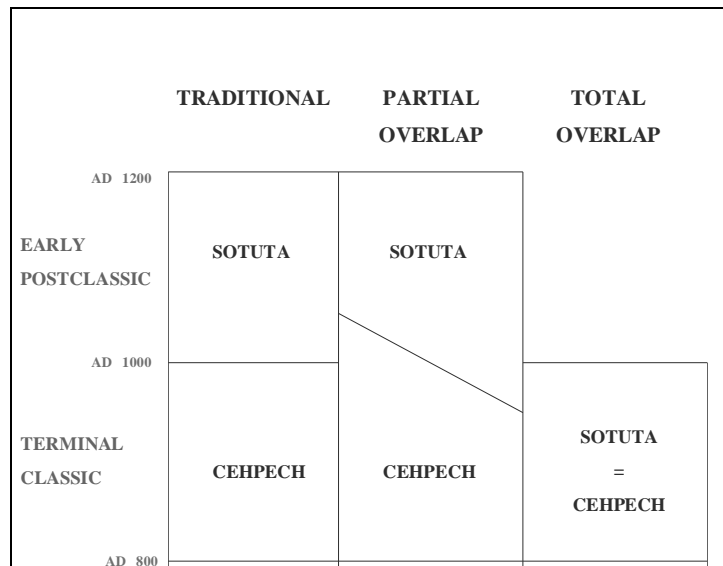


Figure 36: The disappearance of the Early Postclassic Period

It is now time to present the ceramic analysis of the data collected by the Chichen Itza Project for the Late Classic, Terminal Classic and Early Postclassic periods.

**Ceramic Contexts at Chichen Itza:
Late Classic to Early Postclassic**

2.2.1 The Late Classic Period - The Yabnal-Motul Ceramic Complex

2.2.2 The Terminal Classic Period - The Huuntun-Cehpech Ceramic Complex

2.2.3 The Early Postclassic Period - The Sotuta Ceramic Complex

2.2.1 The Late Classic Period - The Yabnal-Motul Ceramic Complex

2.2.1.1 Defining the Say Slate Ceramic Group in Northern Yucatan

2.2.1.2 The Say Slate Group at Chichen Itza

2.2.1.3 Contexts of the Yabnal-Motul Complex at Chichen Itza

2.2.1.4 Other Groups of the Yabnal-Motul Complex at Chichen Itza

2.2.1.5 Extension of the Yabnal-Motul Complex at Chichen Itza

2.2.1.6 Summary of the Yabnal-Motul Complex at Chichen Itza

THE LATE CLASSIC PERIOD

THE YABNAL-MOTUL CERAMIC COMPLEX

A.D. 600 - 800/830

2.2.1.1 Defining the Say Slate Ceramic Group in Northern Yucatan

The ceramic ware most characteristic and easily identifiable of the three complexes that span from the Late Classic to the Early Post-Classic period in northern Yucatan is known as Slate Ware. Characterized by a frequent use of volcanic ash as temper, the ceramic's innate strength and quality ensured its continuing importance in the region for six hundred years. While the Cehpech Ceramic Complex of the Terminal Classic Period (associated with Muna Slate Group - Puuc Slate Ware), and the Sotuta Ceramic Complex (associated with Dzitaa Slate Group - Chichen Slate Ware) have been defined and separated since the earliest ceramic studies in the area, a clear identification and definition of Motul Ceramic Complex slate ware eluded Northern Yucatan ceramic studies for many years. The earliest of the region's slate wares, the Slate Ware of the Motul Ceramic Complex (Late Classic Period) - sometimes referred to as Early Slate Ware - has been recently defined (Boucher 1990, 1992; Varela 1998; Chung et al. 1998; Chung 2000; Pérez de Heredia 1998, 2004).

The existence of a Slate Ware preceding Puuc Slate Ware was first noted by George Brainerd (1953) in the Xkyc Cave, and later in the Dzebtun collection (Brainerd 1958). Commenting on the Dzebtun collection (see Figure 37) Brainerd stated that:

“although most of the vessels are easily classifiable as Florescent, there are various reasons why it should be placed very early in the stage ... comparable sherds come from Regional or Regional-Florescent transition deposits. The basal break bowls i-l with slab legs and thumbed decoration are closest to those from Yaxuna, fig. 10, d-f, which occur in collections judged early Florescent or Regional-

Florescent, also close to those from Dzibilchaltun (fig. 15, a). Thus there are several independent reasons to believe this collection comes from a relatively short time span in the early Florescent stage. This allows us to use it for reference in placement of other vessels, and for criteria of form, ware, and decoration” (Brainerd 1958: 180, legend to fig. 35).

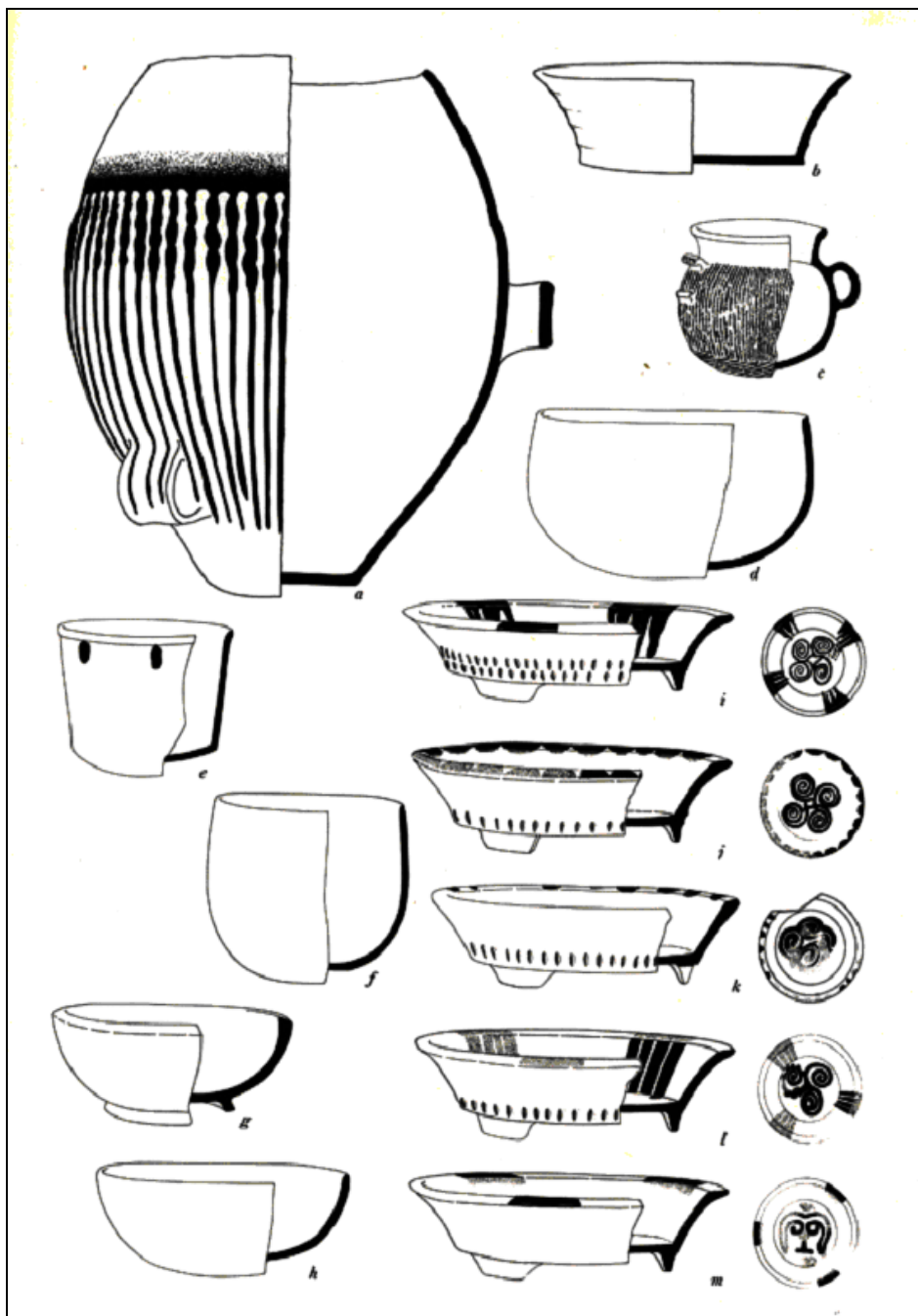


Figure 37: Dzebtun Collection (Brainerd 1958: fig. 35)

The collection from Actun Xkyc, of comparable date to the Dzebtun sample, is illustrated in Brainerd's 1953 publication (reproduced here in Figure 38).

“Most of the slipped pottery in the Xkyc collection (Lot 71) is of the slateware group which dominates the Florescent culture stage in Yucatan, but there are many indications which suggest that it fits into the early history of slateware and is related, in both form and finish, to the Regional stage monochromes which were made during the period dating from 350 to 750 A.D. in Yucatan” (Brainerd 1953: 117).

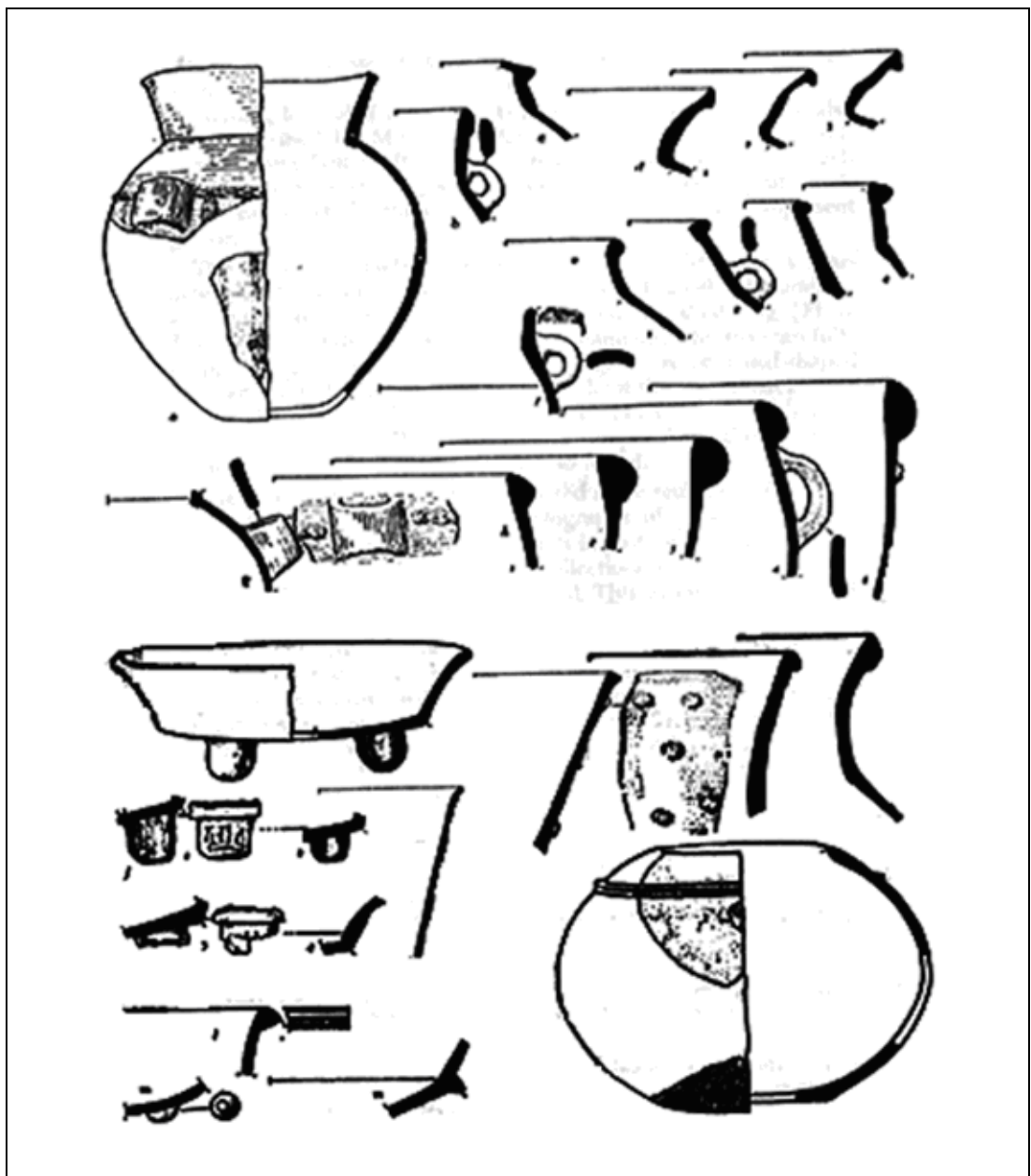


Figure 38: Aktun Xkyc Collection (Brainerd 1953: fig. 1)

Finally, a collection of slateware sherds and vessels from Yaxuna (Figure 39) also suggested to Brainerd an early development of slatewares.

“The forms of slateware found here differ in several respects from those of the Puuc sites. The jar forms, concave interior basin lips, and slab bowl legs all argue for an early Florescent dating for most of this assemblage” (Brainerd 1958: 128).

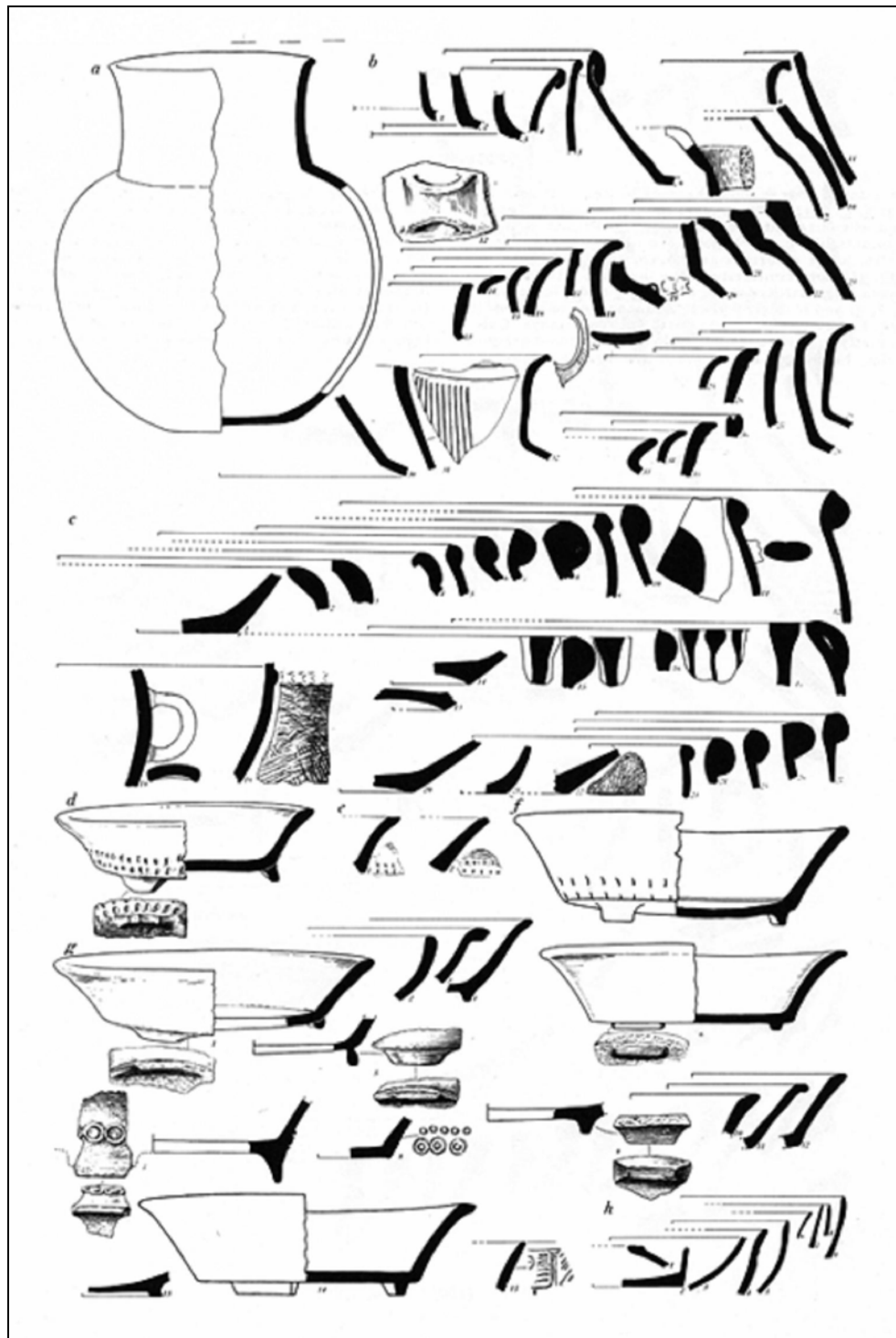


Figure 39: Yaxuna Florescent Slateware Collection (Brainerd 1958: fig. 10)

Other examples of the Early Slate Ware were later found at different archaeological sites in northern Yucatan. Simmons (1979: 13-15) characterized the Early Slate Ware of Dzibilchaltun (mainly from Str. 612) by showing a slip with more variation in color than his corresponding Puuc Slate Ware, noting variations from yellow to brownish red in the same vessel. He noted that no Slate ceramics appear during the Piim Complex, which ends by A.D. 600. He, therefore, places the Early Slate Ware of Dzibilchaltun in the Copo 1 Complex (that is, during the Late Classic period).

At Coba, Fernando Robles (1980, 1990) defined the early variety Chemax of the Muna Slate Type, placing it in the Blanco Complex (A.D. 300/350-500/600), noting that its stratigraphic position seems to indicate an early variety of Slateware pertaining to the Early Classic period; however, he notes that it is also associated with materials of the Palmas complex which corresponds to the Late Classic. Robles stated that Chemax represents a manifestation that precedes the appearance and standardization of the types of Muna Group, and he characterized the slip of bright brown color of the Chemax variety as not being as homogeneous and waxy as that of the Muna variety. According to Robles, the Chemax variety appears also at Dzibilchaltun and Yaxuna (1990: 108-109).

Muna Slate Group is reported for the Palmas Complex dated A.D. 550/600-700/730 (Robles 1990: 136, 182-186). Robles considered that at Coba Muna Slate Group “*starts in the Palmas complex, though in sporadic fashion and with different forms to those of the Oro complex*” (Robles 1990: 184; my translation). Only three forms of the early Muna Slate Group are listed by Robles (1990: 184-185), but no explanation for this scarcity of forms is given.

The Early Slateware of the Late Classic period was first named Say Slate by Sylviane Boucher (1990, 1992). Boucher found at Sayil examples of Early Slateware associated with materials characteristic of the Copo I phase of Dzibilchaltun, such as polychromes, Fine Gray-ware, Fine Black-Ware etc. These were collected under sealed floors in an Early Puuc style building at Sayil (Carrasco y Boucher 1990: 34).

Based on her work with ceramic materials from the Puuc site of Sayil, Boucher presented a review of the possible antecedents of Say Slate, stating that:

“at least since 600 A.D ... at the end of Early Classic and beginnings of Late Classic, in the Puuc region, Dzibilchaltun, Oxkintok, the Chenes area, Edzna and Coba, certain forms of Early Slate Ware are present, which can coexist or evolve from the local monochrome traditions of red, brown or buff colors ... Compared with the Florescent Slate Ware, generally the paste of

the Early Slate ceramics is less hard. It presents spots or variations in color ranging from buff to brown, and has a less translucent slip” (Boucher 1992: 473; my translation).

For Boucher, an indicator of Early Slateware is the vitrified aspect of the surface, with iridescent areas. Boucher showed how Early Slate Ware consistently falls within a Late Classic timeframe at several sites from northern Yucatan (A.D. 600 and 800). Boucher identifies the characteristic forms of this complex as the following: :

Basins with bolster rim and concave interior profile

‘Chenes style’ Basins

Basins with bolster rims

Basins with striated exteriors without slip, or without slip

Bowls with ring-stand bases and with beveled-out lips

Chultun jars with interior handles or exterior striations below brown slip

Jars with interior concave profile neck and/or hooked rims, among others (Boucher 1992: 473)

The work of Carmen Varela (1998) with the ceramics of Oxkintok enhanced our understanding of Early Slateware. She defined other groups associated with it, such as the Katil Unslipped, and the Red Cassasus. In Oxkintok, the Early Slateware is associated with constructions of the Proto-Puuc B architectural style, pertaining to the Noheb Phase, dated A.D. 600-630 to 713-714 (Varela 1998: 38). Varela stated that early Slateware:

“Presents many traits of Slate Ware, but has not yet acquired the uniformity in surface treatment, keeping some brightness, a greenish hue and many firing spots indicating a period of experimentation with new techniques of production. On the other hand, it retains forms clearly reminiscent of earlier periods (such as basal-break silhouettes, annular supports, etc” (Varela 1998: 41, my translation).

Varela offered another name for the early Slateware: Sat Slateware. Since I follow Say as the name for the Early Slate Group, I will use Sat as the name for the Early Slate Ware. I also use Say as the name for the early slateware undecorated type, and I reserve the name Chemax (proposed by Robles as a variety) as the name for the type Black on Slate of the early Slateware (see the list of Yabnal-Motul ceramics at the end of this section).

2.2.1.2 The Say Slate Group at Chichen Itza

The Motul Ceramic Complex of the Late Classic period was not recognized at Chichen Itza until 1997. In that year I carried out an analysis of the collection of ceramic fragments recovered from the Sacred Well during the 1960 explorations by INAH (Pérez de Heredia 1998). The identification of this early complex confirmed for the first time a Late Classic period occupation of the site. Later excavations by the Chichen Itza Project have increased our knowledge of this complex.

The Say (Early) Slate Ware at Chichen Itza includes the types and varieties shown below. The incised, gouged applied and unslipped types remain unnamed; that task will be completed in a future work on the typology of Chichen Itza's ceramics.

Sat Slateware

Say Group

Say Slate Type: Say Variety

Chemax Black on Slate Type: Chemax Variety

Another Type of Say Slate Ware: **Incised**

Another Type of Say Slate Ware: **Gouged**

Junquillo Impressed: Junquillo Variety

Another Type of Say Slate Ware: **Applied**

Cidra Composite: Variety Cidra

Another Type of Say Slate Ware: **Unslipped**

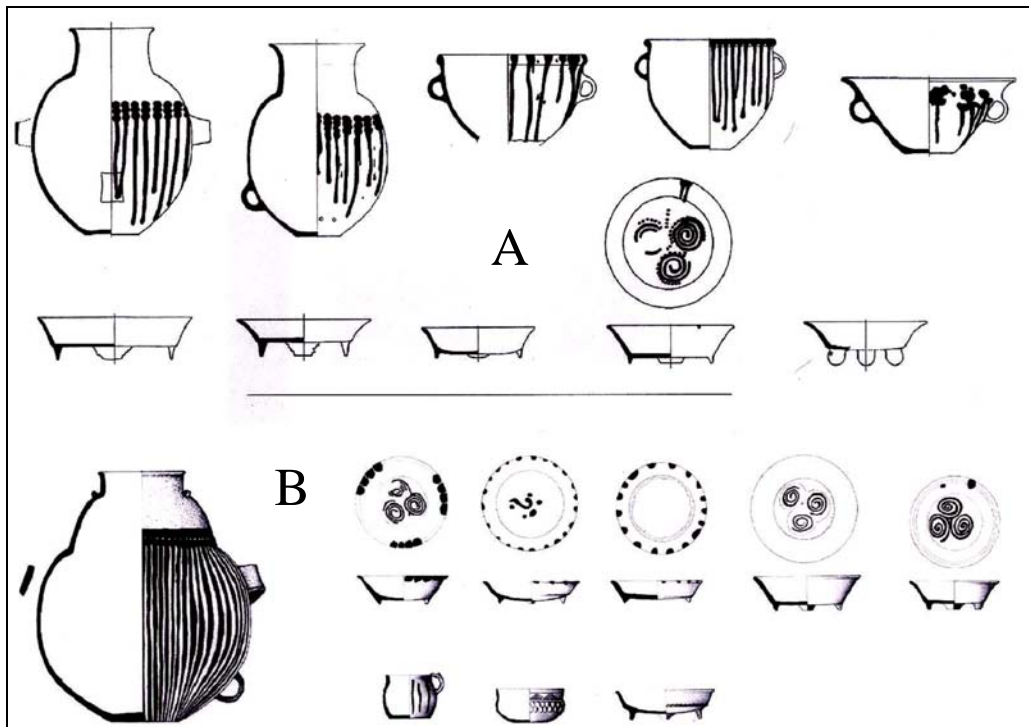
Types of the Say Slate Ware at Chichen Itza

The Say Slate ware of Chichen Itza is characterized by a translucent slip, which highlights the contrasts of the different colors provoked by the usual appearance of spots known as “fire clouds” (see Figure 41a). Fire clouds occur as a result of the vessel's contact with fuel or hot gases during the firing cycle, and is strongly associated with open or pit firings (Shepard 1956: 92). The relatively poor control of the firing process of the Say Slate ware of Chichen Itza results in a wide range of colors grouped around Dull Orange, Dull Brown and Light Gray, with a great variability in the hues (see Figure 41). This variability of colors even occurs in the same vessel, particularly in vessels with a greater exposed surface area such as big jars and basins, rather than in smaller forms such as bowls and plates. The stacking system employed during the firing process of smaller vessels may have further reduced discoloration and contributed to a greater tonal homogeneity for these forms (see Figure 41j-l).

In the case of Chemax Black on Slate Type, the trickled paint makes a distinctive effect because of the frequent loss of the original black color of the design, which ends up in a lighter hue than the slip (see Figure 41). This effect suggests that the painting was applied before the firing. According to Chung (pers. comm. 2003) this effect is also possibly achieved by a double firing of the vessels: the first firing after coating of the slip, followed by painting, and then the second firing. The second firing would be responsible for the burning of the color of the painted designs, and would render them in a characteristic “negative” effect.

The texture of the Say Slate Group at Chichen Itza is compact, even and smooth, but not waxy. Occasionally, Say Slate vessels from the site may exhibit a metallic sheen visible in the slip slip of some areas of the vessels (see Figure 41*a, g*). Other times, if the firing temperatures were especially intense, the slip coat may be entirely burned away lending a texture similar to vessels of the Unslipped Type (see Figure 41*b*). This happens more frequently on large forms, such as jars and basins.

The characteristic forms of Say Slate as based on the collection of complete and restorable vessels recovered by the Chichen Itza Project are shown in Figure 40. Other forms such as grater bowls, small vessels with very restricted mouths, modeled vessels and miniature forms can be identified from fragments in the sherd collection.



**Figure 40: Forms of Say Slateware at Chichen Itza:
Collection A from the House of the Stuccoes (Str. 5C4-I);
Collection B from burials at the Three Lintels Terrace**

The unslipped vessels of Slateware paste are particularly common in this Motul Complex, especially in some small forms. It is also frequent to leave the lower parts of big jars and bowls without coating. Shards of the lower parts of those vessels show the Unslipped Slateware texture mentioned above.

So-called “root marks” or “dendritic markings” of light color are frequent in Say Slate Ware. These marks are also evident on the examples of the Unslipped Slate Ware type. Its causes are as yet uncertain, but according to potter Peter Acadia of Latrobe University (pers. comm. 2005) they could be result of a an imperfect treading of the clay.

The paste of Say Slate ceramics is of high strength and permits the creation of forms of large size with very thin walls. Petrography analysis done by Heajoo Chung on Chichen Itza sherds (Chung 2000) show that the Early Slateware from Chichen contains volcanic glass and volcanic tuff, which is also present in later Slate Wares at the site.



**Figure 41: Variation in Say Slate Group slips and appearance:
Jars (a-f); Basins (g-i); Plates (j-l)**

2.2.1.3 Contexts of the Yabnal-Motul Complex at Chichen Itza

The Middle Facet of the Yabnal-Motul Complex

Once early Say Slate Ware was distinguished from other Slatewares, it became evident that Motul ceramics are abundant at the site. Additionally, it became clear that many of the slatewares had been misclassified previously by many ceramics analysts. For example, frequently, body-sherds of Slateware were misidentified as belonging to the Sotuta Dzitaz Group or as examples of Cehpech Muna Group while diagnostic parts such as rims or slab-legs had been confused with Muna's counterparts. I made the same mistakes at the beginning of my work at the site, but since all collections are still available, I have been able to re-classify the collections and correct the errors (with the exception of the Sacred Well analysis, which is presented here as it was classified in 1997).

In this section I will present the ceramic collections that can be considered as Motul deposition contexts, in order to illustrate the ceramics produced and used at the site during the Late Classic Period. Most of the examples date to the late facet of the Yabnal-Motul Complex. We have not yet found contexts dating to the Early Facet of the Motul Complex nor have we been able to date the beginning of Yabnal-Motul Complex with any certainty. I provisionally follow the traditional dating for the beginning of Yabnal-Motul Complex set at approximately AD 600 by Robert Smith (1971). Peter Schmidt proposed the name Yabnal for Late Classic ceramic complex corresponding to the Motul ceramic sphere in 2000. It is an old name of the city of Chichen Itza, meaning place of abundance.

Our knowledge of the (Late Classic) period at the site begins in the middle of the Yabnal-Motul Complex. At least three large terraces can be dated to the Middle to Middle/Late Facet of the Yabnal-Motul Complex, with a conservative dating around A.D. 650-750: the terrace under the Initial Series Group, the terrace under the Three Lintels Building, and a terrace under the Plaza del Castillo.

The earliest context datable for the Motul Complex in our collections comes from a group of six cist burials I excavated beneath the Yabnal-Motul terrace of the Three Lintels Group during the 2004 season. These burials can be securely dated to the Middle Facet.

CONTEXT M1: Burials in Cists under the Three Lintels platform.

A total of six burials were excavated in 2004 under the Terrace on which rests the Temple of the Three Lintels (Pérez de Heredia 2004b). The bodies were disposed of in extended fashion, lying on their backs, and arranged in two different directions (see Figures 42 and 43). The oldest burials (Cists 1 and 6), an elderly male (1) and an elderly woman (6) were interred with the head facing east, but the bodies themselves were found in a poor state of conservation. The more recent burials are in an upper level, with Cists 2 and 3 partially overlapping the former Cists 1 and 6. This group has the head oriented to the south and consists, from East to West, of a young female (Cist 3), an adult male (Cist 2), an infant inside a big jar (Cist 4), and another young female (Cist 5; identification of sex and age estimate by M. Arias, pers. com. 2004).

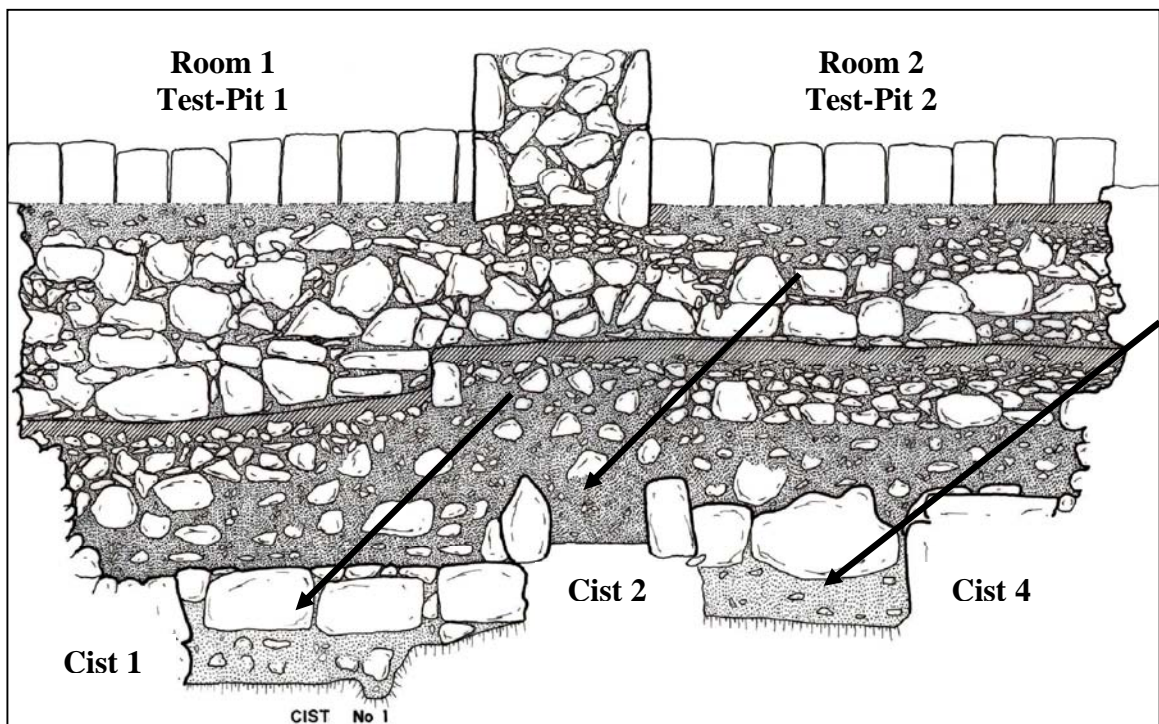


Figure 42: Cists under the Terrace of the Three Lintels Building.
Only three cists are shown in this profile (1, 2 and 4). Notice Cist 2 overlay Cist 1.

Of utmost interest to the research are the 15 ceramic items found in the cists (see Figure 44). Each male cist contained 3 vessels, while the women were interred with only two, with the exception of the woman in cist 5, who only had a big sherd from a jar covering her face. The burial of the infant is formed by three vessels: a big jar lying on its side, with a squared hole in the body made to introduce two bowls, rim to rim, which contained the bones of the child. All of the burials show a bowl (and in the case of Cist 5 a big sherd) face down covering the faces of the deceased; many of the other vessels are situated at the feet (Figure 43).

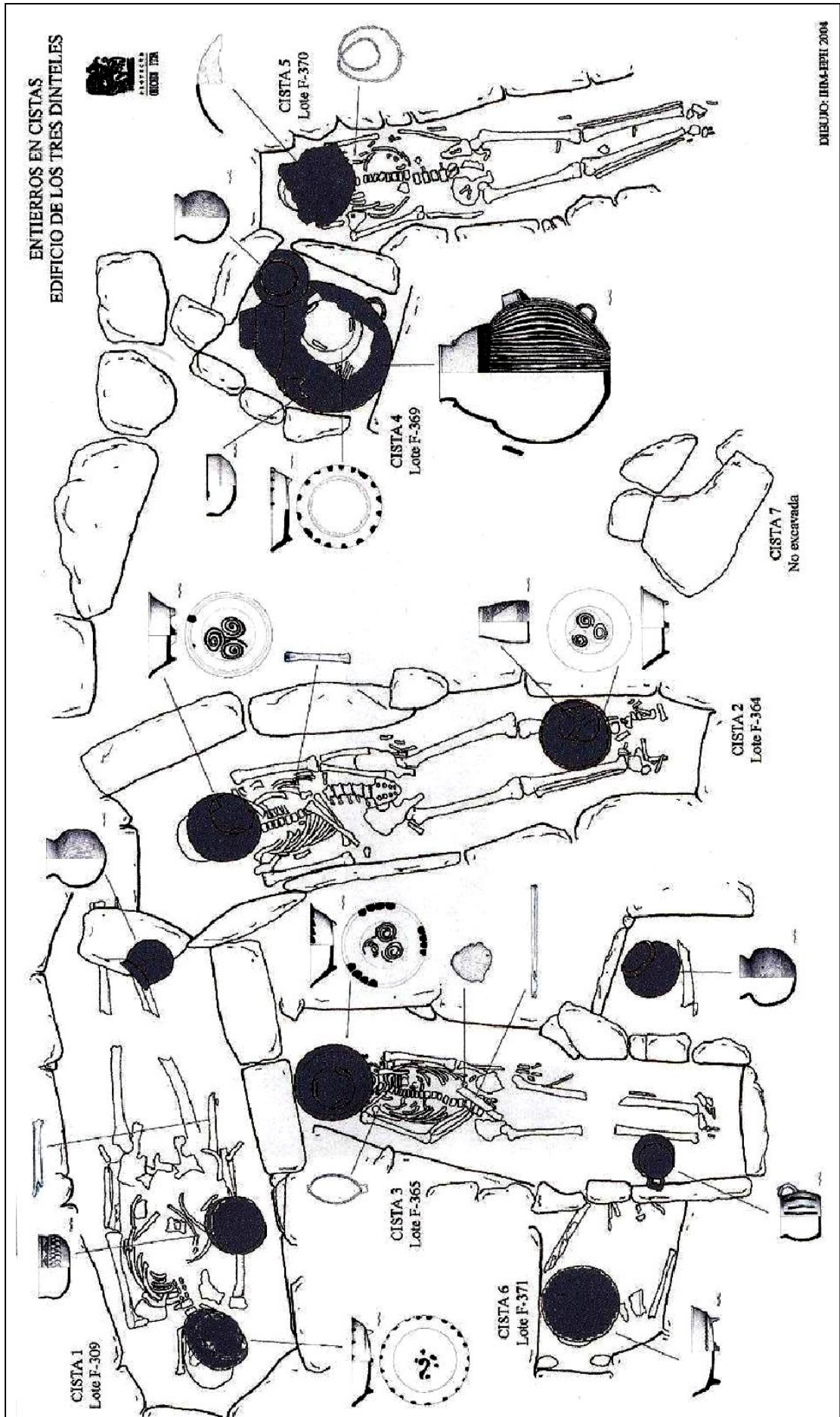


Figure 43: Cists under the Terrace of the Three Lintels Building

All of the vessels pertain to the Yabnal-Motul ceramic complex, and constitute the best complete collection of the period found at Chichen Itza. Seven different ceramic types are represented (see Figure 44): Chemax Black on Slate in *a, g, h, I, j* and *k*; Cidra Composite in *b* and *c*; Junquillo Impressed in *d*; Itzimna Red-Orange Type in *e*. Another Type of the Tohopku Group: Incised in *f*; Katil Striated Type in *l, m, n*, and *o*.

It is difficult to date precisely this collection by itself. It evidently represents a fully developed Motul Complex, and, therefore, should be placed in the Middle or Middle/Late Facet.

The dirt matrix covering the cists contained an important number of sherds and offers an alternative means of (checking) the dates associated with (these burials/ceramics) As we can see in Chart 1, the percentage of Yabnal-Motul ceramics is extremely low. This information can be used to support an earlier, rather than a later, position. A general date in the Early/Middle or Middle Facet of the Yabnal-Motul Complex (ca. A.D. 630-700) seems most likely.

CHART 1: MATRIX OF DARK SOIL COVERING THE CISTS

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	88	55.00%
COCHUAH	39	24.37%
MOTUL	3	1.87%
NOT ASSIGNED	30	18.75%
TOTAL	160	

Lots: F-306, F-307

The structural context of the burials, if any, could not be determined. No floor was found directly over them; however, a distinct stratigraphy is apparent in the profiles of the excavation allowing for the differentiation of the burial's covering matrix of soil from the fill of the posterior Yabnal-Motul terrace (see Figure 42). An alignment of stones in the southwest corner of our excavations could indicate the limit of a household platform, but it is too small a section to be certain (see Figure 43).

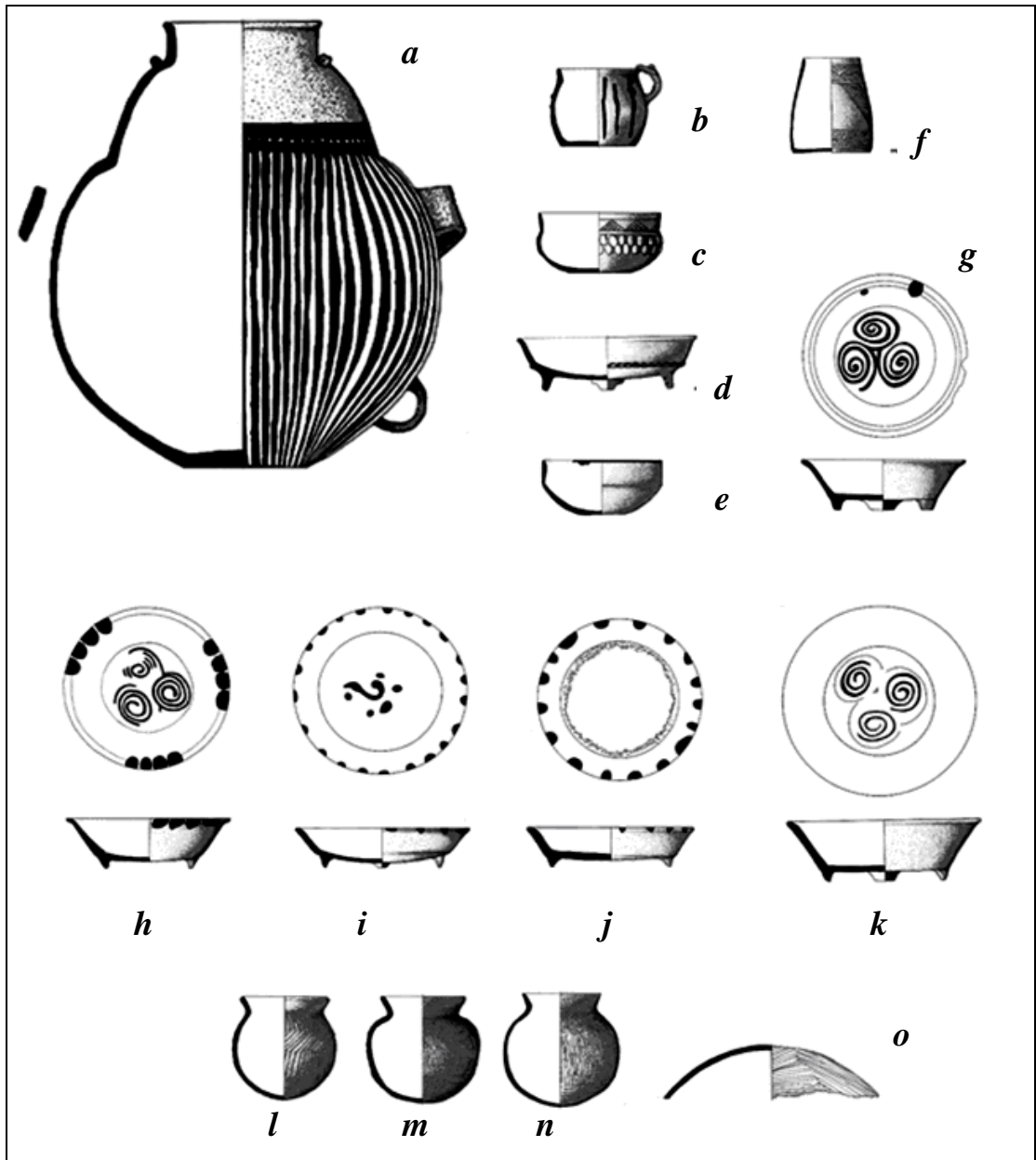


Figure 44: Vessels found in Cists. Terrace under the Three Lintels Building

CONTEXT M2: The Terrace under the Three Lintels Building.

The layer of dark soil that covers the cists was in turn covered by an extensive terrace, whose limits have not been fully mapped. Referred to here as the Yabnal-Motul Terrace, it rises 50 to 80 centimeters over the top of the cists in the area excavated by us (Figure 45). The fill is made of a layer of medium size and small size stones and was covered by a stucco floor, which was found intact (Figure 46). The intact floor strongly supports the placement of the cists as a pre-Terrace phenomenon.



Figure 45: The House of the Three Lintels rests on the Yabnal-Motul Terrace

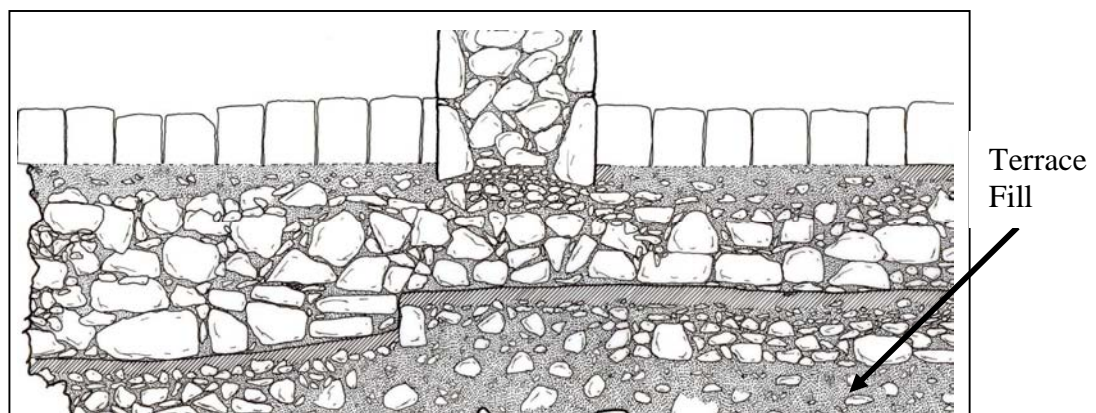


Figure 46: Profile of the House of the Three Lintels on top of the Yabnal-Motul Terrace

Chart 2 shows the ceramic contents of the fill of this terrace as found in Test-pit 1, made in Room 1, while Chart 3 shows the ceramic contents of this platform in Test-pit 2, made in Room 2. The contents are similar in both Test-pits, dating to the Yabnal-Motul Ceramic Complex, but the percentages are different, being Tihosuco more frequent in Test Pit 1, and Yabnal-Motul more abundant in Test-pit 2.

CHART 2: CONSTRUCTION OF THE YABNAL-MOTUL TERRACE UNDER THE THREE LINTELS BUILDING TESTPIT 1, ROOM 1

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	18	60.00%
MOTUL	11	36.66%
NOT ASSIGNED	1	13.33%
TOTAL	30	

Lots: F-304, F-305

CHART 3: CONSTRUCTION OF THE YABNAL-MOTUL TERRACE UNDER THE THREE LINTELS BUILDING TESTPIT 2, ROOM 2

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	26	35.61%
MOTUL	40	54.79%
NOT ASSIGNED	7	9.58%
TOTAL	73	

Lots: F-356, F-359

The sum of the contents of both test-pits is shown in Chart 4. Here, Tihosuco Complex amounts to 42%, while Yabnal-Motul Complex is represented by 49%; therefore, I have concluded that the best timeframe for the construction of the Motul Terrace under the Three Lintels Building would be in the Middle, or Middle/Late Facet of the Yabnal-Motul Complex, between A.D. 650 and 700. If correct, this dating will make this terrace the oldest Yabnal-Motul architectural construction dated so far at Chichen Itza.

CHART 4: CONSTRUCTION OF THE YABNAL-MOTUL TERRACE UNDER THE THREE LINTELS BUILDING, TESTPITS 1 and 2.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	44	42.71%
MOTUL	51	49.51%
NOT ASSIGNED	8	7.76%
TOTAL	103	

Lots: F-304, F-305, F-356, F-359

The Late Facet of the Yabnal-Motul Complex

CONTEXT M3: The construction of the Terrace under the Initial Series Group.

Another terrace at Chichen Itza, this one located underneath the Initial Series Group, can be dated to the Yabnal-Motul Complex (see Figure 47). The dimensions of this terrace are not yet well known, but excavations by J. Osorio (2000-2003) under the building of the Initial Series discovered the northern limit of the terrace (Osorio 2004), later tested and confirmed with other test-pits along the northern limit. The ceramic contents of the fill of this terrace, as shown by the sum of the materials of three different test pits excavated under the Initial Series Building (5C4), is presented in Chart 5. The total collection shows a high predominance of the Yabnal-Motul Complex, with 90.9%.

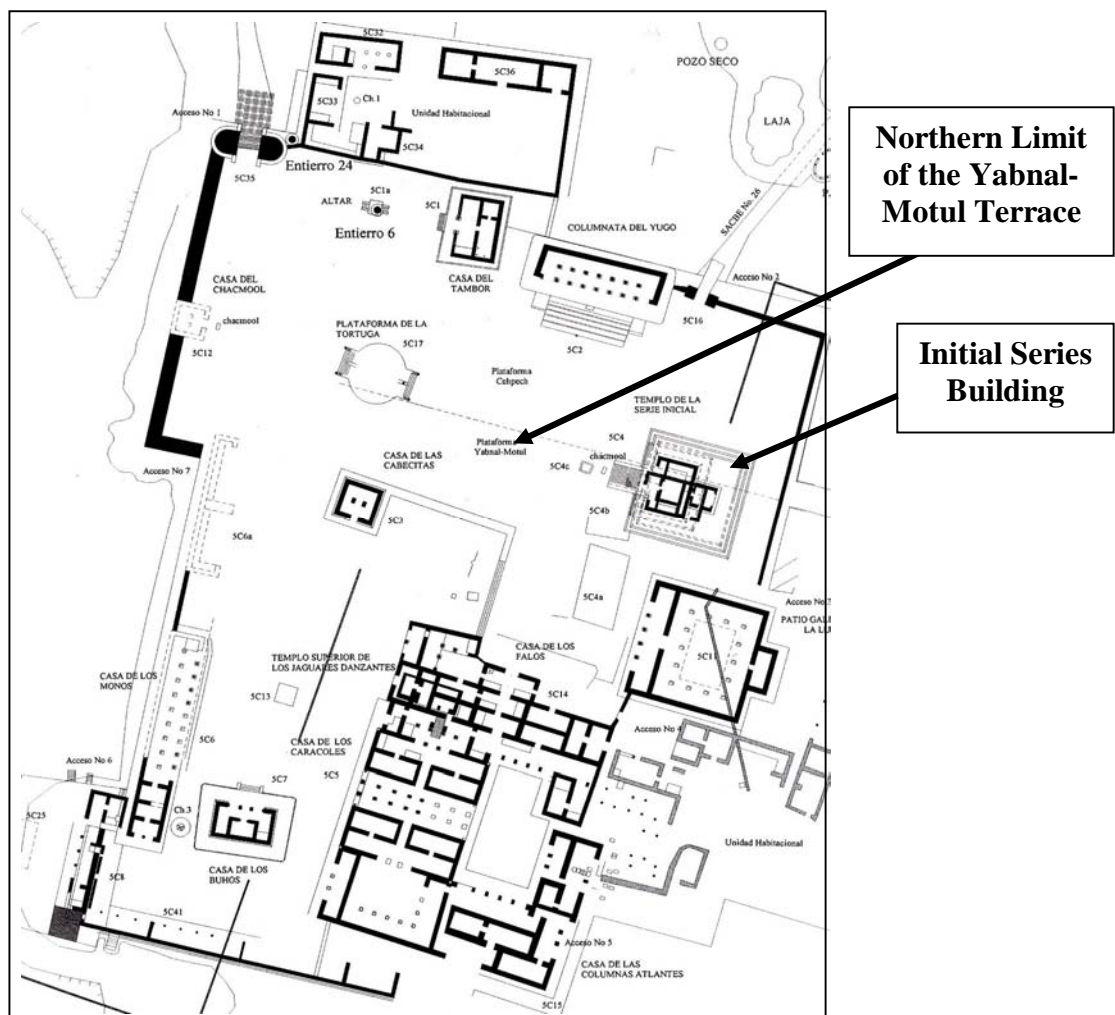
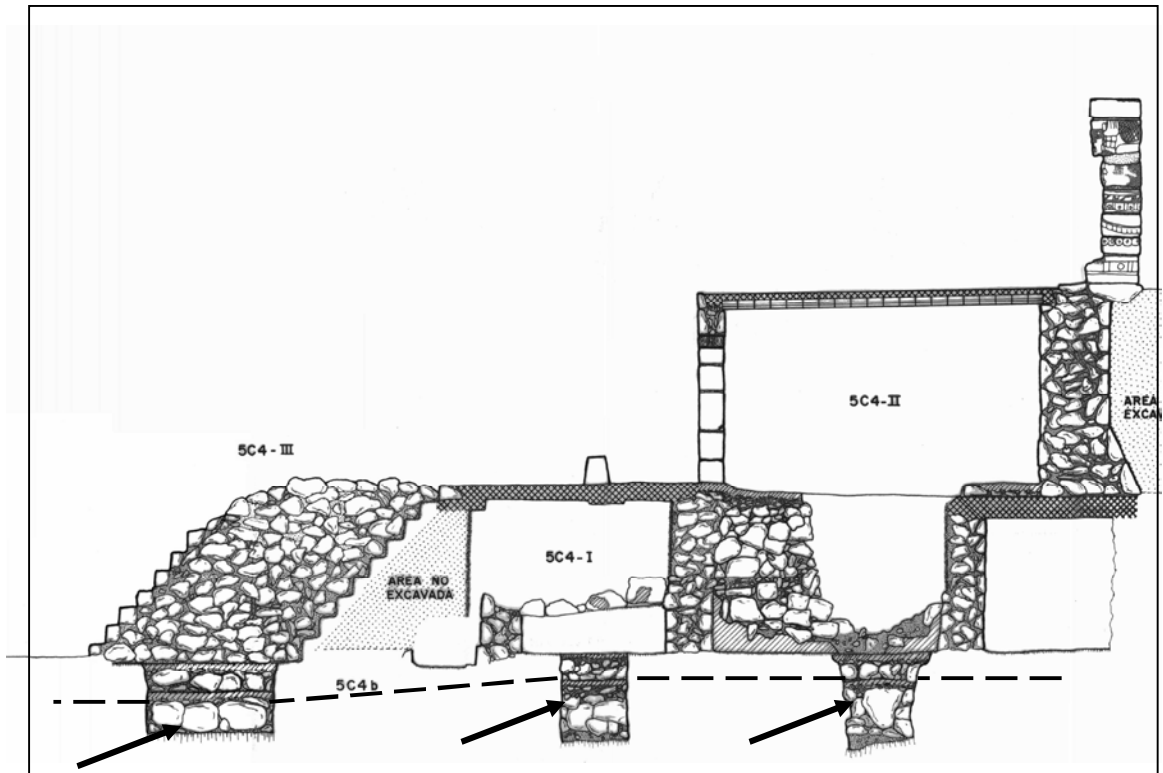


Figure 47: The Initial Series Building location in the Initial Series Group, and the northern limit of the Yabnal-Motul Terrace



**Figure 48 : Location of Test-pits in the Initial Series Building (Str. 5C4).
The lower level corresponds to the Yabnal-Motul Terrace**

CHART 5: CONSTRUCTION OF THE YABNAL-MOTUL TERRACE UNDER THE INITIAL SERIES BUILDING (STR. 5C4).

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	6	5.45%
MOTUL	100	90.90%
NOT ASSIGNED	4	3.63%
TOTAL	110	

Lots: X415C, X420A, X420B, X421A

We have not been able yet to determine the other limits of this terrace. We do know that it extends to the south below the House of the Phalli (Str. 5C14), based on a test pit excavated by Luis García (2003). Though García's excavation produced a smaller collection than that from under Structure 5C4 (consisting only of 19 sherds), it shows a very similar frequency for the Motul Complex, with 94.7% (see Chart 6).

CHART 6: CONSTRUCTION OF THE YABNAL-MOTUL TERRACE UNDER THE PHALLI BUILDING (STR 5C14). TESTPIT IN ROOM 10, LAYER V

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	18	94.73%
NOT ASSIGNED	1	5.26%
TOTAL	19	

Lot: X-147-D

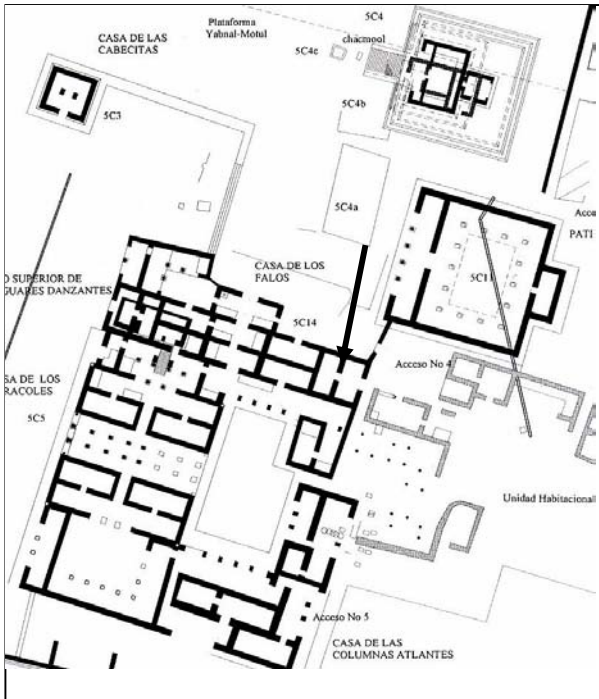
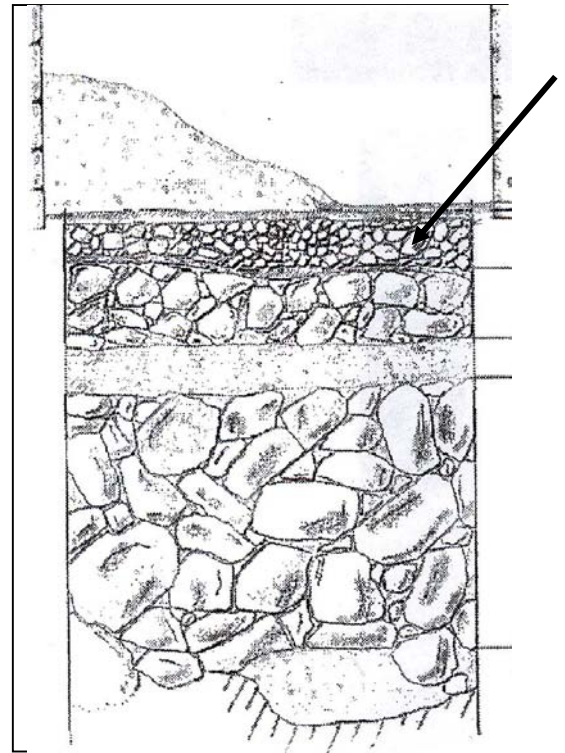


Figure 49: Location of Room 10, House of the



Phalli Figure 50: Fill of Construction of Room 10

Finally, the sum of all the materials analyzed from the interior of this platform is shown in Chart 7. The result shows a percentage of 91.5% for the Yabnal-Motul Complex, which supports a date in the Late or Terminal Facet of this Complex. In this range, covering the eighth century, I would prefer a dating between A.D. 700 and 750.

CHART 7: CONSTRUCTION FILL OF THE YABNAL-MOTUL TERRACE. ALL MATERIALS

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	6	4.61%
MOTUL	119	91.53%
NOT ASSIGNED	5	3.84%
TOTAL	130	

Lots: X415C, X420A, X420B, X421A, X-147-D

Figure 51 depicts an approximation of the possible size of the Initial Series Yabnal-Motul Terrace.

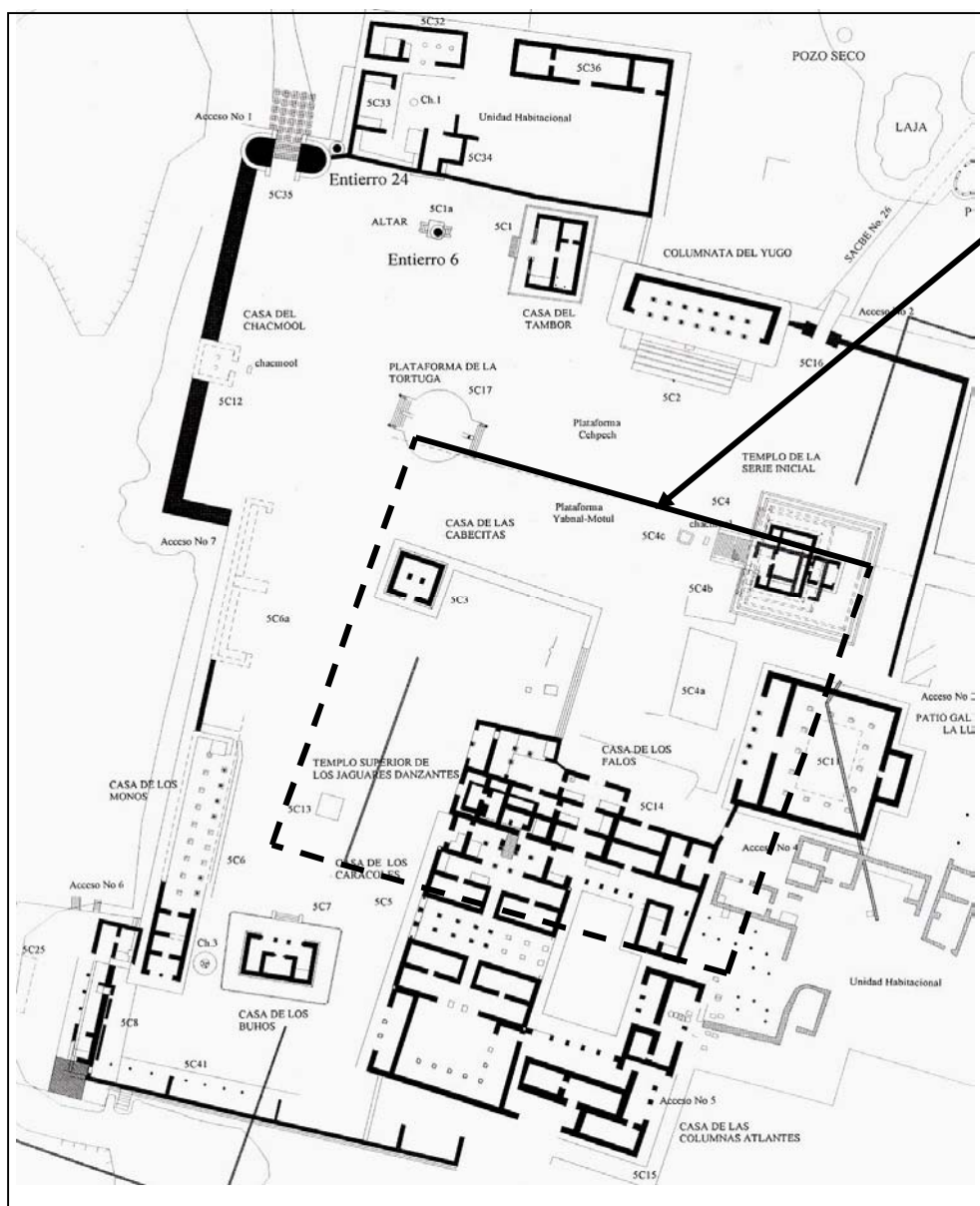


Figure 51: Estimated extension of the Yabnal-Motul Terrace

CONTEXT M4: Terrace levels under the Plaza del Castillo (Great Terrace)

During the excavation of trenches for the boxes of the Light and Sound Show Installation at the Plaza del Castillo (or Great Terrace) in the late 1970s, ceramic materials were collected by P. Schmidt (Collections CHI-79). These have been analyzed only recently. Many of these test-pits show terrace levels sealed by floors with construction fills of pure Yabnal-Motul Complex deposits. In Chart 8 only a small sample of the ceramics has been charted. The results of the analysis of these collections will be presented in a near future (Schmidt and Pérez de Heredia in preparation; see also Context C10).

Chart 8: Test-pit # 19 at the Terrace of El Castillo, between floors 3 and 4

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	16	100%
TOTAL	16	

Lots: CHI-79-40



Figure 52: Area of Trench 19 of the Light and Sound Show Installation

The Late and Terminal Facets of the Yabnal-Motul Complex

CONTEXT M5: The construction fill of the House of the Stuccoes (Str. 5C4-I).

On top of the Yabnal-Motul Terrace of the Initial Series Group a masonry building was erected (known as the House of the Stuccoes Str. 5C4-I; see Figure 54; Osorio 2004). This is the first formal building to be firmly dated to the Late Classic Period found at Chichen so far (Osorio and Pérez de Heredia 2001). Other elaborate constructions such as the substructures under the Monjas Complex most likely date to the same phase, however, the ceramic collections from these contexts are unavailable.

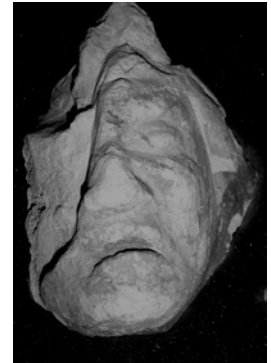


Figure 53: Stucco Head

The House of the Stuccoes consists of a small building of three rooms of masonry, with walls constructed of stone and mud, and covered by stucco plaster, as are the floors (see Figure 55). The roof was possibly made of perishable materials (Osorio 2004). The abundant fragments of modeled stucco found in the fill of the building's next phase of construction suggests that a portion of the frieze or upper wall was originally adorned with modeled stucco sculpture of anthropomorphic figures (see Figure 53).

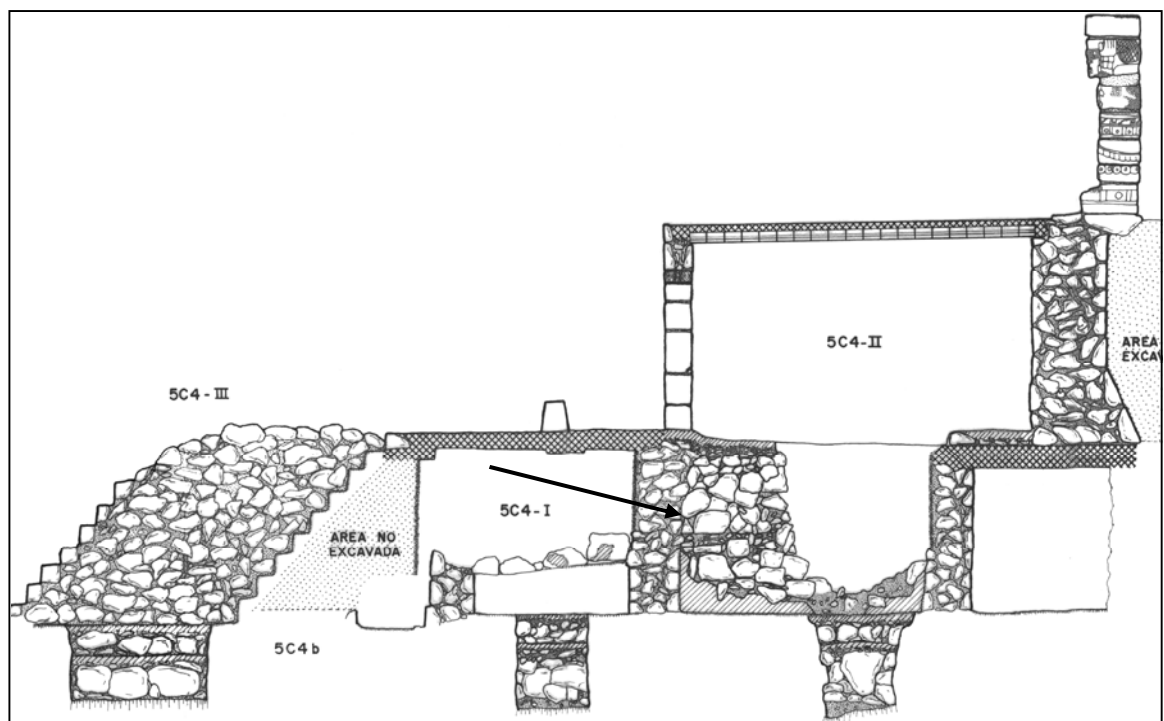


Figure 54: The House of the Stuccoes (Structure 5C4-I)

The ceramic materials from the interior of the construction of Structure 5C4-I, shown on Chart 9, illustrate a high amount of Yabnal-Motul Complex fragments (91.3% of a collection of 209 sherds). We do not know if it was constructed immediately after, shortly after, or much later than the Motul platform. Based on the high frequency of Yabnal-Motul sherds, a date in the very late facet of the complex is reasonable; therefore, I suggest a date between A.D. 750 and 800 for this construction.

**CHART 9: CONSTRUCTION OF THE HOUSE OF THE STUCCOES (Str. 5C4-I)
INITIAL SERIES GROUP**

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	10	4.78%
MOTUL	191	91.38%
NOT ASSIGNED	8	3.82%
TOTAL	209	

Lots: X415, X415A, X415B, X420, X421



**Figure 55: The House of the Stuccoes, Str. 5C4-I; South Wall of Room 2.
Notice plastered walls and spots of fire evidence in the lower corner**



Figure 56: The House of the Stuccoes, Str. 5C4-I

CONTEXT M6: The destruction of the House of the Stuccoes (Str. 5C4-I), Initial Series Group.

Our excavation suggests that the House of the Stuccoes was deliberately destroyed in antiquity: much of the structure was razed and its thatch roof burned. Its polychrome stucco decoration was most likely smashed into pieces. On top of the remains, a new building, 5C4-II, was constructed with a more elaborate masonry technique (Osorio and Pérez de Heredia 2001; Osorio 2004).

An excellent collection of materials was found lying directly on top of the floor with the largest concentration outside the west façade of the building (see Figure 57). Given the fact that the next construction phase (Str. 5C4-II) pertains to the following Cehpech complex (see Context C6), it can be reasonably argued that these materials mark the Terminal Facet of the Yabnal-Motul Complex (see Chart 9). I propose a date around A.D. 800-830.

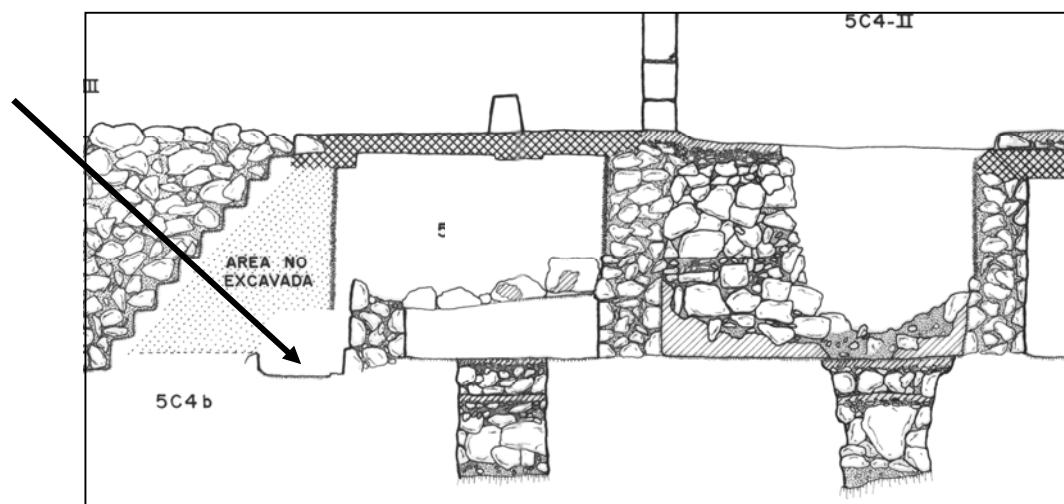


Figure 57: Ceramic deposit location outside 5C4-I

This deposit consists mainly of ceramic sherds and several restorable vessels with traces of burning shown in Figures 58 and 59. It represents the ceramic inventory of the last occupants of the building before its destruction.

The Yabnal-Motul ceramics are mostly of Say Slate Ware, but they also contain an excellent example of Yabnal-Motul Unslipped Ware (see Figure 72). They are an important collection of forms, which can be considered, for modal seriation purposes, as the end of the evolution of Yabnal-Motul vessel forms.

No specialized ritual ceramics were found in this context. The ceramics are mostly utilitarian forms (see Figure 59), such as large jars (*a, b*), large basins (*c, d, e*), and slab-footed plates (*f, g, h, j*). An example with hollow legs (*i*) is also present. The basin

with inverted bell-shape profile in *e* is a very unusual form in the repertory of forms of this period; it will be copied during the early facet of the Cehpech Complex.



Figure 58: Some Yabnal-Motul vessels from the ceramic deposit on 5C4-I

CHART 10: MATERIALS FROM THE ABANDONMENT OF THE HOUSE OF THE STUCCOES, INITIAL SERIES GROUP, LYING ON TOP OF THE FLOORS

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	6	0.35%
COCHUAH	16	0.95%
MOTUL	1646	97.79%
NOT ASSIGNED	15	0.90%
TOTAL	1683	

LOTS INCLUDED: X411F, X411H, X411I, X411J, X411K, X411L, X411M, X412C, X413C, X143D, X413E, X425.

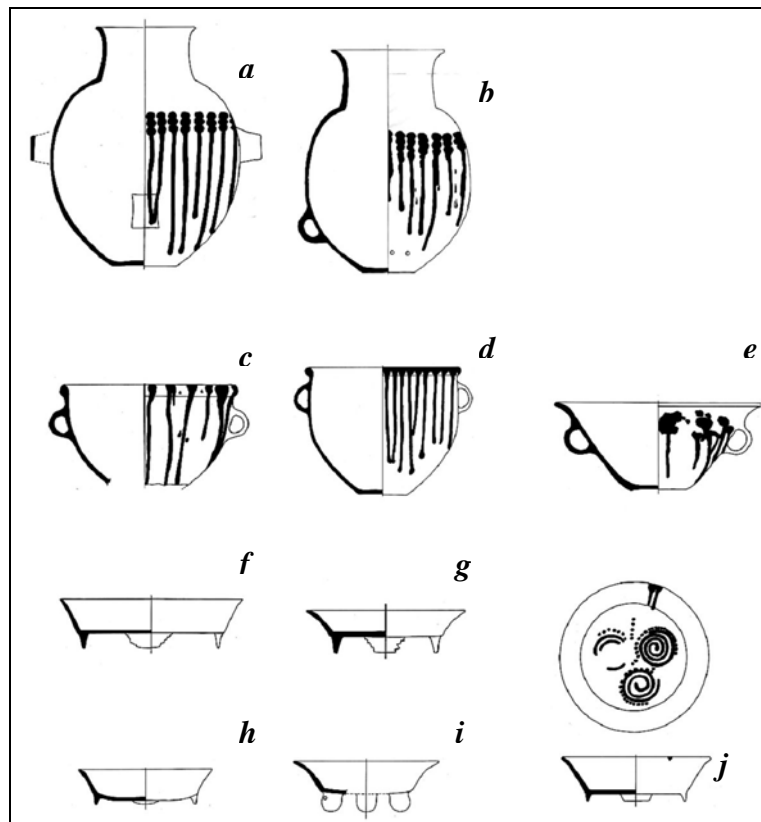


Figure 59: Complete forms of the Say Slate Group from the ceramic deposit on 5C4-I

CONTEXT M7: The construction of the Lower Platform of the Caracol (Str. 3C15)

The Carnegie Institution excavated the Observatory, also called the Caracol (Str. 3C15), between 1925 and 1931 (Ruppert 1935; see also Context M8). According to the latest analysis of the inscriptions on the Caracol, there are at least three different calendar dates. Only one of these dates, the Hieroglyphic Serpents, can be definitively attached to the Caracol construction with some certainty (Grube, Lacadena and Martin 2003; Graña 2002). Of the other two dates mentioned, the earlier appears in Block 9 and dates between July 876 and July 877 A.D. The second date appears in Block 17 and falls between A.D. May 884 to May 885; this date also appears in Panel 1 of El Caracol (Voss 2001).

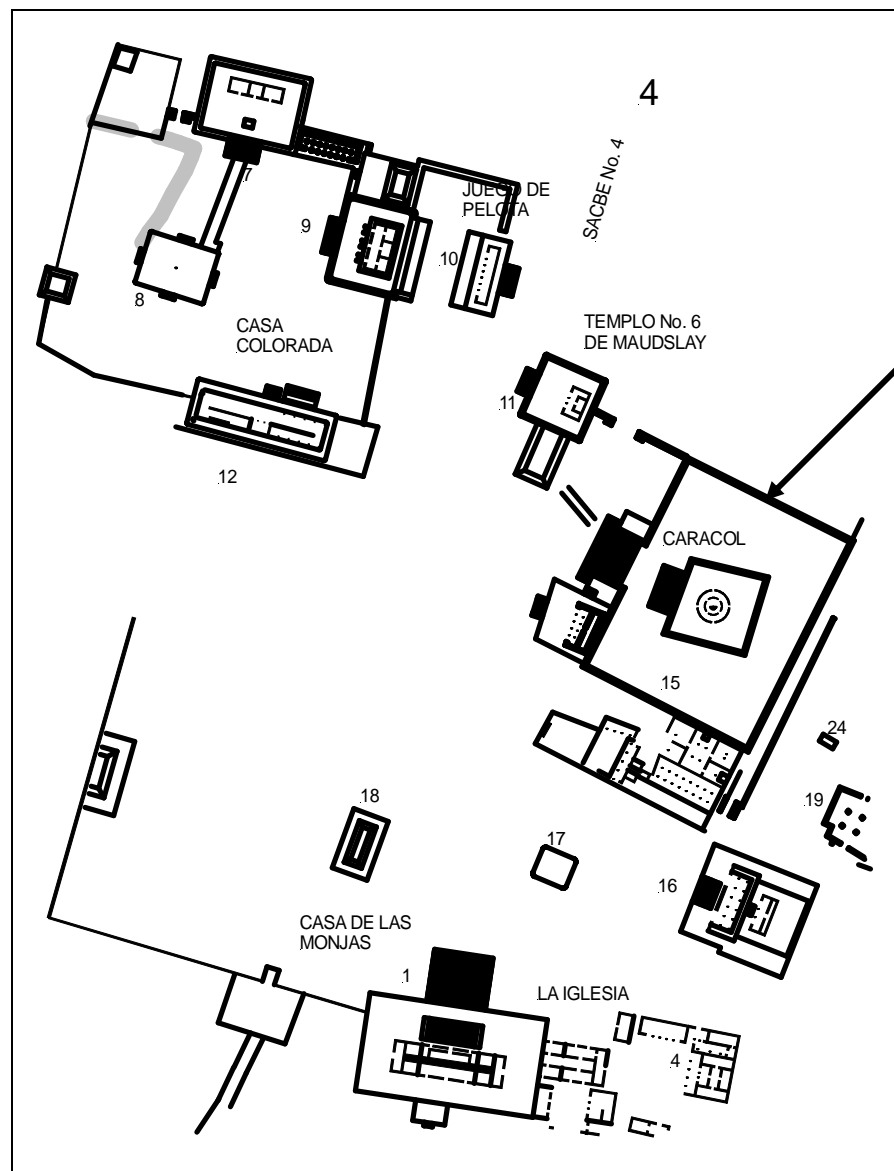


Figure 60: The Caracol location

Alexander Voss proposed a possible reading of A.D. 911 for the date pictured in Block 18 (2001: 157). If correct, it would place the Caracol as the latest dated monument of Maya-Puuc architecture at the site, but since the date remains in question. I accept here only the two earlier dates. From a stratigraphic point of view, we can say with fair certainty that the First Circular Platform, which antedates the Caracol itself, and the Lower Platform, which antedates the First Circular Platform, must be dated before A.D. 885 (see Figure 65).



Figure 61: The Caracol Lower Platform

Some of the ceramics excavated at the Caracol were analyzed by Brainerd (1958).

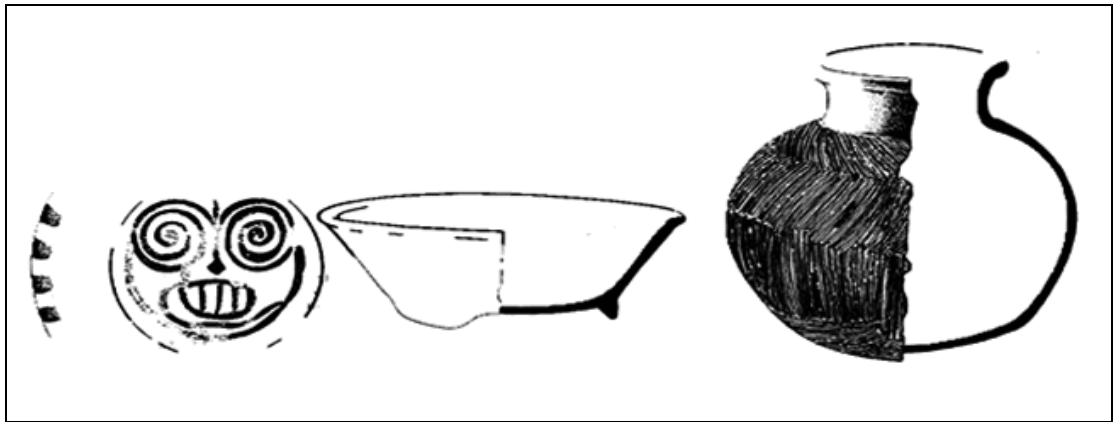
The ceramics:

“Consist almost entirely of fragments accumulated during occupation of the building and in debris left by later visitors. Fortunately for ceramic dating of the main structure of the Caracol, several vessels were found cached during its construction. In the absence of sherds which definitely antedates parts of the construction, these pieces are of prime dating value” (Brainerd 1958: 36).

Of the caches found at the Caracol, the most important one is possibly that found *“25 cm. below the lower platform floor on north side of upper platform, a striated jar and a Medium Slateware bowl”* (Brainerd 1958: 36-37; see Figures 62, 63). According to Brainerd, *“the slab-legged, Medium slateware basal break bowl is very close to the material from Yaxuna, Dzebtun, and Mani, and dates either Early Florescent or is a*

regional variant contemporaneous with, though typologically earlier, than the Puuc pottery” (Brainerd 1958: 37).

I agree with Brainerd’s appreciations of the bowl, but without a first-hand examination of the vessel, I cannot definitively identify it as either Yabnal-Motul or as Cehpech Slateware. The striated jar resembles vessels from the Three Lintels burials and can clearly be identified as a Motul vessel. I can, therefore, refine Brainerd’s earlier description of the Caracol cache and state that this cache includes two Yabnal-Motul vessels or a Yabnal-Motul jar and a Cehpech bowl. If both vessels are definitively Yabnal-Motul, then the lower platform of the Caracol will show a construction fill of pure Yabnal-Motul ceramics. However, if the vessels are identified with the second scenario as a Motul jar and a Cehpech bowl, then the lower platform will yield an early Cehpech context. A date around A.D. 830 seems to be somewhere in the middle of both scenarios.



**Figure 62: Cache found below the lower platform floor on north side of upper platform
Brainerd 1968; figs: 67a, 68a**



**Figure 63: Cache found below the lower platform floor on north side of upper platform
Ruppert 1935; fig: 47**

CONTEXT M8: The construction of First Circular Platform of the Caracol (Structure 3C15)

Another cache located on the Caracol was placed “*in a cyst in the lower platform at the center of the first circular platform, sealed in place by construction of this platform, an unslipped, striated jar*” (Brainerd 1958: 37; see Figure 64). This jar is almost identical to those found in the cists of the Three Lintels’ terrace of the shown previously (Context M1). The cache’s position in the construction sequence of the Caracol (see Figure 65) supports a placement in the Late Facet of the Yabnal-Motul Complex or the beginning of the Cehpech Complex; a date close to that in the previous context of the lower platform is therefore recommended, ca. A.D. 830-850.

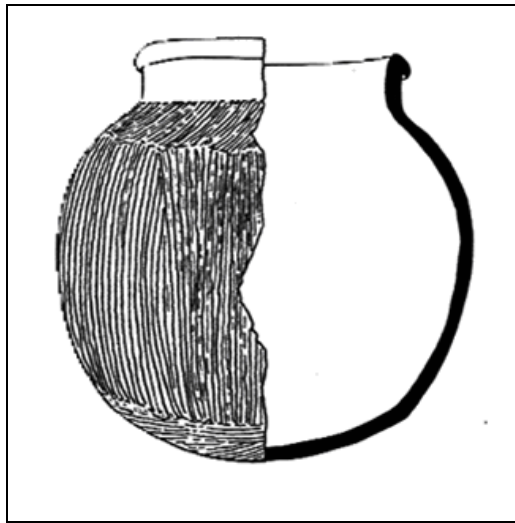


Fig 64: Cache in cyst in lower circular platform (Brainerd 1958; fig. 68e)

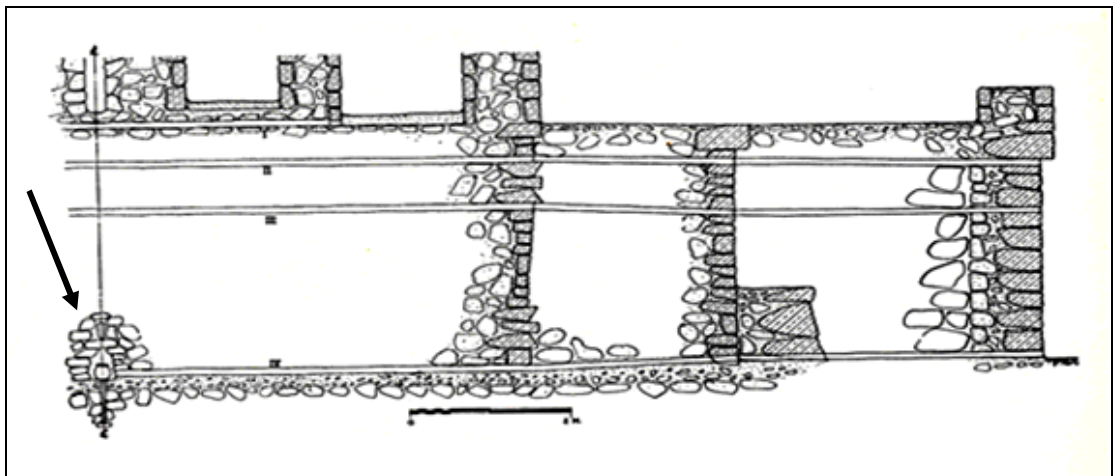


Figure 65: Vessel in Cist inside lower circular platform (Ruppert 1935, fig. 99)

CONTEXT M9: The construction of the First Platform of the Monjas Building

Some sherds of the Monjas complex were classified by Brainerd (1958):

A collection of five sherds which may antedate platform 1 and certainly is not later than platform 2, shows sherds of waxy orange slipped ware similar to certain sherds of the Coba Group B period (late Regional). This is faint evidence, but suggests that construction at the Monjas group may have been started at this period, which is strongly represented at Yaxuna (Yaxuna III), not far from Chichen Itza to the south” (Brainerd 1958: 42, 43).

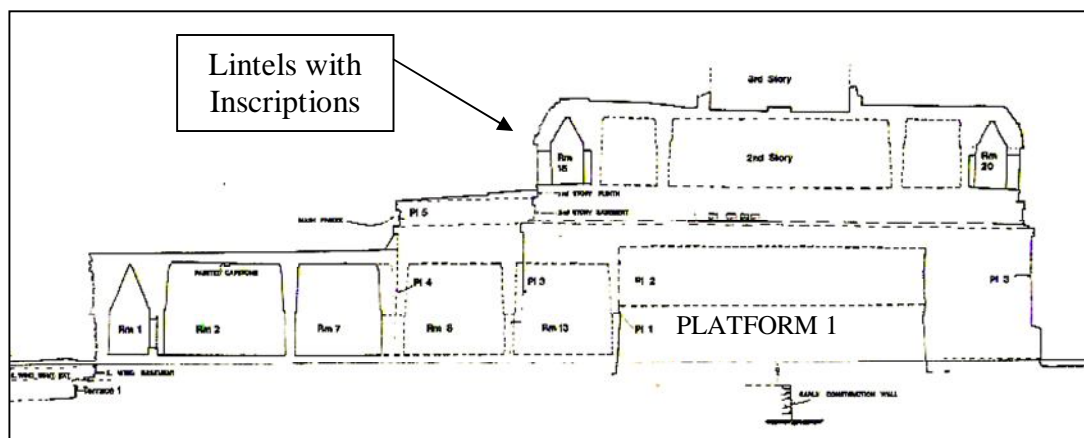


Figure 66: The Monjas Building Construction Sequence (after Bolles 1977: 44)

Although the construction phases of the complex have not yet been securely tied to ceramic dates, because the loss of collections, it is clear that working backwards from the calendric inscriptions of the second story Monjas lintels dated A.D. 880 through to the earliest constructive sequence of the building, the sub-structures enter into the Late Classic period (see Figure 66). It is very possible then, that by the Late Facet of the Yabnal-Motul Complex, around A.D. 750-830, this area constituted one of the settlement's focal points. It should not be very surprising that Motul substructures were to be found also under the neighboring platforms of the Red House and House of the Deer.

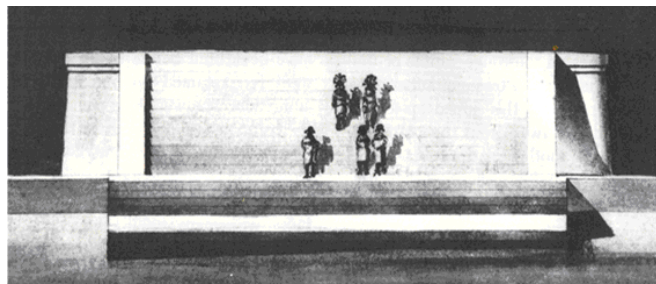


Figure 67: Reconstruction of Platform 1 of the Monjas Building (Bolles 1977: 86)

CONTEXT M10: The Sacred Well

A collection of ceramics from the Sacred Well was recovered during the 1960s excavations.. In 1998 I analyzed the recovered material and was the first to identify the presence of early Slate Ware of the Yabnal-Motul Complex at Chichen Itza (Pérez de Heredia 1998). A total of 2,368 sherds (representing 3.7% of the collection) were classified as pertaining to the Yabnal-Motul complex. Since current understanding of early Slate Ware (Say) is much more advanced than that used to analyse the sample in 1998, I believe the collection must be reexamined, because percentages of Motul may likely be bigger.

In any case, the Yabnal-Motul ceramic collection from the Sacred Well is not only important for its quantity, but also for the diversity of ceramic types represented, the most varied found so far at the site with 18 different types (see below). Several of these types are not locally produced and can be used to trace possible political and/or trade connections.

CHABLEKAL GROUP Chablekal Gray Type: Variety Chablekal Chicxulub Incised Type: Variety Chicxulub	CONKAL RED GROUP Conkal Rojo Type: Variety Conkal
YALCOX BLACK GROUP Yalcox Black Type: Variety Yalcox	DZITYA BLACK GROUP Algarrobo Modeled Type: Variety Algarrobo
NOT DESIGNATED GROUP Tres Marías Striated Type: Variety Tres Marías	BECANCHEN BROWN GROUP Becanchen Type: Variety Becanchen
TINAJA GROUP Tinaja Type: Variety Tinaja Pantano Impressed Type: Variety Pantano Corozal Incised Type: Variety Corozal Another Type of the Tinaja Group: Modeled Another Type of the Tinaja Group: Gadrooned	SAY (EARLY) SLATE GROUP Say Slate Type: Variety Say Chemax Black on Slate Type: Variety Chemax
NOT DESIGNATED GROUP Cizin Striated Type: Variety Cizin	TOHOPKU THIN SLATE GROUP Tohopkú Thin Slate Type: Variety Tohopkú Another Type of the Tohopkú Group: Apliqué
	RED GROUP Casassus Red Type: Variety Casassus

Yabnal-Motul Ceramic Types from the Sacred Well



Figure 68: The Sacred Well

CONTEXT M11: Infant Burial at the Mayaland Hotel

Two vessels were found during the installation of an electric cable at the Mayaland Hotel formed part of an infant burial (F. Pérez 1996), a basin and a tripod plate. Both vessels show extensive wear and both form part of the Say Slate Group (Chemax Black on Slate type; see Figure 69). A small frog decorates the interior of the plate in its center.

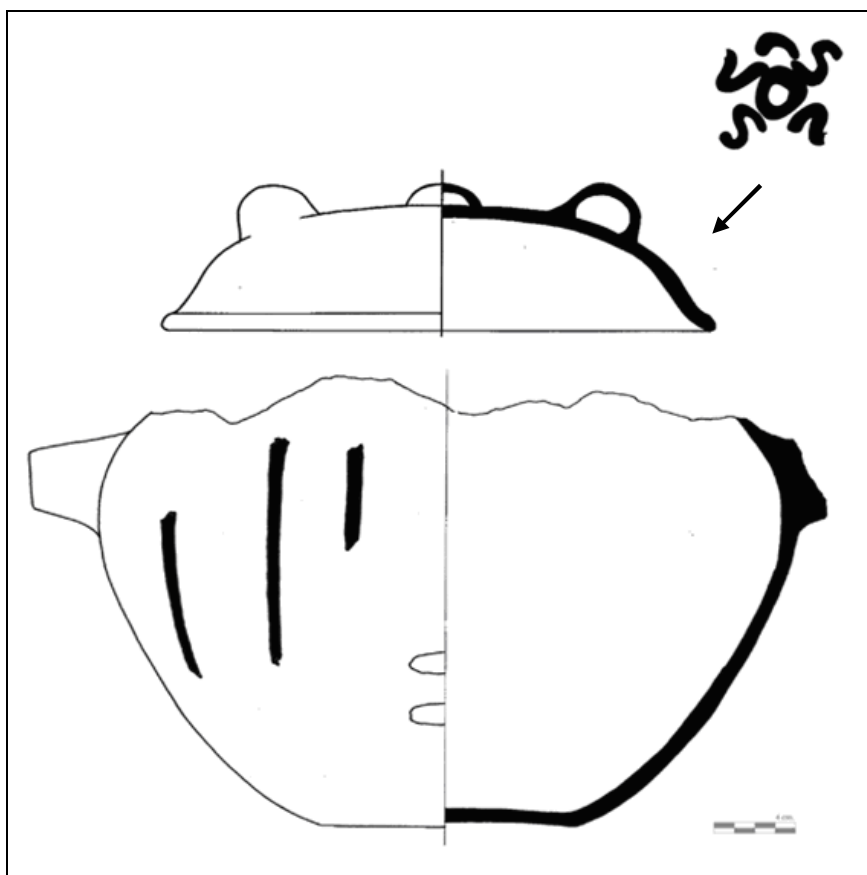


Figure 69: Infant Burial from the Mayaland Hotel

The jar was cut unevenly under the shoulders to increase the size of the mouth in order to accommodate the infant inside. The plate, placed upside down on the jar, served as the lid for the burial. This burial is comparable to those presented in Contexts C17, and C18. Because of the shape and hollow legs of the plate, I suggest a placement in the Late Facet of the Yabnal-Motul Complex, ca. A.D. 750-830 for this burial.

OTHER YABNAL-MOTUL COMPLEX COLLECTIONS

The collection of the Three Lintels Building's chultun, re-analyzed in 2004, yielded an important representation of Yabnal-Motul ceramics: a total of 4,958 sherds, 19% of the collection, pertain to the Yabnal-Motul Complex.

Chultun Xnaba (Lot G-72) presents an even heavier concentration of Yabnal-Motul ceramics: 635 sherds, which represent 37.9% of the contents of that context. Another chultun with a considerable, but smaller representation of the Yabnal-Motul Ceramic Complex is the Chultun del Basurero (Lot G-68), with 294 sherds representing 6.4% of that collection.

A layer of black soil was found under the East Stairway of the Osario Pyramid that may be a result of a refuse accumulation from an occupation of the area pre-dating the construction of the pyramid. . The percentage of Yabnal-Motul ceramics in this layer is high, 62.9%, and dates the formation of the deposit to the Middle to Middle/Late Facet of the Late Classic period (See Chart 11).

Chart 11: Materials from a layer of black soil under East Stairway of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	6	6.74%
COCHUAH	2	2.24%
MOTUL	56	62.92%
NOT ASSIGNED	25	28.08%
TOTAL	89	

Lot: H-150

Ceramics from Rejollada Poxil show a 74.2% of the Yabnal-Motul complex, with 72 sherds. On the Group of the Cornisas Esculpidas, a surface collection by F. Perez (1993, Lot C50) in the Structures 3F42 to 3F54, yielded a total of 162 Yabnal-Motul Complex fragments, representing 19.5% of the sample.

Several surface collections on the East Group or Bóvedas Group, also by F. Pérez (1993; Lot C45, C46, C47, C48, C49), taken together, amount to a total of 296 sherds of the Yabnal-Motul Complex, representing a 27.5% of the materials of that architectural group.

Another important collection comes from the Group of Structures 3F46, 3F47 and 3F48. Ceramic material of these structures, taken together, amount a total of 178 sherds of the Yabnal-Motul complex, representing a 26.4% of those materials (F. Pérez 1993; Lots: C51, C52, C53). The group of Structure I of Ikil, east of Chichen Itza, excavated by Carrillo and Osorio (1997; Lots M1 to M494), yielded a collection of 350 Yabnal-Motul sherds (14.4%).

Finally, mention must be made of two complete plates of Say Slateware of the Yabnal-Motul complex excavated by P. Schmidt in 1985 during the construction of the Tourist Entrance west of the Great Terrace (Figures 70 and 71). Both plates are housed at the “Palacio Cantón” Museum in Mérida.



Figure 70: Say Slateware, area of the Tourist Entrance, Chichen Itza



Figure 71: Say Slateware, area of the Tourist Entrance, Chichen Itza

2.2.1.4 Other Groups of the Yabnal-Motul Complex at Chichen Itza

The most varied deposit for the Yabnal-Motul Complex is the Sacred Well presented in Context M10. Not many complete vessels others than of the Say Slate Group have been yet found. A revision of the different wares represented at our collections is given on next pages.

Several small size jars of striated unslipped surface of the Late Classic Period are present in the cists under the Three Lintels Terrace (see context M1). In the Substructure of Initial Series Building (5C4-I), a good collection of sherds of Katil Unslipped Type jars of medium and big size was recovered (Figure 72, see Context M6).



Figure 72: Katil Unslipped Type. House of the Stuccoes, Initial Series Building (Str. 5C4-I)

Also in this sub-structure small sherds were found of an unidentified type of Fine Orange Ware, of Chablekal Fine Gray Type and a Fine Black type whose provenance most likely lies in the region of Tabasco (Sylviane Boucher, pers. comm. 2003)

The Casassus Red Group is scarcely represented at Chichen Itza so far, and our collection of sherds is still very small. Several vessels have been classified in this group: three vases from the Sacred Well (See Figure 73 *a, b, c*) and the basin from Burial 6 (*d*; see Context C18).

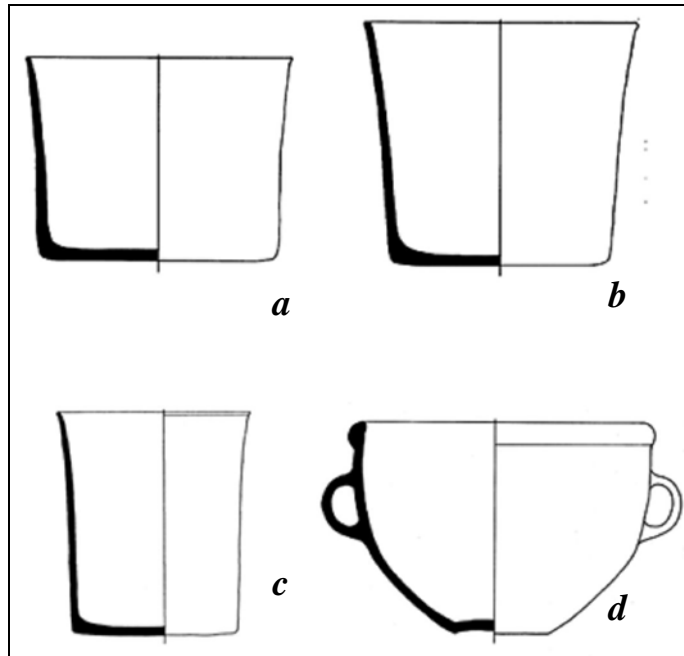


Figure 73: Vessels of the Casassus Red Group

Vases of the Casassus Red Group are very similar in form to some examples of Tohopku Thin Slate Group also found in the Sacred Well (Figure 74).

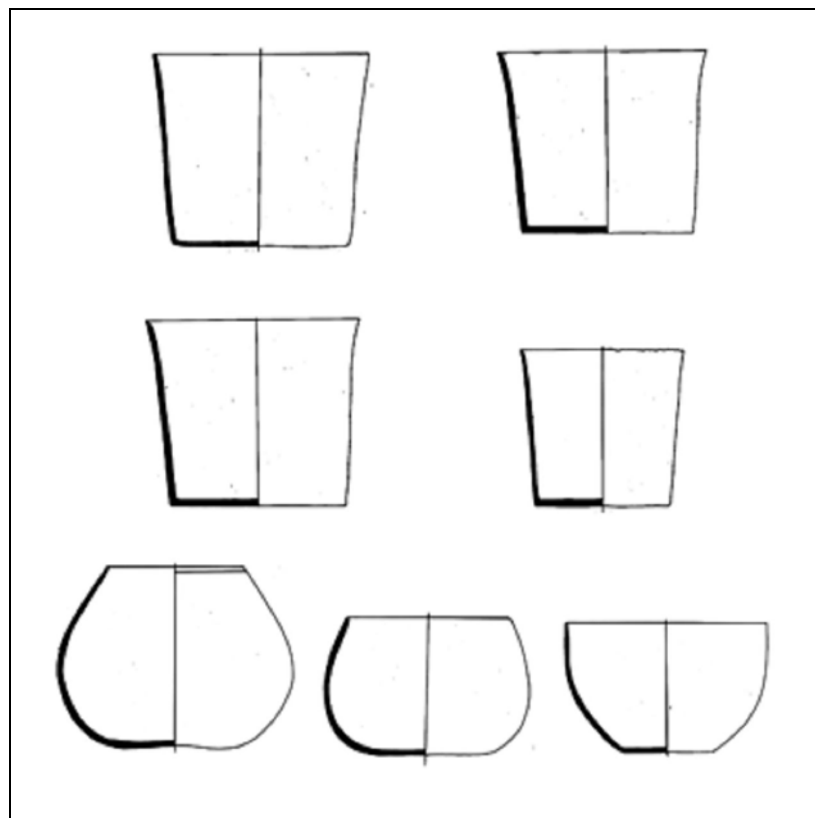


Figure 74: Vessels of the Tohopku Thin Slate Group

Finally, some imported wares of the Yabnal-Motul Complex are shown in Figure 75. In the Sacred Well imported wares from this period were found, such as the Tres Mariás Striated Type (Figure 75: *c*) showing connections with south of Quintana Roo and northern Belize, where it is called Aventura type; the Tinaja Group (75 *a, b*) which shows relations with the Petén area. The vase in Figure 75*c* is an example of a carved Fine Orange vase with an image of characteristic Late Classic style, from the Chultun of Three Lintels. Finally, some Becanchen Brown Type sherds, not shown here, are related with the Rio Bec area)

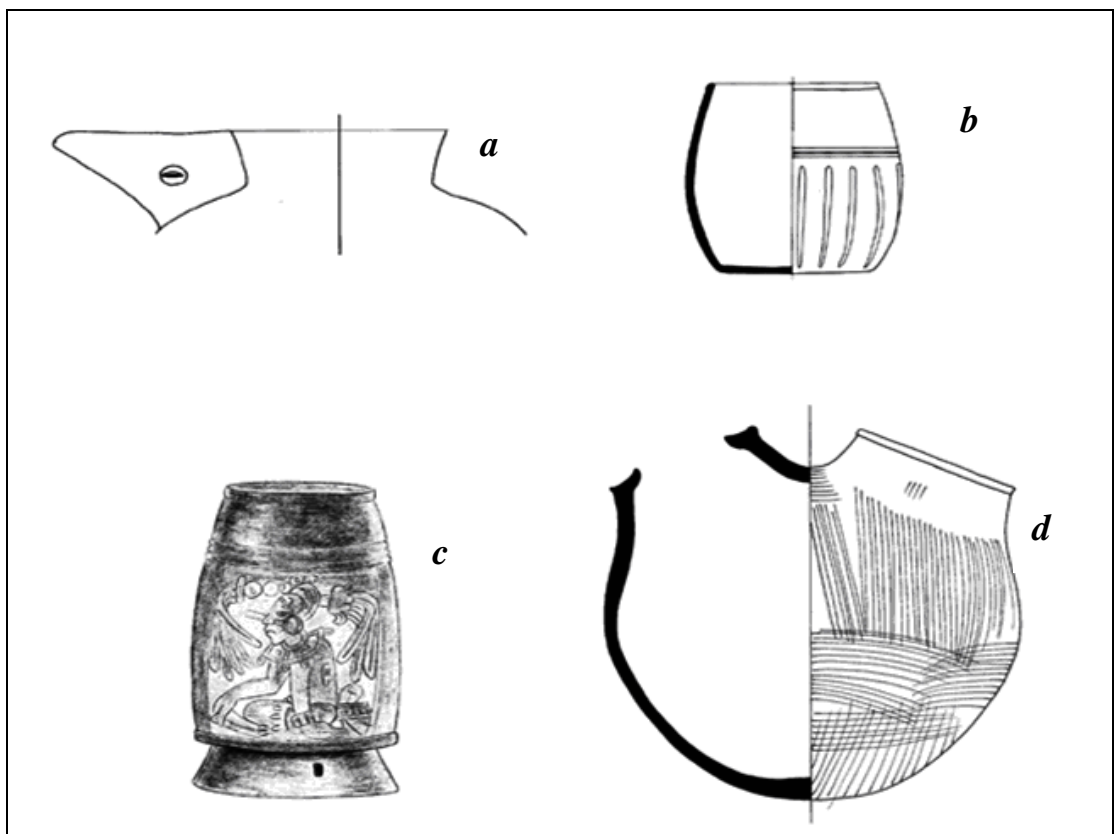


Figure 75: Imported Vessels of the Yabnal-Motul Complex

2.2.1.5 Extension of the Yabnal Motul Complex at Chichen Itza

Map 4 shows the distribution of Late Classic traits at Chichen Itza. The distribution map of the Yabnal-Motul ceramic complex presence was elaborated mainly with data obtained by the Chichen Itza Project (P. Schmidt 1993-2005). The sample includes collections from: the Ikil Group (Osorio and Pérez 2002), the Sacred Well (INAH 1960s), the Castillo Terrace (also known as the Great Terrace or “Gran Nivelación”; Schmidt 1979), the Terrace of the Osario Pyramid (Schmidt 1994), the Group of the Initial Series (Osorio and Pérez de Heredia 2001, Schmidt 2000, Euan 2001-2002, García 2003), the Group of the Three Lintels (Pérez de Heredia 2004b), the Group of the Chultún (González 1994), the Akabdzib Building (Euan and García 2005), the Plazas Group (Pérez 1996), the Group of the Alux, the Group of the East or “Bóvedas” (Pérez 1996), the Group of Sacbe 61, the “Rejollada de la Abuelita” (González 1994), Structures 3E19 and 4D6 (Pérez 2005), the Red House Building (Folan 1960s), the Halakal Group (Schmidt 1993), the Area of the Tourist Entrance (Schmidt 1985), the Group of Sacbé 19 (Pérez 2001), and the Holtún Group (Pérez 2002).

Ceramic materials from the Yabnal-Motul Complex are concentrated south of the Sacred Well and around Cenote Xtolok, but this concentration may only reflect the fact that excavations have been more intense in this area. Admitting that the development of the administrative center of the city during the following Terminal Classic period took place in precisely this same area, it is very possible that it was already favored during the Late Classic period. Another residential area is indicated on Map 4 between the Great Terrace and the Bóvedas Group.

The significant quantities of Yabnal-Motul ceramics at Chichen Itza point to a long and moderately dense occupation of the site. Despite the construction of large terraces along a north-south axis during the Yabnal-Motul period, the concentration of architecture is not as impressive as at other contemporary sites such as Coba and Ek Balam. Chichen Itza may have been subordinate to one of these larger sites during this period. Collections of the Yabnal-Motul ceramics have also been recovered along the outskirts of the settlement in cenotes, sinkholes and platforms.

2.2.1.6 Summary of the Yabnal-Motul Complex at Chichen Itza

As has been demonstrated in this section, pure deposits of Yabnal-Motul Complex ceramics have been securely identified in the construction fill of several terraces and in the foundation of at least one building. Seven burials and several refuse deposits have provided additional Yabnal/Motul contexts.

The beginning of production of the local ceramics of the Yabnal-Motul Complex is difficult to determine with exactitude. The first appearance in the archaeological context for the Motul complex, according to our data, is the layer of dirt covering the cists in the Terrace of Three Lintels. This estimate is based on the frequency of Motul sherds, but we lack an absolute dating for this context. Provisionally, I will use the traditional date ca. A.D. 600 for the beginning of production of Motul ceramics (see Figure 76), as proposed by Smith (1971) and corroborated by Simmons (1979).

The end of production of Motul ceramics is dated here by the beginning of production of Cehpech Complex ceramics, which happened at Chichen Itza around A.D. 800/830, as is shown in the next section. The last appearance in the systemic context of Motul vessels is marked by a small Motul vase found with a Sotuta cache in the Initial Series Complex (dated ca. A.D. 1050; see Context S16).

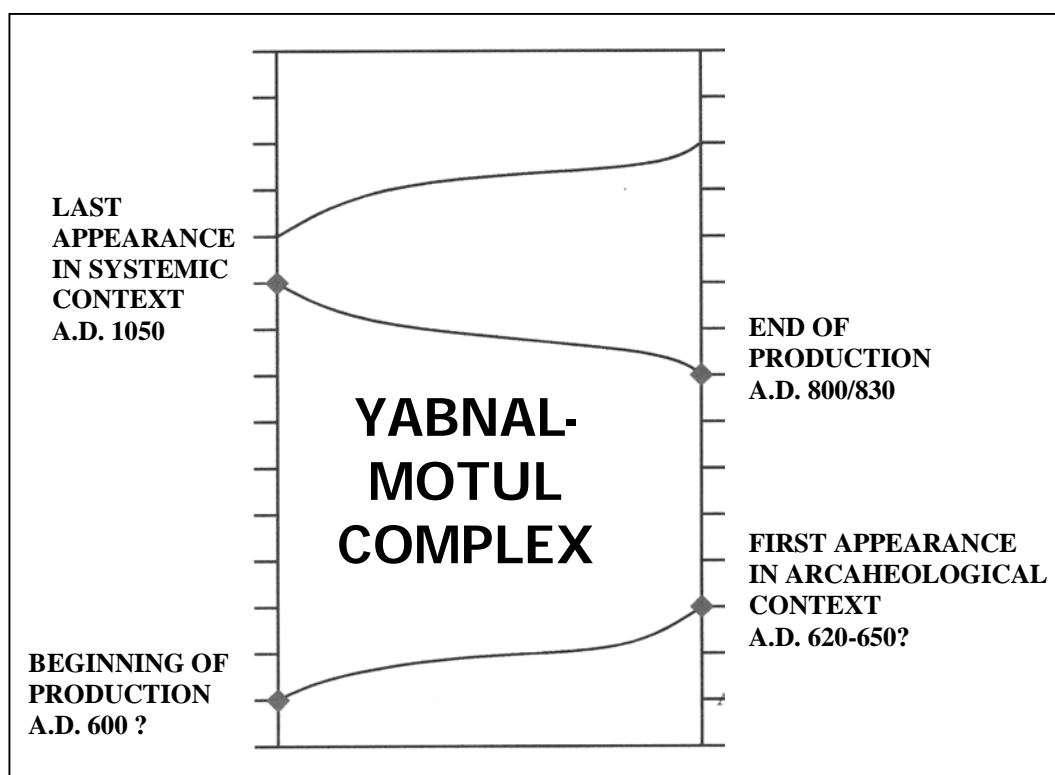


Figure 76: Dates of the Yabnal-Motul Ceramic Complex

TYPES OF THE YABNAL- MOTUL CERAMIC COMPLEX **AT CHICHEN ITZA**

KATIL UNSLIPPED GROUP

Another Type of Katil Group: Unslipped
Katil Striated Type: Katil Variety
Another Type of Katil Group: Modeled
Another Type of Katil Group: Painted
Another Type of Katil Group: Appliqué

SLATE SAY GROUP

Say Slate Type: Say Variety
Chemax Black on Slate Type: Chemax
Variety
Another Type of Say Group: Appliqué
Another Type of Say Group: Incised
Another Type of Say Group: Gouged
Junquillo Impressed: Junquillo Variety
Another Type of Say Group: Modeled
Cidra Composite: Cidra Variety
Another Type of Say Group: Unslipped

TOHOPKU THIN SLATE GROUP

Tohopku Thin Slate Type: Tohopku Variety
Another Type of Tohopku Group: Appliqué
Another Type of Tohopku Group: Black on
Slate

CASASSUS RED GROUP

Casassus Red Type: Casassus Variety
Another Type of Casassus Group: Thin
Variety

GRAY CHABLEKAL GROUP

Chablekal Gray Type: Chablekal Variety
Chicxulub Incised Type: Variedad Chicxulub
Variety

BLACK YALCOX GROUP

Yalcox Black Type: Yalcox Variety

TINAJA RED GROUP

Tinaja Red Type: Tinaja Variety
Pantano Impreso Type: Pantano Variety
Corozal Incised Type: Corozal Variety
Another Type of Tinaja Group: Modeled Variety
Another Type of Tinaja Group: Gadrooned Variety

RED CONKAL GROUP

Conkal Red Type: Conkal Variety

BLACK DZITYA GROUP

Algarrobo Modeled Type: Algarrobo Variety

BROWN BECANCHEN GROUP

Becanchen Brown Type: Becanchen Variety

HUNABCHEN GROUP

Hunabchen Orange Type: Hunabchen Variety

KINICH GROUP

Tipo Itzinná Rojo sobre Naranja; Itzinná Variety

- GROUP

Tres Marías Striated Type: Tres Marías Variety

- GROUP

Cizin Striated Type: Cizin Variety

2.2.2 The Terminal Classic Period - The Huuntun-Cehpech Ceramic Complex

- 2.2.2.1 Defining the Muna Slate Ceramic Group in North Yucatan
- 2.2.2.2 The Muna Slate Group at Chichen Itza
- 2.2.2.3 Contexts of the Huuntun-Cehpech Complex at Chichen Itza
- 2.2.2.4 Other Wares of the Huuntun-Cehpech Complex at Chichen Itza
- 2.2.2.5 Extension of the Huuntun-Cehpech Complex at Chichen Itza
- 2.2.2.6 Summary of the Huuntun-Cehpech Complex at Chichen Itza

2.2.2 THE TERMINAL CLASSIC PERIOD

THE HUUNTUN-CEHPECH CERAMIC COMPLEX

A.D. 800/830 – 920/950

During the ninth century several buildings were constructed at Chichen Itza in a style classified as “Maya” or “Puuc” due to their resemblance to the architecture of the northwestern hills of the Yucatan peninsula. A series of Maya inscriptions associated with these constructions at Chichen Itza repeatedly mention a ruler named Kakupakal; some authors pointed out that the style and content of these texts differs from Classic period inscriptions from the southern and northern Maya lowlands (i.e. Grube 1994).

One of the biggest issues in the controversy between the traditional, partial overlap and total overlap models was the ceramic association of these buildings styles at Chichen Itza. If associated with Cehpech, then Sotuta ceramics would correspond only to the “Toltec” style buildings, and, therefore, the traditional model would be correct. On the other hand, if Sotuta ceramics were to be found inside Kakupakal’s buildings, then the Partial or the Total Overlap Models would be correct.

It is clear then that the key to unraveling the city’s chronology lies in determining the ceramic assemblage associated with the construction, use, and abandonment of the Maya or “Puuc” buildings constructed under Kakupakal’s rule. For a long time after the work of the Carnegie Institute of Washington no test-pits were excavated at these buildings, preventing the resolution of the chronological controversy (until now). The research and analysis of Huuntun-Cehpech ceramic contexts presented in this section clearly shows that the construction fill of “Maya or Puuc” buildings is not associated with Sotuta ceramics, but rather with very Early and Early Facets of the Cehpech Complex.

The diagnostic ware of the Cehpech Horizon throughout the northern (lowlands) is the Puuc Slate Ware of which Muna Slate is the only group defined. Muna Slate is characterized by a waxy slip made up with organic components and is abundant at the sites of the Puuc hills.

The Huuntun-Cehpech Ceramic Complex is here defined as the ceramics produced and used at Chichen Itza during the ninth century, the period of architectural construction that took place during the rule of Kakupakal. Huuntun is the name provided to Edward Thompson by a local farmer for the hieroglyphic lintel known as the Initial Series Lintel,

meaning broadly “book of stone”. It stresses the relation of the Cehpech ceramics with buildings featuring ninth-century inscriptions..

2.2.2.1 Defining the Muna Slate Group in North Yucatan

The Muna Slate Group (Puuc Slateware) in northern Yucatan ceramics has been known for a long time. The name “slate” was given to this tradition by George Vaillant at the beginning of the twentieth century because of its peculiar feeling to the touch. The Puuc Slateware, which corresponds with the Muna Slate Group, is also well known because of its profusion at Puuc sites, where many excavations have been conducted. The works of Brainerd and Smith are the key documents for the definition of this Puuc Slate Ware. I quote the descriptions of this ware by these two scholars

Brainerd defines this ware at Puuc sites as follows:

“This ware is characteristically slipped with tightly adherent clay of faintly glossy, soapy, translucent appearance. The paste ranges from an off-white to a medium brown in color, occasionally ranging to dark gray; the slip corresponds closely with paste color, presumably because of translucence. This slip is commonly decorated by paint which seems to have been applied as a somewhat viscous liquid by a crude, broad implement. This paint never shows relief and usually does not change the surface luster of the slip. Its color varies widely, usually on single vessels, and notably between edges and centers of lines. Color sometimes fades to invisibility from the center of the line; sometimes a sharp, strongly colored outline surrounds a pale center; occasionally “clotted” or reticulated areas of color appear as though the slip had been stained during firing by a paint which had previously crazed from shrinkage during drying or heating. The color range of the paint is that of the slip itself, ranging from black to a pale gray or tan. Contrasts between slip and paint color, although most commonly between a lighter slip and darker paint, are occasionally reversed to lighter painted areas on a darker slip. This color reversal is sometimes apparent on parts of a single vessel and sometimes appears even in a single paint stroke, which as a result may appear dark, fading to a light edge on slip of medium tone. Variability within this range in paint color seems characteristic of many ceramics in North and Middle America, and may be suspected to be a characteristic of organic paints –paints made of organic extracts- which, when painted on clays of certain characteristics, are carbonized in firing. Depending on the atmospheric conditions during the heating periods, these paints may show carbon black against a light clay color, may fade to invisibility, or may act as a resist to leave a lighter slip color in the painted area to contrast with a carbon-darkened background of

unpainted slip. This last condition, not uncommon in the Southwest, has been called resist smudged by Mera (1945). No evidence was discovered suggesting regional and time differences in the paint of Puuc Slatewares. However, the paste, and perhaps the slip, does show such differences, while form and design also vary widely. These variations among the attributes of Puuc Slateware seem to have no simply ordered interrelationship, and thus have hampered its division into consistent subtypes” (Brainerd 1958: 27).

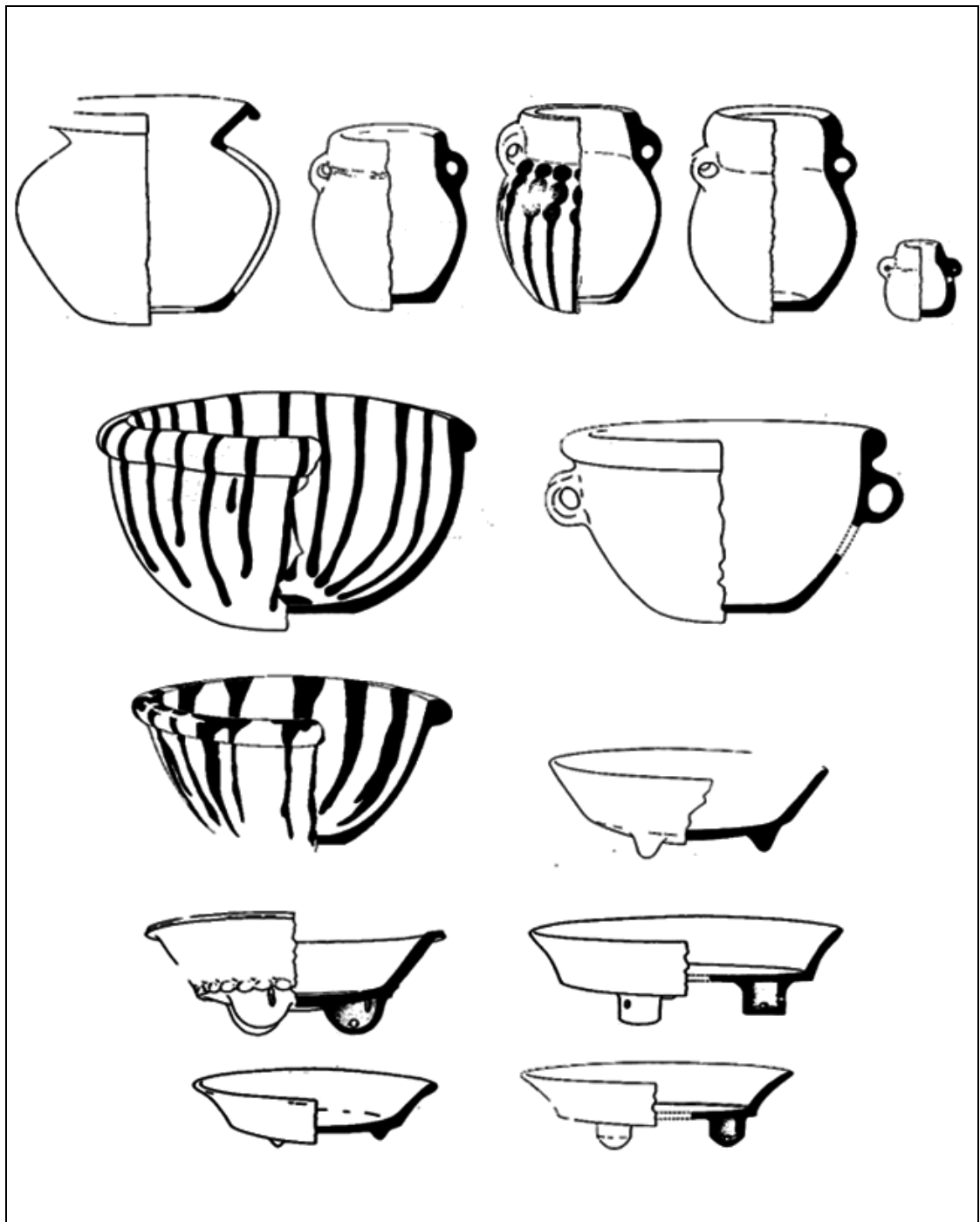


Figure 77: Puuc Slate Ware – Muna Slate Group (after Brainerd 1958)

Very similar, but more synthetic is the description written by R. Smith (1971):

“In ware attributes it differs little from Chichen Slate Ware. Differences include: paste temper with Chichen Slate having 98.6 per cent volcanic ash and Puuc Slate showing an equal use of ash and calcite; paste color with Chichen Slate almost exclusively red and Puuc Slate more often gray, brown or beige, and less frequently red; light paste color appears to be correlated with calcite temper, and surface color of Chichen Slate Ware often as a pinkish hue because of red paste showing through, a rare phenomenon with Puuc Slate ware. Paste composition. Medium texture sometimes grading to near fine, variety of tempering materials ... and colors which follow closely those on the surface plus red or reddish brown. Surface finish. Smoothed and well finished; translucent with a waxy feel; blemished including occasional crazing, often purple or white dendritic markings, some fire-clouding, and colored with a wide range of color readings. These are gray, brown, beige, drab, buff, fawn and cream” (Smith 1971: 28).

F. Robles (1980, 1990) presented his results of classification of Coba's ceramics in the type –variety system in 1980, and offered a description of the Muna Group. The principal characteristics of Muna ceramics in his collections are:

“1) Medium texture paste, sometimes fine, very compact, of a brown-yellow and red color; 2) calcite and volcanic ash as temper; 3) slip varying shiny brown to creamy-gray, with veins or “root-marks” of white creamy color, reddish-yellow and black, and with a high grade of waxyness to the touch, similar to the waxy ceramic of the Chicanel horizon; and 4) a great variety of forms. Description: medium texture paste, sometimes fine, of a brown-yellow color (2.5YR5/4, 6/4; 10YR5/6, 6/6) and red (2.5YR5/8; 10R4/8). The variation of the color of the paste can be found even in a single fragment. Occasionally presents the central part of red color and the extremes in brown color. The variation in the paste's color is due to the firing. Temper: calcite, fine grains and volcanic ash. Surface finish: with exception of jars, which only present exterior slip, it has a general slip varying from brown color ((7.5YR5/4, 6/4; 5YR3/4,

4/6, 5/3, 5/6) to creamy gray (10YR8/3), being light brown the most representative color. It has a luster finish, very waxy to the touch, with veins or “root-marks”, of reddish-yellow (5YR5/6) and black color. The slip is well adhered to the walls, and when it is lost by erosion allows to see a rough surface of brown color. It presents a high grade of cracking when observed under a magnifying lens. Occasionally presents areas or spots of dark brown color due to the firing” (1990: 184; my translation).

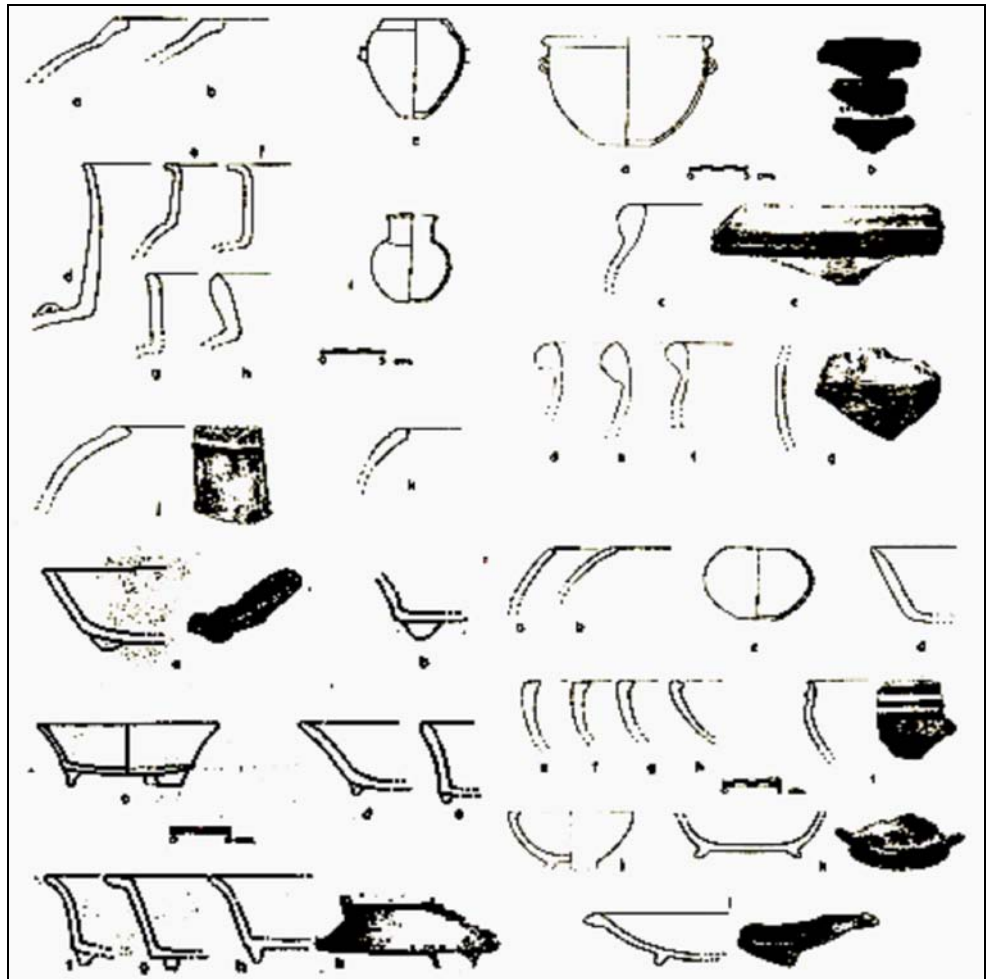


Figure 78: The Muna Slate Group at Coba (After Robles 1990)

In another section, labeled “Generalities”, Robles elaborated further on the Muna Group:

“It is the most abundant and representative type of the Oro Cehpech complex at Coba. Very generalized in all the northern part of the Yucatan peninsula, where it was possibly produced, having different foci of manufacture. Because of its quality, and great variety of forms, all of them

of practical use, we can infer that it was a ware of multi-domestic use, which accounts for its wide acceptance, and long lasting duration among the pre-Hispanic Maya society of Yucatan. Though it is found in almost all the sites in the northern peninsula, the beginning and end of this tradition is unknown, becoming one of the principal problems in the chronology, and in the studies of the archaeological ceramics in the Maya northern sub-area. Traditionally, its beginning has been dated ca. A.D. 800 in western Yucatan, finishing its manufacture between A.D. 900-1000 (Brainerd 1958: 3; Smith 1971: 134; Ball and Andrews V 1975: 235), in a moment in which the Itza established themselves at Chichen Itza, and the “great Puuc centers are abandoned”. Nevertheless the stratigraphic bases in which said chronology are laid have not been convincingly explained, leaving open the possibility of very different interpretations. The evidence from Coba presents a different panorama to that traditionally assumed, at least referring to the eastern region of the peninsula. At this site various types of the Muna Group were found in stratigraphical association with polychromes clearly recognized as Tepeu I (principally with the Saxche Group)” (1990: 189-190; my translation).

Based on the definition by Robles (1980) of the Muna Group at Coba as slightly different from the Muna Group from the Puuc sites, Anthony Andrews and Fernando Robles, established two sub-spheres for the Cehpech Complex: eastern and western. Differences between them are

“particularly evident in the Muna Slate group, which includes the most common diagnostic ceramic type of the Cehpech sphere. While almost identical in consistency, hardness, and surface treatment, the western Muna Slate types are characterized by a grayish slip, whereas in the east they consistently display a brownish slip. The same occurs in the Ticul Thin Slate group. Both groups also exhibit differences in vessel shape in the Eastern and Western cultural spheres, as do the utilitarian ceramics, which also show differences in surface decoration. The ash temper composition of eastern and western Cehpech ceramic wares is also different (Simmons and Brem 1979). Finally certain ceramic groups are exclusive to one or the other cultural sphere, such as the Vista Alegre

Striated group, which is restricted to the east, and the Balancan Fine Orange and Unslipped Chum groups, which are found only in the West” (Andrews and Robles 1986: 78).

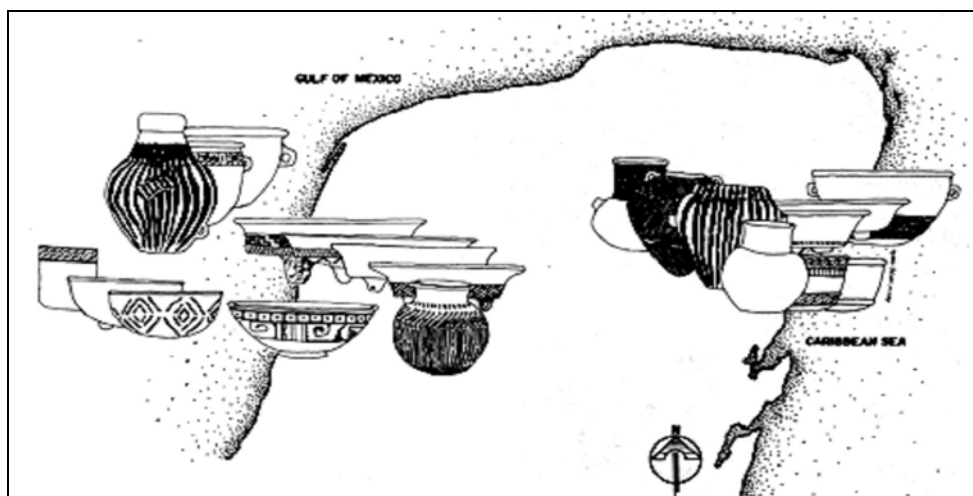


Figure 79: Eastern and Western Cehpech ceramic Spheres (Andrews and Robles 1986)

Several traits of the Muna Slate Group from Coba, reproduced above as described by Robles (1980), are characteristic of the Say Slate Group, and many of the forms presented by the same author have been recognized as early Slate forms by Sylviane Boucher (1990; see Section 2.2.1.1 in this thesis).

It is not sure yet how much of the Muna Group ceramics of this eastern Cehpech sub-sphere identified by Andrews and Robles (1986) could be misclassified examples from the Say Slate Group of the Motul ceramic complex, and it remains unclear how this possible disturbance would affect the mere existence of such sub-sphere.

2.2.2.2 The Muna Slate Group at Chichen Itza

At Chichen Itza, good collections of Puuc Slate Ware (Muna Slate Group) ceramics are of relatively recent discovery. Of these new collections we know that, at Chichen Itza, Muna Slate appears in a range of colors from pale orange-yellow, orange-yellow, dull orange and dull brown (Figure 84).

There is less variability in color in Muna Slate than in the earlier Say Slate Group, and fire clouds are almost absent. This could imply a production technique with better control of the firing process (Figure 84). Another difference is that the root-marks are generally of a purple color, instead of the whiter color of the root-marks in the Say Slate Group. But occasionally in the Muna Slate Group of Chichen, the root-marks are similar to those in Say Slate Group. This variety appears more commonly in early facet contexts

of the Huuntun-Cehpech Complex, and it could be placed tentatively earlier than the normal Muna variety with purple root-marks. Also, lighter background colors are characteristic of the early variety of Muna at Chichen Itza, while darker oranges and browns seem to align with the later and more-waxy variety.

One of the most characteristic traits of Muna Slate Ware is its waxy slip. Organic components have been detected in the slip composition (Chung 1995; Varela, pers. comm. 2004).

The petrography of Puuc Slateware from Chichen Itza is still unknown, due again to the recent discovery of good examples. Nevertheless a good amount of work has been done on the petrography of Puuc Slate Ware from several Puuc sites (Chung 1995; Varela 1998). Forms of the Muna Slate Group from Chichen Itza are shown in Figures 80 to 83, and surface appearance variability is shown in Figure 84.

I want to stress here that we are still at the beginning of understanding this ware and group at Chichen Itza. The best collections have been detected and analyzed but recently (2000 to 2004). More collections are necessary, and the research design must be oriented in the future to this goal. The contexts of the Kakupakal-Cehpech ceramic complex presented in the following pages will help us in the future to predict the location of deposits with better collections of this complex.

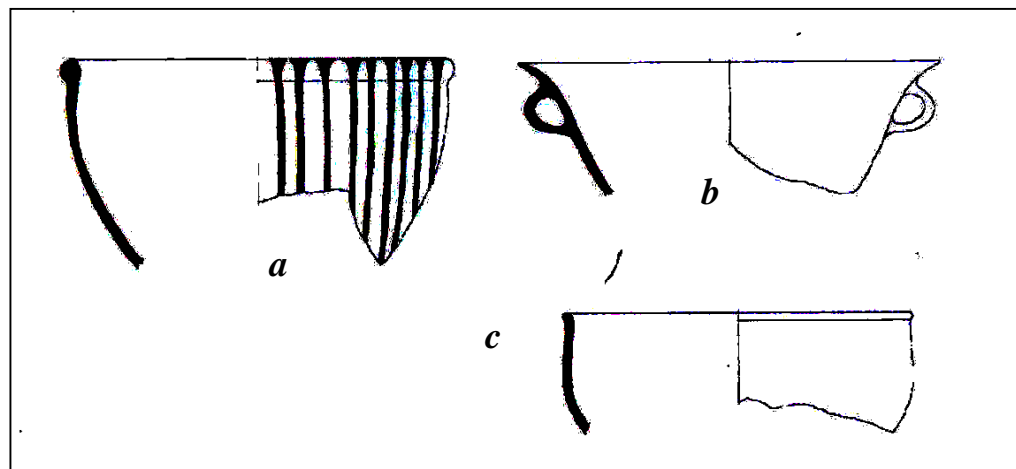


Figure 80: Muna Group forms of basins from Chichen Itza
House of the Stuccoes (a); Outside Motul Terrace, Initial Series Group (b), Structure 4D6 (c)

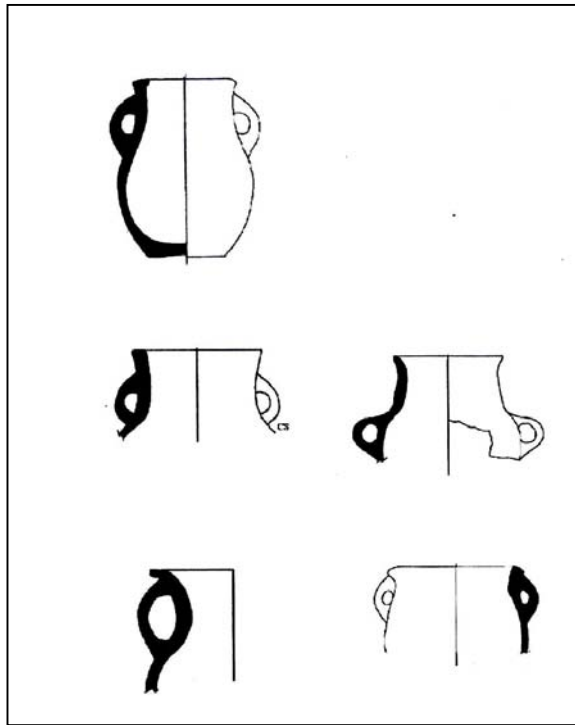


Figure 81: Muna Group jar examples from the Sacred Well

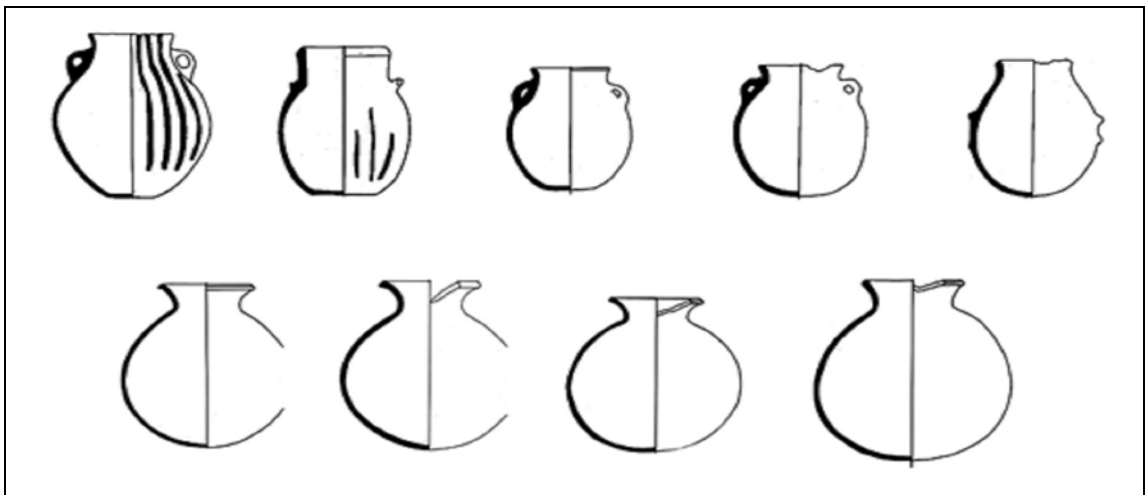


Figure 82: Muna Group jar examples from the Sacred Well

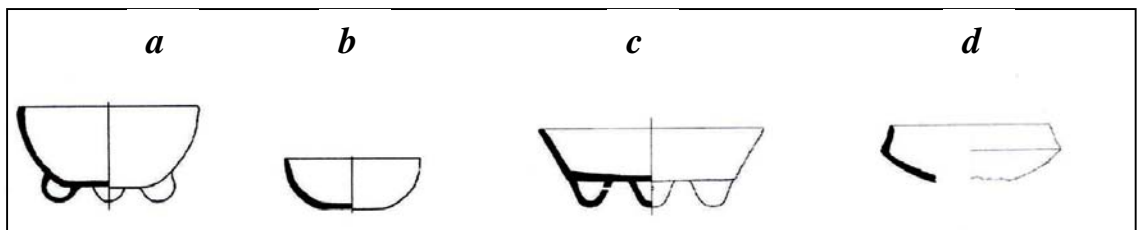


Figure 83: Muna Group forms of bowls from Chichen Itza (*a* is a grinding bowl)

Burial 2 Initial Series Group (*a, b*); House of the Stuccoes (*c*), Structure 4D6 (*c*);
Outside Motul Terrace, Initial Series Group (*d*)

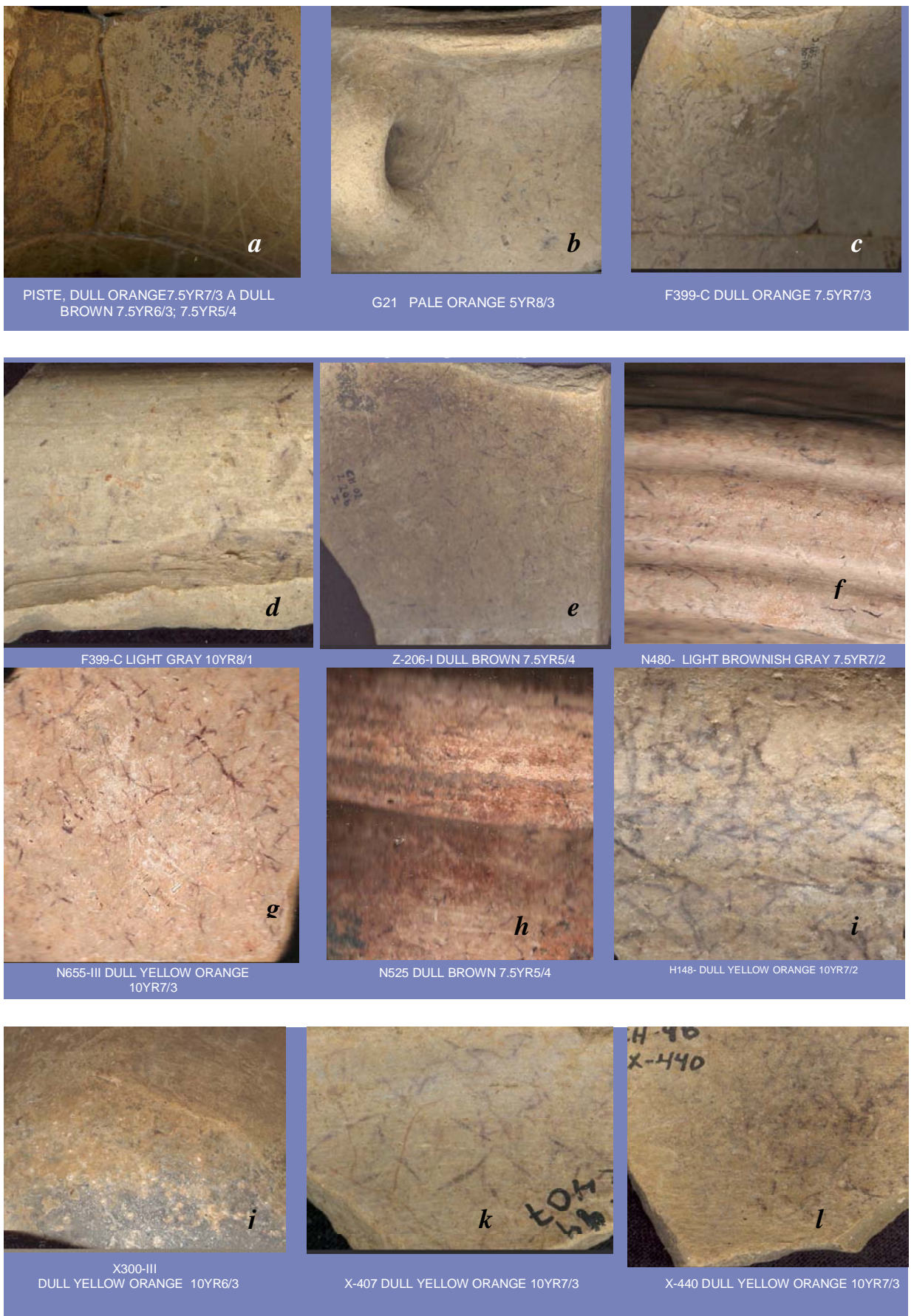


Figure 84: Variation in Muna Slate Group slips and appearance: Jars (a-c); Basins (d-i); Plates (j-l)

2.2.2.3 Contexts of the Huuntun-Cehpech Complex at Chichen Itza

Initial and Early Facet of the Huuntun-Cehpech Complex

CONTEXT C1: Construction of the House of the Phalli (5C14-I)

In the Initial Series Group, the first stage of the House of the Phalli (5C14-I) ascribes to a “Maya-Puuc” style construction plan and masonry technique; however, the hieroglyphic inscriptions typically associated with this style edifice are notably absent. (Figures 85, 86). The previous Motul terrace seen in Context M3 was raised about 30 cms., to form the base for this range “palace” (Figure 87). The materials recovered from the construction fill (Test-pit in Room 10; Layer IV; Figure 85) show that the latest ceramics in its interior still date to the Motul ceramic complex (see Chart 12).

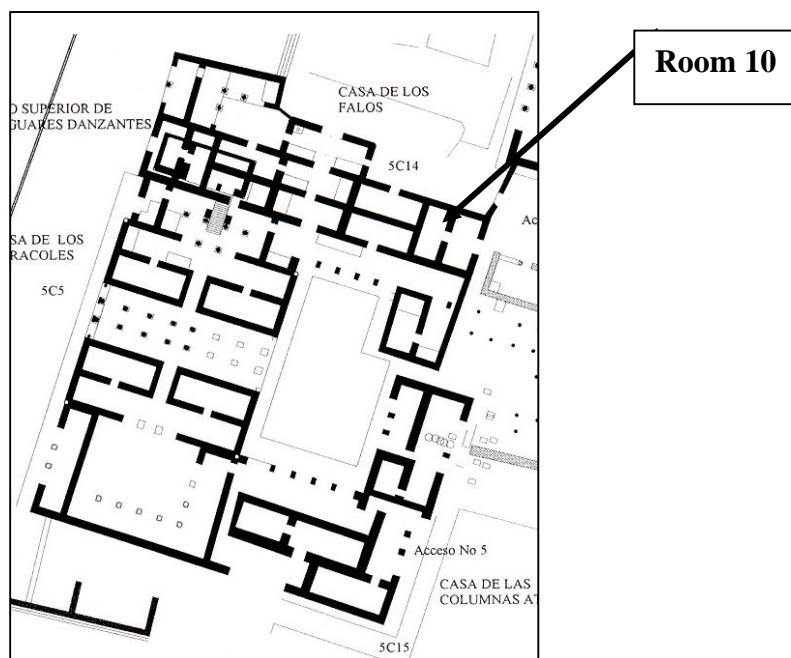


Figure 85: The House of the Phalli (5C14-I) is a Range-type building inside the Phalli Complex

CHART 12: MATERIALS FROM THE CONSTRUCTION FILL OF THE HOUSE OF THE PHALLI (5C14) ROOM 10, LAYER IV

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	9	64.28%
NOT ASSIGNED	5	35.71%
TOTAL	13	

Lot: X-147-B

The materials clearly demonstrate that the building is a pre-Sotuta construction, but no Cehpech ceramics were found in this fill. The absence of Cehpech ceramics can be read as an indicator that the material dates to the end of the Motul Complex or at the very beginning of the Huuntun-Cehpech Complex. If it falls at the beginning of the Huuntun-Cehpech Complex, deposits of secondary refuse from this complex would be scarce or just beginning to be produced, and therefore, ceramics of the new complex did not find their way into the fill of all the new constructions. Instead, secondary refuse of the recent Motul complex was displaced to fill the building. Based on this small collection of data an approximate date circa A.D. 800-830 is suggested. If this assessment is correct, the House of the Phalli (5C14-I) would pre-date the majority of Maya-style buildings with accompanying inscriptions that date between A.D. 860 and A.D. 880.

The predominance of Yabnal-Motul in the construction fill is not exclusive to the Temple of the Phalli, but a characteristic of many “Maya-Puuc” type buildings, as demonstrated in the following examples.

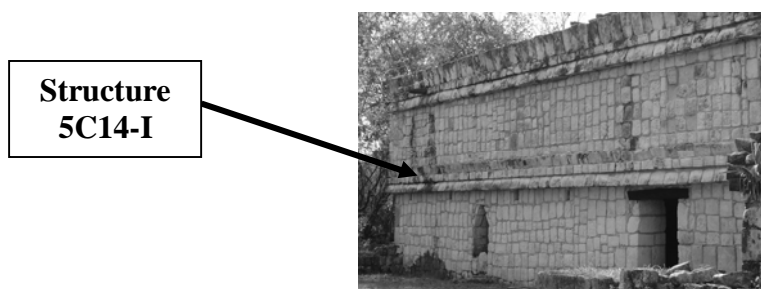


Figure 86: House of the Phalli; North Façade, East Corner

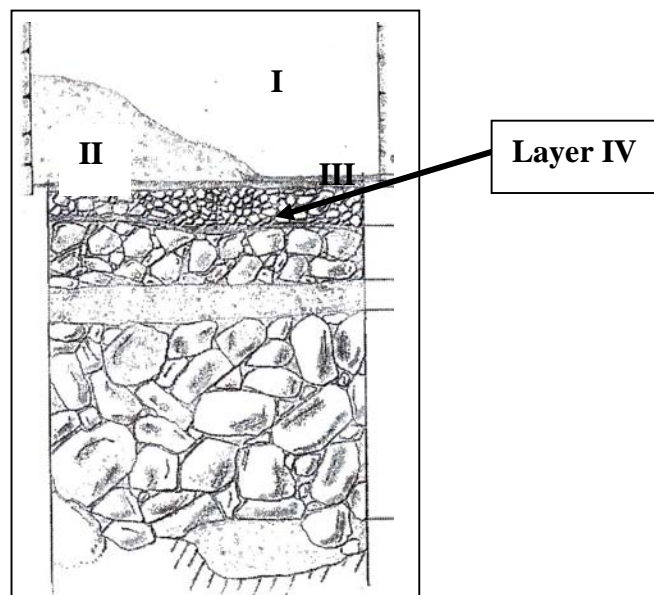


Figure 87: Construction fill of Platform corresponding to the House of the Phalli, Test-pit in Room 10 (in García 2003)
 Layer I, Surface of Debris; Layer II, Debris, Layer III, Renovation of Floor; Layer IV, Fill of 5C15-I Platform.

CONTEXT C2: The construction of the roofcomb of the Red House (Str. 3C9)

A collection of materials from the roofcomb of the Red House (Structure 3C9, Figure 88) was obtained by William Folan in the 1960s, and was preserved in the “Palacio Canton” Museum in Mérida. Analysis of this collection of ceramics shows the Yabnal-Motul Complex as the last ceramics present (with 92.4%; see Chart 13). The same line of reasoning as in the Temple of the Phalli can be applied here, but in this case we can certainly tie the building to the group of edifices constructed under the rule of Kakupakal, because of a long inscription carved inside the first row of rooms. Furthermore, the inscription bears two calendar round dates:

10. 2. 0. 1. 9 6 Muluc 12 Mac, A.D. 5 Sept. 869, *and*

10. 2. 0.15. 3 7 Akbal 1 Chen, A.D. 6 June 870

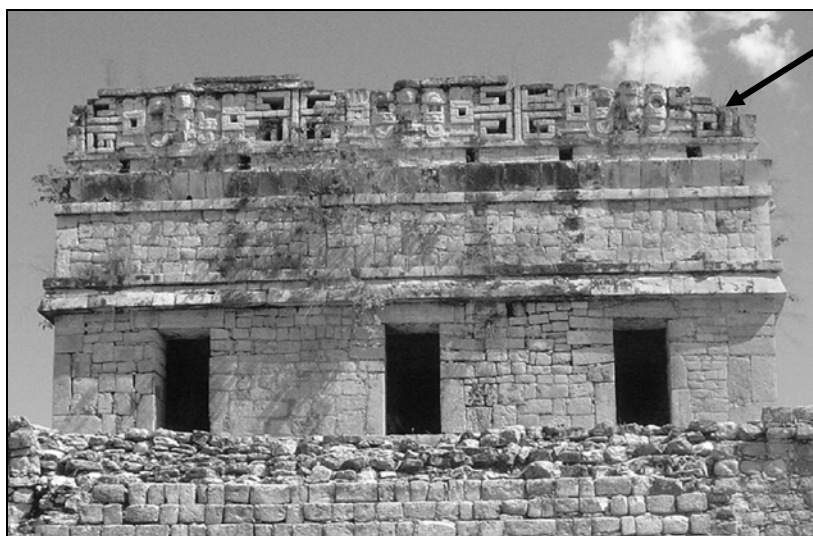


Figure 88: The Roofcomb of the Red House

CHART 13: MATERIALS FROM THE FILL OF THE ROOFCOMB OF THE RED HOUSE

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	61	92.42%
NOT ASSIGNED	5	7.57%
TOTAL	66	

Lots: CH-CH-1, CH-CH-2

CONTEXT C3: The construction of the House of the Three Lintels (Str. 7B3)

The House of the Three Lintels (Structure 7B3) owes its name to three lintels carved with hieroglyphic inscriptions bearing a date A.D. 879 (10.2.10.0.0 or 10 Tun in Katun 1 Ahau).

Cleared and restored by Paul Martin between 1927 and 1928, the House of the Three Lintels “*has been described as the only known example at Chichen Itza of a pure Maya structure in the construction style of the Puuc ruins*” (Brainerd 1958: 38). Roberts classified material from two trench excavations besides a well in the depressed area northwest of the building in 1933. The excavation was divided in three layers, which, according to Brainerd (1958: 39), have to be understood as follows: “*Cuts B and C nearly pure Florescent with traces, especially in C, of early Florescent and Late Regional. Cut A consists of Early and possibly Middle Mexican ceramics, with very little mixture of earlier material and no Late Mexican ceramics*” (see Context S23).



Figure 89: Frieze of the Three Lintels Building

During 2004 I excavated a test-pit in the House of the Three Lintels to determine the apparent association between “Maya-Puuc” construction fills and Yabnal-Motul ceramics. This test-pit led to the discovery of the cist burials described earlier (see Context M1), extending the excavations of four contiguous test-pits.

Chart 14 summarizes the ceramics found in three layers of those test-pits corresponding to the construction fill of the platform of the House of the Three Lintels . Again, the latest ceramic complex present is the Yabnal-Motul Complex (55.8 per cent).

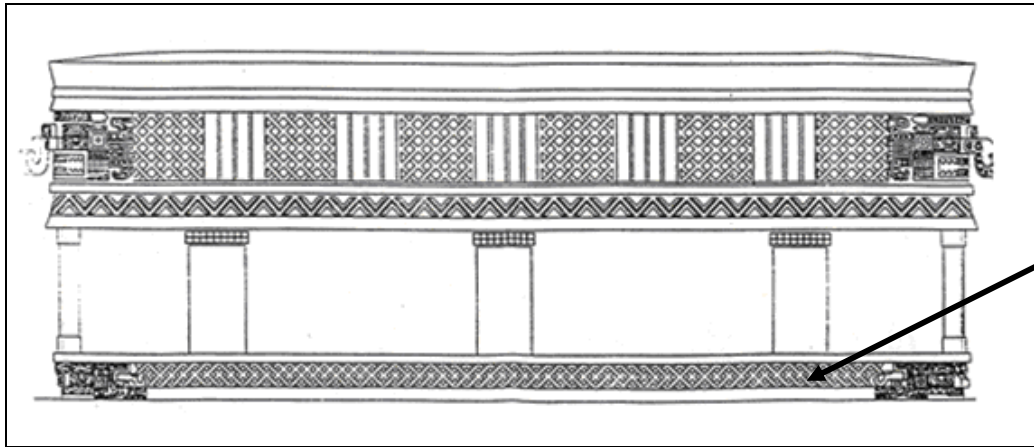


Figure 90: The Three Lintels Building. Arrow points to the platform of the Building.

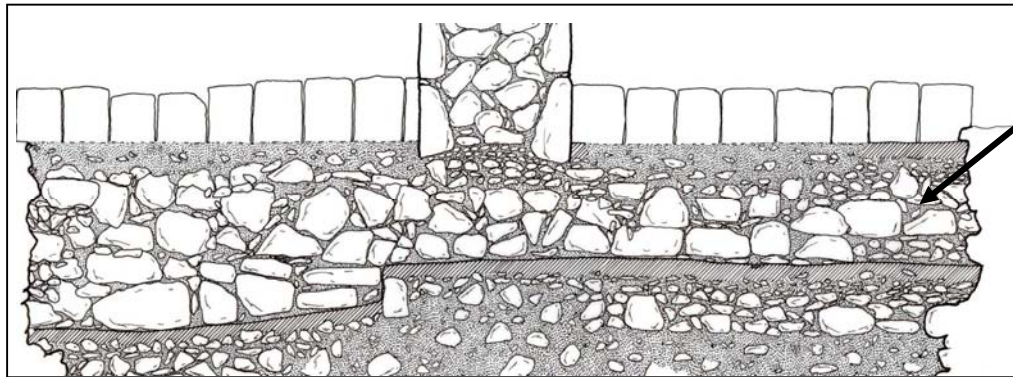


Figure 91: Construction Fill of the Three Lintels Building on top of the Motul Terrace. Arrow points to construction fill of the platform of the Building.

CHART 14: MATERIALS FROM THE CONSTRUCTION FILL OF THE PLATFORM OF THE HOUSE OF THE THREE LINTELS

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	14	2.77%
COCHUAH	36	7.12%
MOTUL	282	55.84%
NOT ASSIGNED	153	30.29%
TOTAL	505	

Lots: F-302, F-303, F-358, F-358A, F-353, F-354, F-355.

CONTEXT C4: The construction of the Akabdzib building (Str. 4D1)

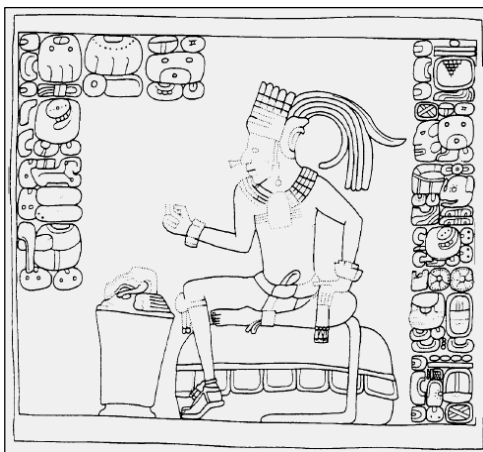


Figure 92: Akabdzib Lintel

The Akabdzib is another “range” type of “Maya”-style construction, located east of the Caracol. It was constructed during two different architectural phases, leaving the oldest in the central section (Figure 93). Lintels corresponding to the second construction phase feature one example with hieroglyphic inscriptions. The lintel depicts a member of the ruling class seated on a throne in front of a tall vessel (see Figure 91), and it dates to A.D. 870 (10. 2. 1. 0. 0 Tun 1 in 1 Ahau).

Brainerd’s comments on the ceramics of the “*five trenches sunk by Henry Roberts in 1932 in the depression east and about 50 meters behind the Akabdzib*” are cited below

“Sherd yields were small (332 sherds total) and no stratigraphy was noted, with the possible exception of trench 1 which suggests Florescent-Mexican change, but samples are too small for certainty ... The deposit is limited to Florescent and Early Mexican date by its local wares, with indications of both periods in its tradewares. Analysis of the forms of the native wares places them as largely Florescent in date ... These collections show less Early Mexican pottery than most other groups from Chichen Itza, and thus have an interest out of proportion to their small size” (Brainerd 1958: 35, 36).

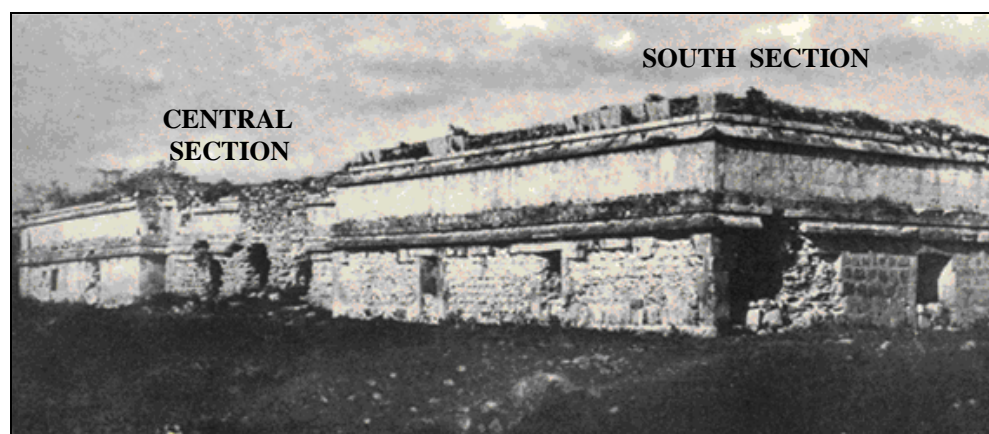


Figure 93: The Akabdzib Building from the southwest (Willard 1930)

Excavations by the Chichen Itza Project during recent restoration work at the Akabdzib building (Euán and García 2005) contributed several ceramic collections which demonstrate the association of this building construction with Huuntun-Cehpech ceramics. A test-pit on the terrace of the east façade of the central building produced a collection under a sealed floor of 21 sherds of which 23.8% pertain to the Huuntun-Cehpech ceramic complex, and no later material was found (Chart 15). This collection places the construction of the central building at the Early Facet of the Huuntun-Cehpech Complex.

Chart 15: Materials from the fill of the Terrace of the Central Building of the Akabdzib. East Façade.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	9	42.85%
CEHPECH	5	23.80%
NOT ASSIGNED	7	33.33%
TOTAL	21	

Lot: Q-300-A

Another collection was excavated from the interior of the roof on the south wing of the building. The surface of the roof was altered by the growing of plants during a very long time (see Figure 93), and according to Gabriel Euán (pers. comm. 2006) the upper layer consisted of black soil, while the rest of the layers were of the original compacted cementing material of the vault. The content of the collection includes some Hocaba and Sotuta Complex sherds certainly filtrated from the surface. These later (intrusive?) sherds do not show evidence of any adhesions, while the 53 Huuntun-Cehpech sherds – 35% of the total collection (see Chart 16) – display clear traces of cementing material (see Figure 94). Eliminating the filtrated sherds we obtain a collection of 125 sherds of which 53 are Cehpech, 42.4% of the collection. This suggests a date of construction for the south wing of the building during the Early/Middle Facet of the Huuntun-Cehpech Complex.

Chart 16: Materials from the fill of the vault of the South Wing of the Akabdzib

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	2	1.32%
MOTUL	13	8.60%
CEHPECH	53	35.09%
SOTUTA	9	5.96%
HOCABA	17	11.25%
NOT ASSIGNED	57	37.74%
TOTAL	151	

Lot: Q-100



Figure 94: Muna Slate sherds from the roof of the South building. Notice the cementing material.

Also I want to note that the vessel depicted on the lintel (Figure 92) shows close similarity to vessels with pedestal base of the Cehpech ceramic complex. Compare the vessel of the lintel with a vase, possibly of Ticul Thin Slateware (Huuntun Cehpech Complex), found at the Sacred Well in the figures below.



Figure 95: Vessel from the Sacred Well



Figure 96: Vessel from the Akabdzib lintel

CONTEXT C5: The construction of the Cehpech Terrace, Initial Series Group

To examine this context we return to the Initial Series Group. After the construction of the House of the Phalli, and prior to the construction of the Temple of the Sacrificial Stone (5C4-II; see Context C5) the old Yabnal-Motul Terrace was expanded to the north, in order to support the construction of 5C4-II. Three test-pits excavated at the exterior of the northern limit of the Motul Terrace (Figure 97) showed a construction technique based on roughly shaped stones (see Figure 99). No evidence of plaster was found.

At the base on the exterior of the Yabnal-Motul Terrace a pure Huuntun-Cehpech context was found (Figure 100; Chart 18). This is a secondary refuse deposit possibly accumulated by the inhabitants of the House of the Phalli. The deposit extends along the base of the north limit of the Motul terrace, as shown by three different test-pits. If we accept a date for the construction of House of the Phalli (5C14-I) of ca. A.D. 830, we could propose a date around A.D. 850 for the formation of this deposit, which was then covered by the extension of the terrace.

CHART 17: SECONDARY REFUSE AT THE BASE OF THE NORTH LIMIT OF THE MOTUL TERRACE. TEST-PIT F-399. LAYER IV.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	1	0.58%
MOTUL	16	9.35%
CEHPECH	152	88.88%
NOT ASSIGNED	2	1.16%
TOTAL	171	

Lot: F-399-C

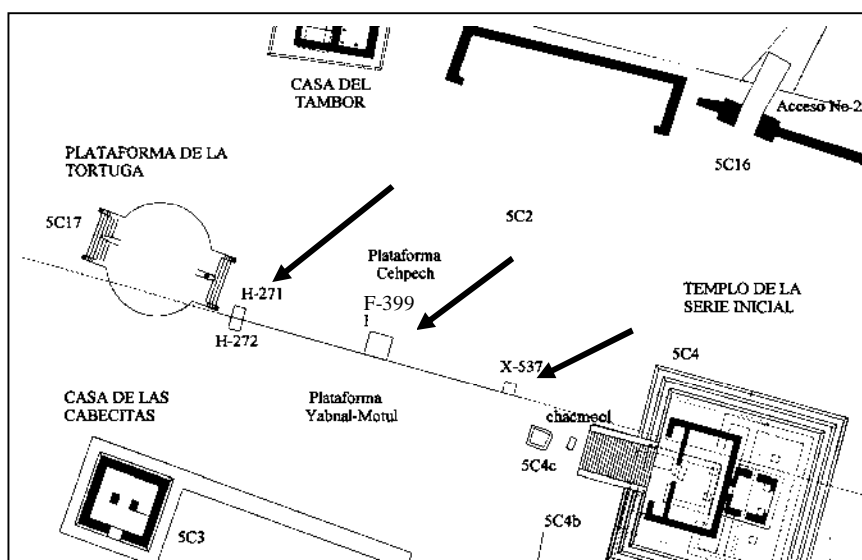


Figure 97: Location of Test-pits outside the limit of the Motul Terrace. Chart 17 corresponds to Layer IV of the test-pit in the center.

Following that reasoning the extension of the terrace could be dated to circa A.D. 850-870.

To fill this extension of the terrace, large deposits of Motul Complex refuse were displaced, as evidenced by material gathered from test-pits and trenches placed at several locations of the Cehpech Terrace, especially in the vicinity of Structures 5C2 and 5C17 (the Turtle Platform). Analysis of most of these collections is still in process, and they are not included here, but they show a high concentration of Motul Complex sherds.

The structural evolution of this part of the Initial Series Group is presented schematically in Figure 98, with Phases numbered 1 to 3.

- 1A- Construction of Yabnal-Motul Terrace (Context M3)
- 1B- Construction of House of the Stuccoes 5C4-I (Context M5)
- 2A- Elevation of terrace for construction of House of the Phalli (Context C3)
- 2B- Construction of House of the Phalli (5C14-I)
- 2C- Formation of Huuntun-Cehpech Refuse Deposit (Context C4)**
- 3A- Extension of the Cehpech Terrace
- 3B- Construction of Temple of Sacrifice (5C4-II) (Context C5)

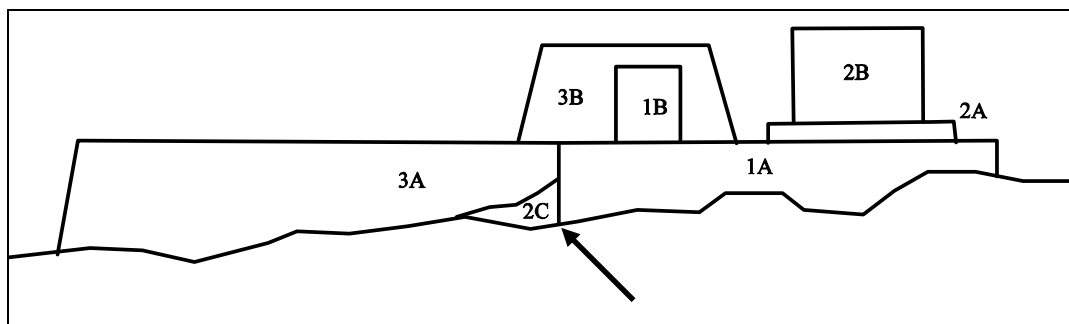


Figure 98: Construction Phases Sequence of the Northeast part of the Initial Series Group showing location of Cehpech refuse deposit (Phase 2C)



Figure 99: The northern limit of the Yabnal-Motul Terrace after excavation

The lower layer of the Test-pit also contained materials of the Huuntun-Cehpech complex (66 sherds equal to 65.3%; see Chart 18). The layers on top of the refuse concentration found in Layer III also contained Terminal Classic materials. Layer II of Test-pit F-399 shows 215 sherds of the Cehpech complex, 59.5% of the Lot, while Layer I of the same excavation yielded only Cehpech 25 sherds (20.3% of the contents of Layer I).



Figure 100: Huuntun-Cehpech Refuse Deposit outside the limit of the Motul Terrace

Contents of Huuntun-Cehpech ceramics are less abundant in the other test-pits along the same northern limit of the terrace. Test-pit H-271 contained 20 sherds of the Cehpech Complex, an 18.3% of the collection, while Test-pit X-537 showed 84 Huuntun-Cehpech fragments, amounting a 48.8% of that Lot (see location of test-pits in Figure 97). Therefore, it seems that this Cehpech refuse deposit extends all along the north limit of the terrace, with a bigger concentration in its center, where Test-pit F-399 was excavated. All the materials recovered from the three test-pits are shown in Chart 18.

Chart 18: Cehpech materials along northern limit of the Motul Terrace, Initial Series Group

LOCATION	NUMBER OF CEHPECH SHERDS	PERCENTAGE OF CEHPECH SHERDS
F-399- Layer I	25	20.3%
F-399- Layer II	215	59.5%
F-399- Layer III	152	88.8%
F-399- Layer IV	66	65.3%
H-271-Only Layer	20	18.3%
X-537- Layer III	84	48.8%
TOTAL	562	

Apart from the fact that the deposit can be related to an early “Maya Puuc” structural sequence (that of the Phalli Building; see Context C1)), much of it is composed of Muna Slate Group sherds of an early, less waxy and of a lighter color (see Figures 101 and 102; see description in section 2.2.2.2). These characteristics indicate a placement in an Early to Early/Middle Facet of the Cehpech Complex.



Figure 101: Muna Slate basin bolster rim from the Refuse Deposit outside the limit of the Motul Terrace



Figure 102: Muna Slate basin direct rim from the Refuse Deposit outside the limit of the Yabnal-Motul Terrace

The rim of a bell-shaped basin was also found (see Figure 102), similar in form to the Say-Slate Group example of the Temple of the Stuccoes abandonment mentioned previously (see Figure 59e). This indicates that some forms of the late Yabnal-Motul complex continued to be produced in the early stages following the advent of the Cehpech complex.

CONTEXT C6: The construction of the Temple of Sacrifice, Structure 5C4-II, Initial Series Building

After the extension of the Cehpech Terrace, and after destruction of the Temple of the Stuccoes (5C14-I) discussed earlier in the text (Context M6), a new building (5C4-II) was erected. This building, named the Temple of the Sacrifice because a “sacrificial stone” appears in front of its entrance (Figure 103), was built on top of the lower walls and debris of the razed structures (Osorio 2004). All the ceramics collected from the interior of the construction of this building were analyzed and the results are shown in Chart 19.

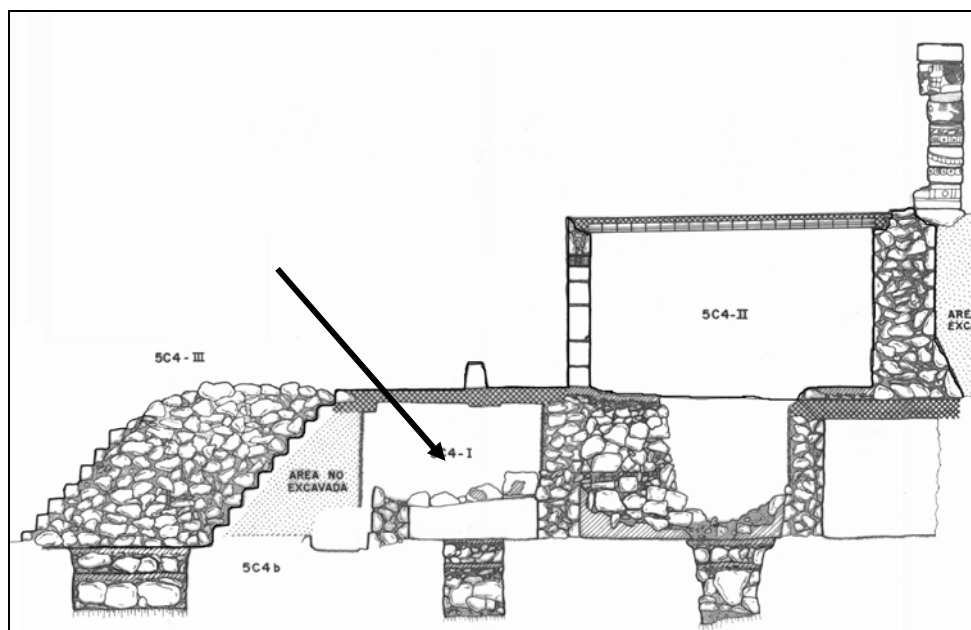


Figure 103: Construction Fill of the Platform of the Temple of the Sacrifice (5C4-II) covered the Temple of the Stuccoes (5C4-I)

Only a few sherds of the Huuntun-Cehpech Complex (0.2%) are present, which would represent a very early Facet of that complex (compare it with the 91.7% of Motul ceramics in the same fill). Accordingly, we may think that the construction of this building happened soon after the construction of the Temple of the Phalli and the terrace extension, circa A.D. 850-880. This makes it contemporary to the majority of “Puuc” style buildings at the site.

CHART 19: MATERIAL FROM THE CONSTRUCTION FILL (STR. 5C4-II)

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	24	1.79%
COCHUAH	16	1.19%
MOTUL	1227	91.77%
CEHPECH	3	0.22%
NOT ASSIGNED	67	5.01%
TOTAL	1337	

LOTS: X411A, X411B, X411C, X411D, X411E, X411G, X412, X412A, X412B, X413, X413A, X413B, X416, X417, X417A, X417B, X417C, X418, X422, X422A, X424, X426, X427, X428.

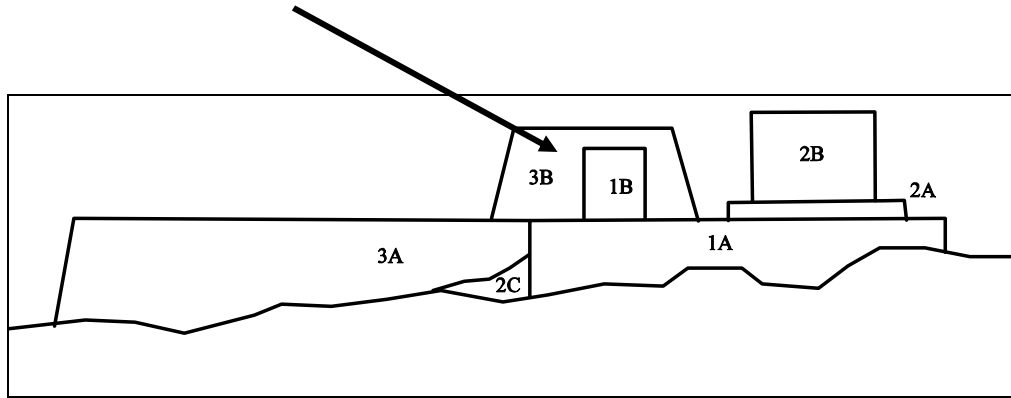


Figure 104: Schematic section of the Temple of the Sacrificial Stone (3B). Notice it rests partially on the Cehpech terrace extension (3A).

In conclusion, the construction of the Temple of Sacrifice could be associated with a very early development of the Huuntun-Cehpech ceramic complex. This chronology would associate this specific two-room temple with the Terminal Classic. Several other buildings at Chichen Itza such as Structures 4B1, 7B1 and 5B16 show similar plans, but they cannot be considered necessarily coeval without excavation.

The overwhelming quantity of Yabnal-Motul sherds used in fill for this construction may imply that large refuse deposits of such materials existed around the Yabnal-Motul Terrace. Such quantities, given the relatively small size of the Motul terrace, may consequently signify a long-term habitation in this area during the Late Classic period.

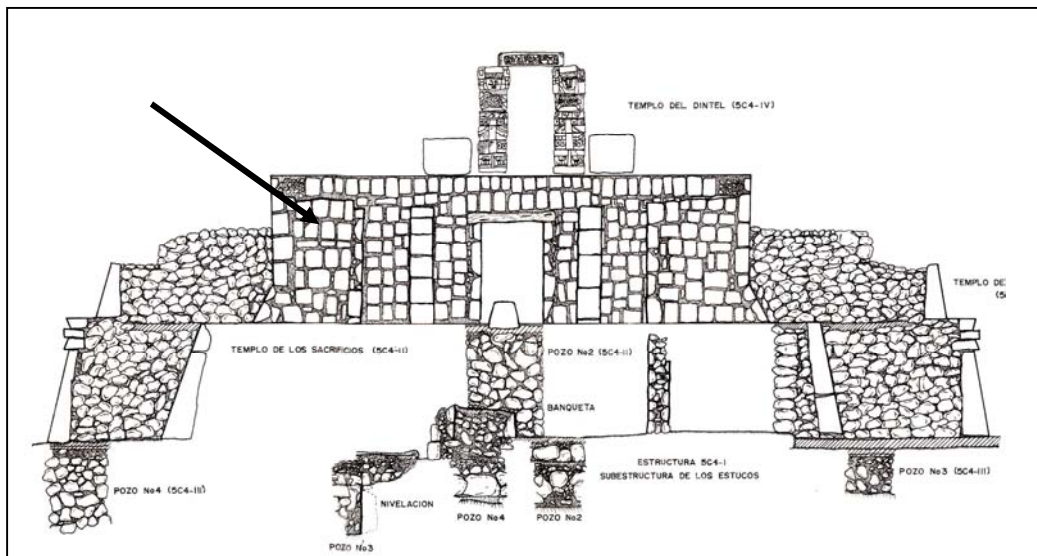


Figure 105: The Temple of Sacrifice, North-South profile showing earlier and later constructions. Arrow indicates Temple of the Sacrificial Stone 5C4-II.

CONTEXT C7: Burial 2, on Terrace under Altar 5C1a. Northwest area of the Initial Series Group.

An adult male burial was found inside the northwest extension of the Initial Series Terrace extension (Euán 2002; see Figure 106). It contained three vessels which can be classified in the Cehpech Complex (see Figure 107). Two of the vessels' characteristics pertain to the Muna Slate Group (*b*, *c*); the third vessel corresponds to the Red Teabo Group (*a*). This constitutes the first pure Cehpech burial identified as such at Chichen Itza.

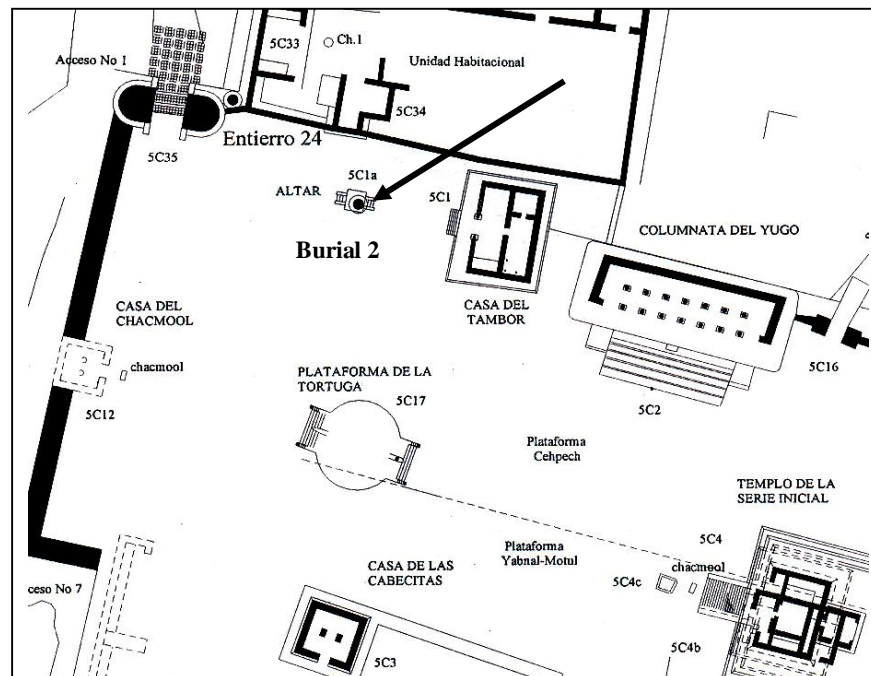


Figure 106: Location of Burial 2, under Altar 5C1a



Figure 107: Vessels from Burial 2, under Altar 5C1a

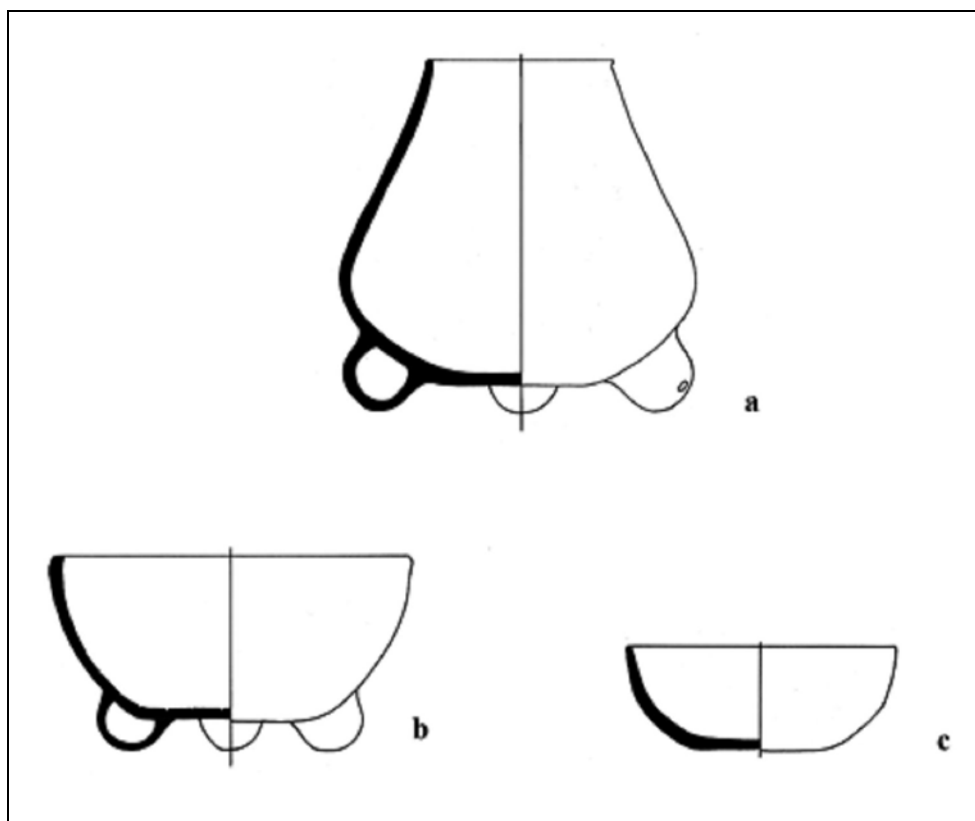


Figure 108: Vessels from Burial 2, under Altar 5C1a

Figure 108 shows the profiles of the ceramics of this context. The vessel forms differ from those characteristic of the Muna Group recovered from the Puuc sites, especially the deep tripod grinding bowl with hollow legs (*b*). The small flat-bottom bowl (*c*) is also an unusual example of the Muna Group, in which bowls are usually slab-legged as in the previous Say Slateware. Both items display the thick, waxy slip of the fully developed Muna Group. Finally, the tripod vase (*a*) is classified as a thin vase of the Teabo Red Type, although the form has not been previously reported.

As unusual as these vessels are from the rest of the Chichen Itza ceramic corpus, these forms are absent from the preceding Yabnal-Motul complex and from the succeeding Sotuta Complex.

CONTEXT C8: The Sub-structure under Colonnade 5C2 (Str. 5C2-sub)

A possible sub-structure (5C2-sub) of the Colonnade was detected by G. Euán (2002) during excavation of a trench in this building (see Figures 109-111). The stone facing of the building was dismantled for the construction of Colonnaded Structure 5C2. Euán discerned differences in the construction fill technique in the north part of the trench; these differences were later confirmed by the ceramic contents of this trench, which shows a Cehpech complex fill. In contrast, the later Colonnade 5C2 was constructed during the Sotuta Complex, according to test-pits in the NW and SW corners of 5C2 (see Context S9). Materials from inside this sub-structure show an important number of Cehpech sherds (63.8% of the construction fill). Later sherds, such as four Sotuta Complex fragments and one Tases Complex sherd from the upper layer of the trench probably filtered into the fill.

Accordingly, the date for this sub-structure must fall within the Late Facet of the Cehpech Complex (ca. A.D. 920). In a more extreme adjustment, assuming the four Sotuta sherds were not filtered from surface, the construction will date not much later, into the very Early Facet of the Sotuta Complex (ca. A.D. 950).

CHART 20: MATERIAL OF THE CONSTRUCTION FILL OF THE CENTRAL PART OF STRUCTURE 5C2 (5C2-Sub) Central Trench cutting the structure North-South

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	3	0.64%
COCHUAH	1	0.21%
MOTUL	52	11.18%
CEHPECH	297	63.87%
SOTUTA	4	0.85%
TASES	1	0.21%
NOT ASSIGNED	107	23.01%
TOTAL	465	

LOTS: X517A, X517B, X518, X518B, X519, X519A, X519B, X520, X520A, X520C, X523, X523B.

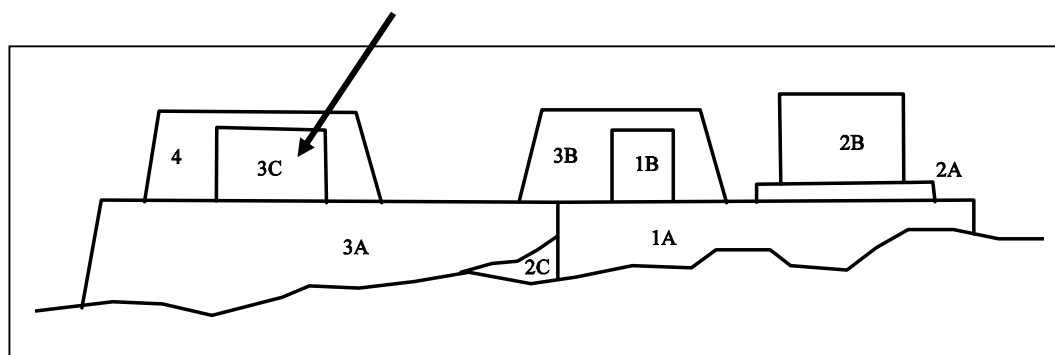


Figure 109: Location of Sub-structure 5C2-sub (Phase 3C) inside Structure 5C2 (Phase 4). Schematic section

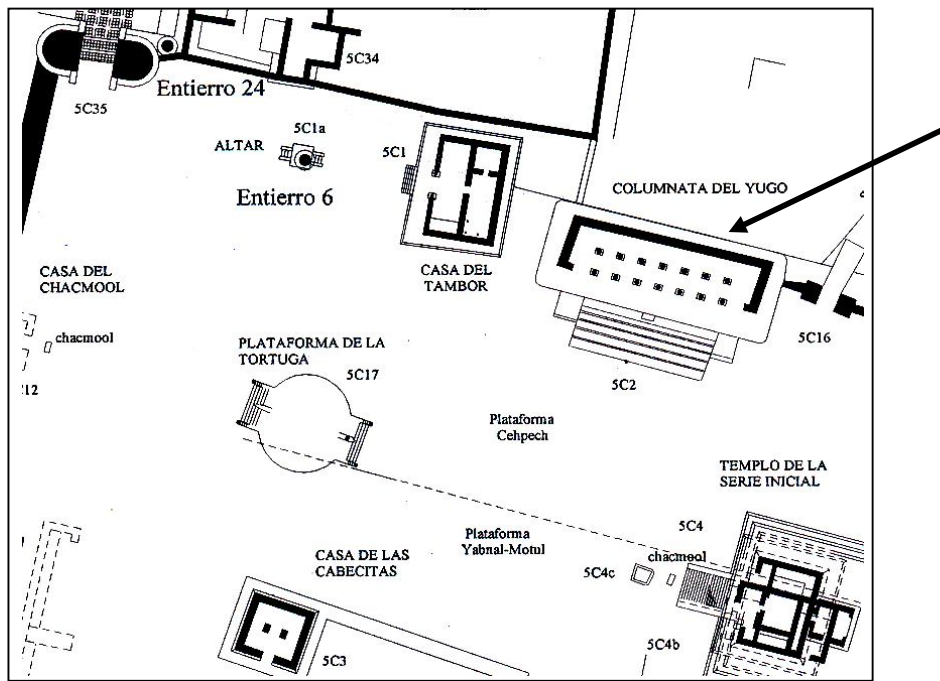


Figure 110: Location of Structure 5C2

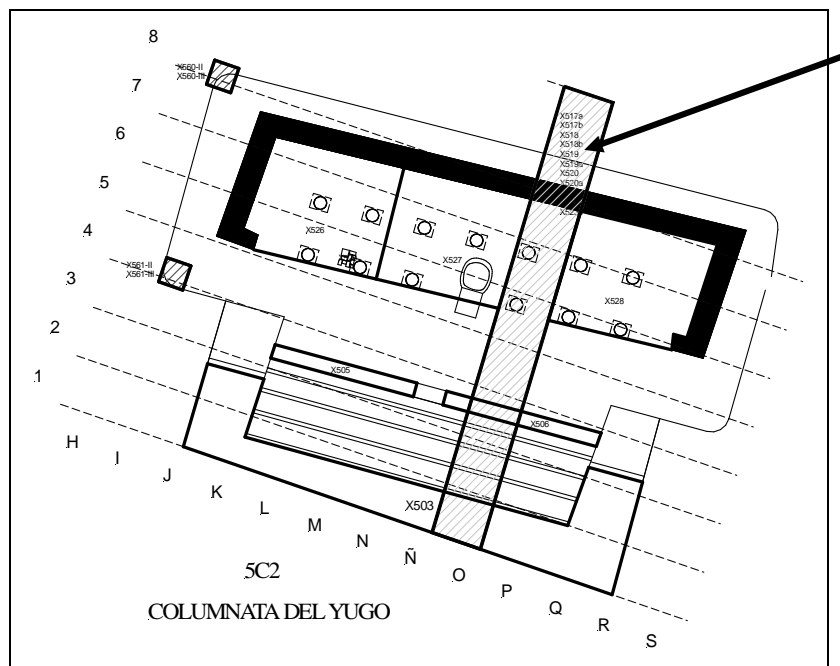


Figure 111: Plan of 5C2 showing location of trench across the platform. Test-pits in NW and SW corners are presented in Context S9.

The construction of 5C2-Sub represents, then, a more advanced facet into the Cehpech Complex evolution than other buildings analyzed previously in this section, such as the Casa Colorada, Temple of Sacrifice (5C4-II), House of the Phalli (5C14-I), or the Akabdzib (4D1)

CONTEXT C9: Pure Cehpech Deposit inside Terrace 4D6 (Structure 4D6-sub)

A possible refuse deposit of Cehpech materials, later covered by Terrace 4D6, was uncovered by a series of testpits excavated in this large structure southeast of the Castillo Pyramid. In the lower layers of those test-pits, investigated by F. Pérez (2000), a pure Cehpech context was found. This layer (Layer III) is at the same level and on the outside of a low sub-platform which was partially exposed by the test-pits (Str. 4D6-sub). The materials in the deposit analyzed here pertain to the refuse of the users of the substructure.



Figure 112: Terrace 4D6

Layer III of three separate excavations (Test-pits 16, 20, 21 and 22) presents different percentages of Cehpech Complex ceramics, ranging from 49% to 100% (See Charts 21 to 25).

CHART 21: MATERIAL AT THE BOTTOM INSIDE THE CONSTRUCTION FILL OF 4D6. TEST-PIT 21, LAYER III

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
CEHPECH	27	100%
TOTAL	27	

Lot: N-655-III

CHART 22: MATERIAL AT THE BOTTOM INSIDE THE CONSTRUCTION FILL OF 4D6. TEST-PIT 16, LAYER III

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	19	36.53%
CEHPECH	27	51.92%
NOT ASSIGNED	6	11.53%
TOTAL	52	

Lot: N-650-III

CHART 23: MATERIAL AT THE BOTTOM INSIDE THE CONSTRUCTION FILL OF 4D6.

TEST-PIT 20, LAYER III

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	17	20.98%
CEHPECH	59	72.83%
NOT ASSIGNED	5	6.17%
TOTAL	81	

Lot: N-654-III

CHART 24: MATERIAL AT THE BOTTOM INSIDE THE CONSTRUCTION FILL OF 4D6

TEST-PIT 22, LAYER III

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	16	31.37%
CEHPECH	25	49.01%
NOT ASSIGNED	10	19.60%
TOTAL	51	

Lot: N-656-III

A sum of the materials of Layer III in the four test-pits is shown in Chart 25. It gives an overall figure of 65.4% for Cehpech Complex ceramics within this layer.

CHART 25: MATERIAL AT THE BOTTOM INSIDE THE CONSTRUCTION FILL OF 4D6

LAYER III OF ALL THE TEST-PITS: 16, 20, 21 and 22.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	52	24.64%
CEHPECH	138	65.40%
NOT ASSIGNED	21	9.95%
TOTAL	211	

Lots: N-655-III, N-656-III, N-654-III, N-650-III

The majority of Slateware found in this deposit matches the dark-brown, waxy, Muna slip of the well developed Muna Group. Therefore, a date into the Late Facet of the Huuntun-Cehpech complex for the formation of this deposit seems advisable (ca. A.D. 900).

CONTEXT C10: Cehpech Terrace levels at the Plaza del Castillo (Great Terrace)

In 2001 R. González excavated a pit in front of the East façade of the Castillo Pyramid as part of the installation of a lightning rod. Analysis of the pit's contents demonstrated very low quantities of fragments (see Charts 26 to 28), but a significant percentage of Cehpech sherds is present all three layers. The lowest levels in this excavation did not produce any sherds (Figure 113).

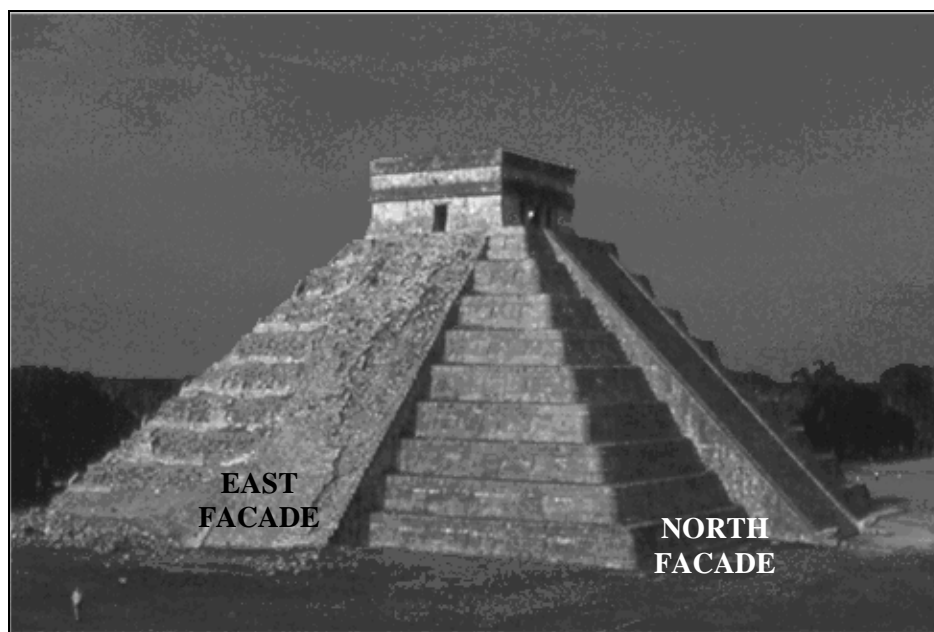


Figure 113: El Castillo or Pyramid of Kukulcan

Chart 26: Test-pit at the East Façade of the Castillo, Layer I

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	2	25.00%
CEHPECH	3	37.50%
NOT ASSIGNED	3	37.50%
TOTAL	8	

Lot: G-70

Chart 27: Test-pit at the East Façade of the Castillo, Layer II

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	6	37.50%
CEHPECH	8	50.00%
NOT ASSIGNED	2	12.50%
TOTAL	16	

Lot: G-70-A

Chart 28: Test-pit at the East Façade of the Castillo, Layer 1II

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
CEHPECH	1	50%
NOT ASSIGNED	1	50%
TOTAL	2	

Lot: G-70-B

Several collections recovered by Peter Schmidt during the installation of the Sound and Light Show in 1979 corroborate the tendencies seen in the Castillo test pit. The analysis of those is still in progress, but they already reveal the existence of pure deposits of both Yabnal-Motul and Huuntun-Cehpech complexes in a vast majority of the collections (see also Context M4).

At least two phases of construction of the platform/terrace during the Cehpech Complex can be postulated in the upper levels of the pit with the information at hand. In the lower levels, at least three other stages of terrace construction are possibly of Yabnal-Motul (Late Classic period) construction (Figure 113).

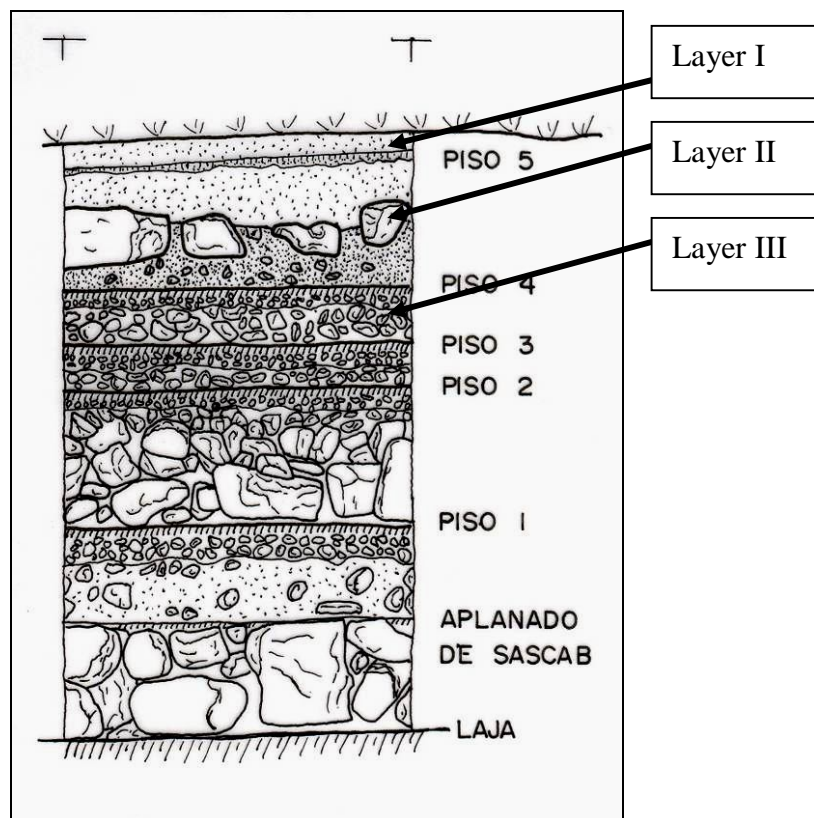


Figure 114: South Wall of the Pit at the East Façade of the Castillo

CONTEXT C11: The construction of the Caracol upper rectangular platform

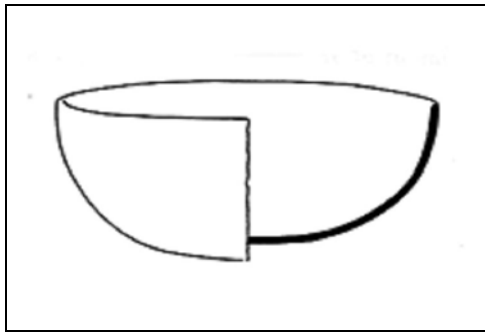
The Caracol (Structure 3C15) is an emblematic monument of the city. The Caracol Tower originally had a frieze decoration of niches with glyphic serpent frames containing calendar dates. They were found collapsed, but their association with the construction of the building is clear. The dates are clustered in three groups, ca. A.D. 877; ca. A.D. 885, and a more problematic date A.D. 911 (Voss 2001; see Contexts M7 and M8).



Figure 115: The Caracol. Location of Upper Rectangular Platform.

The Carnegie Institution of Washington excavations of the Caracol, directed by Karl Ruppert (1931), determined several phases of construction. Pertinent to the Terminal Classic period, two vessels were found “*in upper rectangular platform, base 48 cm. under floor, unslipped striated jar, medium Slateware rounded bowl*” (Brainerd 1958: 37)

Brainerd tentatively assigned this bowl (Figure 116) to his Early Mexican slateware (Smith’s Chichen Slateware of the Sotuta Complex); however, I think there is another preferred classification. Although I have not physically examined the bowl, I think that its shape identifies it as either Tohopku Thin Slateware or Ticul Thin Slateware. Accordingly, this cache, as well as the construction of the upper rectangular platform will date either to the Late Facet Yabnal-Motul complex or to the Huuntun-Cehpech complex, but in no way to the Sotuta Complex.



**Figure 116: Cache vessel found under floor of upper rectangular platform.
Brainerd 1958; fig: 74f**

Two similar forms are illustrated by Brainerd (1958) for the Florescent-Terminal Classic period and reproduced in Figure 117. The first (*a*) is a bowl of the Teabo Red Group from near the Sacbe 1, north of El Castillo pyramid at Chichen Itza (1958: fig. 87w). The second (*b*) is a bowl from Labna which pertains to the Ticul Thin Slate Group. This is another Terminal Classic vessel shape whose form is comparable, but exhibits slightly more constriction (1958: fig. 62h).

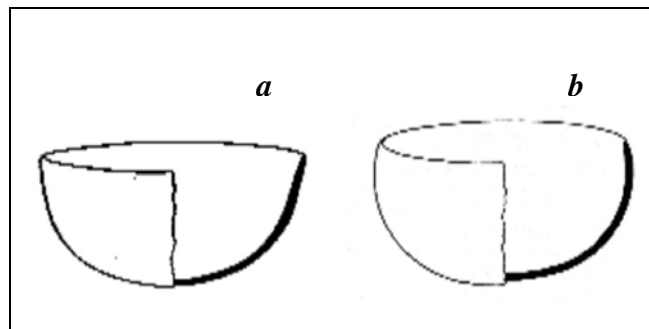


Figure 117: Comparable Terminal Classic bowls (Brainerd 1958, figs. 87w, 62h)

The Caracol represents, then, another late ninth-century construction without Sotuta ceramics in its construction fill.

CONTEXT C12: Construction of the Monjas Complex (Strs. 4C1, 4C3, 4C4)

The Monjas architectural complex is an impressive arrangement of constructions realized during different periods, but is associated primarily with the Terminal Classic period. It represents the most important concentration of “Maya-Puuc” style buildings at the site; it could be considered the administrative and political center of the city during this time.

George Brainerd bitterly criticized in 1958 the loss of the contextual association of the vast ceramic collection from the Monjas Complex because it was his conviction – and I share his opinion - that those collections would have defined a ceramic sequence that could have been applied more widely at the site:

“The Monjas group at Chichen Itza shows more stratigraphic complexity than any other building group excavated and should produce correspondingly more information ... In general, there is little pottery from the Monjas excavations dating later than the Early Mexican substage, and little earlier than that of Florescent stage. Medium Slateware is the major slipped ware of all deposits, and there is considerably less evidence of the later Coarse Slateware and Coarse Redware than in the Caracol collections” (Brainerd 1958: 42, 43).

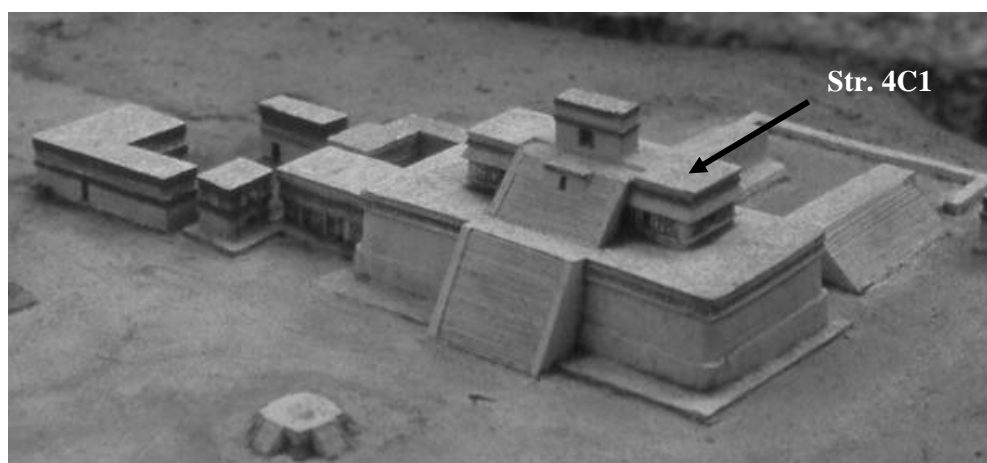


Figure 118: The Monjas architectural complex showing location of Structure 4C1. Reconstruction model at the entrance to the site.

Structure 4C1 at the Monjas Complex (Figure 118) is a range-type building with hieroglyphic inscriptions in the lintels of seven of its rooms, associated with a dedication date of A.D. 880.

A striated jar was found below surface in front of Room 17 (Bolles 1977), which corresponds to the construction fill of the building with lintels. It is difficult to date with absolute certainty, with only a photograph available, but according to the shape it could correspond either to the Unslipped Ware (Katil Striated Type) of the Yabnal-Motul ceramic complex (see Figures 44m, 62), or to the Yokat Striated type of the Huuntun-Cehpech ceramic complex (see Figure 1290a).



Figure 119: Striated jar from the Monjas Complex (Bolles 1977)

CONTEXT C13: The Sacred Well

As explained in the previous section, the collection remaining from the 1960s INAH explorations of the Sacred Well were classified in 1997 (Pérez de Heredia 1998; see also Contexts M10, S43, H25, and T15). A total of 552 sherds from the Sacred Well were identified as Cehpech. This figure represents only a 0.7% of the total collection, but it shows a high variability of types (19 different types contained in 10 Wares; see Chart 29), making it a very representative collection of the typology of this complex.

CHUM UNSLIPPED GROUP	7
Oxkutzcab Applied Type: Oxkutzcab Variety	3
Yokat Striated Type: Yokat Variety	4
MUNA SLATE GROUP	198
Muna Slate Type: Muna Variety	171
Sacalum Black on Slate Type: Sacalum Variety	17
Tekit Incised Type: Tekit Variety	9
Akil Impressed Type: Akil Variety	1
TICUL THIN SLATE GROUP	74
Ticul Thin Slate Type: Ticul Variety	67
Xul Incised Type: Xul Variety	7
TEABO RED GROUP	1
Teabo Red Type: Teabo Variety	1
BALANCAN FINE ORANGE GROUP	3
Provincia Plano-Relieve Type: Provincia Variety	2
Palizada Black on Orange Type: Palizada Variety	1
HOLACTUN CREAM GROUP	39
Holactun Black on Cream Type: Holactun Variety	33
Another Group Holactun Cream: Plano Relieve	6
ACHOTE GROUP	21
Achote Type: Achote Variety	4
Torro Gouged-Incised Type: Torro Variety	17
ZUMPULCHE GROUP	1
Chunkatzin Red on Thin Slate Type: Chunkatzin Variety ---	1
VISTA ALEGRE GROUP	14
Vista Alegre Striated Type: Vista Alegre Variety	14
MAQUINA BROWN GROUP	25
Azúcar Impressed Type: Azúcar Variety	24
Another Group Máquina: Gadrooned	1

Chart 29: Huuntun-Cehpech Complex Types represented in the 1960s collection of the Sacred Well.

The reasons for the small amount of Cehpech ceramics can be attributed partially to the technique and reach of the excavations conducted at the Cenote. The dredging mainly involved the upper layers of the deposit, and was stopped shortly after reaching the middle layers (see Piña Chan 1970).

It is important to remember that a sizeable collection of complete and restorable Cehpech vessels (see Figure 82) from the 1960s explorations is kept at the “Palacio Cantón” Museum in Mérida.

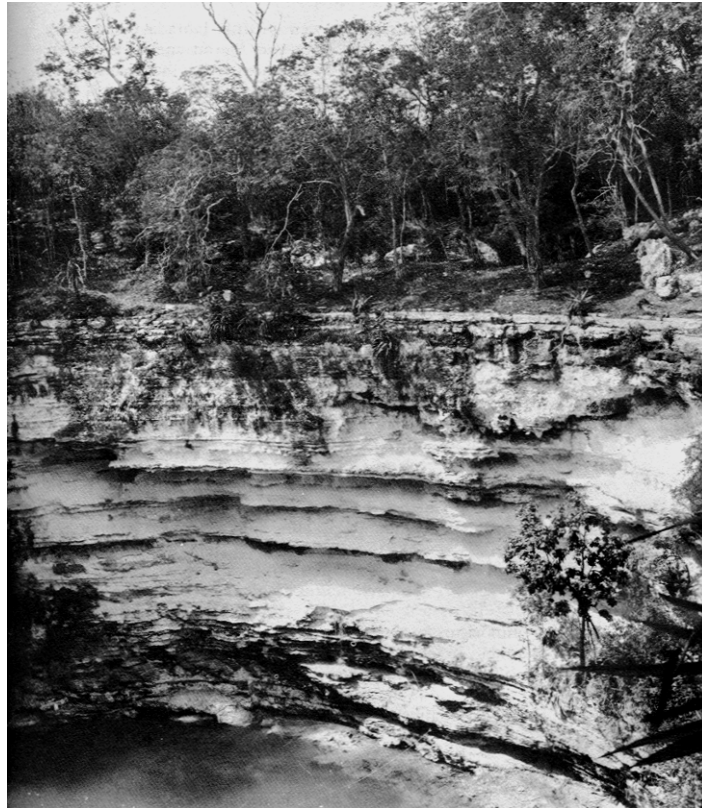


Figure 120: The Sacred Well

It is possible that a substantial amount of Huuntun-Cehpech ceramics remain still at the bottom of the Sacred Well.

CONTEXT C14 Chultun of the Three Lintels Building

A chultun close to the Three Lintels building (Str. 7B3) produced a varied example of Huuntun-Cehpech Complex ceramics (see Chart 30). Cehpech is represented by 431 sherds, 1.6% of the ceramics excavated (Pérez de Heredia 1997), and a considerable range of types (15 Types and 7 Wares).

PUUC UNSLIPPED WARE -----	114
CHUM UNSLIPPED GROUP -----	114
Yokat Striated Type: Yokat Variety -----	114
PUUC SLATE WARE -----	155
MUNA SLATE GROUP -----	155
Muna Slate Type: Muna Variety -----	103
Sacalum Black on Slate Type: Sacalum Variety -----	17
Tekit Incised Type: Tekit Variety -----	26
Akil Impressed Type: Akil Variety -----	4
Chumayel Red on Slate Type: Chumayel Variety -----	2
Nohcacab Composite Type: Nohcacab Variety -----	2
Yaxnic Modelled Type: Yaxnic Variety -----	1
THIN SLATE WARE -----	140
TICUL THIN SLATE GROUP -----	140
Ticul Thin Slate Type: Ticul Variety -----	136
Ticul Thin Slate Type: Xelhà Variety -----	3
Acacia Modelled Type: Acacia Variety -----	1
PUUC RED WARE -----	10
TEABO RED GROUP -----	10
Teabo Red Type: Teabo Variety -----	10
FINE ORANGE WARE -----	1
BALANCAN FINE ORANGE GROUP -----	1
Provincia Plano Relieve Type: Provincia Variety -----	1
CAUICH CREAM COARSE WARE -----	11
HOLACTUN CREAM GROUP -----	11
Holactun Black on Cream Type: Holactun Variety -----	11
WARE ? -----	9
VISTA ALEGRE GROUP -----	9
Vista Alegre Striated Type: Vista Alegre Variety -----	9

Chart 30: Huuntun-Cehpech Complex Types represented in the collection from Chultun of Three Lintels

It is possible that these fragments correspond to the original habitation of the House of the Three Lintels, revealing access to fine and imported wares during the Terminal Classic period.

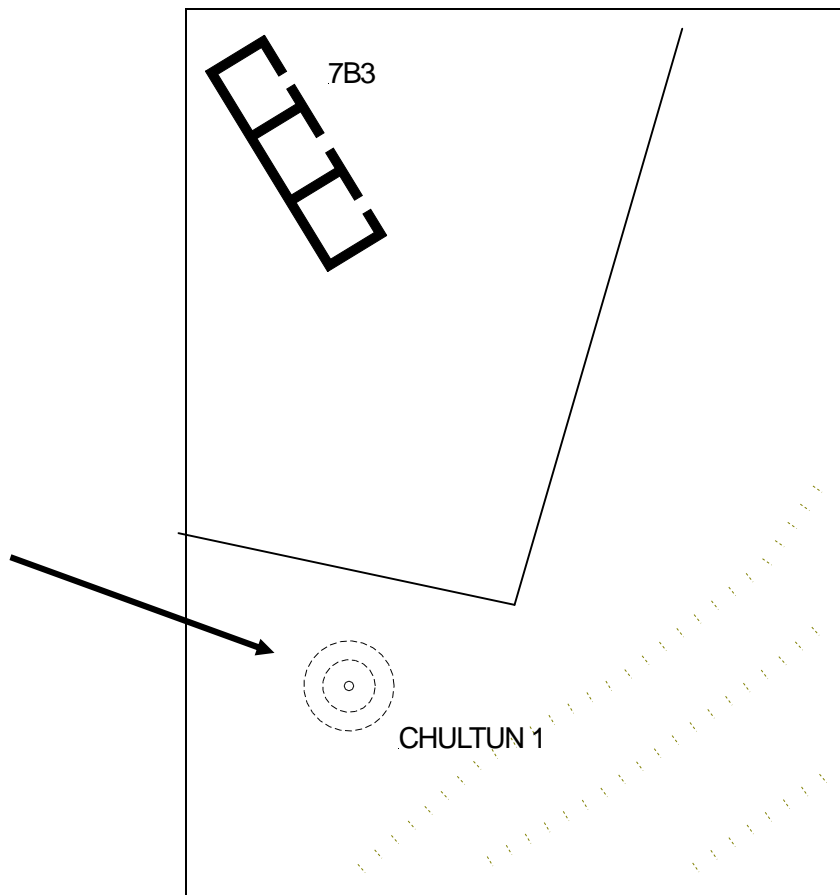


Figure 121: Location of the Chultun of the Three Lintels Building (7B3)

Nevertheless, the small amount of Huuntun-Cehpech sherds found inside this chultun raise questions about the phenomenology of Cehpech archaeological contexts at Chichen Itza.

At least two more contexts with Huuntun-Cehpech ceramics merit a mention in this section:

CONTEXT C15: Tourist Entrance and Museum Area

A collection obtained during the excavations of a foundation pillar for the construction of the tourist entrance to the site during 1985 by P. Schmidt, yielded 79 Cehpech sherds representing 17.75% of this sample (Lots CHI85-5; CHI85-6). The sample is not directly associated with any construction or terrace and offers a more random collection than those already discussed; it corroborates occupation in the immediate vicinity of the Great Terrace during the Terminal Classic Period.



Figure 122: Tourist entrance area at Chichen Itza

CONTEXT C16: The Altar of Sacbe 6 (Structure 3E22)

Structure 3E22, is located in the triangle formed by the union of Sacbe 6 and Sacbe 53, halfway between the Great Terrace (Plaza del Castillo) and the East Group (or Grupo de Bóvedas). J. Osorio and M. Carrillo excavated the structure in 1993. During the clearing of the building the team recovered a ceramic collection containing 120 Cehpech sherds, representing 10.7% of the materials of the “Altar” of Sacbe 6. This sample may be representative of the habitation of the East Group during the Terminal Classic period, but cannot be directly related to the construction or use of Structure 3E22.

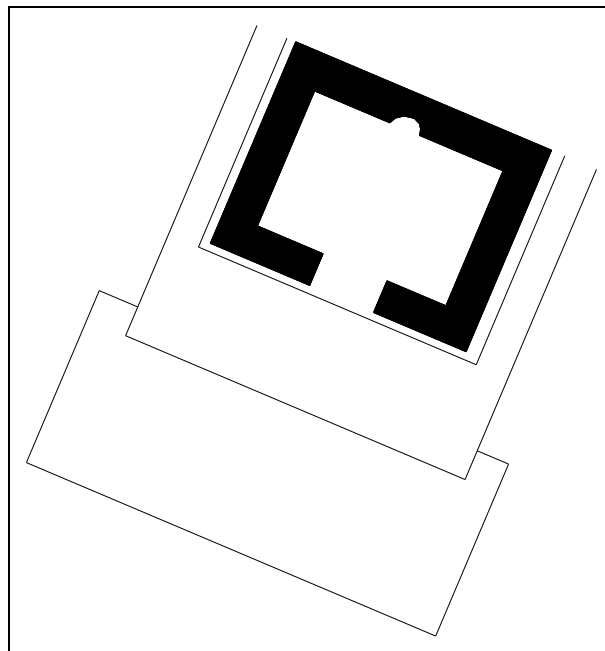


Figure 123: Altar of Sacbe 6

CONTEXT C17: Burial 6, Initial Series Group

Two infant burials found in the northeast quarter of the Cehpech terrace extension of the Initial Series Group both featured Motul vessels (see Figures 124 and 126; Pérez de Heredia et al. 2004). The location of these findings inside the Cehpech Terrace extension allows us to consider them as residual objects of the Yabnal-Motul Complex and demonstrates that vessels of the Yabnal-Motul Complex were still in use during the beginning of the Huuntun-Cehpech Complex.

Burial 6 was found under Altar 5C1a (Figure 125), and consisted of two Basins (Figure 124), one of Say Slateware (*a*) and one of Casassus Redware on top (*b*). Traces of use wear and breakage prior to their deposition are present on both of these vessels.

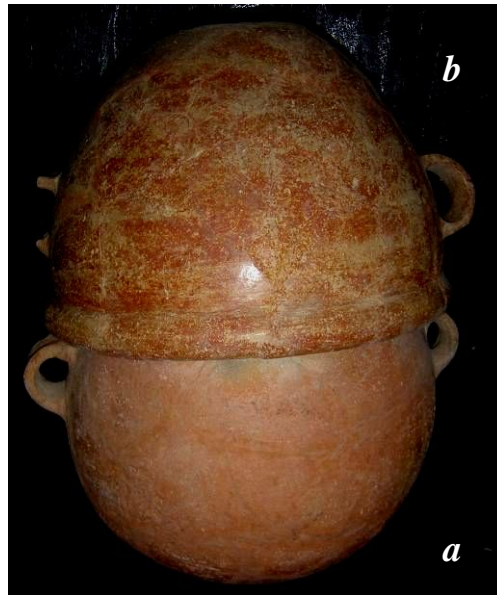


Figure 124: Burial 6, (Vessels restored)

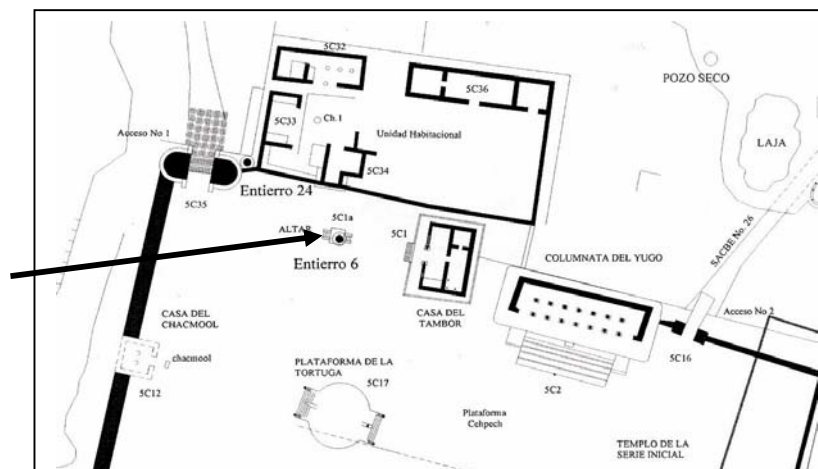


Figure 125: Location of Burial 6

CONTEXT C18: Burial 24, Initial Series Group

Burial 24, located at the northwest limit of Initial Series Cehpech terrace, consists of a bowl and a plate placed on top of it. Both ceramics are examples of Say Slate Ware and show traces of heavy wear before their deposition (Figure 126).



Figure 126: Burial 24 (The Vessels are cracked from the weight of the fill of the terrace).

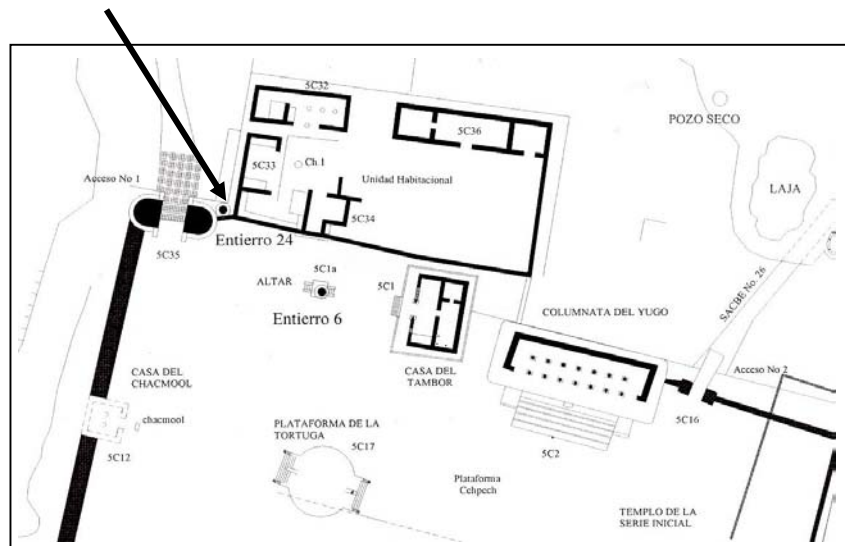


Figure 127: Location of Burial 24, Infant Burial.

These vessels can be linked to the ceremonies represented in the House of the Phalli (5C14-I). The carved panels from frieze of the Phalli depict ceremonial scenes (Osorio 2004) that include ceramic vessels (Figure 128). One of the panels portrays a child seated on a basin, the form of which resembles the basins in Burial 6 (Perez de Heredia et al 2004; compare Figures 124 and 128).

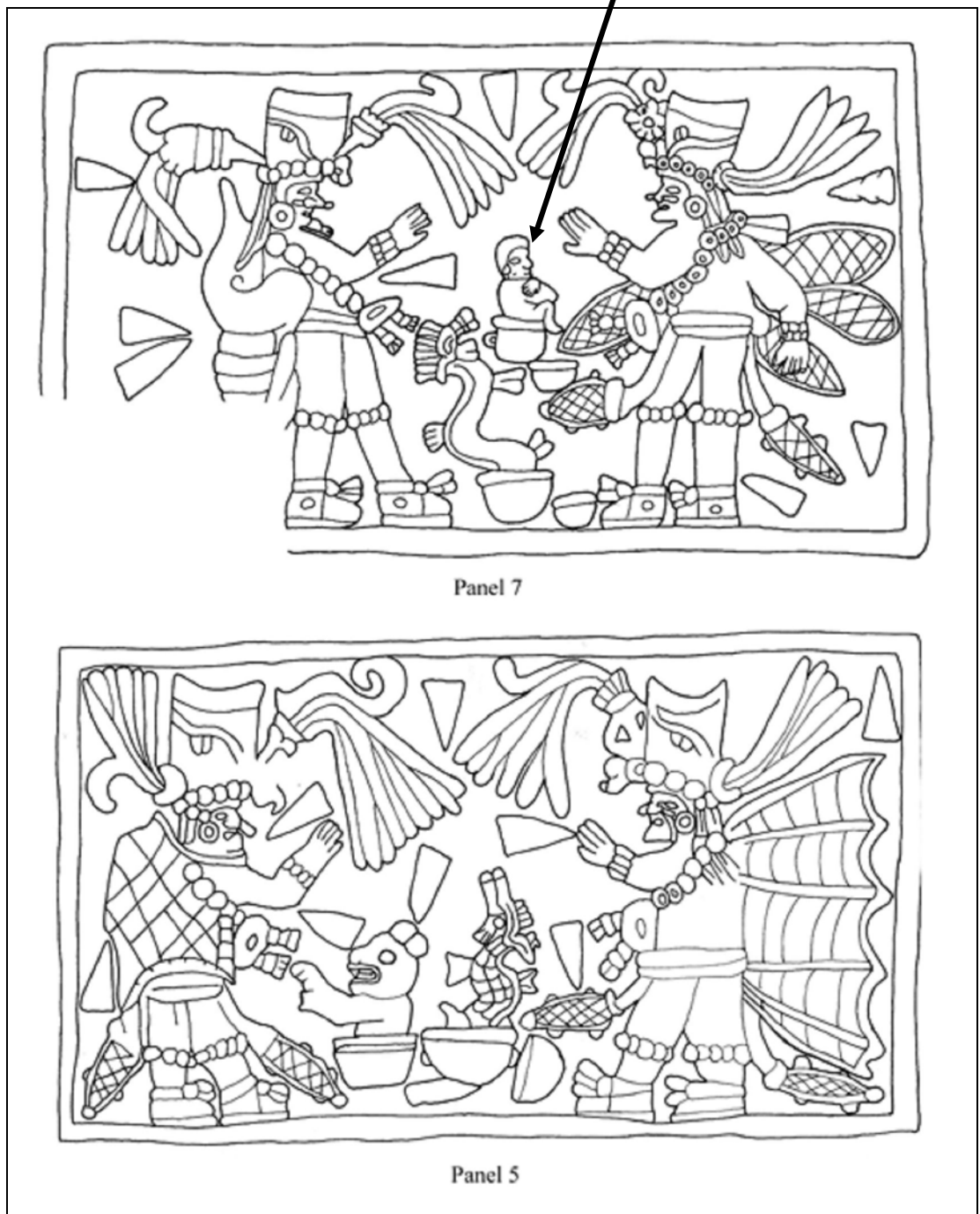


Figure 128: Panels of the House of the Phalli depicting vessels similar to basins in Burial 24. The vessel in panel 7 is associated with an infant.

2.2.2.4 Other Groups of the Huuntun-Cehpech Complex at Chichen Itza

The Huuntun-Cehpech Ceramic Complex is represented at Chichen Itza almost by the whole range of Groups that make up its traditional definition (Smith 1971). Some of them are represented in our collections only by fragments, but there are also many complete Cehpech vessels as well as a number of restorable ones. I shall not enter here into a description or lengthy discussion of all those wares, but, in order to present a more comprehensive view of the Huuntun-Cehpech Complex; below I have illustrated a number of vessels and sherds.

The Unslipped Chum Group consists of two dominant forms during this period: striated jars, with deep, wide striations and characteristic rims (Figure 129*a*) and big, spiked censers (Figure 129 *b, c, d*). No complete or restorable vessels of this group have been found thus far at Chichen Itza. All examples shown in Figure 129 come from the Puuc area.

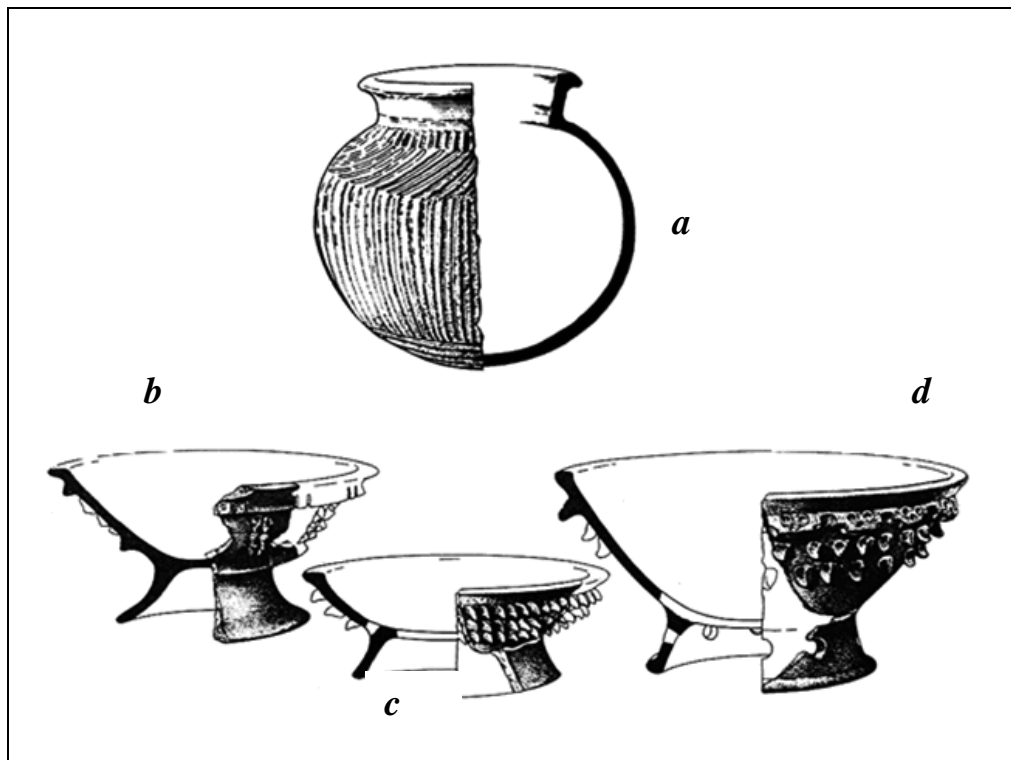


Figure 129: Unslipped Ware (*a* from Dzan; *b, c, d* from Uxmal; after Brainerd 1958)

The Holactun Group is represented at Chichen Itza only by two vessels from the Sacred Well (Figure 130*a* and *b*) and some isolated sherds. The second jar (*b*) bears a post-fire incision in the form of a feathered serpent. The complete vessel in Figure 131, shown for comparative purposes, is of unknown provenance (Brainerd 1958).

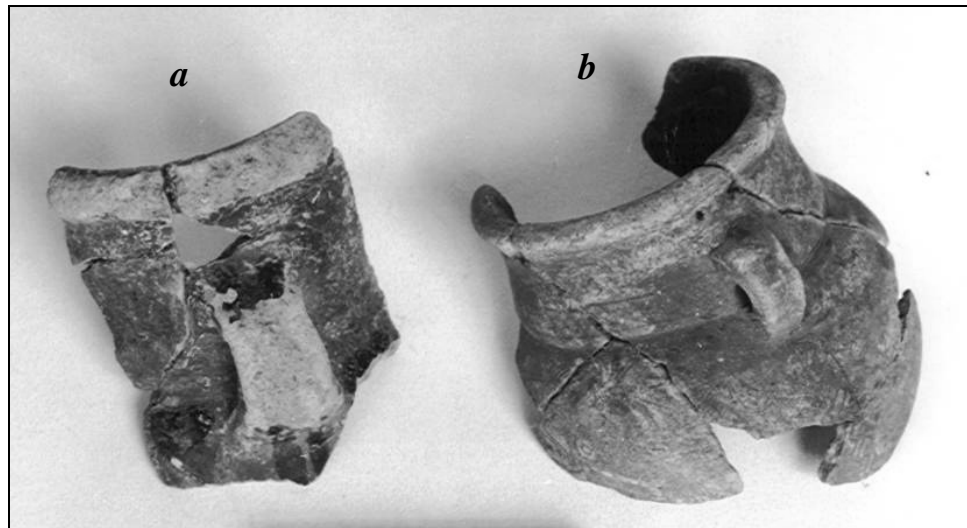


Figure 130: Holactun Cream Group from the Sacred Well, Chichen Itza

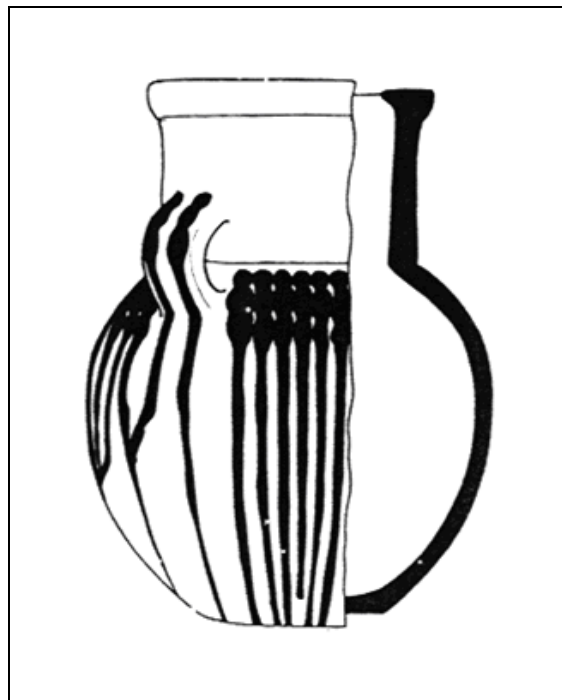


Figure 131: Holactun Cream Group typical jar form (Brainerd 1958)

Two restored vessels of Ticul Thin Slate Group from Chichen Itza are shown in Figure 132. Isolated sherds of this ware are difficult to differentiate from the Tohopku Thin Slate of the Motul ceramic complex. More collections of Tohopku Thin Slate are sorely needed in order to more clearly define its characteristics. Both examples shown in Figure 132 are, nevertheless, unmistakable Ticul Thin Slate in slip and paste. The first one (*a*) comes from the Northeast Colonnade refuse deposit (see Context S17), while (*b*) was excavated at the Phalli Complex in the Initial Series Group.

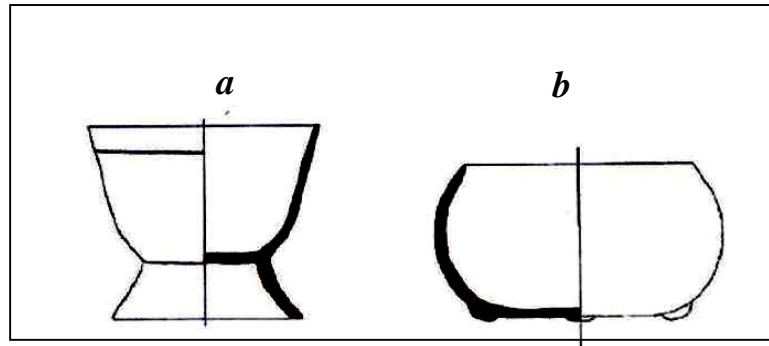


Figure 132: Ticul Thin Slate Group vessels from Chichen Itza

There are also two examples of the Balancan Fine Orange Group present in our collections from Chichen Itza. One example (Figure 133) comes from the Chultun of the Three Lintels, while the second vessel (Figure 134) was found during clearing of the terrace edge, south of Structure 5C8 in the Initial Series Group.

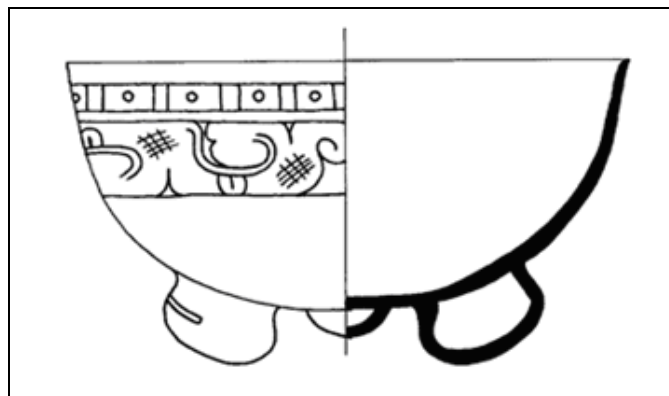


Figure 133: Balancan Fine Orange Group vessel from Chichen Itza

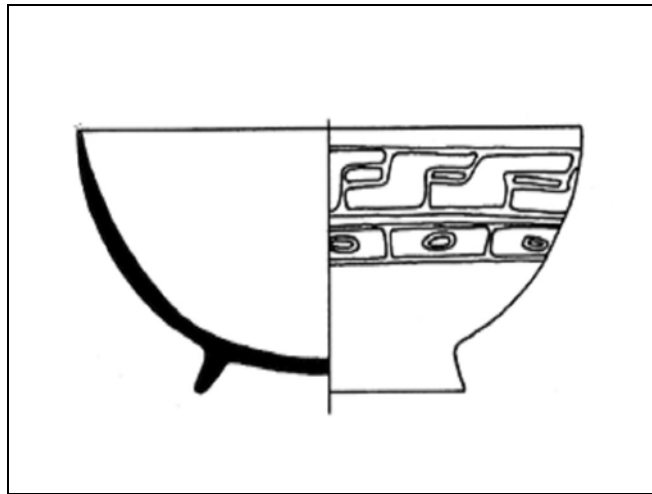


Figure 134: Balancan Fine Orange Group vessel from Chichen Itza

Finally, a restorable two-mouth vessel of the Tres Marias-Aventura striated type, an imported item from the eastern region of the peninsula, comes from the explorations of the Sacred Well (Figure 135).



Figure 135: Tres Marias/Aventura type

2.2.2.5 Extension of the Huuntun-Cehpech Complex at Chichen Itza

The distribution of Huuntun-Cehpech ceramics found at Chichen Itza, is shown in Map 5. The purple rectangles denote the presence of Huuntun-Cehpech ceramics; the size of the rectangle reflects the frequency of the presence. On the map, the architectural structures that can be dated to the Terminal Classic period through associated hieroglyphic inscriptions are shown in black. Those structures without inscriptions but of clear “Maya Puuc” style - indicated by plan, decoration or construction technique - are shown in blue. Permanent and temporary water sources are shown in red. The resulting image can be interpreted as follows: Terminal Classic architecture is generally aligned along a North-South axis (with the sole exception of the East or Bóvedas Group), and concentrates in the area southwest of Cenote Xtolok (Monjas, Caracol, Red House, Akabdzib), which was without doubt the political-administrative center of the site during the Terminal Classic period (see Figure 136).

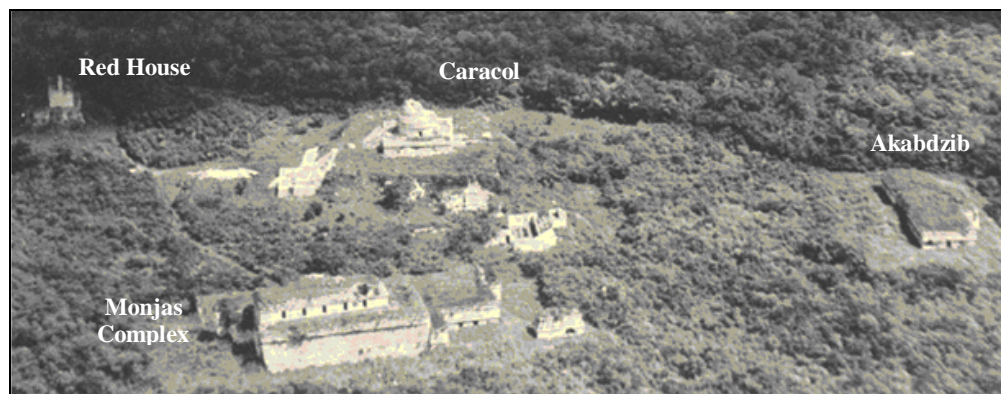


Figure 136: The Central Structures of the Terminal Classic period (after Morris 1931)

The Huuntun-Cehpech ceramics consistently appear around this architectural center, but they also appear on the periphery of the map. Huuntun-Cehpech ceramics are consistently associated with Cenotes (i.e. the Sacred Well, Cenote Ikil, Cenote Holtun) and sinkholes or rejolladas (i.e. Rejollada Thompson, Naranja, Abuelita). Map 5 offers still sketchy information, but it indicates an extensive occupation of the area, and can be used as additional argument for a chronologically discrete occupation of the site during the Huuntun-Cehpech Ceramic Complex. Most of the Huuntun-Cehpech locations coincide with Yabnal-Motul locations. Partly this is a consequence of the tendency of constructing structures on top of previous platforms and terraces, and also of the use of the same nearby permanent and temporary sources of water.

2.2.2.6 Summary of the Huuntun-Cehpech Complex at Chichen Itza

In my view, the quantity of Huuntun-Cehpech ceramic sherds and vessels, and the type of contexts in which Cehpech ceramics have been found at Chichen Itza point to a rather short duration of the Huuntun-Cehpech Complex and to a rather small population during the period associated with this Complex. Especially as compared both to the previous Yabnal-Motul Complex habitation, and to the subsequent Sotuta Complex habitation. Both Motul and Sotuta habitations were of longer duration, but also appear to have been more intense. The *beginning of production* of Huuntun-Cehpech ceramics cannot be dated at Chichen Itza before A.D. 800, but a date of A.D. 830-850 seems plausible based on the relative scarcity or complete absence of Huuntun-Cehpech ceramics in many buildings inscribed with calendrical inscriptions falling between A.D. 870 and 880 (see Figure 137).

The data presented in the next section attests that by approximately A.D. 1000 the construction fill of “Toltec” type structures already contain Sotuta refuse in their interior cores. The *end of production* of Huuntun-Cehpech ceramics at Chichen Itza can therefore be estimated around A.D. 930-950. This timeframe positions the Huuntun-Cehpech ceramic complex between A.D. 830/850 – 930/950, a span of 120 years for its maximum duration and only 80 years for its minimum. This concurs with the fact that only one generation of rulers is mentioned in the “Maya-Puuc” building inscriptions.

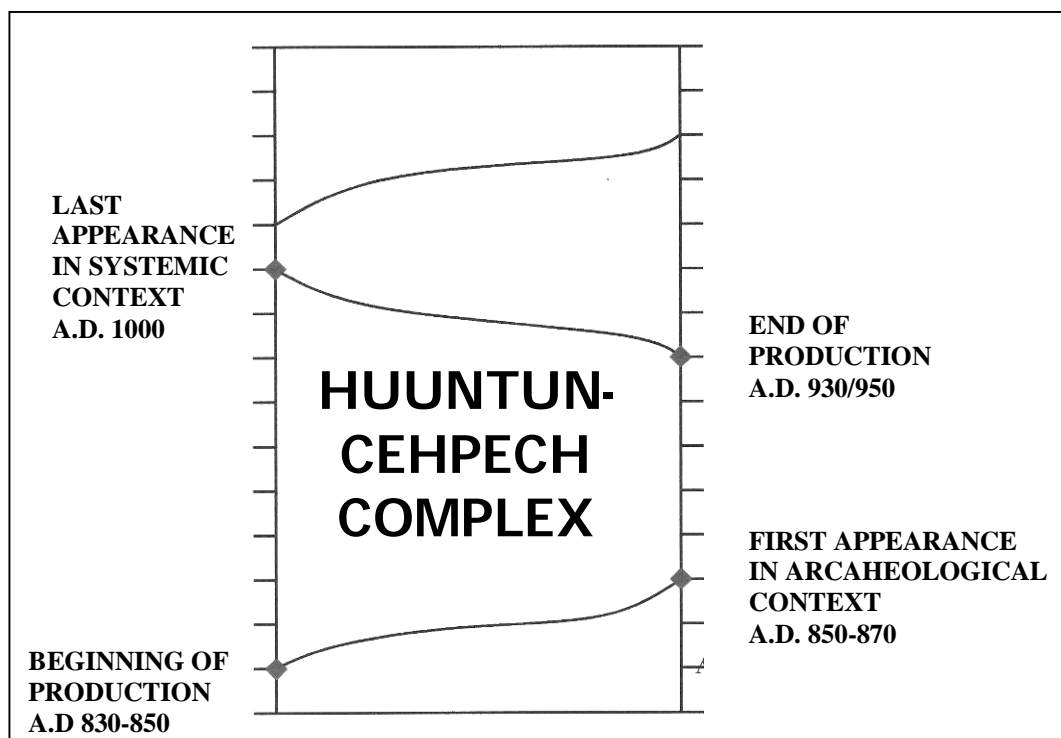


Figure 137: Dates of the Huuntun-Cehpech Complex

Although Huuntun-Cehpech ceramics are very scarce in many of the excavated deposits at Chichen Itza, and, on occasion, absent, the existence of the Huuntun-Cehpech Ceramic Complex at the site is undeniable. Nevertheless, the reasons for the elusiveness of Cehpech ceramics need an explanation.

With the hindsight several reasons can be offered for the scarcity of Cehpech sherds. First, it must be considered that most of the site's ceramic collections came from excavations in the "Toltec" or Sotuta areas and buildings and, more importantly, from Late Facet contexts of Sotuta. Comparatively few collections exist or have survived from the "Maya Puuc" or Cehpech areas and buildings. Despite this unbalanced nature of the evidence, we did find pure Huuntun-Cehpech contexts at the site, as has been shown in this section. We can also report contexts where the Huuntun-Cehpech Complex sherds present significant, if not overwhelming, percentages.

The formation processes of the Huuntun-Cehpech contexts are also instrumental in the ceramics' low frequencies in the archaeological record as well as in the post-deposition history of Cehpech deposits. Cehpech ceramics are almost absent in the construction fill of "Maya-Puuc" buildings, possibly because the buildings were constructed at a very early stage of the ceramic complex. Refuse deposits of Huuntun-Cehpech ceramics were later covered and hidden by extensions of Sotuta structures, platforms and terraces. The Sotuta Complex's long duration and the intense occupation of the site during this period explain the relative lack of surface remnants of Cehpech fragments. Complete Cehpech vessels do not seem to have survived in systemic context later than the early-early/middle facet of the Sotuta Complex. With a life-story like that, the difficulties found by successive archaeological projects' difficulties in detecting pure contexts and in defining the various components and the duration of the Huuntun-Cehpech Ceramic Complex, can be understood.



Figure 138: Selection of Muna Slate Ware vessels from recent excavations

TYPES OF THE HUUNTUN-CEHPECH CERAMIC COMPLEX AT CHICHEN ITZA

CHUM UNSLIPPED GROUP

Chum Unslipped Type: Chum Variety
Yokat Striated Type: Yokat Variety
Yokat Striated Type: Neck Interior Variety
Oxkutzcab Appliqué Type: Oxkutzcab
Variety

MUNA SLATE GROUP

Muna Slate Type: Muna Variety
Sacalum Black On Slate Type: Sacalum
Variety
Tekit Incised Type: Tekit Variety
Akil Impressed Type: Akil Variety

TICUL THIN SLATE GROUP

Ticul Thin Slate Type: Ticul Variety
Ticul Thin Slate Type: Xelhá Variety
Xul Incised Type: Xul Variety

GROUP RED TEABO

Teabo Red Type: Teabo Variety

BALANCAN FINE ORANGE GROUP

Provincia Plano-Relieve Type: Provincia
Variety
Palizada Black on Orange Type: Palizada
Variety
Caribe Incised Type: Caribe Variety

HOLACTUN CREAM GROUP

Holactun Black on Cream Type: Holactun
Variety
Another Type Holactun Cream: Plano
Relieve

ACHOTE BLACK GROUP

Achote Black Type: Achote Variety
Torro Gouged Incised Type: Torro Variety

ZUMPULCHE GROUP

Chunkatzin Red on Thin Slate Type: Chunkatzin
Variety

VISTA ALEGRE GROUP

Vista Alegre Striated Type: Vista Alegre Variety

MAQUINA BROWN GROUP

Type Azúcar impreso: Variety Azúcar
Another Type of the Máquina Group: Acanalado

CELESTUN RED WARE - GROUP

Baca Red Type: Baca Variety

2.2.3

2.2.3 The Early Postclassic Period The Sotuta Ceramic Complex

- 2.2.3.1 Defining the Dzitas Slate Group in Northern Yucatan
- 2.2.3.2 The Dzitas Slate Group at Chichen Itza
- 2.2.3.3 Contexts of the Sotuta Complex at Chichen Itza
- 2.2.3.4 Other Groups of the Sotuta Complex at Chichen Itza
- 2.2.3.5 Extension of the Sotuta Complex at Chichen Itza
- 2.2.3.6 Summary of the Complex at Chichen Itza

2.2.3 THE EARLY POST-CLASSIC PERIOD

THE SOTUTA CERAMIC COMPLEX

A.D. 920/950 – 1150/1200

The ceramics of the Sotuta ceramic complex are reasonably well known, principally due to the work of George Brainerd (1958) and Robert Smith (1971). Less is known, however, about Sotuta ceramics' contextual associations at the site of Chichen Itza. Brainerd analyzed the Carnegie Institution of Washington collections, which in most of cases had lost their contextual information; Smith's analysis of Sotuta ceramics derives from trenches excavated outside buildings.

This absence of ceramic collections that can be directly associated with the stages and phases of construction, use, abandonment and reuse of so called "Toltec" architecture mirrors the case of the ceramics available for dating the "Maya-Puuc" buildings, leaving the relative chronology of the ceramic materials without absolute dates to correlate. Recent excavations conducted by the Chichen Project (1993-2006) offer a new set of materials with more concrete dating. Currently an extensive array of collections from a variety of Sotuta deposits has been analyzed by the author. The most relevant collections to the dating of the Sotuta Complex are presented in this section.

Comparatively, the contexts of Sotuta ceramic complex are much more diverse and have been more exhaustively investigated than any other complexes present. This may be a result of the majority of excavations' focus on Sotuta-related architectural constructions, i.e. "Toltec-style" buildings. In addition, the higher intensity of the Sotuta occupation may have contributed to the diversity of contexts. The diversity and quantity of contexts from this complex allows for a more refined definition and distribution of the temporal facets, more than any other complex at the site. 43 contexts of the Sotuta Complex are examined in this thesis, compared with 18 Huuntun-Cehpech contexts, and 11 Yabnal-Motul contexts.

Following Schmidt's advice, I preserve the name Sotuta for the ceramic complex of the Early Postclassic at Chichen Itza, instead of assigning a new name.

2.2.3.1 Defining the Dzitas Slate Ceramic Group in Northern Yucatan

For a long time our understanding of the Dzitas Slate Group came only from the collections of Chichen Itza with the exception of a few examples from Uxmal, never properly published. Our knowledge of Dzitas ceramics outside Chichen Itza has increased considerably in recent times, but the best collections of Dzitas Slate group remain those from Chichen Itza. In contrast to Say and Muna Slate groups, which are spread all over the northern plains, Sotuta Slate Group has a much more restricted distribution.

Most probably the group's restricted distribution has its roots in historical factors, i.e., the character and scope of Chichen Itza's dominance over the northern plains region. Dzitas Slateware has its origins in Chichen Itza and in my view it was possibly "imposed" upon other sites, while Say and Muna Slatewares are more widespread traditions, present in most of the northern lowland sites during the Late and Terminal Classic periods.

Although sherds and vessels have been classified as pertaining to Dzitas Slate Group in sites outside Chichen Itza (i.e. Dzibilchaltun, Uxmal, Izamal, Yaxuna, Ek Balam, Isla Pájaros, among others), it is still not clear if they were produced at the sites where they have been found. More research is needed on this subject, and in general on the definition of Sotuta contexts outside Chichen Itza.

In examples of Dzitas Slate I have examined from outside of Chichen Itza, (from Kabah, Pérez de Heredia 2001) the slip of Dzitas Slate Group resembles that from Chichen Itza, and no significant change in the paste can be observed by the naked eye in comparison to the paste of Chichen Itza's specimens. In this case it is clear that petrographic analysis would help to ascertain the existence of a single center of production based at Chichen Itza or the possibility of multiple production centers for Sotuta wares.

2.2.3.2 The Dzitas Slate Group at Chichen Itza

I concur with George Brainerd that the slips of the Muna and Dzitas Slate Groups are quite different. The Dzitas Slate Group from Chichen Itza is characterized by an opaque, very compact, colored slip that, unlike the translucent slips of Say and Muna Slate Groups, obfuscates the color of the paste below it. Contrary to earlier Slate Groups, the slip has much less luster when viewed in the light. .

Fire Clouds appear rarely in Dzitas Slate and the color of the slip is very uniform. The most frequent slip color is Light Yellow Orange, but the Dull Orange, Grayish Yellow, Light Gray Purple and Light Gray also occur (Figure 140). The presence and persistence of the black color in the black-painted types such as Balantun Black on Slate further distinguishes it from earlier Slate Groups, and possibly shows a new technique in which the paint is applied after the firing, and no subsequent firing occurs after this last paint application (Chung, pers. comm. 2003).

The texture of Dzitas Slate Group at Chichen Itza is smooth, but not waxy. Rootmarks are not as frequent as in earlier slate groups, and when they appear they are of a purple color, as in the Muna Slate Group. The paste of Dzitas Slate is medium hard. Volcanic ash contents in the paste of Dzitas Slate were first discovered by Shepard in 1940 (Shepard 1952, 1964). Recent petrographic analyses conducted separately by Carmen Varela (1998, 2000) and Heajoo Chung (2000) on Chichen Itza Dzitas Slate sherds confirms that this ware contains small amounts of volcanic glass and tuff and that it lacks the limestone carbonate temper usually found in Muna Slate Group.

In the opinion of Brainerd, the surface of Dzitas Slate is:

“Slipped, smooth with faint luster. Slip is adherent, with little tendency toward weathering or spalling. It is often grayish-white to gray in color, appearing opaque, and lacking the soapy, translucent appearance of Florescent Medium Slateware. Slip color is often independent of paste color. Considerable intergrading with the soapy, translucent slips of Florescent Medium Slateware was noted ... The paste is medium texture of fracture, color ranging from reddish-buff, the commonest color, or gray. Temper appears to be exclusively volcanic ash” (Brainerd 1958: 55).

According to R. E. Smith, shape is:

“Outstanding slate ware diagnostic for this complex. The surface finish of Chichen Slate Ware is not easily differentiated from Puuc Slate. Brainerd does differentiate, calling the Chichen Slate opaque and not soapy and the Puuc Slate translucent and soapy. To me they both have a soapy feel, the Chichen Slate perhaps less so, and both appear to be translucent. The difference in translucency depends on paste-slip contrast: Chichen Slate having a nearly uniform reddish paste and Puuc Slate having more variety of paste color with grays and buffs predominating over red and orange. Thus, when paste and slip show a sharp contrast, as in the Chichen Slate with reddish paste and grayish cream to gray slips, the result is a slightly pinkish tinged slip, a rare occurrence in Puuc Slate. Chichen Slate like Puuc Slate paste is of medium texture but differs in color as mentioned above, and even more in temper; the former sherds have a nearly uniform volcanic ash temper and the latter a wide variety of calcites and volcanic ash” (Smith 1971: 177-178).

Smith relies on Shepard (1952, 1964) regarding the volcanic ash temper:

“A question of primary interest with regard to the ash temper is whether or not more than one source of supply is indicated. All thin sections of this paste have been reviewed in some detail with this question in mind. The ash in all these sections is comparable in form and in sparseness and fineness of mineral inclusions. The paste is distinguished by the occurrence of particles of tuff or indurated ash. The similarity of these examples suggests derivation of the ash from a single source or from similar formations” (Shepard 1952: 264-265).

“The volcanic ash under consideration is composed of fine, flaky, and irregular fragments or sherds of clear glass and lumps which are loose aggregates of the sherds. The texture of the flakes in some aggregates falls in the range of volcanic dust. The lumps are sometimes stained with ocher or impregnated with calcite. This class of temper varies with respect to the abundance of aggregates and degree of staining or cementation, but distinct varieties were not recognized, and the form and texture of the ash

suggest a single mode of origin. Petrographic analysis of volcanic ash-tempered pottery from Uaxactun reveals several significant facts. First, many different varieties of ash were used. In this respect there is a great contrast between the volcanic ash temper of Uaxactun and that of Yucatan, which is remarkably uniform in character whether it comes from Puuc sites or Chichen Itza” (Shepard 1964: 251; in Smith 1971: 269).

The characteristic forms of Dzitas Slate Ware, such as jars, basins, bowls, plates, vases, etc., are shown in Figure 139.

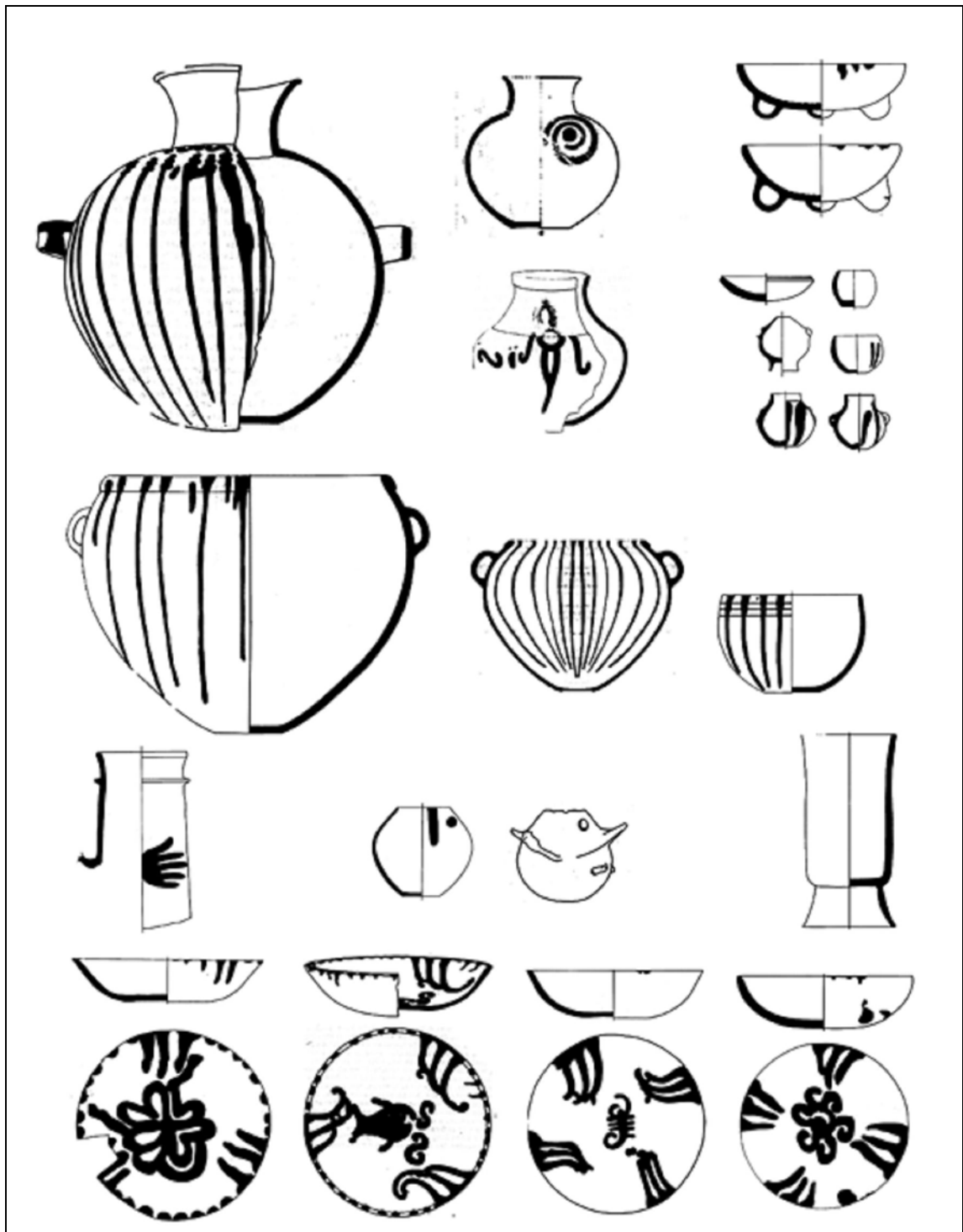


Figure 139: Forms and designs of the Dzitas Slate Group from Chichen Itza

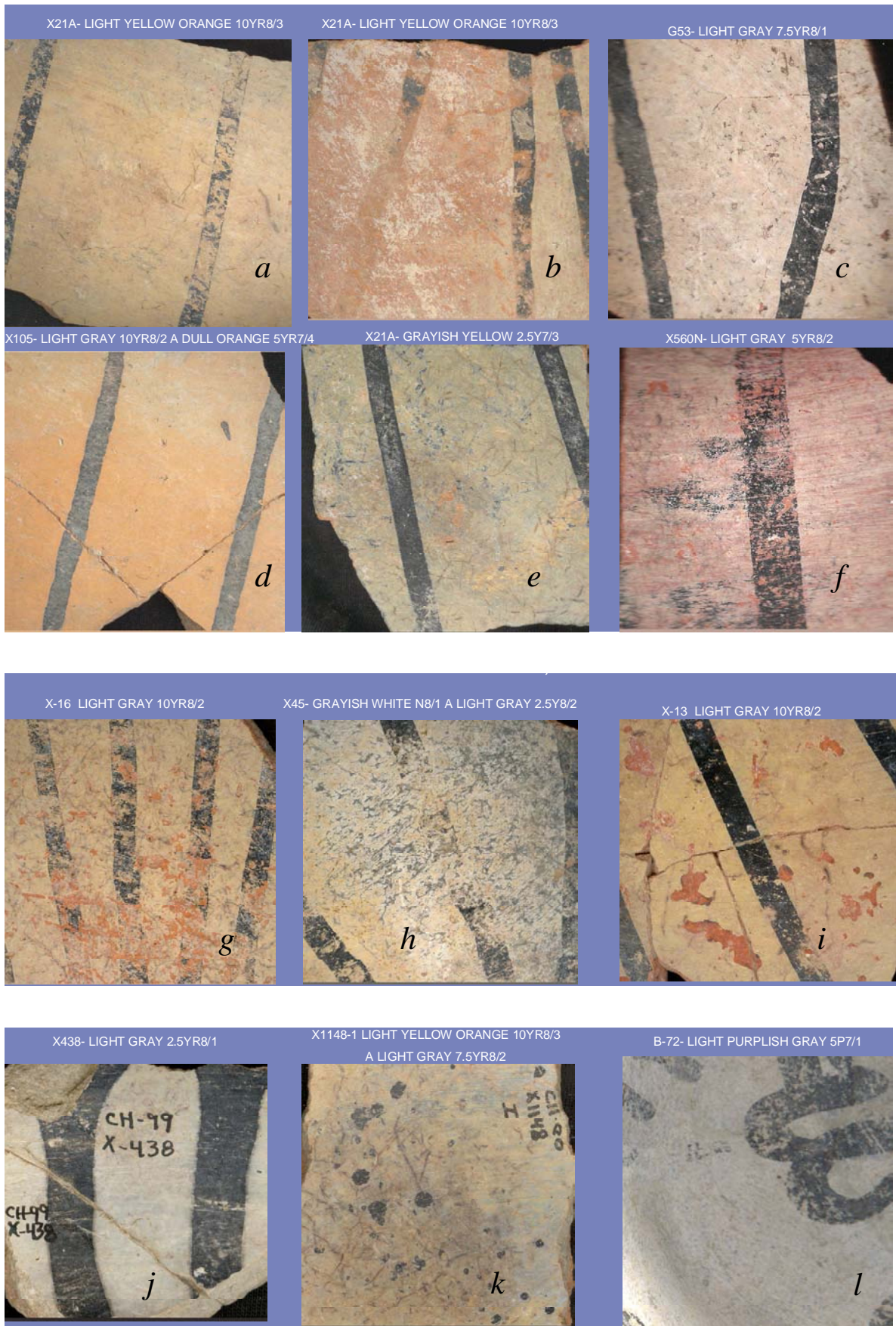


Figure 140: Variation in Dzitas Slate Group slips and appearance: Jars (a-f); Basins (g-i); Plates (j-l)

2.2.3.3 Contexts of the Sotuta Complex at Chichen Itza

Construction Fill Contexts of the Initial/Early Facet of the Sotuta Complex

CONTEXT S1: The construction of the Terrace of the Osario Group

Several authors have pointed out the existence of buildings at Chichen Itza that present “Toltec” architectural traits with “Maya” hieroglyphic inscriptions (e.g. Lincoln 1986). These constructions could be considered transitional between the “Maya” and the “Toltec” architectural styles. The best known example for these ‘transitional’ buildings is the Osario Pyramid (also known as the Tomb of the High Priest; Structure 3C1; Figure 141). This pyramid, with a temple on top and four radial stairways, is the focal building of a considerably sized discrete group. Located between the Plaza del Castillo and the Plaza of the Observatory, the pyramid is surrounded by its own wall and connected to other groups by Sacbeob 4 and 10 (See Figure 142).



Figure 141: The Terrace of the Osario Pyramid

The main stairway of the Osario Pyramid (Str. 3C1) faces east, towards a Venus Platform (Str. 3C3) and Sacbe 15, which connects the group with the Xtolok Cenote. It is the same layout employed in the Great Terrace that links together the Castillo Pyramid, the Venus Platform, Sacbe 1 and the Sacred Well; however, in this arrangement the axis runs north-east.

Chart 31 shows the materials of a test-pit made at the Plaza level under the Osario Pyramid by Peter Schmidt in 1994. According to the percentages of the complexes represented (23.1% Sotuta Complex), the ceramics point to an Early Facet of the Sotuta Complex. This collection may indicate that the leveling of the area of the Osario Group

took place in a moment when Sotuta ceramic production was under way for a short period of time. A date ca. A.D. 950 seems reasonable for this context, since the terrace must be earlier than the construction of the pyramid, which has a hieroglyphic inscription dated A.D. 998 (see context S2).

**Chart 31: Materials from the Test-pit H-155 on the Osario Terrace
(West Stairway, under northern Serpent Head)**

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	12	17.39%
MOTUL	20	28.98%
CEHPECH	9	13.04%
SOTUTA	16	23.18%
NOT ASSIGNED	12	17.39%
TOTAL	69	

Lot: H-155

The Osario group lacks any building that can be assigned to the “Maya” or “Puuc” architectural style, and it seems that construction in this area of the site began during the Early Facet of the Sotuta Complex.

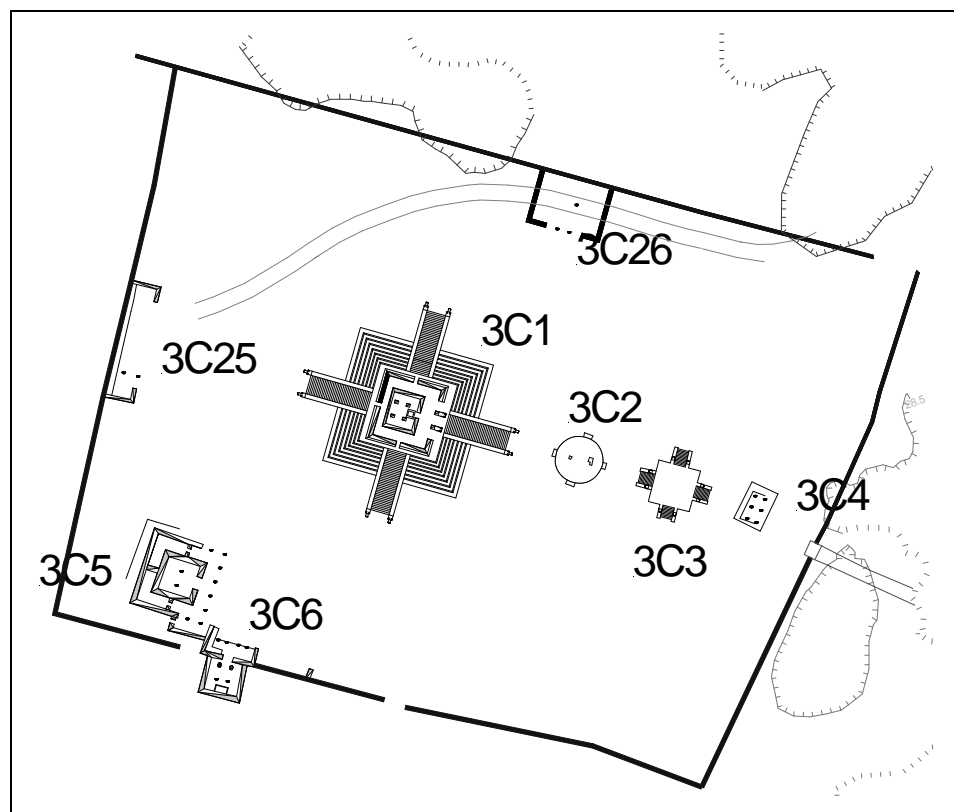


Figure 142: The Group of the Osario Pyramid (3C1)

CONTEXT S2: The construction of the Osario Pyramid (Structure 3C1)

The ceramic collection obtained from the interior of the Osario Pyramid, under the north stairway, by P. Schmidt (1994) contains 19% of Sotuta Complex ceramics (Chart 32), a percentage very close to that of the terrace on which the Pyramid was constructed. This suggests that the construction of the terrace and the pyramid occurred fairly close in time, if not immediately.

Since the pyramid shows an inscription in a carved column dated 10.8.10.11.0 (A.D. 998; Graña-Behrens, et al. 1999), the low percentage of Sotuta in the fill can be used to argue a beginning of production of the Sotuta Ceramic Complex around A.D. 930-950, implying also an end of the Cehpech Complex at Chichen Itza around those dates.

Carved Column



Figure 143: The Osario Pyramid (East Façade)

Chart 32: Materials from the Construction Fill of the Osario Pyramid (under North Stairway)

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	1	1.20%
MOTUL	53	63.85%
CEHPECH	4	4.81%
SOTUTA	16	19.27%
NOT ASSIGNED	9	10.84%
TOTAL	83	

Lot: H-148

In my opinion, the sub-structures of El Castillo, of the Temple of the Warriors and of the Temple of the Little Tables may also belong to an Early Facet of the Sotuta

Complex; however, collections of ceramics from those sub-structures do not survive. Another pyramid with a similar dated inscription is Structure 5B18 (Old Castillo). It may be predicted that the construction fill of that pyramid and the sub-structures mentioned above will show a similar low percentage of Sotuta ceramics.

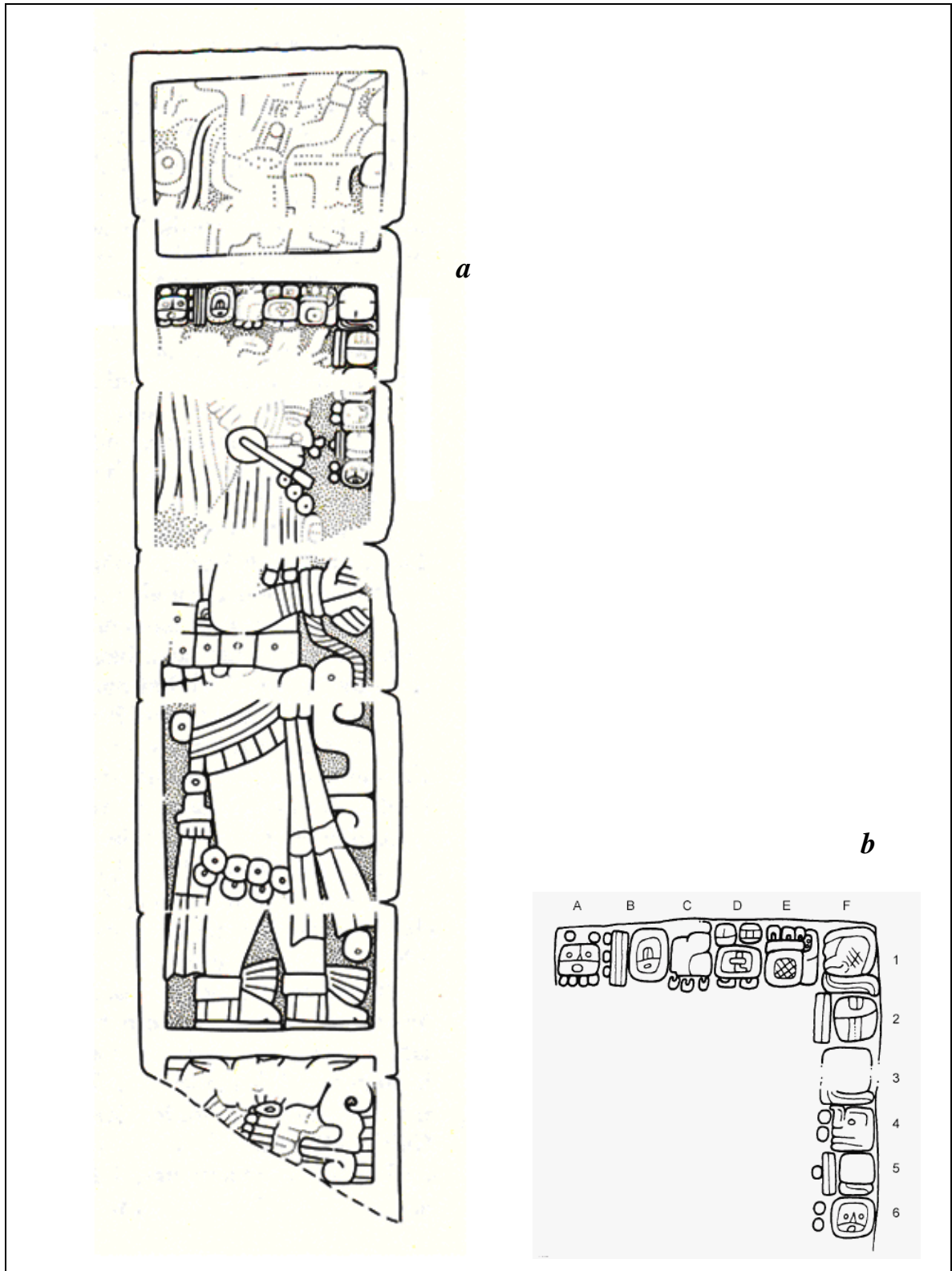


Figure 144: *a*) Column 4 with hieroglyphs from the Osario Temple (Drawing by Peter Mathews, in Lincoln 1986); *b*) Inscription on Column 4 (Drawing by Elisabeth Wagner in Graña-Behrens et. al. 1999: 65, Fig. 2)

CONTEXT S3: The construction of the Sacbe 1 to the Sacred Well

Sacbe 1, the roadway that connects the Great Terrace with the Cenote of Sacrifices, has also been called Sacbe of the Sacred Well, or the Sacred Way (Willard 1930). It is the most famous causeway of the site, and possibly the most impressive, measuring 9 meters wide by 273 meters long, and bordered on both its sides by a low parapet (see Context S4).

A trench across Sacbe 1, at about 50 meters north from its beginning at the Great Terrace, was conducted by P. Fernández in 1993. The construction of the Sacbe 1 to the Sacred Well seems to pertain to an Initial/Early Facet of the Sotuta Complex, as suggested by the ceramic materials (see Chart 33), with a 25% of Sotuta fragments (the Hocaba Complex sherd and the three Tases Complex fragments are clearly filtered from the surface).

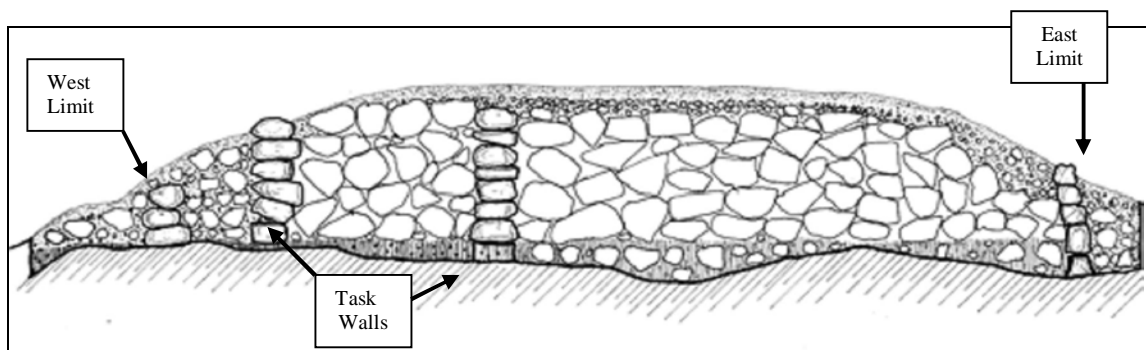


Figure 145: Trench L, in the Sacbe 1 to the Sacred Well (after P. Fernández 1993) .

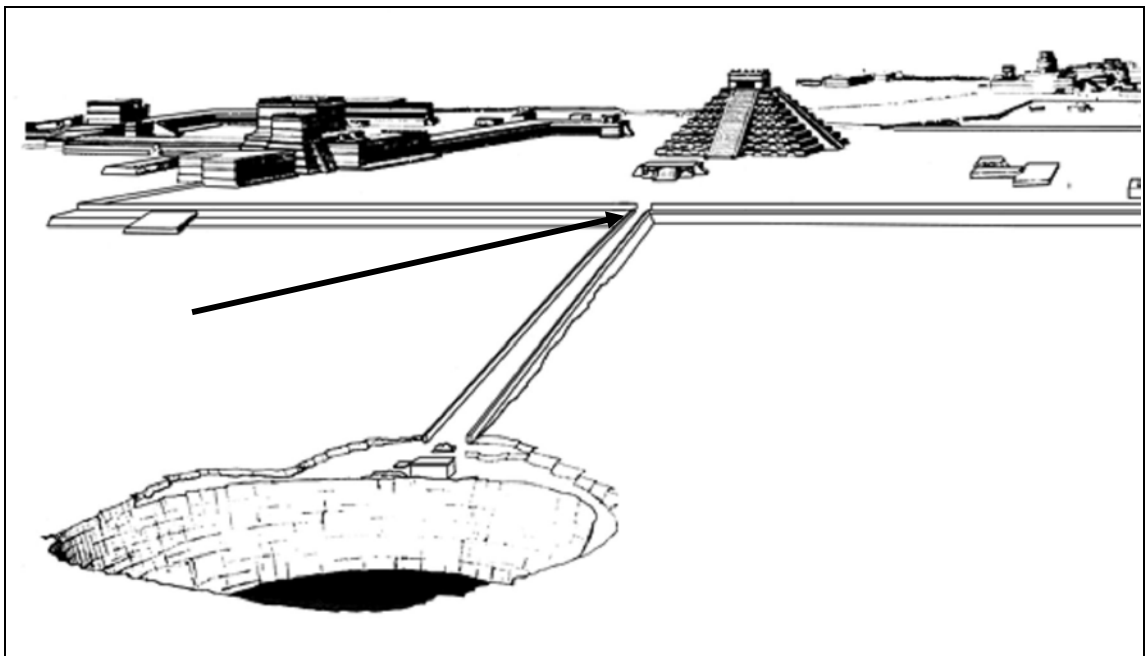
Chart 33: Materials from Trench L in the Sacbe 1

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	16	12.12%
CEHPECH	21	15.90%
SOTUTA	33	25.00%
HOCABA	1	0.75%
TASES	3	2.27%
NOT ASSIGNED	58	43.93%
TOTAL	132	

Lots: F-20, F-22

Rough walls or alignments of crude stones (Figure 145) inside the fill look more like task-walls or reinforcements than previous construction phases of the sacbe (no signs of exterior plaster were found on these interior task-walls and neither chronological difference in contents). Another test-pit, at the junction of the sacbe with the great terrace, failed to reveal earlier stages of construction of this road (Pérez de Heredia 1994). The sacbe seems to be entirely Early Sotuta in construction.

If the first phase of the Castillo also pertains to this Early Facet of the Sotuta Complex, it would be coeval with the Sacbe 1, and the planning of the urban concept of the Great Terrace-Sacred Well would have been conceived after the beginning of the Sotuta Complex (Figure 146).



**Figure 146: The Great Terrace and Sacbe 1 seen from the Sacred Well
(after Proskouriakoff 1946)**

CONTEXT S4: The construction of the Small Lateral Wall of the Sacbe 1

A small wall, two stone courses high, runs along both sides of Sacbe 1 all the way to the Sacred Well, where it may have ended in two stone serpent heads (Pérez de Heredia and Victoria 1994). Parts of the lateral walls were excavated by P. Fernández (1993, west side) and myself (1994, east side) at the union of the Sacbe with the Great Terrace. The lateral walls have collapsed in many sections along Sacbe 1, but portions of them it are still visible in place, and unexcavated, near the middle and the end of the causeway.



**Figure 147: The junction of Sacbe 1 with the Great Terrace
Notice part of the lateral wall restored.**

The ceramic materials found inside the construction fill of a section of this lateral wall at the entrance to the Great Terrace are presented in Chart 34. They prove to have 43.7% of Sotuta ceramics. If the lateral walls were constructed independently of Sacbe 1, then they were constructed later, at the Middle Facet of the Sotuta Complex.

Chart 34: Materials from inside the small Lateral Wall of the Sacbe 1

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	2	6.25%
CEHPECH	7	21.87%
SOTUTA	14	43.75%
NOT ASSIGNED	9	28.12%
TOTAL	32	

Lot: F-23

But if the lateral wall was constructed at the same time as Sacbe 1, we would have to consider both collections together. Chart 35 illustrates the total ceramic materials from both the interior of Sacbe 1 and those from the small lateral wall. Percentages of this Chart still point to an Early to Early/Middle Facet date for the construction of this important feature of Chichen Itza's landscape.

Chart 35: Materials from inside the fill of Sacbe 1 and its small Lateral Wall

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	18	10.97%
CEHPECH	28	17.07%
SOTUTA	47	28.65%
HOCABA	1	0.60%
TASES	3	1.82%
NOT ASSIGNED	67	40.85%
TOTAL	164	

Lots: F-20, F-22, F-23

CONTEXT S5: The construction of the Southwest Corner of the Initial Series Terrace

At the Initial Series Group, the old Motul terrace was extended to the south, an effort that took place possibly during the Initial or Early Facet of the Sotuta Complex (see Chart 36), and possibly dating A.D. 1000-1100, according to the materials from a test-pit by P. Schmidt (2002). The result of the materials analysis is shown in Chart 36. It renders a small percentage of the Sotuta Complex (12%), and will suggest a construction of this part of the platform during an Early Facet of this complex, ca. A.D. 950 (the three Hocaba sherds possibly filtered during excavations).

Chart 36 : Materials from Test-pit H178, Layer I

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	7	0.18%
COCHUAH	3	0.07%
MOTUL	3232	84.98%
CEHPECH	5	0.13%
SOTUTA	457	12.01%
HOCABA	3	0.07%
NOT ASSIGNED	96	2.52%
TOTAL	3803	

Lots: H178- H178A

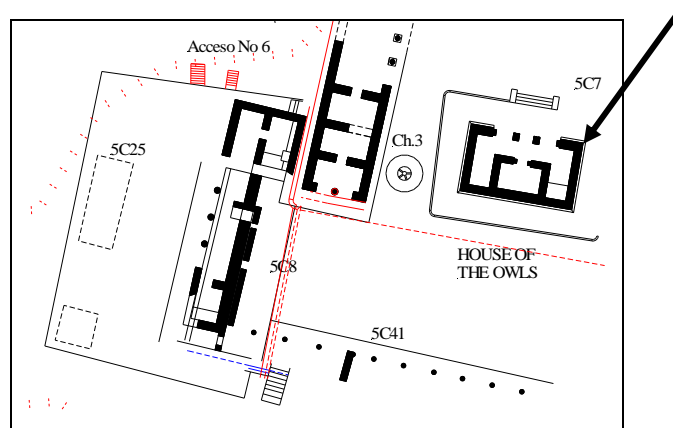
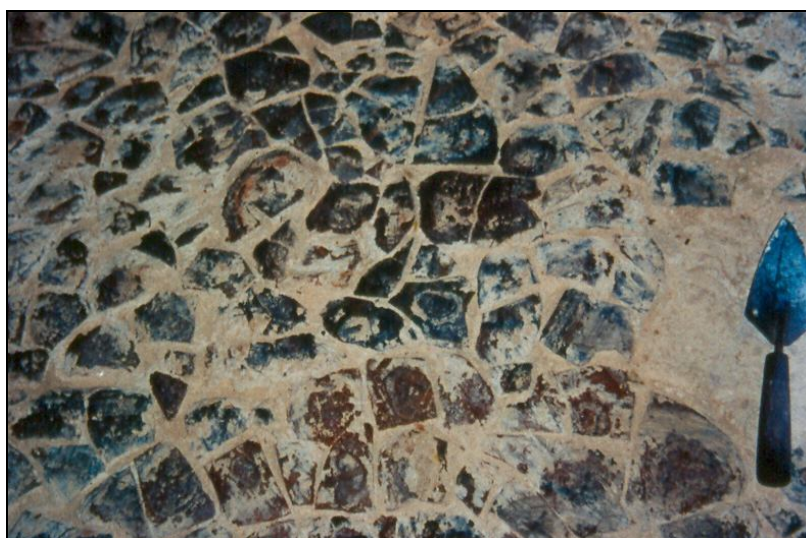


Figure 148: Location of the Temple of the Owls. Southwest corner of the Initial Series Terrace.

On top of this terrace extension several buildings were constructed: the Palace of the Snails (5C15), the Palace of the Atlantean Columns (5C5), the Temple of the Owls (5C7) and the Gallery of the Monkeys (5C6). The Patio-Gallery (5C11) and the Temple of the Little Faces were most likely constructed during this facet; however, we do not yet have collections of the construction fill of some of these buildings. This is a long period of intense building activity corresponding to the apogee of the Sotuta complex. The complete and detailed sequence of construction is a slow process requiring careful and extensive excavations, which are still being undertaken by the Chichen Itza Project.

**CONTEXT S6: The construction of the Chultun of the Owls
Southwest corner of the Initial Series Group**

A Chultun or cistern, constructed between the Gallery of the Monkeys and the Temple of the Owls (Structures 5C6 and 5C7; Figure 151) can be dated by the ceramics found under its stucco floor. Test-pit G-54, made by R. González (2000) at the bottom of this Chultun, showed a construction system of three consecutive layers of sherds covered by fine plaster (see Figure 149). All the ceramic fragments are of the Slate Ware, half of them pertaining to the Say Slate Group of the Yabnal-Motul complex and the other half to the Dzitas Slate Group of the Sotuta complex (see Chart 39). The sherds are coated with a very adherent layer of lime, and belong to a just a few different vessels. It is remarkable that not a single Cehpech Muna Slate sherd was found.



**Figure 149: First layer of sherds after removing the surface of the stucco floor
(González 2000)**

Chart 39: Materials from a Test-pit in the bottom of the Chultun of the Owls

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	452	50.90%
SOTUTA	436	49.09%
TOTAL	888	

Lot: G-54

The Chultun of the Owls may have been constructed very possibly at the same time as the terrace extension shown in the previous context, S5. The ceramic collection recovered from under the floor of the chultun indicates a slightly later chronological position, but this may be explained by the special characteristics of the particular context of the chultun floor. To make this special floor, the only one of its kind found so far at Chichen Itza, just a few slateware vessels or parts of vessels were selected, broken in fragments of even size, and placed as tassels to form a more impermeable surface. These sherds cannot be considered as displaced refuse as in most construction fills, but rather as the result of selective re-use.



Figure 150: Chultun of the Owls

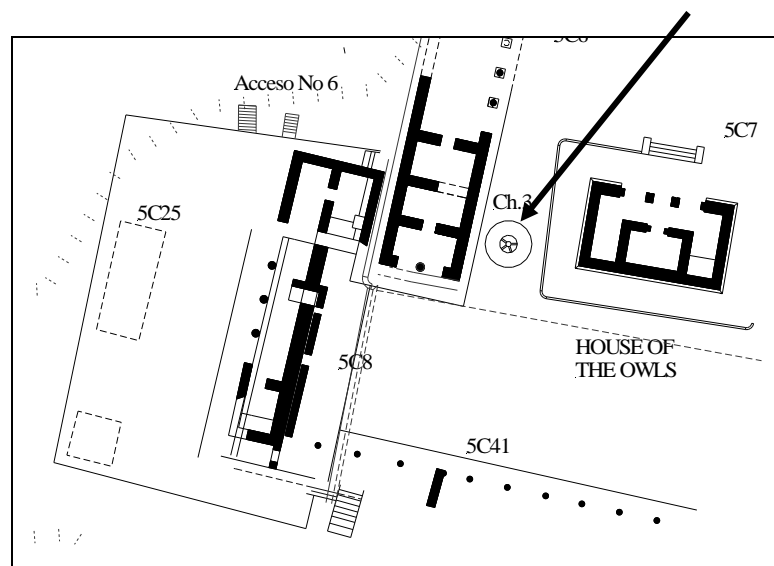


Figure 151: Location of the Chultun of the Owls

Construction Fill Contexts of the Middle and Late Facets of the Sotuta Complex

According to the ceramic frequencies found in construction fill contexts, many of the “Toltec” type buildings were constructed during the Middle Facet of the Sotuta Complex. The excellent architecture is matched by the richest ceramic complex in the entire history of the site, not only in typological variability, but also in the abundance of imported and fine wares: the Sotuta ceramic complex. The greater part of the Thousand Columns Group to the east of the Castillo Pyramid can be dated to the Middle Facet of Sotuta, as is shown in the following pages. The Thousand Columns Group rests over a roughly rectangular terrace extension east of the Great Terrace, and owes its name to the extensive colonnades that enclose an expansive central esplanade. The group is associated with three ball-courts (see Figure 152).

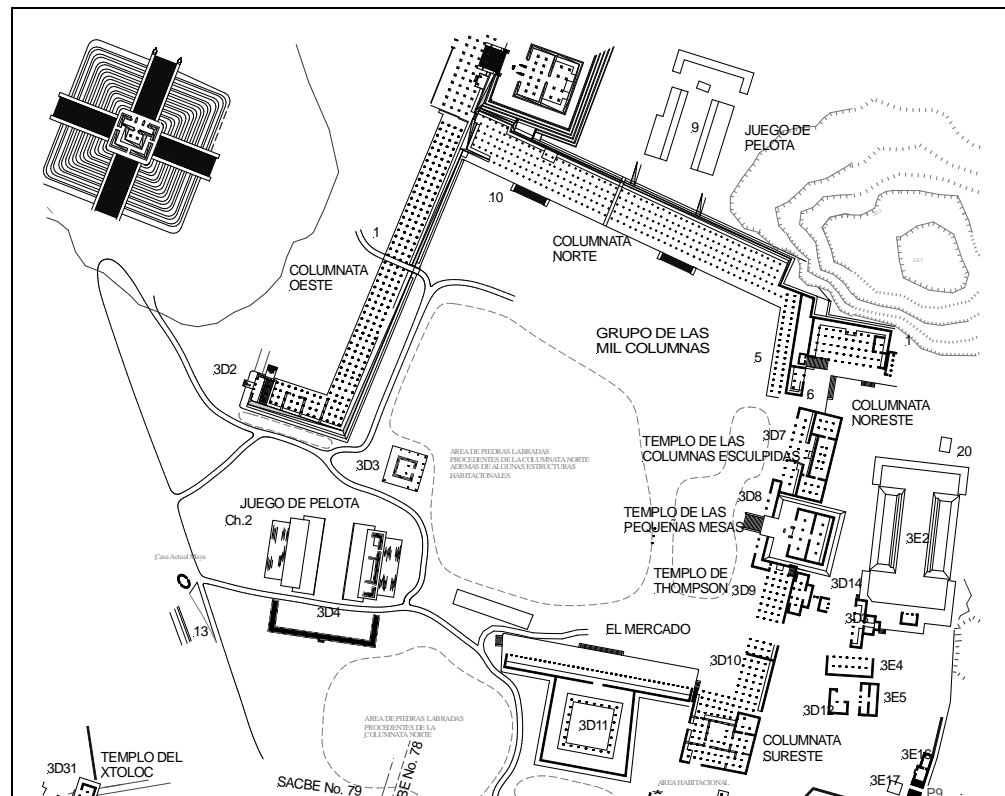


Figure 152: The Thousand Columns Group

CONTEXT S7: The Construction of the Terrace of the North-East Colonnade, Thousand Columns Group

Collections from two test-pits provided ceramics from the construction fill of the Terrace of the Thousand Columns Group, in the area of the Northeast Colonnade. The first test-pit, Lot B298, excavated by J. Osorio and M. Carrillo (1994) in Structure 3D5, cut through the interior of the platform of 3D5 as well as the construction fill of the Terrace of the Thousand Columns Group (Figure 155). Materials collected from both pits point to a construction date during the Sotuta Complex.

Layer III of the second test-pit B298 corresponds to the construction fill of the terrace. Only two sherds were found, one is pertaining to the Motul Complex, and the other to the Sotuta Complex (Chart 40). It suggests a position in the Middle Facet of the Sotuta Complex, although the collection is too small to be of value.

Chart 40: Materials from the Test-pit on Structure 3D5. Layer III

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	1	50.00%
SOTUTA	1	50.00%
TOTAL	2	

Lots: B-298-III

Another, more abundant ceramic sample, comes from a nearby building, Structure 3D7. It includes a bigger percentage of Sotuta ceramics (73.9%; see Chart 41); therefore, a position in the Late Facet of the Sotuta Complex is suggested for this collection.

Chart 41: Materials from under stone pavement, Structure 3D7

COMPLEX	NUMBER OF SHARDS	PERCENTAGE
MOTUL	1	2.17%
CEHPECH	4	8.69%
SOTUTA	34	73.91%
NOT ASSIGNED	7	15.21%
TOTAL	46	

Lot: CH-93-1

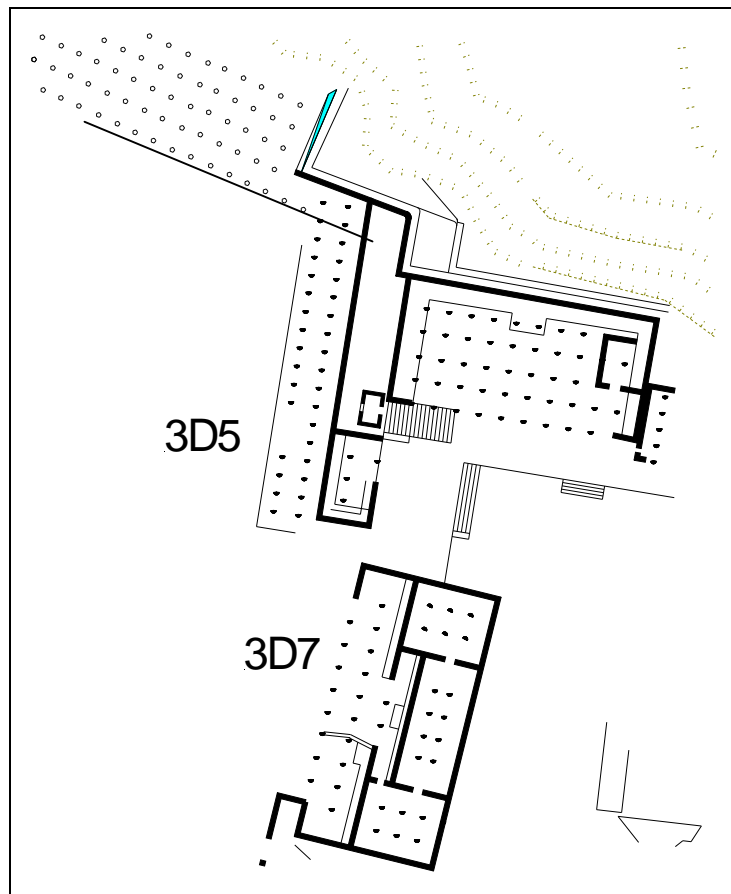
The percentages of this context coincide with Brainerd's view that the "*initial construction of the Southeast Colonnade began in the fully developed Early Mexican substage*" (Brainerd 1958: 38).

The total for both collections is shown in Chart 42. The percentages indicate that the construction of the northeast area of the Thousand Columns Terrace took place during the Late Facet of the Sotuta Complex, ca. A.D. 1050-1100.

Chart 42: Materials from the fill of the Terrace, Northeast area of the Thousand Columns Group

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	2	4.16%
CEHPECH	4	8.33%
SOTUTA	35	72.91%
NOT ASSIGNED	7	14.58%
TOTAL	48	

Lots: CH-93-1, B-298-III



**Figure 153: The northeast area of the Thousand Columns Terrace
Plan of Structures 3D5 and 3D7**

CONTEXT S8: The construction of the Platform of Structure 3D5 North-East Colonnade, Thousand Columns Group

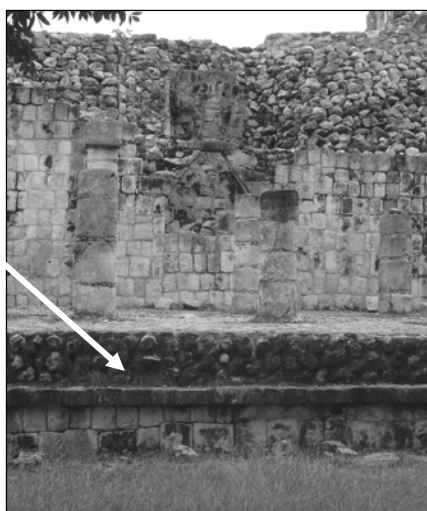


Figure 154: Structure 3D5

Layer I of Test-pit B298, corresponds to the floor level of Structure 3D5 (see Figure 155). Although the number of sherds in the sample is small, Sotuta Complex ceramics make up 83.3% (see Chart 43), and could accordingly date the structure to the Middle to Middle/Late Facet of the Sotuta Complex

Chart 43: Materials from the Test-pit on Structure 3D5, Layer I

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
SOTUTA	5	83.33%
NOT ASSIGNED	1	16.66%
TOTAL	6	

Lot: B-298-I

In Layer II of 3D5 platform's construction fill (see Figure 155), Sotuta ceramic frequency drops to a 38.8% (Chart 44).

Chart 44: Materials from the Test-pit on Structure 3D5, Layer II

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	1	5.55%
MOTUL	8	44.44%
SOTUTA	7	38.88%
NOT ASSIGNED	2	11.11%
TOTAL	18	

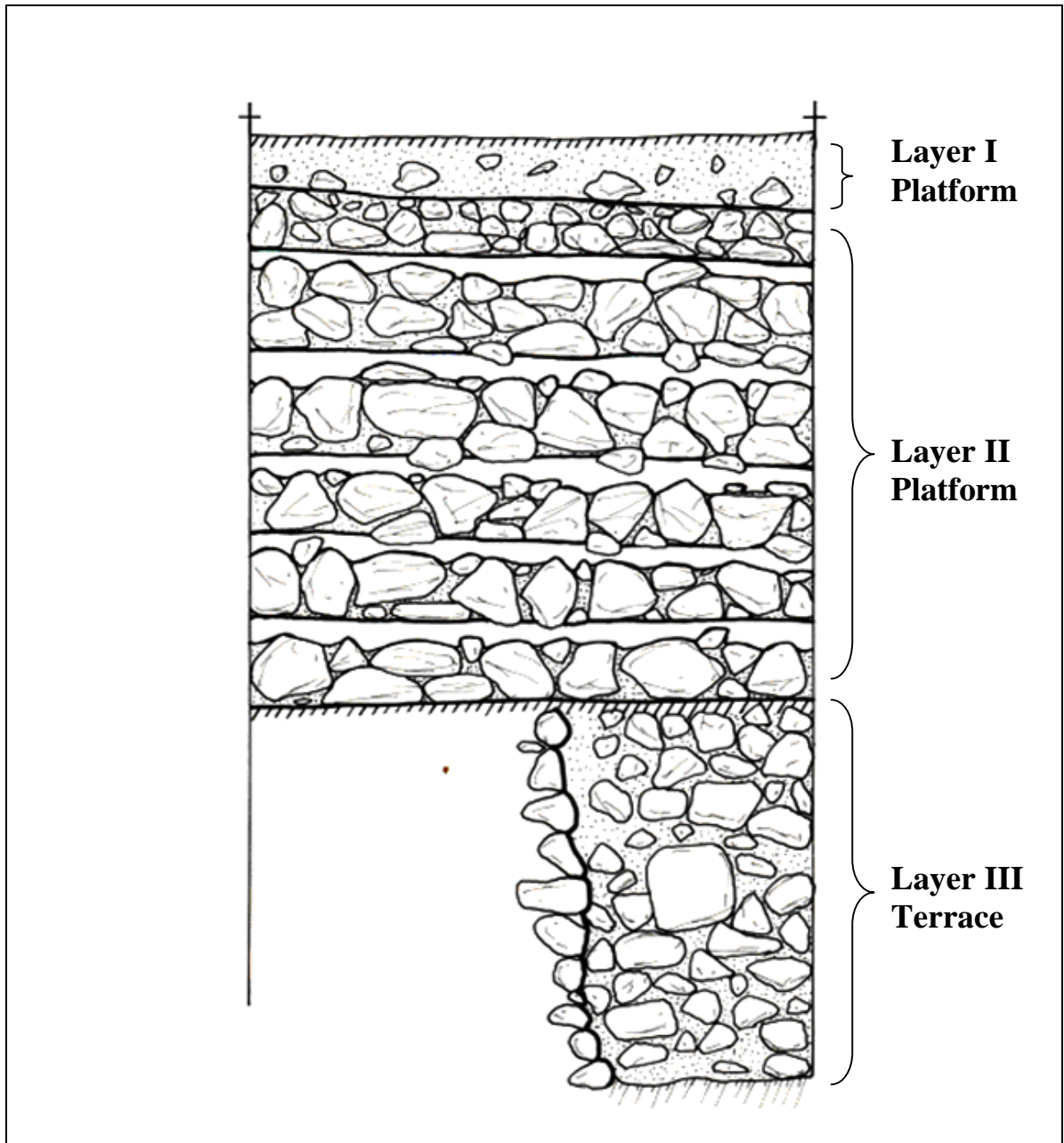
Lot: B-298-II

The sum of the contents of both layers (Chart 45) gives a percentage of 50% of Sotuta ceramics, favoring a position in the Middle-Middle/Late Facet of the Sotuta Complex. The ceramic contents of the platform point to an earlier date than those of the terrace, which is structurally impossible. Nevertheless, both of them are close in time, and a mean date during the Middle/Late Facet of the Sotuta Complex for both constructions seems the most reasonable position.

Chart 45: Materials from the Test-pit on Structure 3D5. Layers I and II

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	1	4.16%
MOTUL	8	33.33%
SOTUTA	12	50.00%
NOT ASSIGNED	3	12.40%
TOTAL	24	

Lots: B-298-I,II



**Figure 155: Stratigraphy of Test-pit B-298. Structure 3D5
 Layers I and II correspond to the platform of Structure 3D5;
 Layer III to the Terrace of the Thousand Columns**

CONTEXT S9: The construction of 5C2 Colonnade, Initial Series Group

Many of the buildings of the Initial Series Group seem to have been constructed during the Middle to Late Facet of the Sotuta Complex. In this group we can include the constructions raised over the Cehpech extension of the Yabnal-Motul Terrace, such as the Turtle Platform, the Arch, and the Colonnade 5C2.

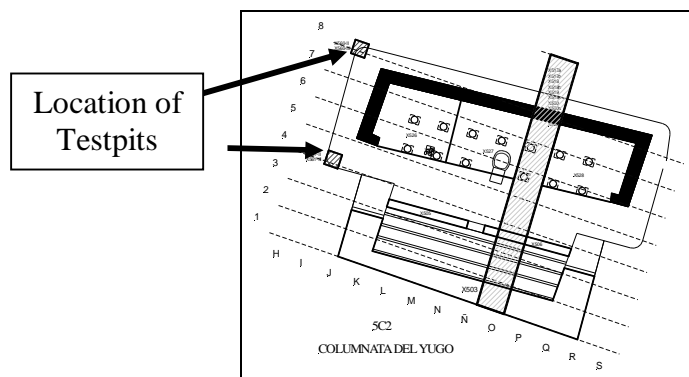


Figure 156: Structure 5C2

According to the ceramic percentages shown in Chart 46, construction of the Colonnade 5C2 possibly occurred during the Middle/Late to Late Facet of the Sotuta complex, and, therefore, a date circa A.D. 1050-1100 is suggested. This is based on materials from two test-pits (Figure 156) conducted in the northwest and southwest corners of the platform by G. Euán (2001). A possible Cehpech Complex sub-structure, later covered by this platform, is presented in Context C8.

Chart 46: Materials from two Test-pits on Structure 5C2

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	1	0.13%
MOTUL	193	25.63%
CEHPECH	33	4.38%
SOTUTA	508	67.46%
NOT ASSIGNED	18	2.39%
TOTAL	753	

LOTS: X560-III, X561-III

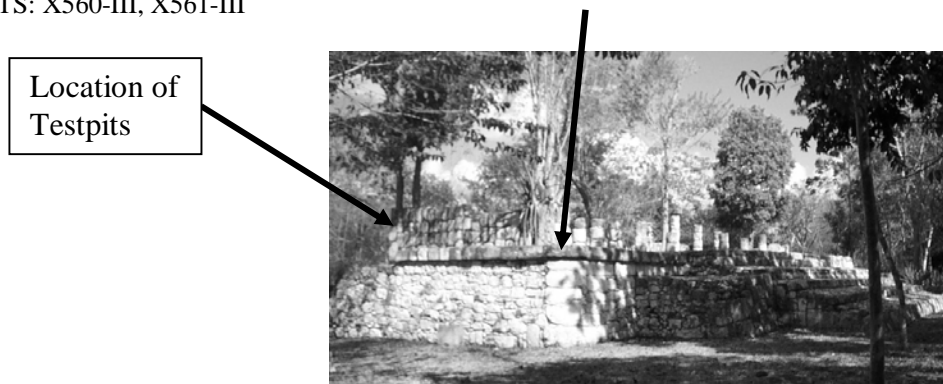


Figure 157: Colonnade 5C2

CONTEXT S10: The Temple of the Warriors

Excavations by Carnegie Institution revealed that the Temple of the Warriors was constructed in two main architectural phases. The Temple of the Chacmool sub-structure constitutes the Temple of the Warriors' first phase of construction, and it may be coeval with the sub-structure of El Castillo, the sub-structure of the Big Tables, and the Osario Pyramid. This phase, which could be provisionally named as "Toltec I", could be placed in the early Sotuta facet (A.D. 920 – 1000). The buildings currently visible in the Great Plaza, the El Castillo pyramid, the Temple of the Big Tables and Temple of the Warriors, would pertain to the second architectural phase, provisionally named "Toltec II", and could be associated with the Late Facet of the Sotuta Complex (A.D. 1000 – 1150). This is a very simplistic division based only on a few buildings of the main group of the site. The architectural evolution of the "Toltec" style is surely more complicated; its phases deserve a thorough re-examination and redefinition.

Almost nothing is known of the ceramics of the Temple of the Warriors, except for a ceramic pipe from the Northwest Colonnade in front of the temple. Brainerd (1958: 296), who compared it with others found at Tzintzuntan, Michoacan, suggests that this pipe, as well as another from the Sweat Bath Zumpulche "may well be Mexican imports".



Figure

Figure 158: "Toltec" Pipe of the Temple of the Warriors



Figure 159: Northwest Colonnade of the Temple of the Warriors (Morris 1931, Plate 24)

CONTEXT S11: The construction of the Temple of the Wall Panels (Structure 3C16)

The Temple of the Wall Panels (Figure 160) is located between two major “Puuc” style constructions: the Observatory and the Monjas Complex (see Figure 161), and was excavated by the Carnegie Institution of Washington (Ruppert 1931).

According to Brainerd, based on a collection of 172 sherds and seven whole or restorable pottery vessels,

“the ceramic sample dates Middle Mexican in major part, with smaller representations of Early and Late Mexican wares ... Of the whole specimens, only one is certainly of Early Mexican times, the Medium Redware tripod cascabel vase ... which was found in a cyst on the lower terrace north of the late stairway (Ruppert 1931, p. 137, plates 16b, 17c). This is also the only specimen which may be associated with the construction of the building. The lower terrace was the first element constructed, but the cyst may have been added later, at any time up to abandonment. This vessel thus dates the structure not later than the Early Mexican substage” (Brainerd 1958: 41).

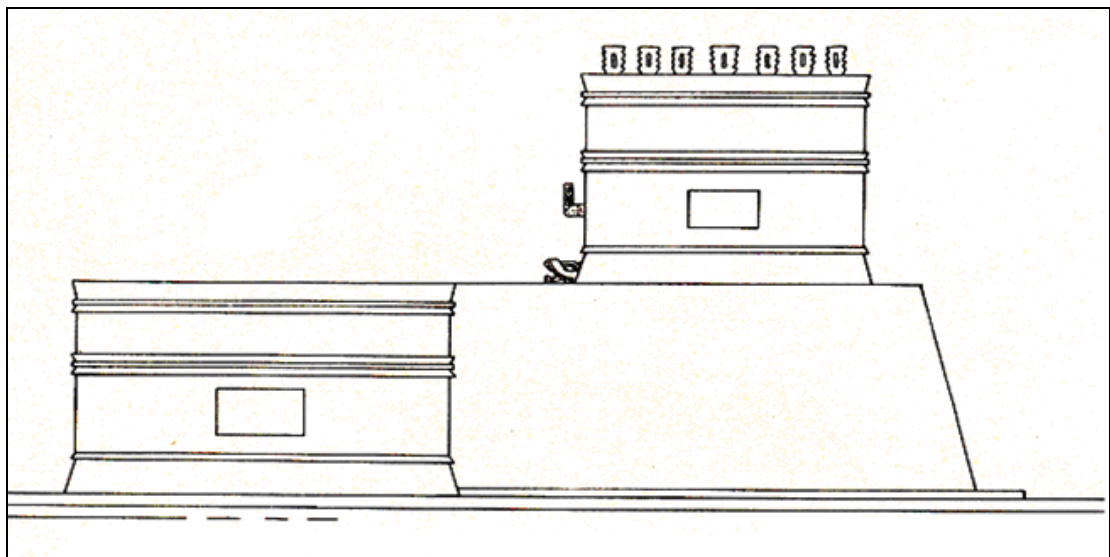


Figure 160: Temple of the Wall Panels. View from the south (Ruppert 1931)

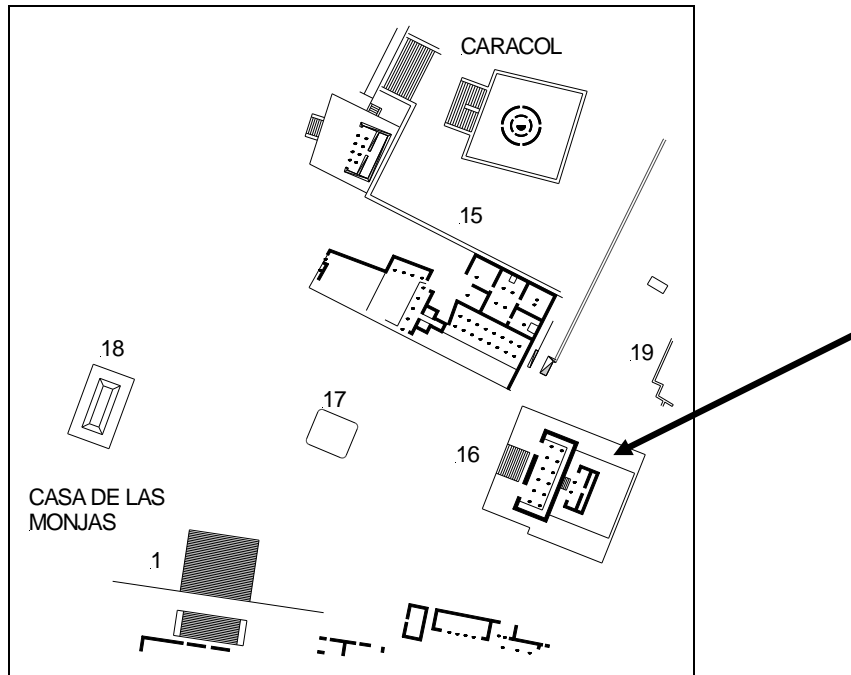


Figure 161: Temple of the Wall Panels (Structure 3C16)



Figure 162: Cache from the Temple of the Wall Panels (Ruppert 1931, Plate 16c)

The vessel from the cache of the Temple of the Wall Panels (Figure 162) pertains to the Chacmay Incised Type and has the characteristic form of tripod vases from the Dzitas Slate Group (personal examination at the “Palacio Cantón” Museum 2006). This cache evidently dates the construction of the building to the Sotuta Complex, but more precision is not possible.

CONTEXT S12: The construction of the western section of the Wall of the Great Terrace

A long wall surrounds the Great Terrace around its external perimeter; it measures around 1.5 kilometers in length, and has a minimum height estimated at 1.7 to 2.0 meters (F. Pérez 2002, Pérez de Heredia 1994, Schmidt 1995). According to a collection from the western section of the wall, excavated by Schmidt in 1995, it seems to be a late construction in the evolution of the terrace during the Sotuta Complex (with 71.1%; see Chart 47), and could be dated accordingly around A.D. 1050-1100.

Chart 47: Materials from the interior of the western section of the Wall. Great Terrace.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	3	5.76%
CEHPECH	10	19.23%
SOTUTA	37	71.15%
NOT ASSIGNED	2	3.84%
TOTAL	52	

Lot: H-167



Figure 163: Wall on the west section of the Great Terrace



Figure 164: Location of the excavated section of the West Wall

The wall in this section, as in other parts of its perimeter, was reinforced (see Figure 163). The collapse of the original wall and the reinforced later sections precluded the precise classification of sherds taken from the wall's interior; they were considered as a single lot.

CONTEXT S13: The construction of the northern section of the Wall of the Great Terrace

Sacbe 1 connects the northern side of the Great Terrace to the Sacred Well (Figure 165). A collection from the interior of the Wall in this area presents a smaller percentage of Sotuta (32.6%) than the previous context (see Chart 48), and the construction of this section to the Early/Middle to Middle Facet (1000-1050 AD). There is no reinforcement of the wall in this section.

Chart 48: Materials from the interior of the Northern Section of the Wall

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	3	3.13%
MOTUL	8	8.42%
CEHPECH	14	14.73%
SOTUTA	31	32.63%
NOT ASSIGNED	39	41.05%
TOTAL	95	

Lots: F24, F24-A

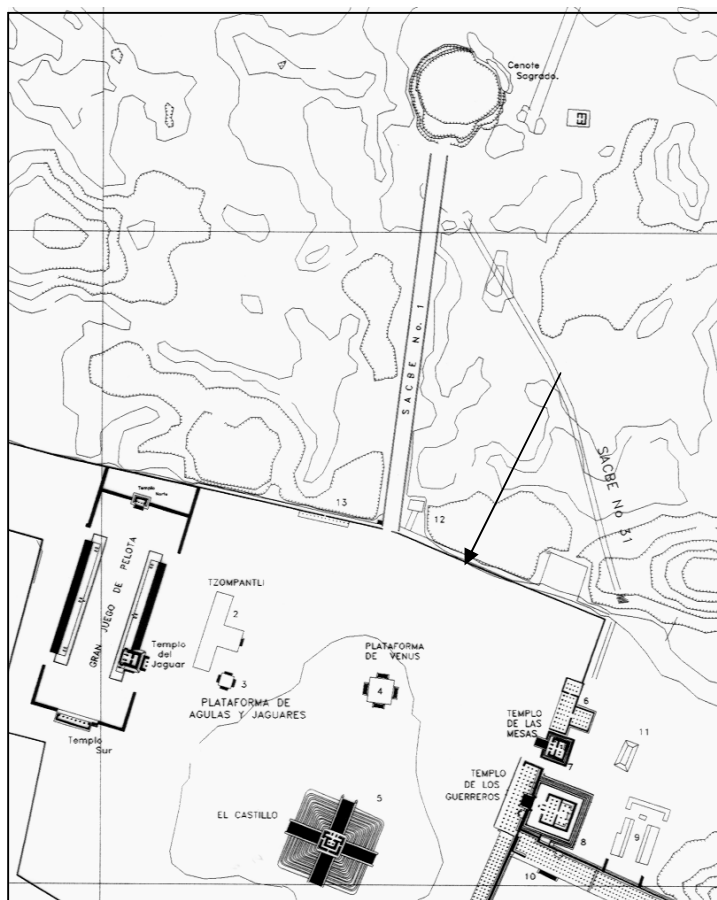


Figure 165: Location of the collection from the northern wall

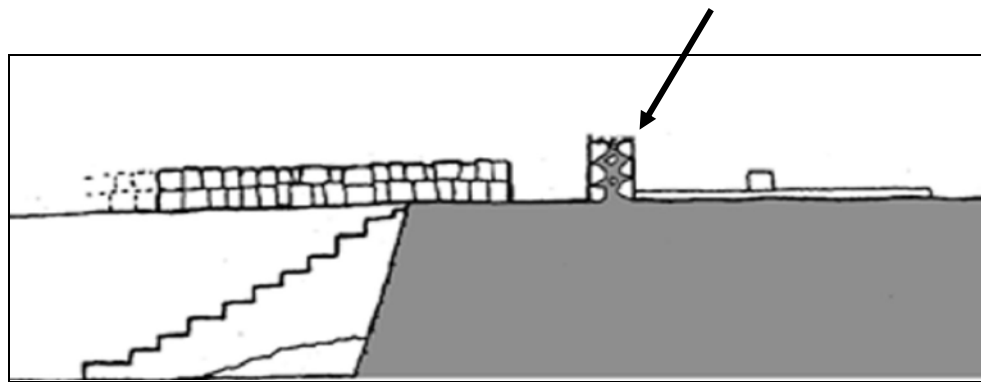


Figure 166: Schematic section of the Wall at the beginning of Sacbe 1

The perimeter wall was erected during a single construction campaign; sections of it were reinforced at a later date. Chart 49 illustrates the results of materials taken from sectors north and west of the wall. 46.2% of the ceramic fragments pertain to the Sotuta Complex. If the wall's construction took place during a single episode, then the ceramic data supports a date in the Middle to Middle/Late Facet of the Sotuta Complex, A.D. 1050-1100.

Chart 49: Materials from the interior of the Northern and Western Sections of the Wall

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	3	2.04%
MOTUL	11	7.48%
CEHPECH	24	16.32%
SOTUTA	68	46.25%
NOT ASSIGNED	41	27.89%
TOTAL	147	

Lot: F25

Another possible interpretation of the data recovered from the northern and western wall sections would be that the northern section collection dates the original construction of the wall (Middle Facet), and the western section collection dates the later reinforcement episode(s) (Late Facet of the Sotuta Ceramic Complex).

CONTEXT S14: The construction of Colonnade 2D13 adjoined to the North Wall, Great Terrace, West of Sacbe 1.

To the west of the entrance of Sacbe 1, after the construction of the Wall, a simple colonnade of one line of columns was adjoined (Structure 2D13), resting partly on the northern wall. With a basement of only 13 cm. of height over the level of the terrace, it was embellished by a sloped course of stones, one stone high, skirting along the base of the wall (see Figures 167, 168). Materials recovered from inside this bench have been analyzed; the results are depicted in Chart 50. The timeframe for the construction of the colonnade falls within the Middle to Middle/Late Facet of the Sotuta Complex. Since it is attached to the wall and likely postdates its construction, I propose a date between A.D. 1050-1100.

Chart 50: Materials from the interior of the sloped course of stones of Colonnade adjoined to the Wall.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	3	5.76%
CEHPECH	7	13.46%
SOTUTA	28	53.84%
NOT ASSIGNED	14	26.92%
TOTAL	52	

Lot: F26

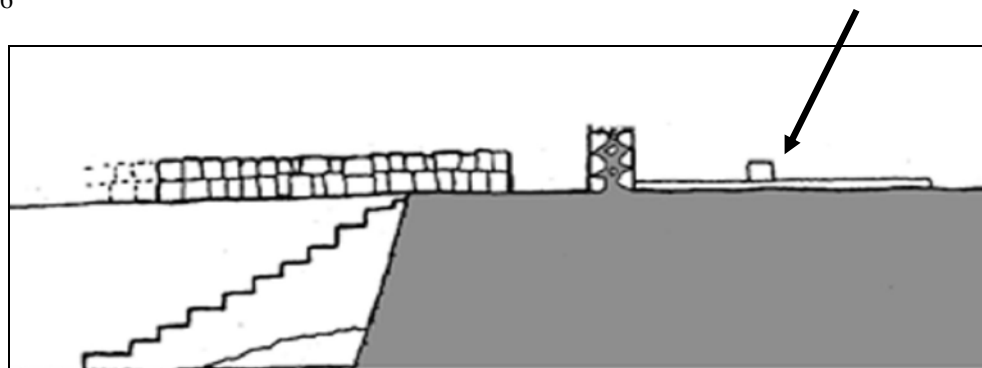


Figure 167: Colonnade of the Sacbe 1 from the north

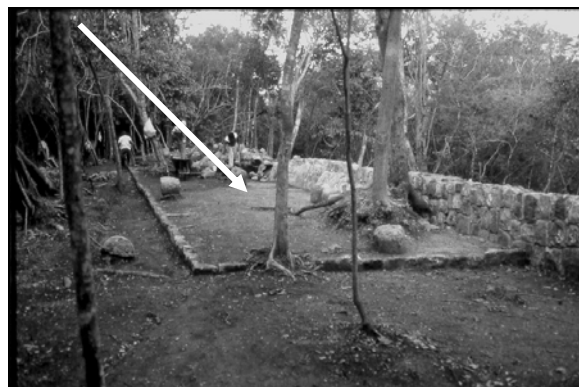


Figure 168: Colonnade of the Sacbe 1

CONTEXT S15: The construction of the rough wall closing the entrance of Sacbe 1

A rough wall of irregular stones was constructed at some time to close the 9 meters wide opening in the wall that forms the northern entrance to the Great Terrace from Sacbe 1 (Figures 169, 170). The ceramics found inside this rough closure are presented in Chart 51. They show a high percentage of Sotuta ceramics, 71.4% of the collection.

The closing of the entrance should then have occurred during the Late Facet of the Sotuta Complex (A.D. 1050-1100).

Chart 51: Materials from the interior of the rough Closure of the Entrance of Sacbe 1

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
CEHPECH	1	3.57%
SOTUTA	20	71.42%
NOT ASSIGNED	7	25.00%
TOTAL	28	

Lots: F56, F57



Figure 169: Rough closure at the entrance of Sacbe 1

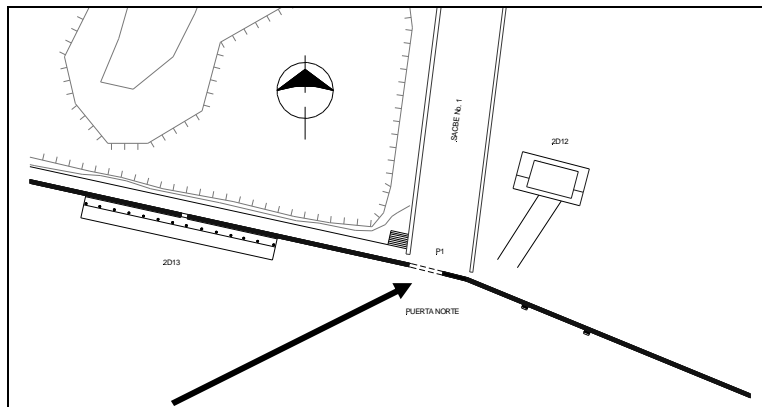


Figure 170: Rough closure at the entrance of Sacbe 1

Latest Appearance of Yabnal-Motul ceramics in systemic context

CONTEXT S16: Cache under the Pavement in the North-East Entrance Initial Series Group

A cache consisting of two ceramic vessels and two fragments of seashell was excavated by Osorio (1999) under a pavement at the northeast entrance to the Initial Series Group (see Figure 171). This entrance was cleared and restored by the CIW in the 1920s. What makes this cache interesting is that both vessels are from two different ceramic complexes (see Figure 172). The jar pertains to the Dzibiatic Red Group of the Sotuta Complex (Holtun Gouged-Incised type), but the little tripod vase's slip is an unmistakable example of the Say Slate Group of the Motul Complex. This vessel can be regarded then as the last documented appearance in systemic context of a Yabnal-Motul Complex vessel.

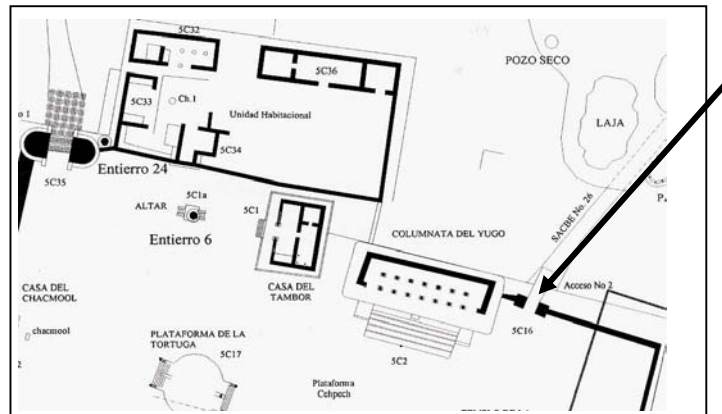


Figure 171: Location of Cache, Initial Series Group

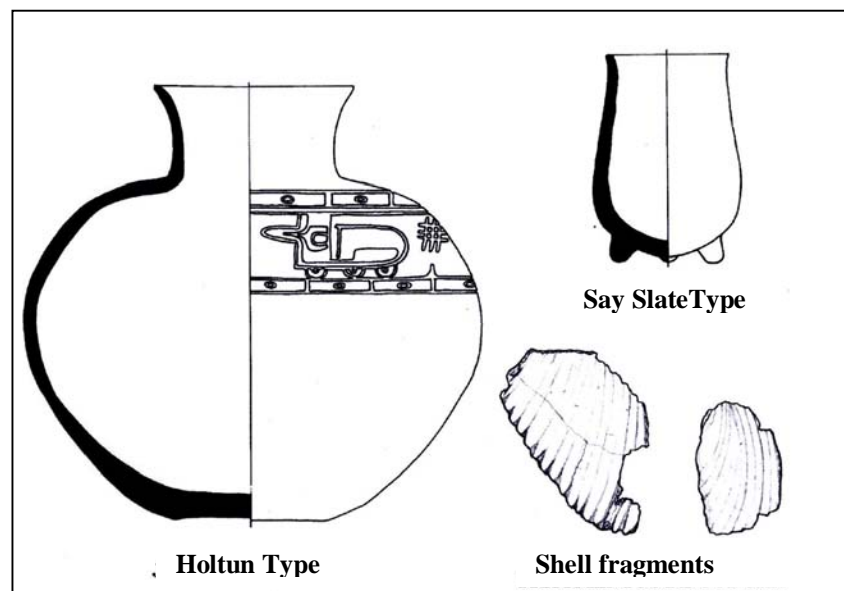


Figure 172: Cache under pavement, Initial Series Group

Last Sotuta Complex Habitation evidence

Since we know that Chichen Itza continued to be inhabited during the Middle and Late Postclassic periods, finding evidence of the last habitation of the Early Postclassic period is predictably difficult. Most of the last Sotuta occupation materials were possibly removed, some re-used, or covered, and we cannot always, if ever, expect to interpret these Sotuta materials as directly reflecting an Early Postclassic systemic context.

Different kinds of contexts can be linked indirectly to the phenomena of the last Sotuta habitation, as late refuse deposits, or materials directly over the floors of rooms, and even materials coming from the clearing of buildings. Difficulties for the dating of those deposits arise from the fact that all of them are open contexts. Though the Sotuta Complex ceramic materials found above the floors of rooms may have a more direct connection with the last Sotuta habitation, they have to be interpreted more correctly as the permanence of vessels and vessel-parts of the Sotuta complex into the next complex's systemic context (residuality). Even less useful for dating purposes are materials coming from the clearing of buildings, since they are also possibly mixed with materials of the collapsed construction fill of the building.

Formation of refuse deposits of pure (or almost pure) Sotuta contents can be assigned theoretically to the end of the Sotuta Complex. Since they were not covered by later constructions, and were not used either as construction fill for other structures, it follows that they were more likely formed at a late moment of the development of the Sotuta complex. They represent the ceramic inventory of the Late Facet of the Sotuta Complex. These refuse deposits represent one important source of evidence available for making inferences about the habitation of Chichen Itza at the end of the Early Postclassic period.

Finally, it is important to assess this kind of deposits if only to get a better understanding of the diversity of the archaeological contexts of the Sotuta complex, and their dating potential.

Deposits of Secondary Refuse outside Terraces

CONTEXT S17: Refuse deposit at the back of the North-East Colonnade

A large concentration of refuse was detected behind the North-East Colonnade (see Figures 173, 174). Based on the sheer quantity of Sotuta sherds, 99.2% in a collection of 22,000 fragments (Chart 52), I suggest that the formation of this deposit dates to the end of the Sotuta Complex or the beginning of the Hocaba Complex, around A.D. 1150-1200. Tases Complex fragments (and even the Hocaba Complex sherds, I suggest) are possibly a later addition to the formation of the dump.

Chart 52: Materials from a refuse deposit. North-East Colonnade

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	13	0.1%
COCHUAH	2	0.0%
CEHPECH	2	0.0%
SOTUTA	21845	99.2%
HOCABA	92	0.4%
TASES	19	0.1%
NOT ASSIGNED	42	0.2%
TOTAL	22015	

Lots: B-61, B-62, B-70, B-78, B-192

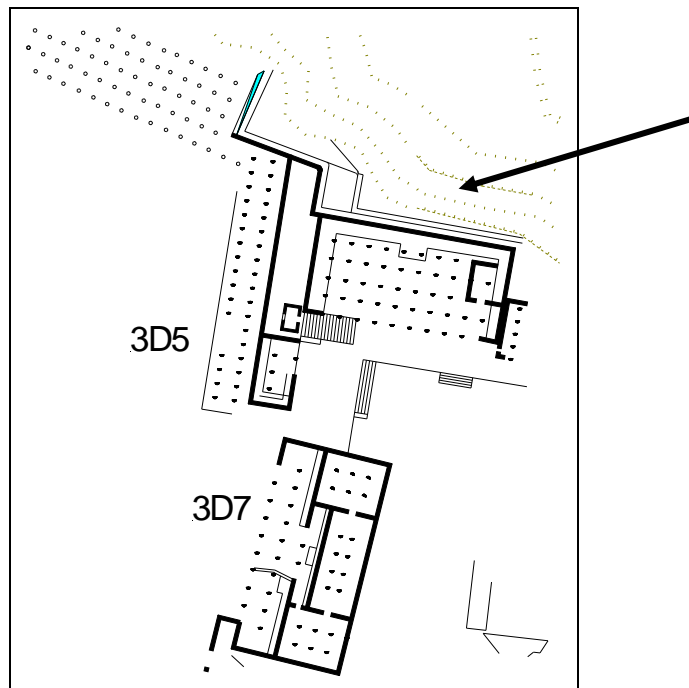


Figure 173: Location of the refuse deposit outside Northeast Colonnade's Terrace



Figure 174: Location of the deposit at the back of the Northeast Colonnade

Apart from the predominance of the Sotuta Complex, several facts about the ceramics in this deposit are relevant. Many restorable vessels and fine ware specimens formed part of the contents. The fragments were mostly in a good state of preservation. This will not affect drastically the dating of the context, but it could shed light on the pace and character of the process of formation of the dump.

Missing parts of restored vessels of this deposit were found later during analysis of the ceramics of Colonnade 3D5 (see Figure 173), and therefore it can be reasonably argued that some of the vessels of the refuse deposit were in use at the Colonnade during the Late Facet of the Sotuta Complex.

CONTEXT S18: Refuse deposit at the back of the Gallery of the Monkeys (Structure 5C6), Initial Series Group.

A comparable deposit of refuse was found at the back of the Gallery of the Monkeys, presenting a massive accumulation of ceramics. This is the biggest refuse deposit found at Chichen Itza so far. The dump extends along all the western side of the terrace of the Initial Series Group (see Figure 176). The analyzed lots, about half of the excavated deposit, contain more than 200.000 sherds. The percentage of the Sotuta Complex is very high (almost 99%; Chart 53). Also a date of the main formation of the deposit of ca. A.D. 1150-1200 is very likely (this represents the end of the Sotuta Complex or the very beginning of the Hocaba Complex).

Chart 53: Materials from secondary refuse deposit. Gallery of the Monkeys. Initial Series Group.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	26	0.01%
COCHUAH	1	0.00%
MOTUL	2196	1.06%
CEHPECH	8	0.00%
SOTUTA	203586	98.66%
HOCABA	469	0.23%
TASES	19	0.01%
NOT ASSIGNED	47	0.02%
TOTAL	206352	

Lots: H287, H287a, H310, H311, H312, H313, H314, H316, H317, H319, H320, H322, H323, H324, H325



Figure 175: Location of the Secondary Refuse Deposit at the back of Str. 5C6 after excavation

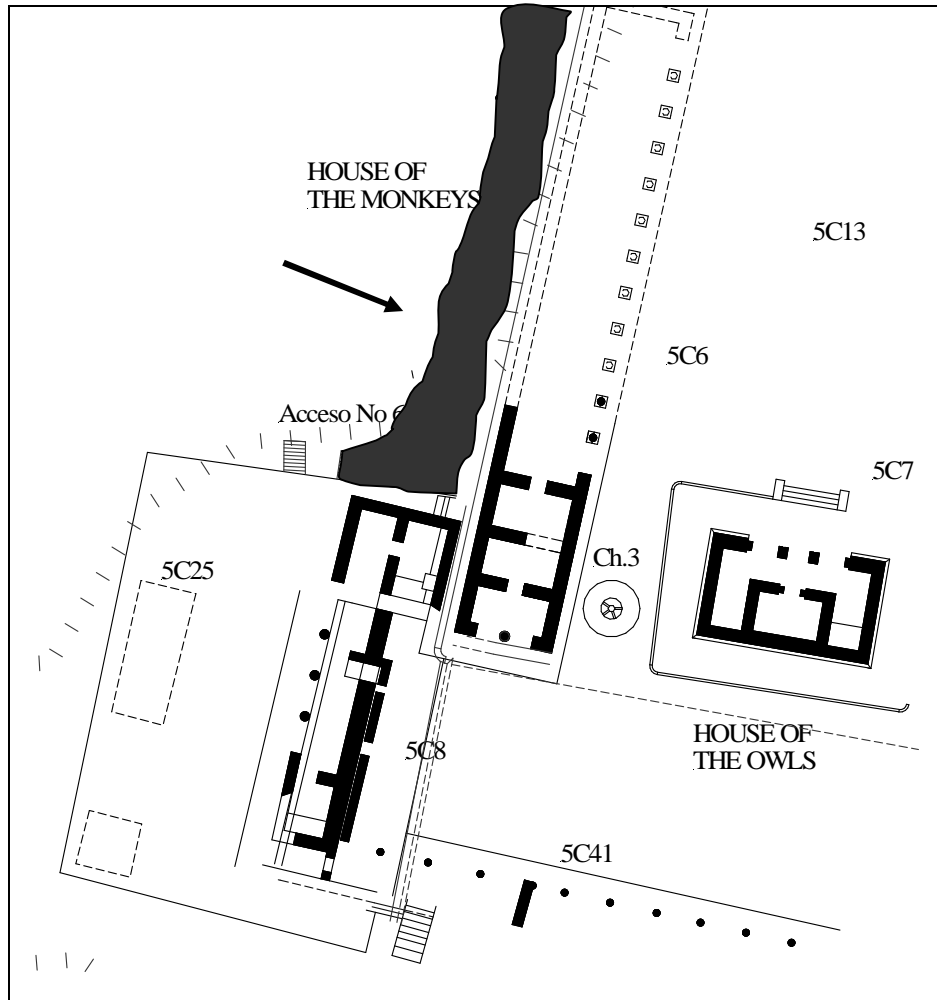


Figure 176: Location of the Refuse Deposit at the back of the Gallery of the Monkeys (5C6)

As in the previous case, the deposit is characterized by a fine state of preservation of the sherds, a good representation of “valued” wares, and a large number of restorable vessels. I believe the deposit to be the result of a sudden formation process.

The provenience of the vessels of this deposit is not firmly established, but it is reasonable to suppose that they were in use at the nearby buildings, such as the Gallery of the Monkeys (Str. 5C6) and the Temple of the Owls (Str. 5C7), and Structure 5C8. But the amount of ceramics suggests that other buildings could have acted as ‘donors’, especially the House of the Snails and the Phalli Complex in general.

CONTEXT S19: Refuse deposit at the Southern Edge of the Initial Series Terrace

Close to the huge dump of the Monkey's Gallery, a smaller deposit was excavated at the southern edge of the Initial Series Terrace (behind Structure 5C41; see Figure 177). The percentage of Sotuta ceramics is very high (97%; see Chart 54), and a very late Sotuta, or very early Hocaba date is applicable to this context.

There are some differences with the previous contexts. This deposit is not only smaller in size but also has less "valuable" and also fewer restorable vessels than those behind the Northeast Colonnade and the Gallery of the Monkeys (Contexts S17, S18). In addition, the state of preservation of the sherds is poorer. Though of comparable date to the other two deposits, I think that the formation processes were different. It seems to me that the process was slower and steadier in this case.

Chart 54: Materials from a refuse deposit at the southern edge of the Initial Series Terrace

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	1	0.02%
MOTUL	33	0.89%
SOTUTA	3581	97.01%
HOCABA	58	1.57%
TASES	15	0.40%
NOT ASSIGNED	3	0.08%
TOTAL	3691	

Lots: H288, H289

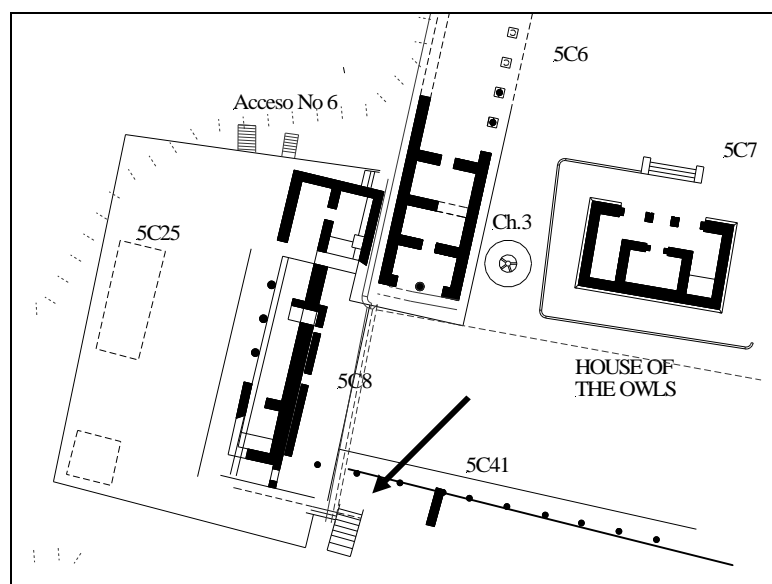


Figure 177: Location of a refuse deposit at the southern edge of the Initial Series Terrace

CONTEXT S20: Refuse deposit outside the East Entrance of the Initial Series Group

A similar deposit (in terms of content) was found outside the east entrance of the group, which gives access to an alley formed between the Initial Series Building (Str. 5C4) and the Patio-Gallery 5C11 (see Figure 178). The percentage of Sotuta Complex sherds in this collection renders 98.4% (Chart 55), and similar considerations apply that in the previous case (Context S19).

Chart 55: Materials from refuse deposit outside the East Entrance of the Initial Series Group

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	95	1.42%
SOTUTA	6580	98.47%
HOCABA	4	0.05%
TASES	2	0.02%
NOT ASSIGNED	1	0.01%
TOTAL	6682	

Lots: X700, X701

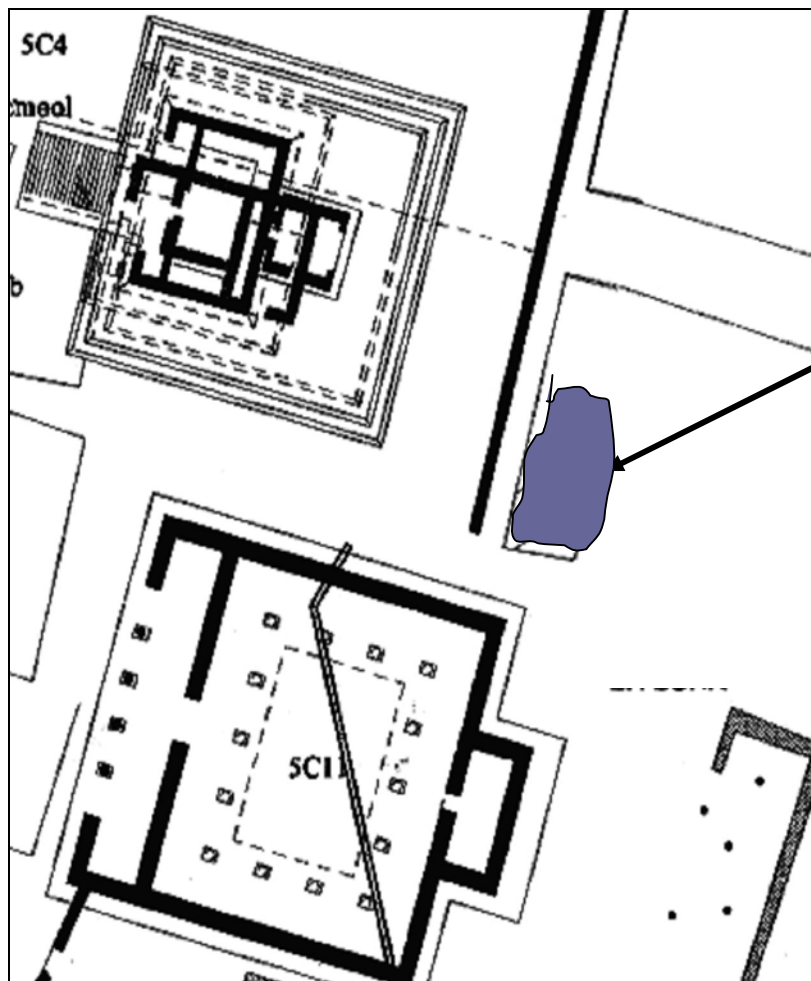


Figure 178: Location of refuse deposit. East Entrance of the Initial Series Group

CONTEXT S21: Refuse deposit at the northeast corner of the Initial Series Group

A concentration of almost pure Sotuta Complex ceramics also occurs at the northeast corner of the Initial Series Terrace (Figure 179), with a percentage of 94.1% (see Chart 56).

Chart 56: Refuse deposit at the northeast corner of Initial Series Terrace

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	84	4.78%
SOTUTA	1652	94.18%
HOCABA	7	0.39%
TASES	11	0.62%
TOTAL	1754	

Lot: B301

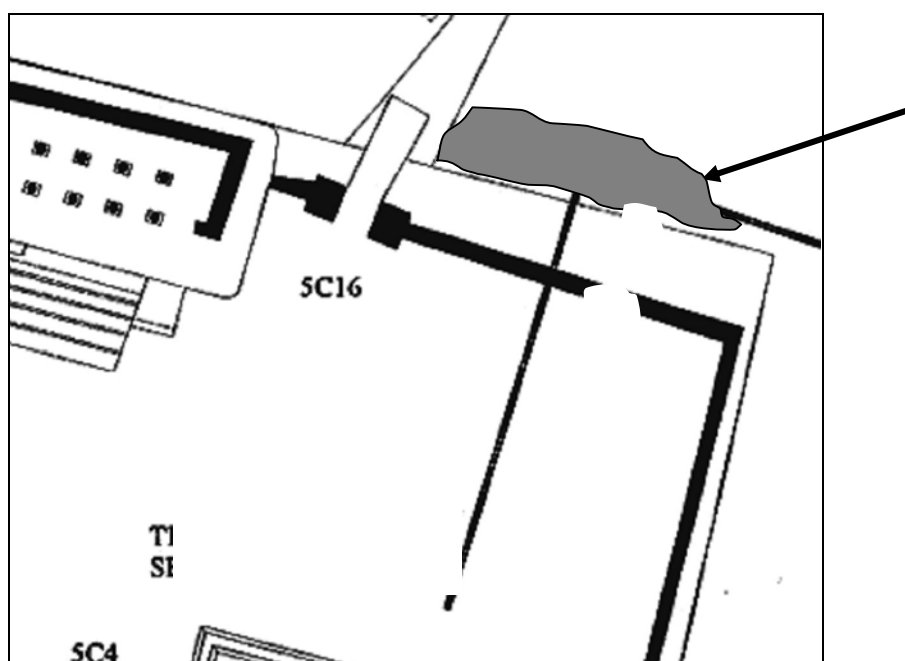


Figure 179: Location of refuse concentration on the northeast corner of I.S. Terrace

CONTEXT S22: Refuse deposit behind Colonnade 5C2

A more abundant concentration of refuse was found behind Colonnade 5C2 (see Figure 180). Almost 40,000 sherds were recovered, with a vast majority of them belonging to the Sotuta Complex (97.4%, see Chart 57).

Chart 57: Refuse deposit behind Colonnade 5C2

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	8	0.02%
MOTUL	1041	2.17%
CEHPECH	21	0.04%
SOTUTA	46719	97.43%
HOCABA	103	0.21%
TASES	17	0.04%
NOT ASSIGNED	41	0.09%
TOTAL	47950	

Lots: X500, X501, X502, X504, X507, X508, X509, X510, X511, X512, X513

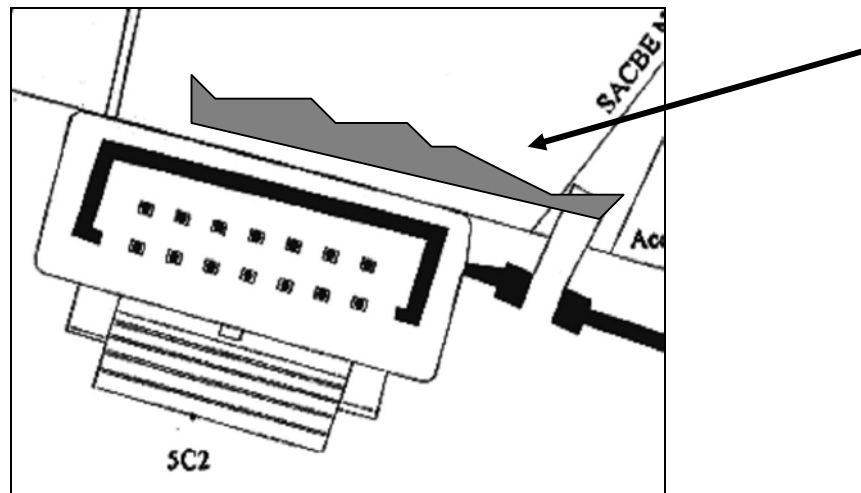


Figure 180: Location of refuse deposit behind Colonnade 5C2

Sotuta Complex Refuse Deposits inside Chultuns

CONTEXT S23: Refuse deposit inside the Chultun of the Three Lintels

A large deposit of refuse was excavated in 1994 from inside a Chultun at the Group of the Three Lintels by R. González (Figure 181). It revealed a large accumulation of ceramics and other materials. The result of the analysis of the 26,057 sherds is shown in Chart 58. The biggest percentage corresponds to the ceramics of the Sotuta Complex, with 78.1% of the total. There is little presence of later Complexes (only 50 sherds from the Hocaba Complex, and 7 from the Tases Complex). I think the most prudent placement for the formation of the deposit, if it occurred during a single episode, would be at the end of Sotuta or beginning of Hocaba, with a later addition of a few Tases fragments. If it occurred as a result of a series of discrete events, then the depositions will have to be dated independently.

Contrary to previously exhibited refuse deposits, the percentage of Yabnal-Motul ceramics is quite substantial (19%). If the deposition of Yabnal-Motul fragments happened at the end of Motul complex, or at the beginning of Cehpech, then this chultun would have been decommissioned as a water cistern and become a refuse deposit at that time, while the Sotuta deposition would have represented a different later event or series of events. Still another option is that the deposition of the Yabnal-Motul ceramics happened much later after the breakage of the vessels.

Chart 58: Materials from a refuse deposit. Chultun of the Three Lintels

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	16	0.06%
COCHUAH	58	0.22%
MOTUL	4958	19.02%
CEHPECH	431	1.65%
SOTUTA	20372	78.18%
HOCABA	50	0.19%
TASES	7	0.02%
NOT ASSIGNED	193	0.74%
TOTAL	26057	

Lots: G30, G31, G19

In any case, the more than 20,000 Sotuta Complex sherds suggest an important Sotuta occupation of the Group of the Three Lintels during the Early Postclassic period. The small presence of Cehpech Complex ceramics in this collection is intriguing, the more so because the fact that supposedly the ceramics used by the constructors of the

Three Lintels Building were Cehpech. A Cehpech collection in the vicinity, in the Sinkhole Pozo de la Abuelita, north of the Three Lintels building, is reported by Brainerd (1958: 38-39; see Context C3)). “A sherd collection of 20 fragments was labeled as from this temple and has been tabulated by me. It is probable, though uncertain, that this is a part of the collection excavated and tabulated by Roberts in 1933. Roberts dug two trenches and obtained 578 rim sherds from beside a well in the depressed area to the north of the temple” (Brainerd 1958: 38).

Brainerd’s interpretation of the Slate Ware, based on Roberts’ analysis, shows that “in Cut A the basins contains no Puuc forms: in Cut B this form is represented by 68.4% definitive Puuc; and in Cut C 87.7% of the basins rims are definitive Puuc ... The slateware bowls tell a similar story ... The classification of the deposit runs as follows: Cuts B and C nearly Pure Florescent with traces, especially in C, of Early Florescent and late Regional. Cut A consists of Early and possibly Middle Mexican ceramics, with very little mixture of earlier material” (Brainerd 1958: 39).

Though some of the Puuc sherds mentioned by Brainerd could have been Early Slateware, the percentages show an important presence of the Cehpech Complex. It is possible then, that there exist good deposits of Cehpech refuse somewhere along the perimeter of the terrace of the Three Lintels Building.

The case of the chultun of the Three Lintels suggests that no use, other than as occasional refuse deposit, was given to it during the Terminal Classic period. The Sotuta fragments of this collection were well preserved, varied, including “valuable” wares. Several vessels were restorable or complete.

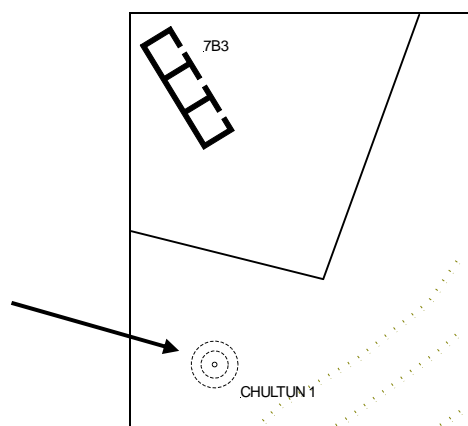


Figure 181: Location of the Chultun of the Three Lintels Building

Note: this collection was first classified in 1994 (Pérez de Heredia 1997). At that time pure collections of Yabnal-Motul ceramics had not yet been found, and many Early Slateware sherds were misclassified as of the Dzitaz Group, causing percentages of the Sotuta Complex to appear bigger. The present data is based on the re-analysis of the collection carried on during 2004.

CONTEXT S24: Refuse deposit inside the Chultun of the Owls

A bigger percentage of Sotuta ceramics appears in the materials collected from inside the Chultun of the Owls, in the Initial Series Group (R. González 2000), where little more than six thousand Sotuta sherds represent 95.5% of all the ceramics excavated (Chart 59).

Percentages of this collection are very similar to those in the refuse deposit found at the back of the Monkey's Gallery (Str. 5C6, see Context S18). Not only the date of formation is similar, but also the quality of ceramics, the number of restorable vessels and the state of preservation are comparable. It is very possible that its formation happened as a result of the same event, or events, and the same Terminal Sotuta-Early Hocaba date can be applied. The chultun of the Owls would then have been constructed during the Sotuta Complex, and have been used as a water reservoir until the end of Sotuta Complex.

Also noticeable is the complete absence of Cehpech ceramics in the contents of this Chultun.

Chart 59: Materials from a refuse deposit inside the Chultun of the Owls.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	41	0.61%
SOTUTA	6296	95.50%
HOCABA	231	3.50%
TASES	2	0.03%
NOT ASSIGNED	22	0.33%
TOTAL	6592	

Lots: G-51, G-52, G-53

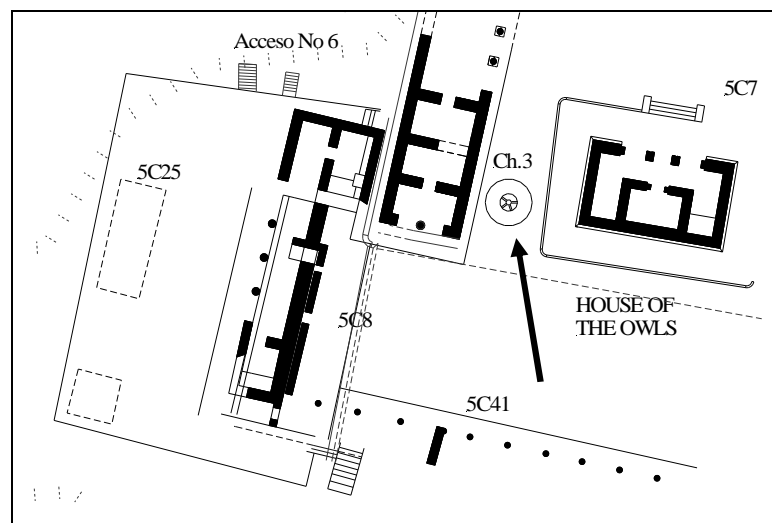


Figure 182: Location of the Chultun of the Owls

CONTEXT S25: Refuse deposit inside the Chultun Xnaba

The excavations at Chultun Xnaba (R. González 2002) yielded a collection quite different to the previous two chultuns. Here only 62% was Sotuta ceramics, and the rest was purely Yabnal-Motul Complex sherds (Chart 60). No other complex was present. The typology is very limited, and many of the fragments fit together to complete vessel forms, mainly of Slateware and Redware. The state of conservation of the fragments was good.

It is not possible to discern if this collection represents a single time of deposition, or two different episodes of refuse deposition. Notice again the complete absence of Cehpech Complex ceramics.

Chart 60: Materials from a refuse deposit inside the Chultun Xnaba

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	635	37.97%
SOTUTA	1037	62.02%
TOTAL	1672	

Lot: G-72



Figure 183: Sotuta Complex complete and restorable vessels from the Chultun Xnaba

CONTEXT S26: Clearing of Structure 3D5, Northeast Colonnade.

Structure 3D5 is a long colonnaded Gallery raised atop a low platform at the northeast corner of the Thousand Columns Terrace (Figures 184, 185). Structure 3D5 was cleared during 1993-1994 by J. Osorio and M. Carrillo during extensive excavation and restoration at the Northeast Colonnade by the Chichen Itza Project.

The materials from the clearing of the Gallery produced more than 21,000 sherds, of which 93.8% pertain to the Sotuta Complex (see Chart 61). Many of them must have come from the interior of the construction fill, but those of the lower level of debris are possibly related with the habitation of the Structure during the Sotuta Complex, and even can be considered as the residuality of Sotuta ceramics during Hocaba times (see also context H9).

Chart 61: Materials from the clearing of Gallery of Structure 3D5

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	34	0.15%
CEHPECH	13	0.06%
SOTUTA	20121	93.84%
HOCABA	576	2.68%
TASES	416	1.94%
NOT ASSIGNED	267	1.24%
TOTAL	21440	

Lots: B-39, B-40, B-41, B-42, B-43, B-47, B-48, B-51, B-52, B-53, B-55, B-56, B-59, B-60, B-61c, B-62c, B-63, B-68, B-69, B-71, B-75, B-76, B-79, B-72, B-67, B-43a, B-47a, B-52a, B-55a, B-60a, B-63a, B-64a, B-70c, B-71a, B-76a, B-79a

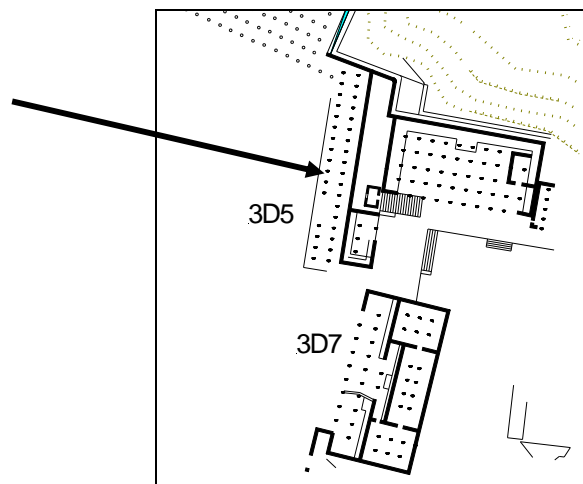


Figure 184: The Gallery of Structure 3D5

The materials found along the base of the platform, lying over the terrace level, conform a smaller collection (5,502 sherds; see Chart 62) with 75.5% of the sherds pertaining to the Sotuta Complex.

Chart 62: Materials from the clearing of Platform of Structure 3D5

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	7	0.12%
CEHPECH	1	0.01%
SOTUTA	4159	75.59%
HOCABA	585	10.63%
TASES	79	14.35%
NOT ASSIGNED	671	12.19%
TOTAL	5502	

Lots: B-45, B-49, B-50, B-57, B-58, B-65, B-66, B-73, B-74, B-81



Figure 185: Outer edge of the Platform of Structure 3D5

Chart 63 shows the sum of all materials collected during the clearing of Structure 3D5, where 90.1% of the sherds pertain to the Sotuta Complex.

Chart 63: Total Materials from the clearing of Platform edge and Gallery of 3D5, North-East Colonnade

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	41	0.15%
CEHPECH	14	0.05%
SOTUTA	24280	90.11%
HOCABA	1161	4.30%
TASES	495	1.83%
NOT ASSIGNED	938	3.48%
TOTAL	26942	

Lots: B-39, B-40, B-41, B-42, B-43, B-47, B-48, B-51, B-52, B-53, B-55, B-56, B-59, B-60, B-61c, B-62c, B-63, B-68, B-69, B-71, B-75, B-76, B-79, B-72, B-67, B-43a, B-47a, B-52a, B-55a, B-60a, B-63a, B-64a, B-70c, B-71a, B-76a, B-79a, B-45, B-49, B-50, B-57, B-58, B-65, B-66, B-73, B-74, B-81

CONTEXT S27: Clearing of Structure 3D7 (Building of the Sculpted Columns)

Structure 3D7 is another colonnaded construction pertaining to the Northeast Colonnade (Figures 186, 187). Chart 64 shows the percentages of a collection obtained during the clearing of the North Façade of the building. 83.6% of the ceramics pertain to the Sotuta Complex in this collection.

Chart 64: Materials from the clearing of North Façade of Structure 3D7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
SOTUTA	2068	83.62%
HOCABA	377	15.24%
TASES	28	1.13%
TOTAL	2473	

Lot: B-87, B-88, B-89

Few ceramics were found in the interior rooms of the building. Inside the northeast room only 24 sherds were collected of which only 33% pertain to the Sotuta Complex (see Chart 65).

Chart 65: Materials from the clearing of the inside of Room NE of Structure 3D7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
SOTUTA	8	33.33%
HOCABA	16	66.66%
TOTAL	24	

Lots: B94, B95, B109

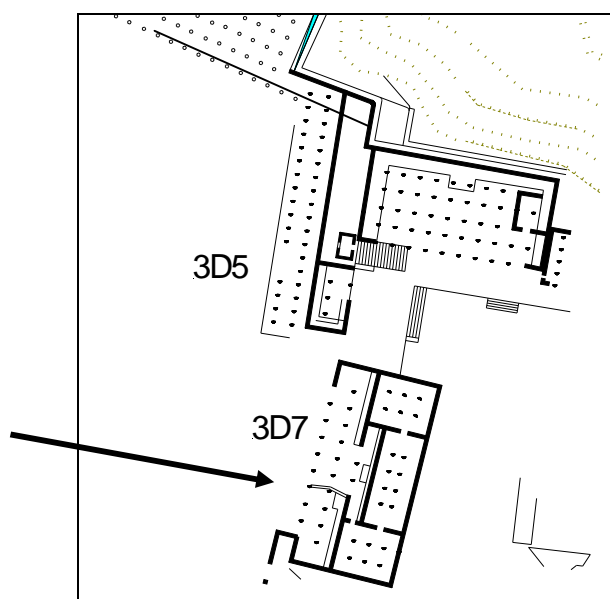


Figure 186: Structure 3D7

Only two sherds, both of them Sotuta, were found in the central room of the building (Chart 66).

Chart 66: Materials from the clearing of the inside of Central Room Structure 3D7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
SOTUTA	2	100%
TOTAL	2	

Lot: B-136



Figure 187: Structure 3D7. Frontal Gallery with Sculpted Columns

The materials from the frontal gallery of the Sculpted Columns building (Figure 187) produced a sizeable ceramic collection, around 1,700 sherds, of which 76.5% pertain to the Sotuta Complex.

Chart 67: Materials from the clearing of the frontal Gallery of Structure 3D7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	3	0.17%
SOTUTA	1311	76.53%
HOCABA	363	21.19%
TASES	36	2.10%
TOTAL	1713	

Lots: B 86, B97, B 105, B 106, B 117, B 118, B 126, B 137, B 138, B 145, B 146



Figure 188: Structure 3D7. Frontal Gallery after clearing and restoration

A good-sized collection of sherds was also found during clearing of the East Façade (behind Structure 3D7), of which 56.5% were of the Sotuta Ceramic Complex (Chart 68).

Chart 68: Materials from the clearing of the East Façade of Structure 3D7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	2	0.06
SOTUTA	1674	56.50
HOCABA	1272	42.85
TASES	20	0.67
TOTAL	2968	

Lots: B-90, B-92, B-93, B-110, B-111, B-112, B-113, B-114, B-130, B-131, B-132, B-1333, B-134, B-150, B-151

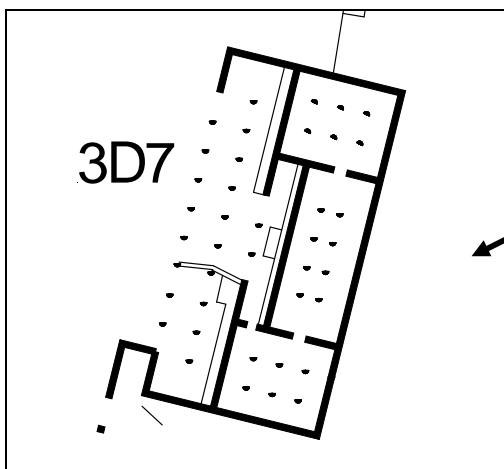


Figure 189: East Façade of 3D7



Figure 190: East Façade of 3D7

Finally, the materials coming from the clearing in front of the West Façade (Figure 191) show a 57.3% of Sotuta Complex sherds (Chart 69).

Chart 69: Materials from the clearing of Platform of the West Façade of Structure 3D7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	1	0.09%
MOTUL	2	0.18%
CEHPECH	1	0.09%
SOTUTA	617	57.39%
HOCABA	448	41.67%
TASES	6	0.55%
TOTAL	1075	

Lots: B-83, B-84 B- 99, B- 100, B- 102, B- 104, B- 120, B- 121, B- 123, B- 140, B- 141, B- 142, B- 143

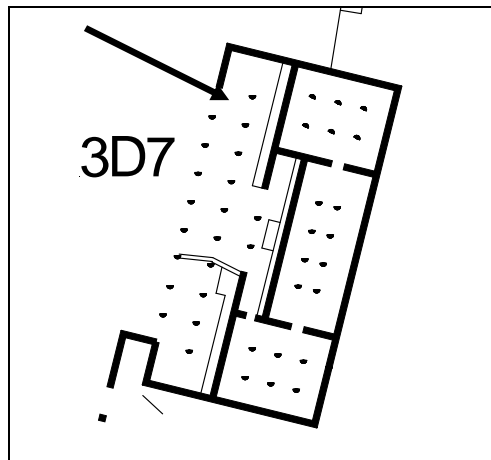


Figure 191: West Façade of 3D7

The sum of all materials collected during the clearing process of Structure 3D7 is shown in Chart 70, presenting a percentage of 68.8% Sotuta Complex sherds.

Chart 70: Total Materials from the clearing of Structure 3D7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	1	0.01%
MOTUL	7	0.08%
CEHPECH	1	0.01%
SOTUTA	5680	68.80%
HOCABA	2476	29.99%
TASES	90	1.09%
TOTAL	8255	

Lots: B-83, B-84 B- 99, B- 100, B- 102, B- 104, B- 120, B- 121, B- 123, B- 140, B- 141, B- 142, B- 143, B-90, B-92, B-93, B-110, B-111, B-112, B-113, B-114, B-130, B-131, B-132, B-1333, B-134, B-150, B-151, B-86, B-97, B-105, B-106, B-117, B-118, B-126, B-137, B-138, B-145, B-146, B-136, B-87, B-88, B-89, B-94, B-95, B-109.

CONTEXT S28: The Clearing of the Osario Pyramid (3C1)

The Osario Pyramid was cleared in entirety in the excavations conducted by P. Schmidt during 1993 and 1994. The analysis of the ceramics is shown in different charts according to the façade in which they were found. West and North façades present the highest percentages of Sotuta ceramics, with 33.6% and 31.2% respectively (see Charts 71 and 72).

Chart 71: Materials from the clearing of the West Façade of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	7	0.29%
MOTUL	315	13.14%
CEHPECH	170	7.09%
SOTUTA	807	33.68%
HOCABA	319	13.31%
TASES	651	27.17%
NOT ASSIGNED	127	5.30%
TOTAL	2396	

Lots: H-97; H-98; H-100; H-111; H-113; H-118

Chart 72: Materials from the clearing of the North Façade of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	3	0.33
MOTUL	187	21.17
CEHPECH	95	10.75
SOTUTA	276	31.25
HOCABA	67	7.58
TASES	116	13.13
NOT ASSIGNED	139	15.74
TOTAL	883	

Lots: H-91; H-92; H-93; H-99; H-114; H-117

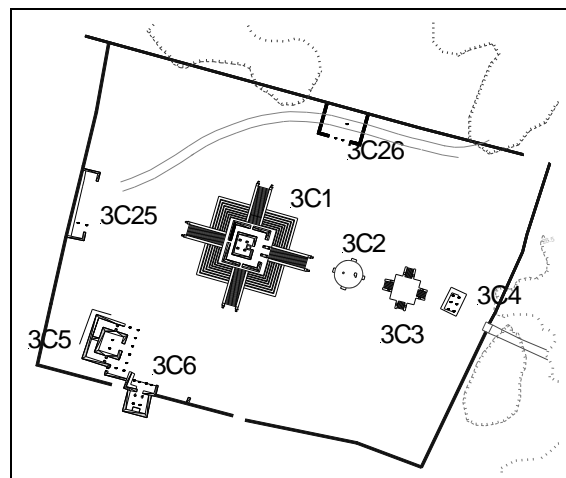


Figure 192: The Osario Group

At the South Façade, Sotuta Complex sherds represent 28.5% that collection (Chart 73).

Chart 73: Materials from the clearing of the South Façade of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	215	12.88%
CEHPECH	58	3.47%
SOTUTA	477	28.59%
HOCABA	257	15.40%
TASES	467	27.99%
NOT ASSIGNED	194	11.63%
TOTAL	1668	

Lots: H-94; H-95; H-96; H-112; H-119; H-127

The main, East Façade of the Osario Pyramid shows the smallest percentage of Sotuta materials of all the four sides of the pyramid (only 13.7%; see Chart 74). This is doubtless due to a more intensive use of this façade during the Middle and Late Postclassic periods (Figure 193).

Chart 74: Materials from the clearing of the East Façade of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	10	0.16%
MOTUL	432	7.28%
CEHPECH	127	2.14%
SOTUTA	814	13.72%
HOCABA	516	8.70%
TASES	3714	62.64%
NOT ASSIGNED	316	5.32%
TOTAL	5929	

Lots: H-38; H-51; H-52; H-53; H-54; H-55; H-56; H-57; H-58; H-59



Figure 193: The Osario Pyramid, East Façade

The percentage of Sotuta Complex materials drops even more in the collection of the Upper Temple, to 5.1%, due to the same reason (Chart 75).

Chart 75: Materials from the clearing of the Upper Temple of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	49	1.50%
CEHPECH	23	0.70%
SOTUTA	167	5.13%
HOCABA	341	10.47%
TASES	2659	81.68%
NOT ASSIGNED	16	0.49%
TOTAL	3255	

Lots: H-36; H-37; H-44; H-46; H-115

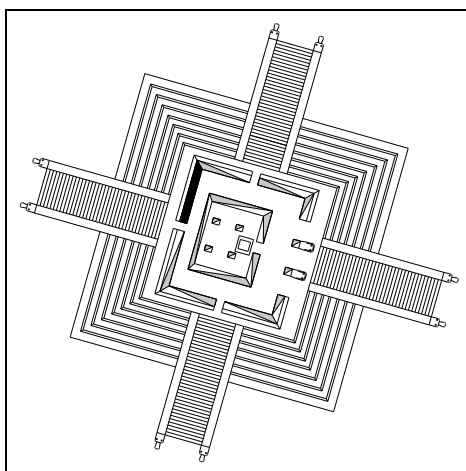


Figure 194: The Osario Pyramid

If we look at the quantity of sherds, instead of the percentages, we see that the East Façade (814 sherds) and the West Façade (807 sherds) present the highest quantities, while the North Façade (276 fragments) and the South Façade (257 sherds), as well as the Upper Temple (167 sherds) present the lowest sherd counts.

It is difficult to extract prudent chronological inferences from these collections, except for the argument that there was a period of Sotuta habitation/use for the pyramid. Since the contents of the construction fill of the pyramid show very small percentages of Sotuta ceramics (see Context S2), the sherds collected during the clearing presumably would pertain mostly to the use of the pyramid during the Late Facet of the Early Postclassic Period, and to the residuality of Sotuta ceramics during the Hocaba complex (Middle Postclassic).

An overall view of the total collection obtained during clearing of the Pyramid is shown in Chart 76, with Sotuta ceramics representing only 17.9% of the sherds.

Chart 76: All the materials from the clearing of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	20	0.14
MOTUL	1198	8.47
CEHPECH	473	3.34
SOTUTA	2541	17.98
HOCABA	1500	10.61
TASES	7607	53.83
NOT ASSIGNED	792	5.60
TOTAL	14131	

Lots: H-91; H-92; H-93; H-99; H-114; H-117; H-38; H-51; H-52; H-53; H-54; H-55; H-56; H-57; H-58; H-59; H-97; H-98; H-100; H-111; H-113; H-118; H-94; H-95; H-96; H-112; H-119; H-127; H-36; H-37; H-44; H-46; H-115

CONTEXT S29: Clearing of the Temple of the Big Tables (Structure 2D7)

The Temple of the Big Tables, a construction adjacent to the Temple of the Warriors, was cleared by V. Castillo during 1993-94 (Castillo 1998). Materials from the clearing of the main western Façade of the Temple of the Big Tables are shown in Chart 77, with 34.2% of the fragments pertaining to the Sotuta Complex. This percentage is bigger than that of the main façade of the Osario Pyramid, and closer to the percentages of the North and West façades of that pyramid.

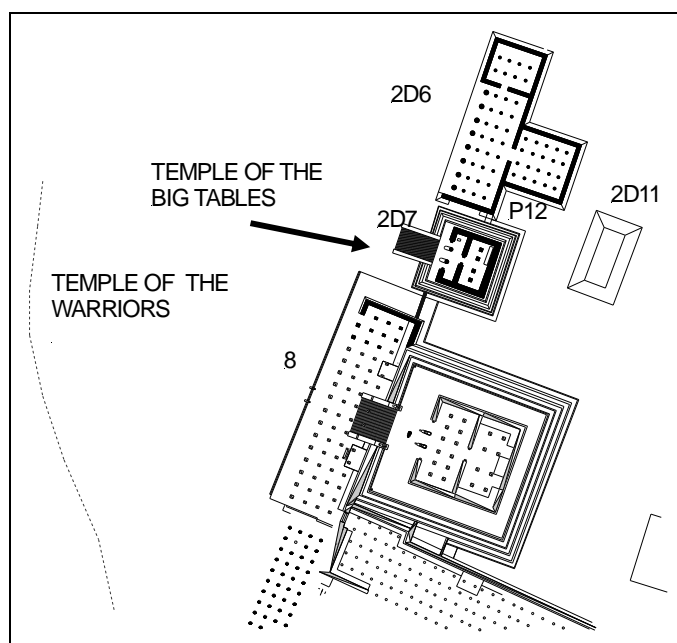


Figure 195: Temple of the Big Tables

Chart 77: Materials from the clearing of the West Façade of the Temple of the Big Tables

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
COCHUAH	1	0%
CEHPECH	5	0%
SOTUTA	4052	34.2%
HOCABA	442	3.7%
TASES	7166	60.5%
NOT ASSIGNED	170	1.4%
TOTAL	11836	

Lots: D1, D2 D3, D4, D5, D6, D7, D9.

The difference between the percentages of Sotuta ceramics of the West and East façades of the Big Mesas building is dramatic. On the eastern façade Sotuta ceramics comprise 83.7% (Chart 78), though the quantity of sherds in both Charts is similar (around 4000 sherds in both cases). It should be noted that only one ceramic Lot from the

East façade has been classified so far, as opposed to the complete collection of the West façade. The high quantities of ceramics of the East Façade could be indicating a refuse deposit along that façade, but there are no notes by V. Castillo (1998) that confirms this.

Chart 78: Materials from the clearing of the East Façade of the Temple of the Big Tables

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	5	0.09%
CEHPECH	5	0.09%
SOTUTA	4299	83.73%
HOCABA	47	0.91%
TASES	760	14.80%
NOT ASSIGNED	18	0.34%
TOTAL	5134	

Lot: D-22

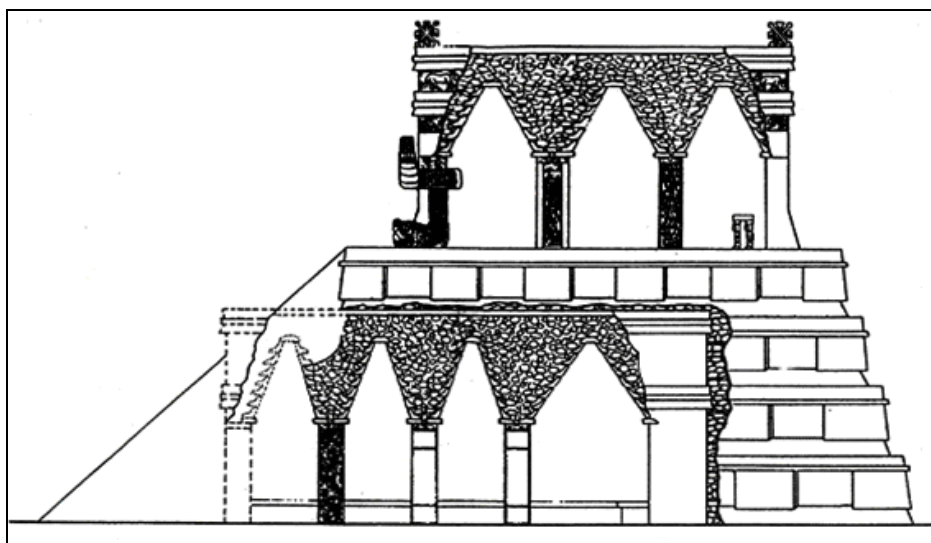


Figure 196: Temple of the Big Tables from the south (V. Castillo 1998)

All the materials classified thus far from this temple are shown in Chart 79, obtaining a percentage of 49.2% of Sotuta ceramics.

Chart 79: Materials from the clearing of the East and West Façades of the Temple of the Big Tables

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
COCHUAH	1	0.00%
MOTUL	5	0.02%
CEHPECH	10	0.05%
SOTUTA	8351	49.21%
HOCABA	489	2.88%
TASES	7926	46.70%
NOT ASSIGNED	188	1.10%
TOTAL	16970	

Lots: D1, D2 D3, D4, D5, D6, D7, D9, D22

CONTEXT S30: Partial Clearing of Patio-Gallery 2D6

Next to the Pyramid of the Little Tables, a Patio-Gallery, Structure 2D6, was partially cleared in 1994 by L. Pantoja. Materials from this collection, located at the south end of the gallery (Figure 197) are presented in Chart 80. The percentage of Sotuta ceramics reaches here 67.6%, close to the 76% found at the frontal gallery of Structure 3D7 (see Chart 69) but the collection is too small (only 373 sherds) and it is difficult to be too firm in drawing any conclusions.

Chart 80: Materials from the clearing of the Patio-Gallery 2D6

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
SOTUTA	252	67.6%
HOCABA	91	24.4%
NOT ASSIGNED	30	8.0%
TOTAL	373	

Lots: J1 to J8

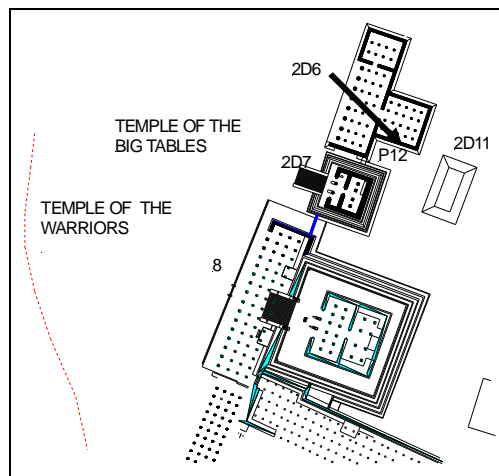


Figure 197: Patio-Gallery 2D6



Figure 198: Restored section of Patio-Gallery 2D6

CONTEXT S31: Clearing of the Gallery of Structure 5C11, Initial Series Group

Materials from the clearing of the frontal Gallery of Structure 5C11, a Patio-Gallery type construction of the Initial Series Group, were separated in two layers. The collections corresponding to both layers are presented in following charts. They show very similar high percentages of Sotuta ceramics (94.8% and 93.4% respectively), and are comparable to percentages of Sotuta in the Gallery of Structure 3D5 (see Charts 81 and 82).

Chart 81: Clearing of gallery of Structure 5C11 - Layer I

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	17	2.57
CEHPECH	5	0.75
SOTUTA	625	94.84
HOCABA	12	1.82
TOTAL	659	

Lots: X1012-I; X1032-I; X1042-I; X1064-I

Chart 82: Clearing of gallery of Structure 5C11 - Layer II

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	49	2.99%
CEHPECH	4	0.24%
SOTUTA	1530	93.40%
HOCABA	52	3.17%
TASES	2	0.12%
NOT ASSIGNED	1	0.06%
TOTAL	1638	

Lots: X1011-II; X1021-II; X1032-II; X1042-II; X1053-II; X1055-II; X1065-II; X1076-II; X1086-II; X1087-II; X1108-II

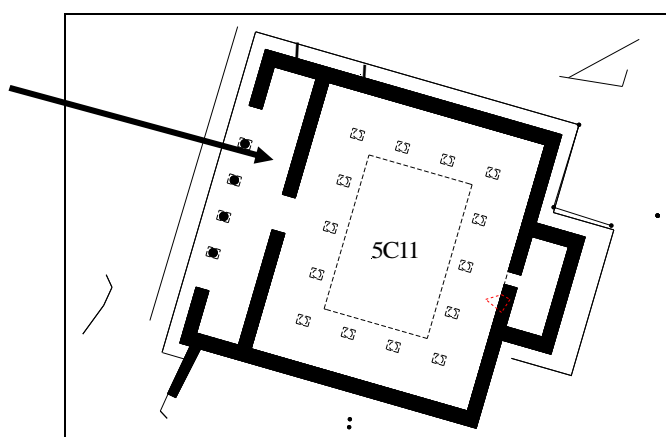


Figure 199: The Gallery of Structure 5C11

The total of both layers is shown in Chart 83, rendering 93.8% of Sotuta Complex sherds.

Chart 83: Clearing of gallery of Structure 5C11 - Layers I and II

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	66	2.87%
CEHPECH	9	0.39%
SOTUTA	2155	93.81%
HOCABA	64	2.78%
TASES	2	0.08%
NOT ASSIGNED	1	0.04%
TOTAL	2297	

Lots: X1012-I; X1032-I; X1042-I; X1064-I; X1011-II; X1021-II; X1032-II; X1042-II; X1053-II; X1055-II; X1065-II; X1076-II; X1086-II; X1087-II; X1108-II;



Figure 200: Gallery of Structure 5C11 after clearing

CONTEXT S32: Clearing of the Structure 5C8. Initial Series Group.

Structure 5C8 rests on a small terrace extension at the southwest corner of the Initial Series Group (Figure 201). Materials from several lots collected during the excavation and clearing of this building show a very high percentage of the Sotuta complex (93.6%; see Chart 84).

Chart 84: Materials from the clearing of Structure 5C8

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	10	0.26%
SOTUTA	3527	93.62%
HOCABA	210	5.57%
TASES	20	0.53%
TOTAL	3767	

Lots: H-221, H-225, H-226

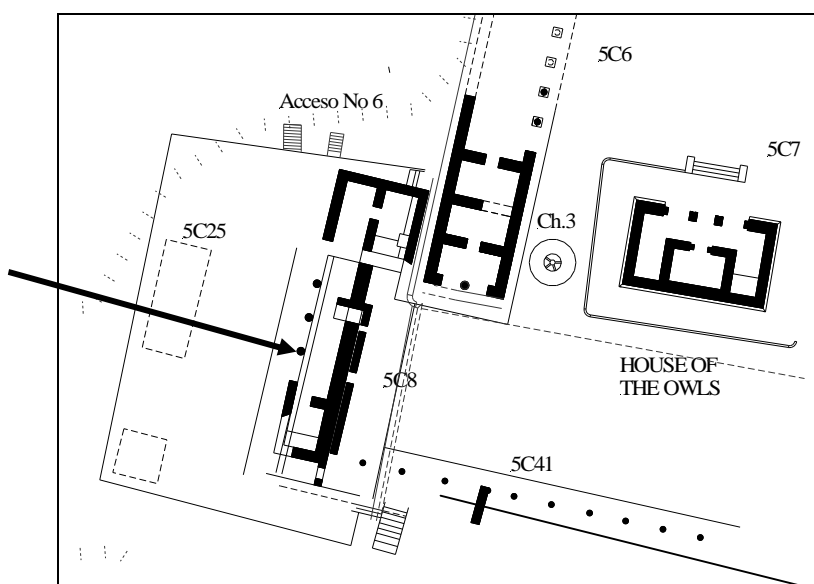


Figure 201: Structure 5C8

Peter Schmidt, who excavated this construction, will publish the complete sequence of construction and use of this structure shortly, but generally the analyzed collections show a clear predominance of Sotuta fragments, with a possible re-use of the area during the Hocaba Complex.

CONTEXT S33: Clearing of the interior of Temple of the Owls (Structure 5C7). Initial Series Group.

Two collections from the Temple of the Owls are pertinent to this section. The first one is from the clearing of the interior room of the building; the second is from the layer directly over the floor of the frontal room. While the first collection is composed largely of Sotuta complex fragments (93.6%; see Chart 85), the materials from the front room show less frequency of Sotuta and mostly pertain to one vessel that was possibly in use (either as a complete vessel or as a part of it) during the Hocaba complex.

Chart 85: Materials of the clearing of the inner room of Structure 5C7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	4	1.70%
SOTUTA	221	93.65%
HOCABA	9	3.82%
TASES	2	0.85%
TOTAL	236	

Lot: H-181

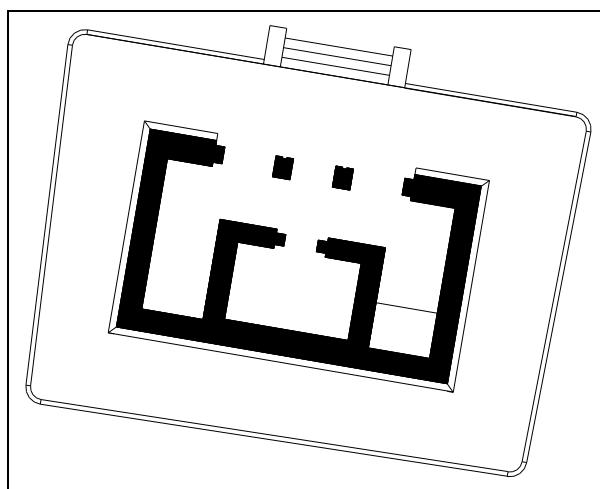


Figure 202: Plan of the Temple of the Owls

Chart 86: Materials directly over the floor; frontal Room of Structure 5C7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
SOTUTA	23	60.52%
HOCABA	15	39.47%
TOTAL	38	

Lots H-181-Y, H-181-X

The sum of both collections is shown in Chart 87. On this Chart, 89% of the ceramics are from the Sotuta Complex.

Chart 87: Total materials from the clearing of the interior of Structure 5C7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	4	1.45%
SOTUTA	244	89.05%
HOCABA	24	8.75%
TASES	2	0.72%
TOTAL	274	

Lot: H-181, H-181-Y, H-181-X

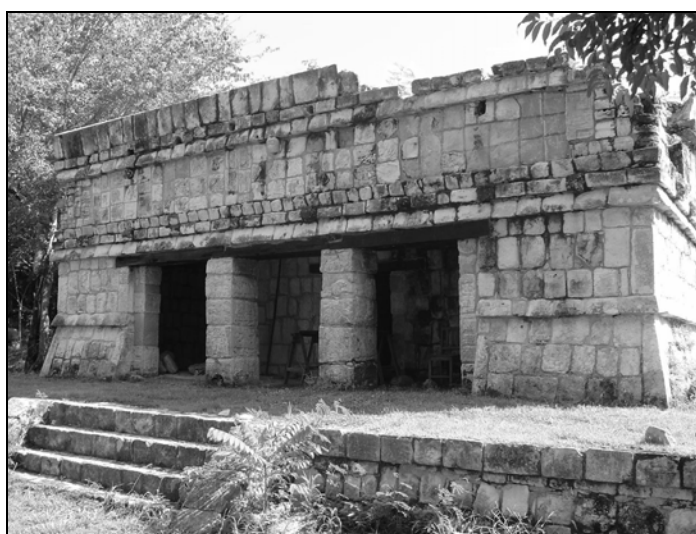


Figure 203: The Temple of the Owls, main North Façade

CONTEXT S34: Clearing of the Temple of the Initial Series (5C4) Initial Series Group.

The materials from the clearing of the totality of the Initial Series Building (conducted by J. Osorio between 1998 and 2000; see Osorio 2004) are shown in Chart 88. More than 8.000 sherds pertained to the Sotuta complex, representing 67.1% of the total collection.

Chart 88: Materials from he clearing of Structure 5C4

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	4	0.03%
COCHUAH	1	0.00%
MOTUL	350	2.67%
CEHPECH	19	0.14%
SOTUTA	8775	67.12%
HOCABA	931	7.12%
TASES	2977	22.77%
NOT ASSIGNED	16	0.12%
TOTAL	13073	

Lots: X400, X401, X402, X403, X404, X405, X406, X407, X408, X4032, X434, X435, X436, X437, X442

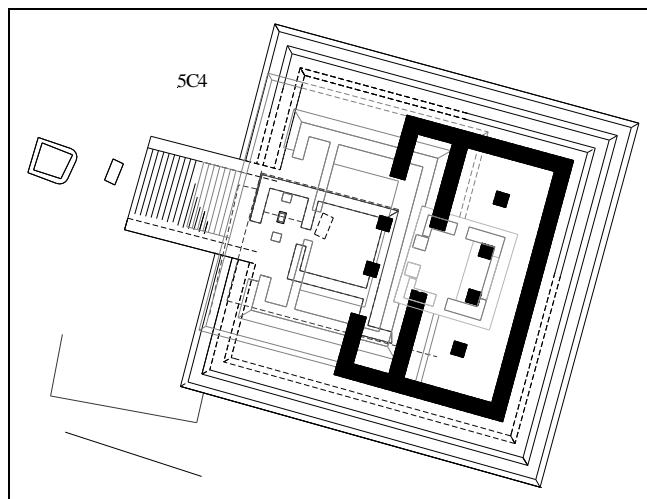


Figure 204: Initial Series Building (5C4)

During the clearing of the Initial Series building, Sotuta ceramics appeared with the greatest frequency. The ratio between percentages of Sotuta and Tases ceramics is very different from that of another pyramidal temple, El Osario, where Tases is almost twice abundant than Sotuta. The reasons for this could be that the intensity of Tases activity was greater at the Osario pyramid due to its location closer to the Pyramid and the Sacred Well - the focal point of Chichen Itza during the Late Postclassic period - while the Initial Series Group is located farther from this area of the site..

CONTEXT S35: Clearing of Sacbe 1

At the beginning of Sacbe 1, a little square altar was defined during 1994 (Str. 2D12; Perez de Heredia 1994). It is constructed on top of bedrock and connected to the Great Terrace by an independent small sacbe (see Figure 205). A trench excavated between the Altar and Sacbe 1 (see Figure 206) provided an important collection of materials. Percentages are shown in Chart 89, with an overwhelming frequency of Sotuta ceramics (97.8%).

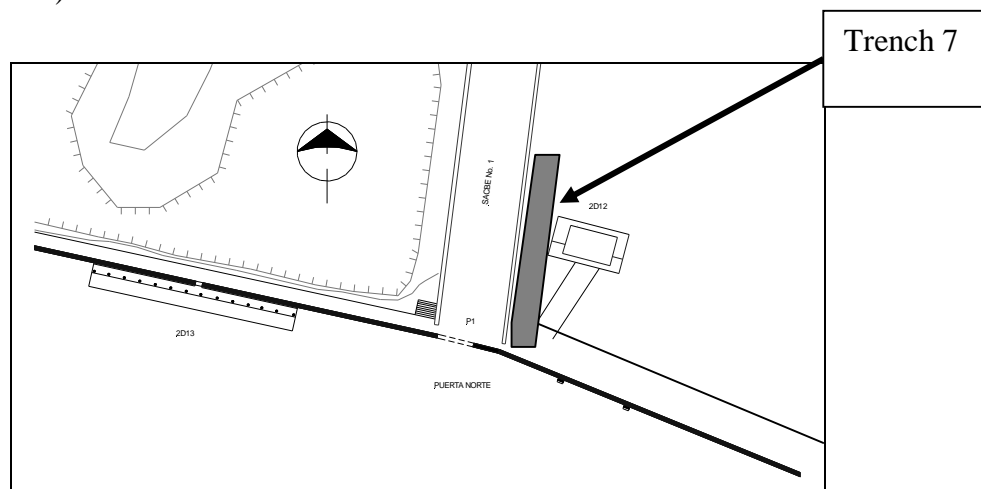


Figure 205: Location of Trench 7, between Sacbe 1 and Altar 2D12

Chart 89: Materials from the excavation of Trench 7 of Sacbe 1

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	2	0.0%
MOTUL	18	0.2%
CEHPECH	16	0.1%
SOTUTA	11454	97.8%
HOCABA	86	0.7%
TASES	72	0.6%
NOT ASSIGNED	69	0.6%
TOTAL	11717	

Lots: F-89 to F-205



Figure 206: Trench 7 at Sacbe 1

Another collection comes from the extensive series of excavation units on the west side of Sacbe 1 by P. Fernández in 1993-1994 (Figure 207). This collection resulted in a smaller percentage of Sotuta ceramics, but they are still very dominant with 85.2% (Chart 90).

Chart 90: Materials from the clearing excavation of the West Side of Sacbe 1.

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	1856	12.61%
CEHPECH	119	0.80%
SOTUTA	12543	85.23%
HOCABA	89	0.60%
TASES	20	0.13%
NOT ASSIGNED	88	0.59%
TOTAL	14715	

Lots: F1, F2, F3, F4, F5, F6, F7, F8, F9.



Figure 207: Terrace wall at the west side of Sacbe 1, after restoration

The difference between the percentages on both sides of Sacbe 1 can be attributed to the fact that the western section of the terrace limit demonstrated a greater degree of collapse and some Yabnal-Motul ceramics from the terrace construction fill were mixed with the Sotuta Complex deposit. Nevertheless, both collections testify to an intense activity at the beginning of Sacbe 1 during the Sotuta Complex, and a very low activity during later periods.

CONTEXT S36: The clearing of Altar 3F45 of Sacbe 19

Altar 3F45 is a modest construction on top of a bedrock formation which is crossed by Sacbe 19 (Figure 208), and was completely cleared, along with a portion of the sacbe in 1993-94 by F. Perez. The altar is located halfway between the Great Terrace and East Group or “Bóvedas” Group. The main use of the Altar dates to Sotuta times, as we can see in Chart 64.

Chart 91: Materials from the clearing of the Altar of Sacbe 19

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	32	3.2%
COCHUAH	19	1.9%
CEHPECH	23	2.3%
SOTUTA	818	80.6%
HOCABA	10	1.0%
TASES	1	0.1%
NOT ASSIGNED	112	11.0%
TOTAL	1015	

Lots: C10 TO C44

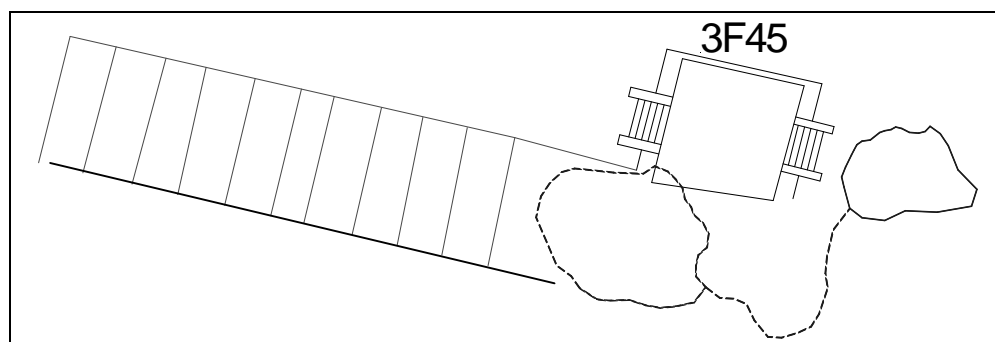


Figure 208: Structure 3F45 and Sacbe 19

CONTEXT S37: The clearing of Altar of Sacbe 6 (Structure 3E22)

Another altar (Structure 3E22) associated with Sacbe 6, southeast of the Great Terrace, was excavated in 1994 by the Chichen Itza Project (Osorio and Carrillo 1995). Of the ceramics excavated, 47.4% of the materials pertain to the Sotuta Complex (see Chart 92).

Chart 92: Materials from the clearing of Altar 3E22

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	241	21.53
CEHPECH	120	10.72
SOTUTA	531	47.45
HOCABA	16	1.42
NOT ASSIGNED	211	18.85
TOTAL	1119	

Lots: B3, B4, B5, B8, B9, B10, B11

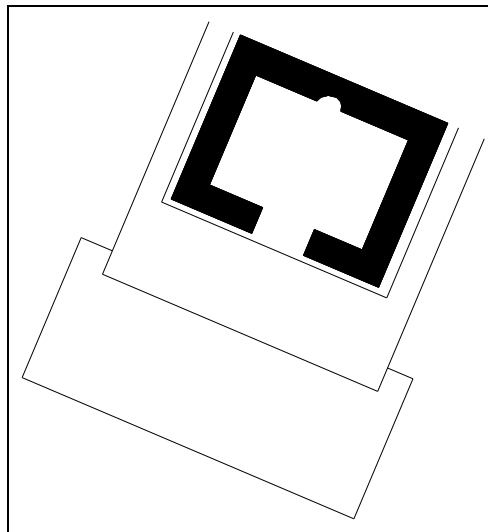


Figure 209: Altar of Sacbe 6

CONTEXT S38: Small Altar (5C4-c) in front of 5C4

This is a very small platform, located in front of the stairway of the Initial Series Building (Str. 5C4), and associated with a Chacmool sculpture (Figures 210, 211). Half of the ceramic material found during clearing of this altar pertains to the Sotuta Complex, and consisted mainly of fragments of hour-glass censers. These censers could be remnants of the ceremonial use of this structure during the Sotuta Complex, but could also have been reused and deposited there during later periods.

Chart 93: Materials from the clearing of Altar in front of 5C4

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	2	0.48%
SOTUTA	203	49.51%
HOCABA	2	0.48%
TASES	203	49.51%
TOTAL	410	

Lot: X441

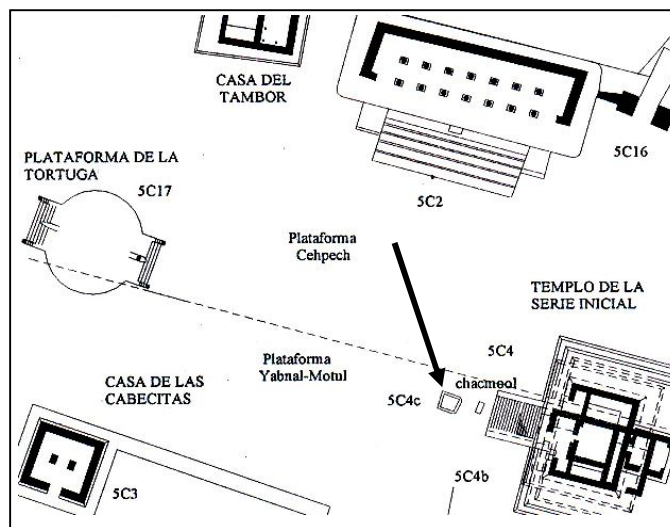


Figure 210: Location of Altar 5C4-c



Figure 211: Location of Altar 5C4-c

CONTEXT S39: The Shaft and Cave under the Osario Pyramid

Like many pyramids in the Maya area, and Mesoamerica in general, the Osario Pyramid is constructed on top of a small cave. Edward Thompson emptied the Osario Cave in 1893 or 1896 during his search for the “High Priest’s Tomb”. A vertical shaft descending from the upper temple gives access to the cave below and was constructed presumably at the same time as the pyramid (Figure 212). Peter Schmidt re-excavated the shaft and the cave during his 1994 season at the Osario Pyramid, recovering ceramic materials left behind by Thompson.

The collection from the shaft shows 52.5% of Sotuta ceramics (Chart 94); the ante-chamber of the cave 71.4% (Chart 95); and the interior of the cave 33.3% (Chart 96).

Chart 94: Materials from the Central Shaft of the Cave of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	1	2.50
CEHPECH	3	7.50
SOTUTA	21	52.50
HOCABA	9	22.50
TASES	6	15.00
TOTAL	40	

Lot: H-116

Chart 95: Materials from the ante-Chamber of the Cave of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	2	0.32%
MOTUL	41	6.60%
CEHPECH	48	7.72%
SOTUTA	444	71.49%
HOCABA	39	6.28%
TASES	10	1.61%
NOT ASSIGNED	37	5.95%
TOTAL	621	

Lot: H-120

Chart 96: Materials from the Interior of the Cave of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	7	33.33%
SOTUTA	7	33.33%
NOT ASSIGNED	7	33.33%
TOTAL	21	

Lot: H-125

No Sotuta materials were found in a niche of the cave, located to one side of the shaft (Lot H-156), but later material was present (see Context T14).

Altogether this is a rather mixed collection (see Chart 97); Sotuta ceramics form 63.6% of the total collection.

Chart 97: All Materials from the Cave of the Osario Pyramid recovered in 1994

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	2	0.26%
MOTUL	49	6.61%
CEHPECH	51	6.88%
SOTUTA	472	63.69%
HOCABA	59	7.96%
TASES	64	8.63%
NOT ASSIGNED	44	5.93%
TOTAL	741	

Lots: H-120, H-116, H-125, H156

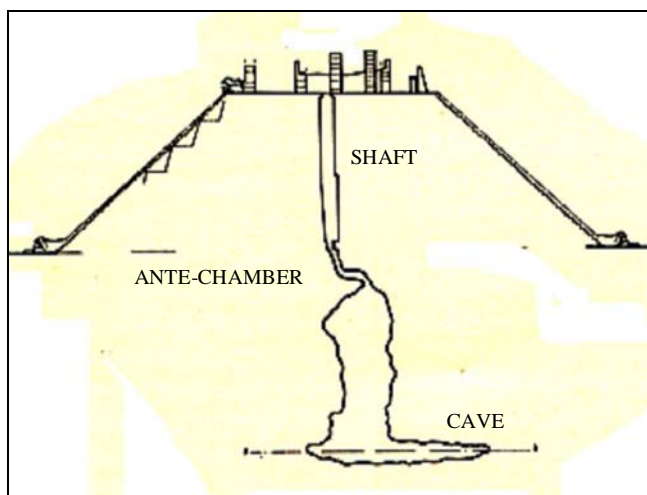


Figure 212: Cross-section of the Osario Pyramid showing shaft and cave (after Marquina 1950; Lám. 275)

Note: Schmidt (pers. comm. 2006) interprets the materials from his 1994 re-excavation as follows: materials found in the shaft during his excavation likely fell into the area from above after Thompson's work; the materials in the ante-chamber represent a mixture of original content and newly fallen in materials; and the collection recovered from the cave is left over from Thompson's work.

CONTEXT S40: The Cave of Balancanche

The Cave of Balancanche is located on the eastern outskirts of Chichen Itza. Several buildings, some of them destroyed in the twentieth century, are reported around the cave. Materials from surface collections outside the cave show a predominance of the Sotuta Complex ceramics (56.1%), according to data provided by Andrews IV (1970, Table 1; see Chart 98). Significantly, evidence of earlier complexes was recovered, but almost no material was found postdating the Sotuta Complex.

Chart 98: Materials from the surface outside the cave

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	174	25.58%
MOTUL-CEHPECH	65	9.55%
SOTUTA	382	56.17%
TASES	2	0.29%
NOT ASSIGNED	57	8.38%
TOTAL	680	

After Andrews IV 1970

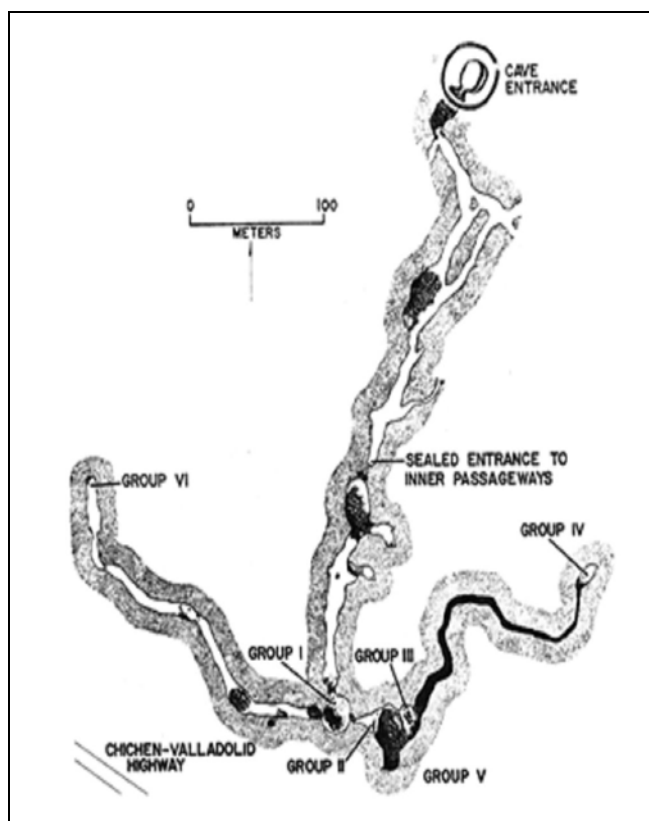


Figure 213: Plan of Balancanche Cave (Andrews IV, 1970)

Andrews IV reported six foci of materials inside the cave: “... of varying size and intensity of distribution, seem obvious and clearly offertory. All are directly associated with either underground bodies of water or striking stalagmitic formations ... Scattered offertory material was similarly located beside or under prominent stalactitic formations” (Andrews IV 1970: 9).

Many censers, characteristic of the Sotuta ceramic complex, were found in these ceremonial areas of the cave. A C14 sample from inside a censer was obtained by Andrews IV and could be dated to A.D. 860±200 (LJ-272). Another sample, from the hearth below (LJ-273) yielded an identical date and variation. Combining the two gives a reading of A.D. 860±130 (Andrews IV 1970: 63). After re-testing these samples in other laboratory they produced consistent dates of A.D. 878±51 (P1132), and A.D. 922±42 (P1133) (Sabloff and Andrews 1986: 439). Combined, these last two dates offer a range from A.D. 827 to 964 to date the censer use.

Evidence from the Osario Pyramid suggests that the beginning of production of Sotuta ceramics must not be dated before A.D. 930 (see context S2). Additionally, it has been established that construction fill of buildings of the second half of the ninth century (of “Maya” style) lack Sotuta ceramics (see Contexts C1 to C4). This suggests that the most relevant range of dates for the Balancanche censer would be A.D. 900-964, which would represent an early Sotuta facet.



Figure 214: Censers of the Cave of Balancanche, (after Andrews IV 1970)

It is not safe to generalize these two carbon dates to all the censers found in the cave. They could have been deposited/used in several different episodes.



Figure 215: Censers of the Cave of Balancanche, (after Andrews IV 1970)

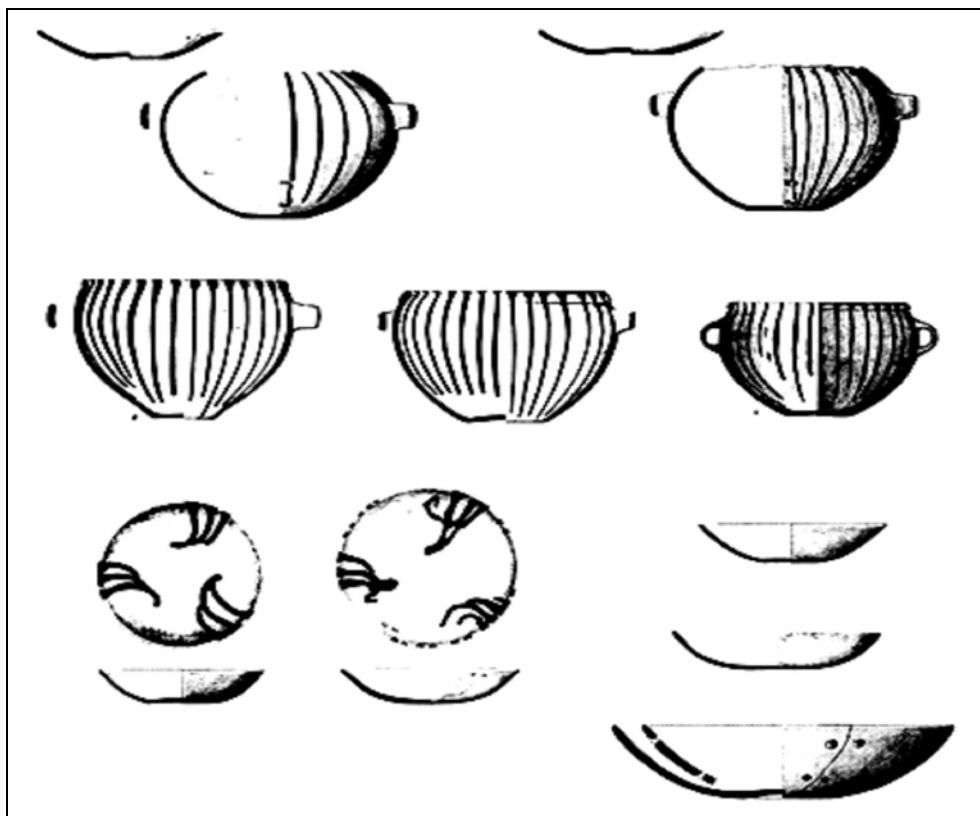


Figure 216: Chichen Slateware from the Cave of Balancanche, (after Andrews IV 1970)

CONTEXT S41: Materials from Burial 11, Initial Series Terrace

A rich and varied ceramic set was found in Burial 11, located in the Northwest sector of the Initial Series Terrace (Figure 217). It consists of both local groups (Dzitas Slate *f, g*; Xcalacoop Brown, *b*; and Tinum Red on Buff, *c*), and imported groups (Silho Fine Orange, *a, d, e*). It also contained mask elements of shell and fragments of flint.

All types pertain to the Sotuta Complex and so this burial context can be catalogued as Pure Sotuta. It can be dated in any of the facets of the Sotuta Ceramic Complex; a position in the Middle Facet seems a prudent assumption.

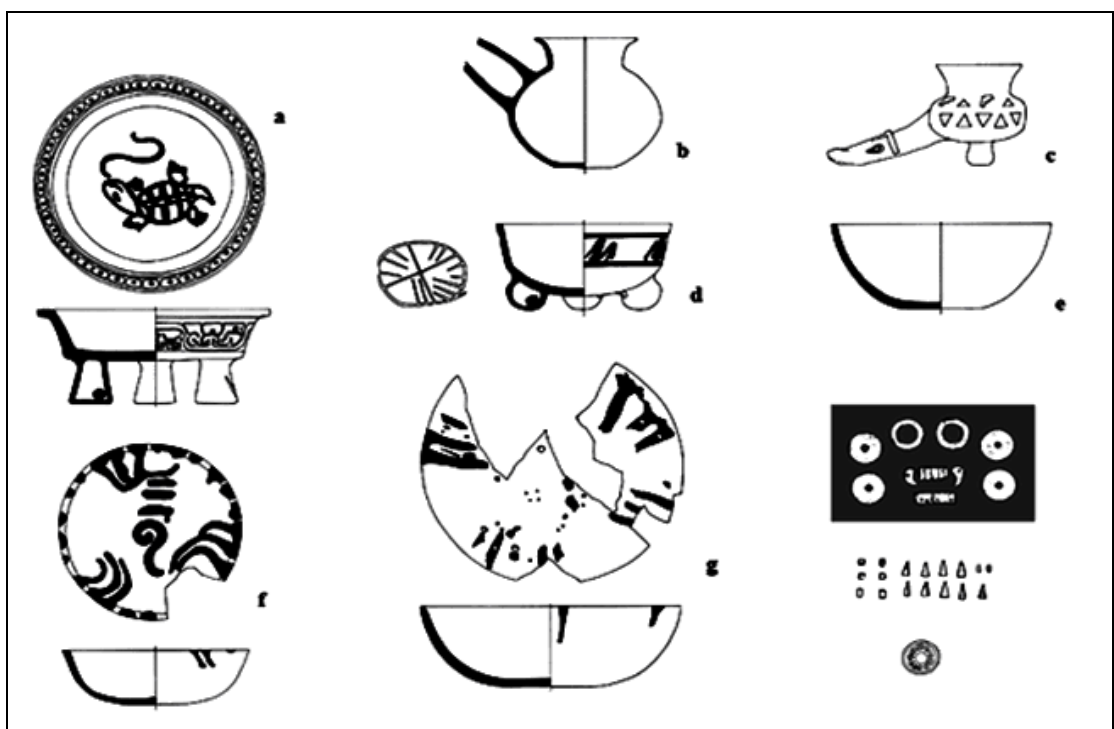


Figure 217: Ceramics from Burial 11, Initial Series Group

**CONTEXT S42: Materials from Burial 4, Initial Series Terrace
Under the Platform of the Turtle (5C17)**

Burial 4 is again a pure Sotuta context, but in this case the burial ceramics are only of local groups: Dzibiac Red, *a, b*; Dzitas Slate, *c, d, e, f, g*; and Sisal Unslipped, *h, i* (Figure 218). The same date as in Burial 10 applies: Sotuta period but no clear facet indicated.

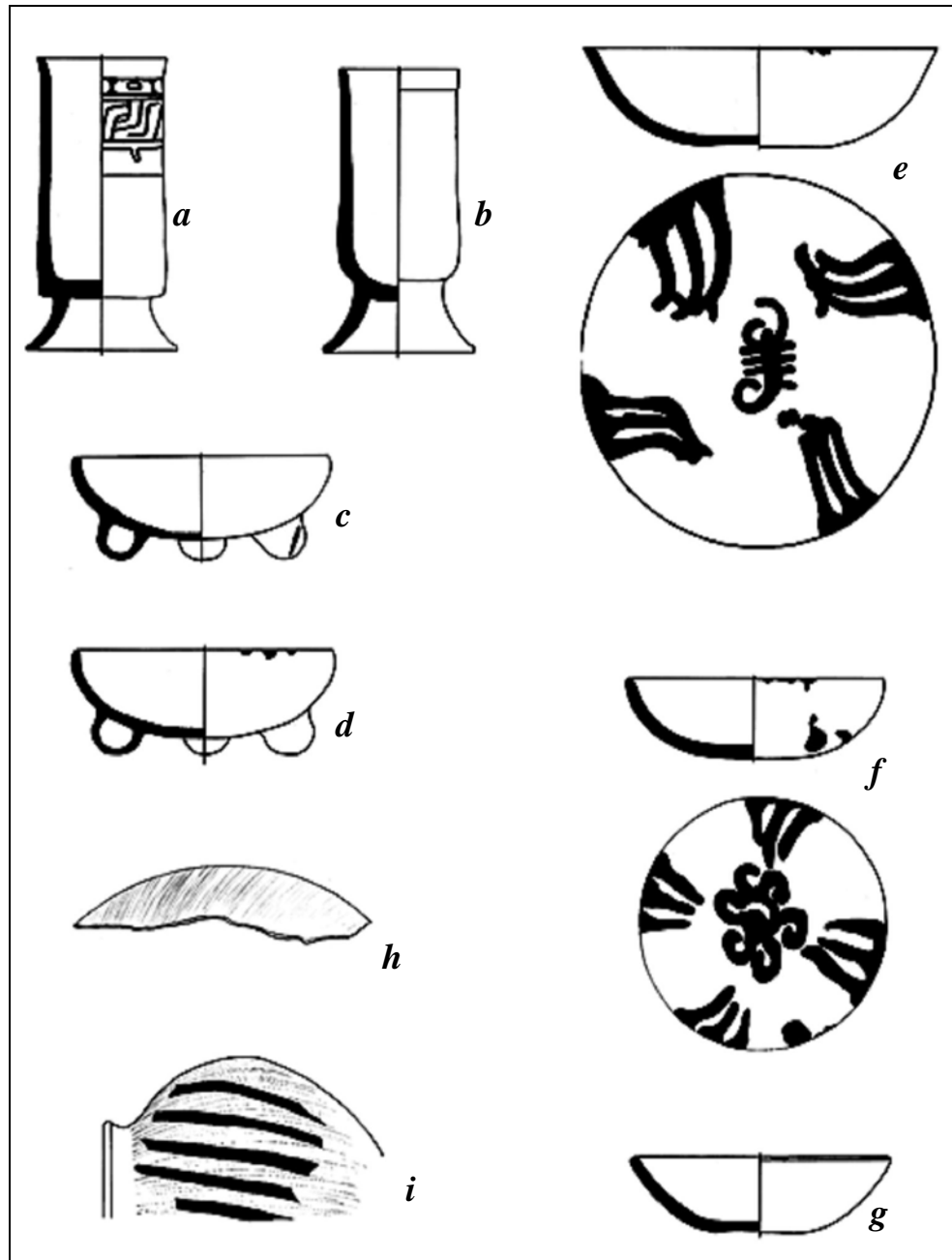


Figure 218: Ceramics from Burial 4, Initial Series Group

CONTEXT S43: The Sacred Well or Cenote of Sacrifices

According to the archaeological materials recovered, the Sacred Well was possibly the focus of community-sponsored ceremonial activity at Chichen Itza during Sotuta times. The history of the Cenote's explorations, and the fate of the different collections, shed on light on the role and chronology of this key feature of Chichen Itza's landscape.

For several centuries after the arrival of the Spaniards, both the Sacred Well and Chichen Itza, were largely forgotten. The Abbot Brasseur de Bourbourg' discovery of a copy of Bishop Diego de Landa's "Relación de las Cosas de Yucatán" in Madrid brought Chichen Itza and the Sacred Well out of obscurity. Bourbourg found the manuscript in 1864 and the published it the same year. Written by Landa around 1566 in Spain, the book announced for the first time that the Sacred Well of Chichen Itza could contain a hidden treasure:

"From the court ... a wide and handsome causeway runs as far as a well, which is about two stones' throw off. Into this well they have had, and they had, the custom of throwing men alive as a sacrifice to the gods, in times of drought They also threw into it a great many other things, like precious stones and things which they prized. And so if this country had possessed gold, it would be this well that would have the greater part of it, so great was the devotion which the Indians showed for it" (Landa in Tozzer's translation, 1940: 179-182).

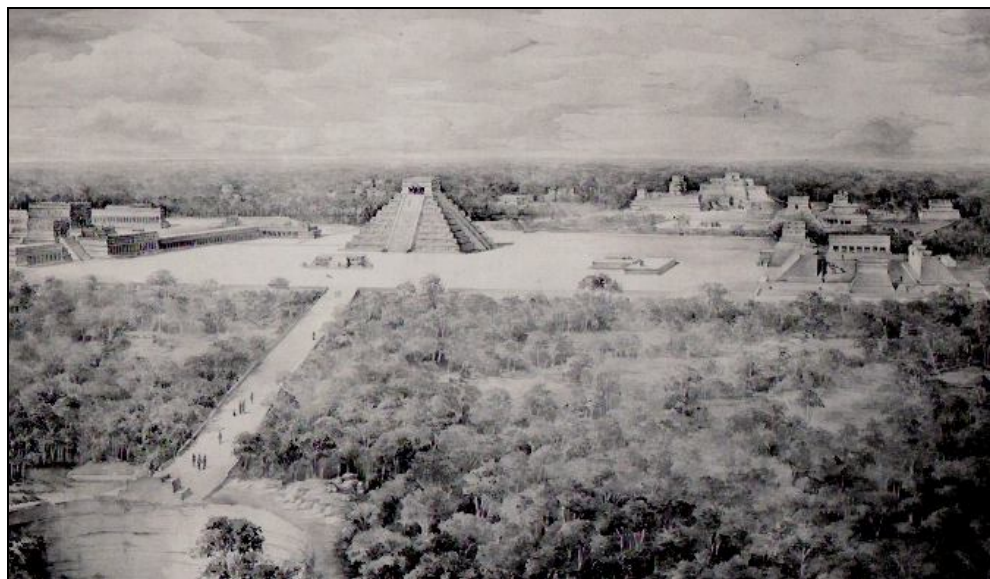


Figure 219: Chichen Itza from the Sacred Well (Proskouriakoff 1946)

The first person to attempt recovery of the well's contents was the Frenchman Desire Charnay (1887: 358), who tried to explore it in 1882, but abandoned the attempt without success. Edward Thompson succeeded several years later. After living twelve years in Yucatan, Thompson had been appointed General Consul of the United States in Yucatan, and in 1894 bought the land of Chichen Itza, including most of the archaeological site, for 200 Mexican Pesos. During the first decade of the twentieth century Thompson dredged the Well, and in 1909 he employed a Greek sponge diver. In 1911 he abandoned the exploration, after having recovered hundreds of items. A portion of the objects were sent to the United States and form part of Harvard University's Peabody Museum of Anthropology and Ethnology. The Peabody's holdings include several complete and semi-complete ceramic vessels. Some pieces were returned to Mexico and were integrated into the collections of the Palacio Canton in Merida and the National Museum of Anthropology in Mexico City. Another part of his collection remained at his hacienda in Chichen Itza; this was lost during a fire and the looting of the building in the 1920's. Among the materials lost was the ceramic sherd collection dredged from the Sacred Well.



Figure 220: Dredge operations by Thompson (Archivo Pedro Guerra, Mérida)

Some decades went by without new explorations, until at the beginning of the 1960s Mexico's Instituto Nacional de Antropología e Historia (INAH) started a new project, directed by the archaeologist Román Piña Chan. The project lasted several years, and was carried out in two stages. The first stage - January 12 to March 31 1961 - Piña Chan employed the airlift technique (rather like a vacuum cleaner) and scuba diving. The airlift proved to be very destructive, and diving was abandoned because the stones on the bottom limited the divers' performance (Folan 1967: 42). Nevertheless, the experience allowed William Folan (1967) to present a new plan which was implemented a year later: draining the Cenote.

During this second stage of the Mexican explorations, between September 1967 and April 1968, the water of the Sacred Well was pumped out to a much lower level, and chemicals were employed to clear the muddy waters and allow the divers to see clearly during the operations (Piña Chan 1970). The materials were sorted on the site, and suffered different fates. Most of the common vessels are still preserved in the "Palacio Cantón" Museum in Mérida, while the more valuable objects were sent to Mexico City, either to the National Museum of Anthropology or to the Escuela Nacional de Restauración at Churubusco (see also Contexts H25 and T15).



Figure 221: Divers in the Sacred Well in the 1960s

In 1997 I classified the sherd collection from the 1960s explorations, with the assistance of student Yazmín Lizárraga (Pérez de Heredia 1998). Of this collection, more than 22.000 fragments pertain to the Sotuta Ceramic Complex, representing 31% of this collection. The ceramic groups of the Sotuta complex as found in that collection are shown in Chart 99.

Chart 99: Ceramic Groups from the Sotuta collection of the Sacred Well

SISAL UNSLIPPED GROUP -----	873	3,90%
DZITAS SLATE GROUP -----	18.385	82,25%
DZIBIAC RED GROUP -----	2.075	9,28%
SILHO FINE ORANGE GROUP -----	831	3,71%
TOHIL PLUMBATE GROUP -----	7	0,03%
TINUM GROUP -----	69	0,30%
LIBRE UNION GROUP -----	61	0,27%
NOT DESIGNATED GROUP -----	52	0,22%

Fine ritual and imported wares are also present in the collection (Figure 222).



Figure 222: Censer from the Sacred Well. Sotuta Complex. Thompson's collection at the Peabody Museum (Ball 1992)

2.2.3.4 Other Groups of the Sotuta Complex at Chichen Itza

The Dzitaz Slate Group (Chichen Slateware) has been presented in the first section of this chapter. Unslipped ware in the Sotuta Ceramic Complex can be evenly divided in two uses: domestic and ritual, producing two predominant forms: censers and jars. The best collection of Unslipped ware censers from the Sotuta Complex is that from Balancanche (see Context S40). An unslipped jar of the Piste Type is shown in Figure 223.

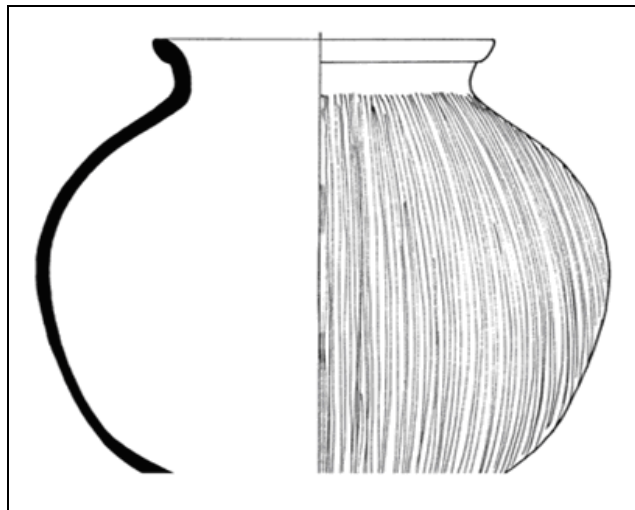


Figure 223: Piste Striated Jar, Sotuta Complex (Hotel Misión, Chichen Itza)

Other wares of the Sotuta complex are well known from the work of Brainerd (1958) and Smith (1971), and their descriptions still stand with few changes. To illustrate the diversity of forms and types of this complex, illustrations of Redware, Fine Orange ware, Plumbate ware, and other imported and local types are shown in the next figures. All vessels were recovered during the Chichen Itza Project excavations, except when indicated.

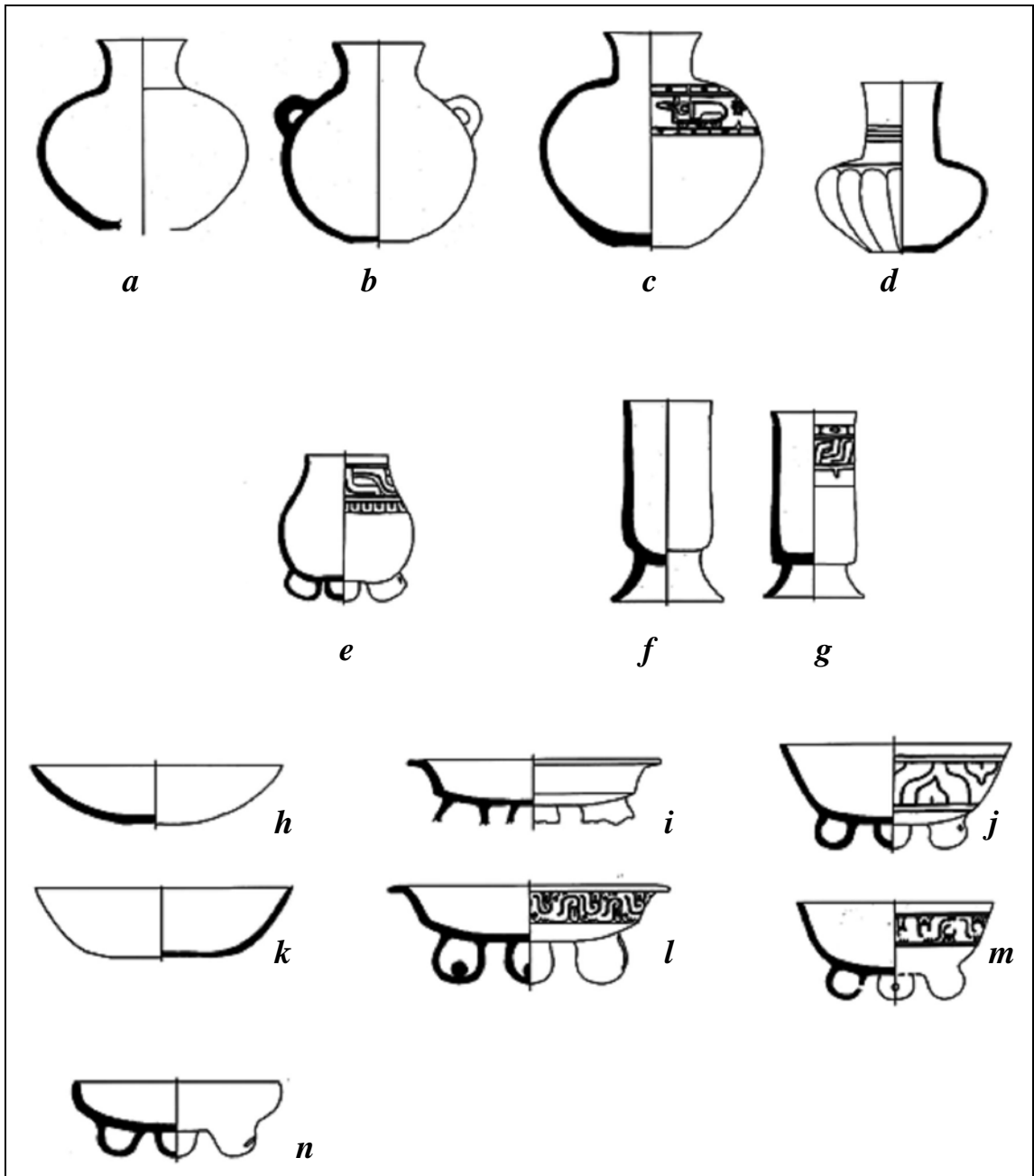


Figure 224: Dzibiac Red Group from Chichen Itza, Sotuta Ceramic Complex.

Dzibiac Red Type: *a, b, f, h, i, k*; Holtun Gouged-Incised Type: *c*; Xucu Incised Type: *d-e, j, l, m, n*.
 Chultun of the Owls: *a, b*; Initial Series Group northeast entrance: *c*; Refuse Deposit at the back of
 Northeast Colonnade: *d, k, m*; Chultun of the Three Lintels: *e, i*; Turtle Platform, Initial Series Group: *f, g*;
 Sacbe 1: *h*; Structure 3E19: *k*; House of the Atlantean Columns, Initial Series Group: *l*; Unknown
 provenance: *n*.

Influenced by the imported Silho Fine Orange Group, the Dzibiac Red Group is composed mainly of serving vessels, such as plates, bowls, grinding bowls (*n*), vases, and small and medium size jars. Frequently decorated with incisions and cream color horizontal bands, these vessels form a distinctive, fine, locally produced group.

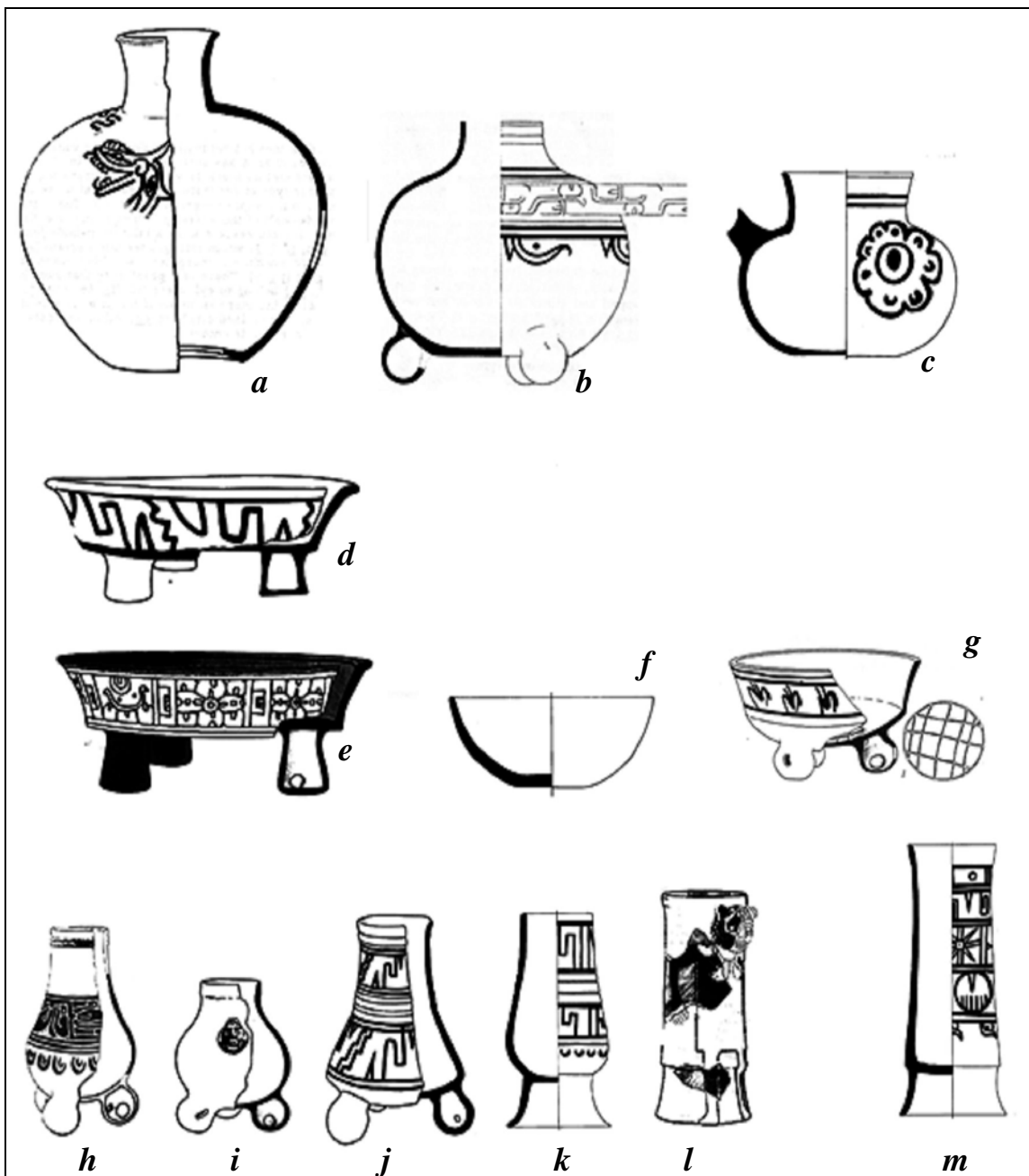


Figure 225: Silho Fine Orange Group from Chichen Itza, Sotuta Ceramic Complex

Silho Fine Orange Type: *f*; Yalton Black on Orange Type: *a, c, d, g, j, k, m*; Kilikan Composite Type: *b, e, h*; Nunkini Modelled Type: *l*. Chultun of the Three Lintels: *b*; Refuse Deposit at the back of Northeast Colonnade: *c, f, m*; Initial Series Group: *k*; [After Brainerd 1958: *a, d, e, g, h-j, l*. Monjas Complex: *a, h, l*; North Colonnade: *b*; Northeast Colonnade: *e*; House of the Grinding Stones: *i*; Merida Museum: *j*]

Silho Fine Orange Group is an imported pottery, probably from the Gulf Coast, whose repertory of forms strongly resembles that of Dzibiac Red Group. It principally consists of plates, bowls, grinding bowls, vases and jars. Black painted designs, incisions, and modeled figures constitute the majority of the decoration.

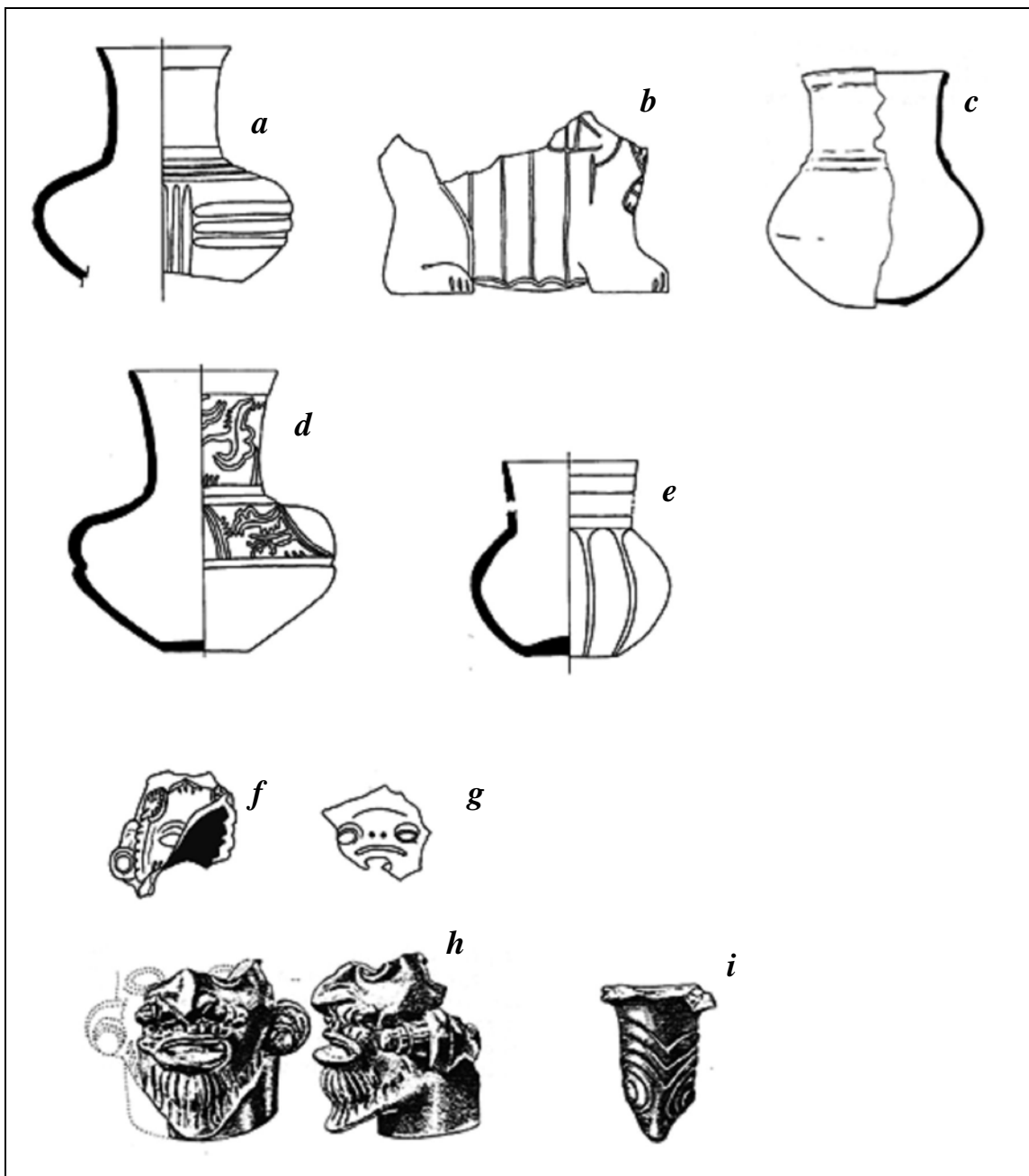


Figure 226: Plumbate Tohil Group from Chichen Itza, Sotuta Ceramic Complex

Tohil Plumbate Type: *a*; Tumbador Incised Type: *d*; Porvenir Gadrooned Type: *e*; Malacatan Modeled Type: *a, b, f-i*. Refuse Deposit at the back of Northeast Colonnade: *a, d, e, g*; Unknown provenance: *b*; Phalli Complex: *f*. [After Brainerd 1958: Caracol Tower: *c*; Southeast Colonnade: *h*; Temple of the Wall Panels: *i*].

Plumbate Tohil Group is an imported pottery from the Western Highlands of Guatemala. The group is rare at Chichen Itza, but is found more commonly there than elsewhere in northern Yucatan; this group presents a limited repertory of vases and small jars.

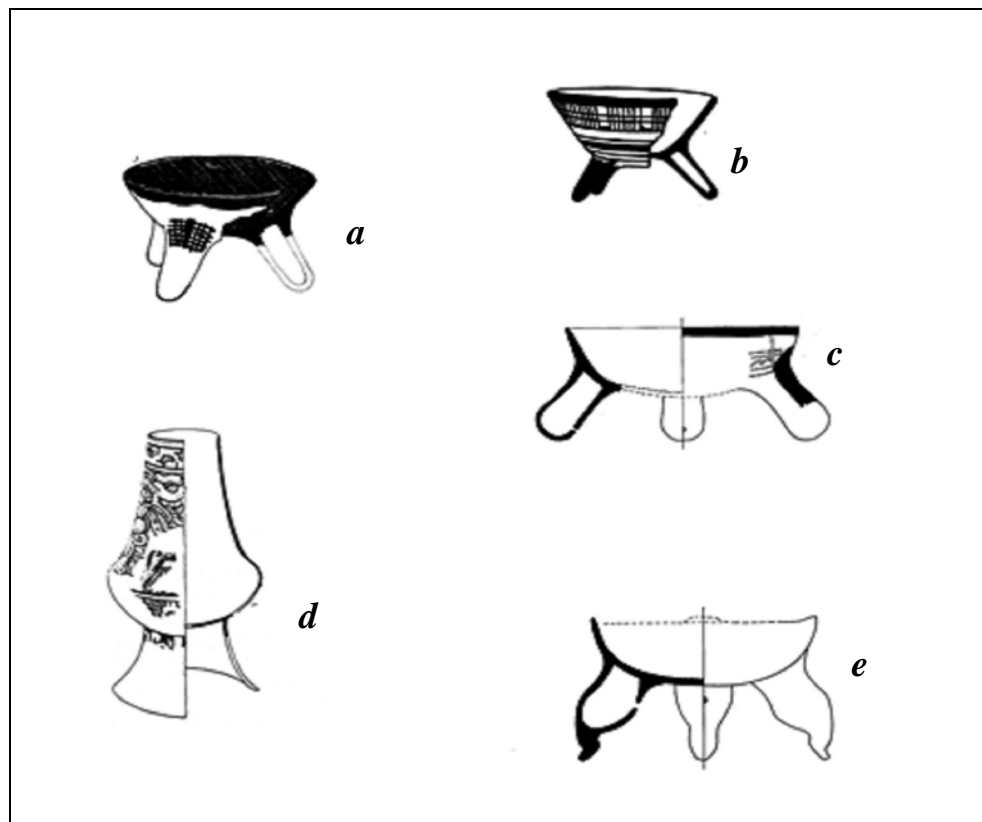


Figure 227: Other Imported Wares at Chichen Itza, Sotuta Ceramic Complex
 Isla de Sacrificios (Veracruz): *d*; possibly El Salvador: *e*; Rest of unknown origin, possibly Mexican Highlands. Sacred Well: *c*, *e*. [After Brainerd 1958: General Chichen Itza: *a*; Monjas Complex: *b*; Southeast Colonnade: *d*].

Some other pottery imports have been found at Chichen Itza. Figure 227 shows a vessel from Isla de Sacrificios, Veracruz (*d*); a vessel possibly from El Salvador (*e*), and vessels of unknown origin, possibly Mexican Central-Northern Highlands. Also Nicoya-Papagayo and Las Vegas polychrome types from Central America have been found at the site (not illustrated here).

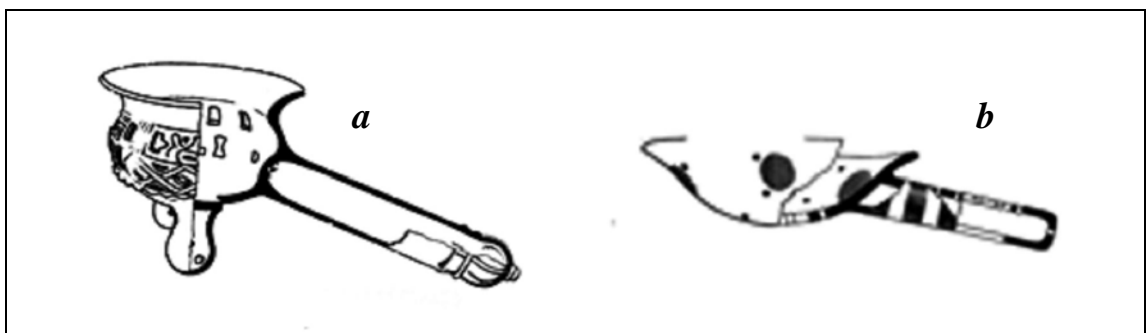


Figure 228: Tinum Red on Buff Group of Chichen Itza, Sotuta Ceramic Complex
 [After Brainerd 1958: Sacred Well: *a*; Monjas Complex: *b*]

Finally, a local group, Tinum Red on Buff, imitates modes of decoration with hematite on buff designs. It is locally produced, using Chichen Slateware paste, according to analysis by C. Varela (1999 pers. comm.).

2.2.3.5 Extension of the Sotuta Complex at Chichen Itza

Sotuta ceramics can be found throughout the settlement. During the Sotuta Ceramic Complex – associated with the Early Postclassic Period - , Chichen Itza reached its maximum size in extension and architectural volume; most of the structures were constructed during this period. Buildings associated with the Terminal Classic period and the Cehpech ceramic complex remained occupied during the Early Postclassic Period. [Because of the frequency of Sotuta ceramics throughout the site, it is difficult to determine the limits of the city during the Sotuta Complex. Evidence of Sotuta Complex pottery is found at Balancanche and Ikil, some five kilometers to the west, at the San Francisco Group to the North, at the actual location of the village of Piste to the West, and further south than the Initial Series Group. Without a doubt, however, the focus of the city during the Sotuta Complex is the Great Terrace of the Castillo Pyramid.

2.2.3.6 Summary of the Sotuta Complex at Chichen Itza

The beginning of production of the Sotuta Complex ceramics can be inferred from the firmly dated first appearance of these ceramics from the construction fill of the Osario pyramid. Here, an Early Sotuta Facet is associated with the date A.D. 998 (see context S2). Sotuta ceramics are absent from construction fills of buildings erected during the late ninth century; therefore, production of Sotuta ceramics cannot be set earlier than A.D. 900/920 and could possibly have begun later. With the data at hand, the beginning of Sotuta ceramic production can be estimated between A.D. 900 and 950, with a preferred span of A.D. 920-950. It is necessary to obtain more collections of early Sotuta contexts to define the beginning of production with more accuracy.

The end of production is even more difficult to establish. Given the quantities of Sotuta ceramics and the volume and extent of “Toltec” architecture, it is reasonable to assign at least 200 years for the production of Sotuta vessels at Chichen Itza, and this would set the end of production around A.D. 1100/1150. The last appearance of Sotuta vessels in a systemic context can be traced to the end of the Tases ceramic complex (see for example the Tohil Plumbate vessel found at the Observatory; Context T13, Figure 311).

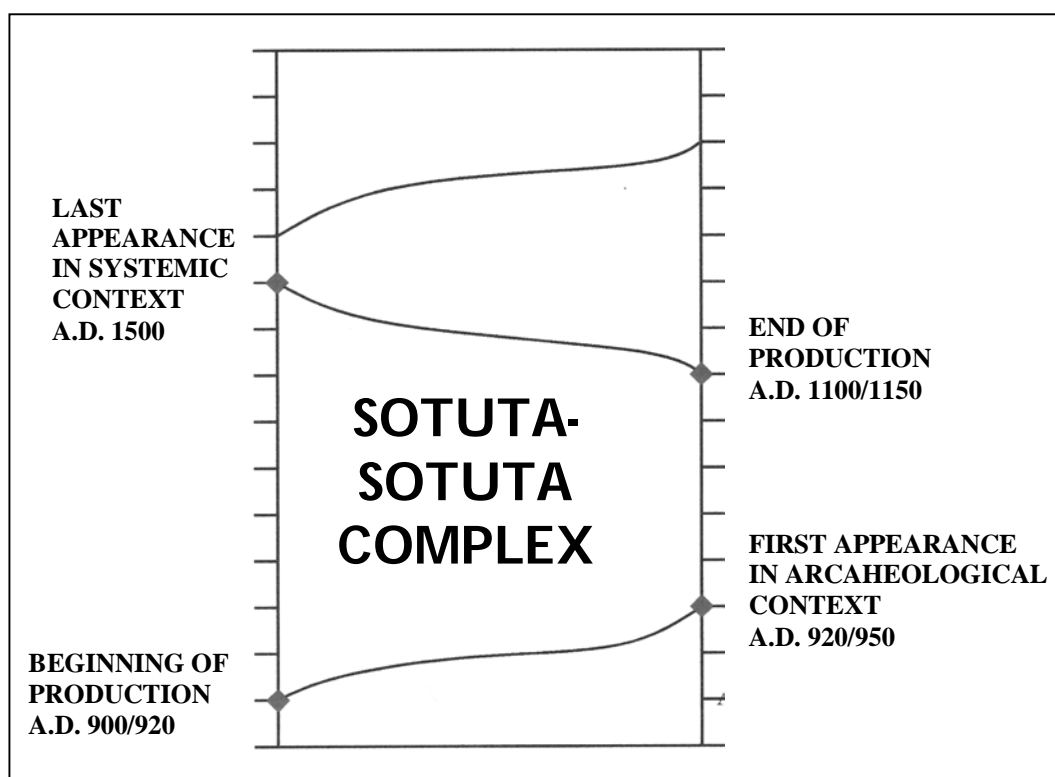


Figure 229: Dates of the Sotuta Ceramic Complex

TYPES OF THE SOTUTA CERAMIC COMPLEX
AT CHICHEN ITZA

SISAL UNSLIPPED GROUP

Sisal Unslipped Type: Sisal Variety
Piste Striated Type: Piste Variety
Espita Aplique Type: Espita Variety
Tibolon Blue on Red Type: Tibolon Variety
Cumtun Composite Type: Cumtun Variety

DZITAS SLATE GROUP

Dzitas Slate Type: Dzitas Variety
Balantun Black on Slate Type: Balantun Variety
Balam Canche Red on Slate Type: Balam
Canche Variety
Chacmay Incised Type: Chacmay Variety
Chacmay Incised Type: Gouged-Incised Variety
Tekom Gouged-Incised Type: Tekom Variety
Mopila Gadrooned Type: Mopila Variety
Timak Composite Type: Timak Variety
Timak Composite Type: Sharp-Incised Variety
Another Type of the Dzitas Group: Unslipped
Another Type of the Dzitas Group: Appliqué
Another Type of the Dzitas Group: Black and
Red on Slate
Another Type of the Dzitas Group: Unslipped
and Incised
Another Type of the Dzitas Group: Impressed
and Striated
Another Type of the Dzitas Group: Impressed
and Gouged

DZIBIAC RED GROUP

Dzibiac Red Type: Dzibiac Variety
Chan Kom Black on Red Type: Chankom
Variety
Xucu Incised Type: Xucu Variety
Xucu Incised Type: cream-slip Variety
Xucù Incised Type: black-slip Variety
Holtun Gouged - Incised Type: Holtun Variety
Holtun Gouged - Incised Type: cream-slip
Variety
Holtun Gouged - Incised Type: black-slip
Variety
Tiholop Gadrooned Type: Tiholop Variety
Another Type of the Group Dzibiac: Modeled
Another Type of the Group Dzibiac: Appliqué
Another Type of the Group Dzibiac: White on
Red
Another Type of the Group Dzibiac: Modeled
and Impressed cream-slip

SILHO FINE ORANGE GROUP

Silho Orange Type: Silho Variety
Cumpich Incised Type: Cumpich Variety
Cumpich Incised Type: Black-paint Variety
Kilikan Composite Type: Kilikan Variety
Kilikan Composite Type: cream-slip Variety
Kilikan Composite Type: black-slip Variety
Pocboc Gouged - Incised Type: Pocboc Variety
Pocboc Gouged - Incised Type: cream-slip
Variety
Pocboc Gouged - Incised Type: black-slip
Variety
Nunkini Modeled Type: Nunkini Variety
Nunkini Modeled Type: Black-paint Variety
Nunkini Modeled Type: Polychrome Variety
Yalton Black on Orange Type: Yalton Variety

TOHIL PLUMBATE GROUP

Tohil Plumbate Type: Tohil Variety
Tumbador Incised Type: Tumbador Variety
Malacatan Modeled Type: Malacatan Variety
Porvenir Gadrooned Type: Porvenir Variety

TINUM BUFF GROUP

Tinum Red on Buff Type: Tinum Variety
Another Type of the Group Tinum: Black and
Red on Buff
Another Type of the Group Tinum: White on
Hematite Red
Another Type of the Group Tinum: Modeled
Another Type of the Group Tinum: Incised

XCALACOOP BROWN GROUP

Xcalacoop Brown Type: Xcalacoop Variety

LIBRE UNION UNSLIPPED GROUP

Libre Union Red on Unslipped Type: Libre
Union Variety

FINE BUFF GROUP

Cerro Montoso Polychrome Type: Cerro
Montoso Variety

- GROUP

Papagayo/Nicoya Polychrome Type

- GROUP

Las Vegas Polychrome Type

Chapter 3

Dating Chichen Itza: the Middle and Late Postclassic Periods

3.1. Previous Chronologies

3.2. Ceramic Contexts at Chichen Itza: Middle and Late Postclassic

3.1 Previous Chronologies

- 3.1.1 *Fitting in with the Chronicles* 1920-1940
- 3.1.2 *The Traditional Models* 1940-1980
- 3.1.3 *Seeds of Doubt* 1980-1990
- 3.1.4 *A Model under Attack* 1990-2000

Relative to the period between the Terminal Classic and the Early Postclassic, the Middle and Late Postclassic periods of northern Yucatan have received very little attention. The main goal of archaeologists during the first half of the twentieth century was to understand Chichen Itza and the Puuc sites. Mayapan, a key site of the Postclassic period, was not excavated thoroughly until later; projects focused on Postclassic sites of the Caribbean Coast developed later. However, the evolution of our understanding of the former periods mirrors that of the later ones. It began with the collection of archaeological data and its comparison to the colonial chronicles, producing a traditional perception of the chronology. This image was challenged in the 1980s, in conjunction with the development of the alternative chronological models, the partial and total overlap. In fact, one of the consequences of the reinterpretation of the Sotuta period in the Total Overlap Model affects the date for the beginning of the Middle Postclassic, and even its mere existence.

Independent of the exact dates and chronologies, the general image of the late pre-Hispanic periods was that of a collapse of Chichen Itza, followed by a shift of political power to Mayapan, a chain of events perceived as a major change in ancient Maya history. As expressed by Pollock:

“Another matter worth recording is that our recent work in Yucatan has made it amply clear that a major break in cultural tradition, as witnessed by a sharp degeneration of the quality of the remains, came about the end of Maya-Toltec times. This event tends to be obscured in being marked only by the passage from one substage to other (Early Mexican-Middle Mexican) in Brainerd’s arrangement of cultural stages. It does not affect the sequence of the relative chronology, but it may have implications concerning history” (Pollock 1962: 5-6).

This point of view was shared by Andrews IV:

“A number of years of intensive excavation since the war have made it even more abundantly clear that what used to be called “Puuc” or “Florescent” and the “Toltec” periods are manifestations of a single cultural tradition and that each of these components much more closely resembles the

other than they do the major periods which preceded and followed” (Andrews IV 1965: 318-19).

This issue was further elaborated by the same author in a later work:

“The change at the end of the Modified Florescent is of a much more fundamental nature, suggesting that there may have been some actual ethnic shift –almost certainly one of artisans. Although on most creative levels the foreign external forms of Modified Florescent art continued to be copied, the basic manufacturing and constructive processes were radically changed. The slateware family in pottery died suddenly, to be replaced by totally distinctive wares (Black on Cream), with the paste, temper, and slip as about as different as could be possible ... It is probably significant that, although all monumental activity ceased at Dzibilchaltun during the “Toltec” rule at Chichen Itza, and there were humble dwelling sites on the once splendid central plaza, ceremonial architecture was once again undertaken during the immediately following period of Black on Cream ceramics ... Finally, I have long pointed out that, although indeed “Decadent”, the post-“Toltec” cultural manifestations in Yucatan apparently mark a return not to pre-“Toltec” tradition but to pre-Florescent tradition ... I also suggested that this cultural vacuum in Yucatan may have been filled from the Quintana Roo coastal area, where Early period traditions seem to have continued undisturbed by Florescent intrusion” (Andrews IV 1970: 68).

Sabloff and Rathje also thought that, from an economic or political point of view, the Late Postclassic was anything but impoverished (Sabloff & Rathje 1975).

In more recent times, Andrews V and Sabloff (1986) shared this appreciation of the end of the Early Postclassic period as representing a major shift in the Maya history:

“(It) is the accepted wisdom in the field, as expressed in virtually all the texts on the ancient Maya, that a major change in the development of Maya civilization occurred with the Classic Maya collapse in the ninth century A.D.. However, we would argue that another significant implication of the overlap model is that the major change came with the fall of Chichen Itza in the thirteenth century A.D. and not with the fall of the Classic centers in the

South or with the rise of the Puuc sites in the North. In other words, we believe that there is greater continuity from the Late Preclassic phenomena that we know now at Mirador, Cerros, Komchen, and other sites up through the fall of Chichen Itza itself, than there is between the decline of Chichen Itza and the rise of Mayapan. ... this interpretation is not without precedent ... On the basis of architecture, use of space, ceramics, and other material items, it can be argued that the major elements of classicism persisted in the Puuc region and at Chichen Itza through the Modified Florescent or Early Postclassic Period ... Thus, we would argue that there is a significant break in site layout and construction and in a variety of material classes, as well as in the sociopolitical and economic inferences we can make from them, between Chichen Itza and Mayapan. We also see a significant change in political organization with the rise of the Mayapan confederacy, the idea of depositing families (held in effect as hostages) at a major center, and political centralization of large areas. Although some of these practices may have had antecedents in earlier periods, we are suggesting that the basic organization of the confederacy of Mayapan was quite different from anything that had been seen before in the Maya Lowland world ... In addition, one can argue that there is more Central Mexican influence in the architecture at Mayapan than there is in the architecture of the Puuc sites or Chichen Itza, especially in the conception of buildings, their proportions and perspectives. We think that a significant change occurred in both public and private construction at Mayapan, although this point can be argued. Moreover, there was a virtual end to what we might call, in the largest sense, Classic carving at Mayapan. In certain places a new emphasis was placed on murals or plaster decoration, but the conception was no longer Classic” (Andrews and Sabloff 1986: 452-453).

Andrews and Sabloff conclude then:

“that there was significantly less investment in large public architecture after the fall of Chichen Itza ... it seems clear that public architecture of the type, size, and extent found at Mayapan and other sites on the East Coast could not have required a labor force comparable to that indicated for Chichen Itza, the Puuc region sites, or the Classic centers that preceded them ... there appears to have been a significant shift in regional

patterns in the north with the rise of Mayapan ... It is becoming increasingly clear that the rise of Mayapan and its confederacy probably had some of its roots in the Southern Lowlands, where there seems to have been much more continuity between what traditionally has been called the Early and Late Postclassic, in northern Belize, and on the East Coast. Moreover, we can see the addition of elements from the west, including the Gulf Coast and Central Mexico. Thus, what we are now seeing, we would argue, is a much more complex picture of interchange, competition, and influence than was possible in the older view of a simple linear development through time (and space) in the Maya Lowlands ... It should be clear from this discussion that we are talking about much more than where to draw the line between the Classic and Postclassic. We are striving to understand the nature of development and changes in complex society in the Maya Lowlands” (Andrews and Sabloff 1986: 453-454).

3.1.1 Fitting in with the Chronicles 1920-1940

After the end of Chichen Itza’s apogee, George Vaillant (1927, 1935) defined a last long period of pre-Hispanic ceramics in northern Yucatan, characterized by *porous censers* and wares, including what he termed the ‘slipped lacquer wares’. He named this period the *Maya Reoccupation*.

The work of Ralph Roys with the colonial Chilam Balam books provided a link between the archaeological evidence and the local lore that was accepted by most archaeologists over the next decades. Roys, “as a supplement to his translation of the Chilam Balam of Chumayel, gave a chronology (p. 204), and in his description of the Hunac Ceel Episode concluded with an insight verified by later archaeological findings. After the end of the twelfth century we hear nothing more of Chichen Itza as an important political power, but its sacred cenote continued to be a center of pilgrimage down to the time of the Spanish Conquest” (Roys 1933: 181, quoted in Brainerd 1958: 1-2).

3.1.2 *The Traditional Models 1940 -1980*

A serious effort to integrate Mayapan and the late chronology of the prehispanic times in the northern Yucatan peninsula was made by G. Brainerd (1958). He separated the late “Maya Reoccupation” period of Vaillant into two different periods: Middle and Late Mexican, creating the core of the traditional model for this period. In the words of Brainerd:

“Mayapan is a most important link in the joining of the Chichen Itza ceramic chronology to the Christian Calendar, since Mayapan is known through early Spanish documentation to have been abandoned only shortly before the Conquest. Vaillant found some ceramic substantiation of this late dating in a small sample from the site” (Brainerd 1958: 21).

Brainerd (1958: 21) considered the Chen Mul Cenote collection from Mayapan to be:

“a fair indicator of the span of human occupation of its immediate area, which is the Mayapan main ceremonial group ... Late Mexican Coarse Redware is heavily preponderant. Next, but a very poor second, is the Coarse Slate characteristic of the preceding Middle Mexican period. This points to a short intensive occupation of a hitherto lightly inhabited location. This occupation follows with little or no overlap, and perhaps even with a disjunctive interval, the last Chichen Itza building period ... All trenches at the site yielded small percentages of Medium Slateware, usually most strongly represented in their lower levels ... The Medium Slateware occupation must have been restricted to a minor occupation belonging to the Florescent stage, after which the site was abandoned, or very nearly abandoned, until Middle Mexican times ... The Coarse Slateware at Mayapan occurs in every trench and in nearly every cut, tending to show more prominently at the bottom of the trenches. Its proportion in regard to the later redware is, however, small in every collection, although larger than that of Medium Slateware. No collection shows a predominance of Coarse Slateware over Coarse Redware” (Brainerd 1958: 21).

The dating of the Middle Postclassic period ceramics occupy a good part of Brainerd's thoughts:

"There are no data to tell us whether the first builders of Mayapan had begun to make Coarse Redware in addition to Coarse Slateware at the time of their arrival, or whether more excavation on the site would show a pure Coarse Slateware horizon such as was found at Dzibilchaltun (Brainerd 1958: 22).

According to Brainerd:

"Coarse Slateware, the preponderant pottery of the Middle Mexican substage, of which the most definitive collections come from Dzibilchaltun, is sparsely represented at both Chichen and Mayapan, and if I correctly interpret Vaillant's tabulations, is completely unrepresented in the Cenote sample. The chief concentrations of ceramics of this period at Chichen Itza are in above-floor refuse in the Mercado and the adjacent Southeast Colonnade, where architectural evidence of decadent reuse of buildings abounds, and above floors in the Temple of the Wall Panels and the East Building of the Monjas. It therefore seems evident that the Sacred Cenote at Chichen Itza was little used as a water source by Middle Mexican times, and that the practice of throwing pottery ceremonial vessels into the Cenote was not common until the Late Mexican substage. During this and later times, as detailed elsewhere, there is no evidence for the use of the site of Chichen Itza save as a goal for pilgrimages" (Brainerd 1958: 45)

The Late Postclassic (Late Mexican) period is for Brainerd clearly marked by the presence of figurine (anthropomorphic) censers.

"The samples are enlightening with regard to the chronological placing of the attached figurine incensarios found over so much of Yucatan and adjacent areas. These have long been known as late in the archaeological record because they characteristically occur on or near the surface, often overlying collapsed Maya structures. There is thus considerable evidence of their placement on ruins by postoccupational visitors ... The Mayapan

collections show clear evidence from several trenches (...) of increasing proportions of figurine incensarios toward the surface of deposits, beginning in the lower strata with predominantly Coarse Redware collections containing few fragments of figurine incensarios; in trenches 1, 6 and 8 there are no fragments of them. The manufacture of figurine incensarios therefore began later than that of Coarse Redware” (Brainerd 1958: 22).

According to the above reasoning, Brainerd proposed the following dates for the ceramic periods of northern Yucatan.

“Following back our chronological sequence, this means that the end of the intensive building period at Chichen Itza dates from no later than 1200 to 1250 A.D. Working back from that date, we must place the Coarse Slateware period, or a major part of it, then the Medium Slateware (Early Mexican substage) period which bears Plumbate and X Fine Orange pottery, and finally the Florescent period, to reach the Maya date of about 9.16.0.0.0.” (Brainerd 1958: 23).



The position of Andrews IV by 1970, on the subject of the late chronology of the northern plains was expressed as follows:

“Black on Cream is found only in surface deposits at Chichen, only at the base of the stratigraphy at Mayapan. It had been generally assumed to originate at some separate center of pottery manufacture which overlapped the end of the Modified Florescent period at the former site and the beginnings of the Decadent period at Mayapan. This was clearly true. However, at Dzibilchaltun it appeared in a complete range of shapes and forms in pure deposits, associated with distinctive temple architecture (Andrews 1961, pp. 7-11; 1965a, pp. 320-322; 1965c pp. 55-57). Black on Cream therefore represents a period which must probably be added between the end of the “Toltec” hegemony at Chichen and the rise of Mayapan” (Andrews IV 1970: 60).

Robert E. Smith (1971) classified the ceramics of the Carnegie Institute of Washington's excavations of Mayapan in the type variety system, and is possibly the most authoritative voice on the ceramics of that site. He renamed the Coarse Slateware and Red Coarse Ware of Brainerd as Peto Cream Ware, and Mama Red Ware. Here is an abstract of his thoughts on the Middle and Late Postclassic periods:

“There are four principal time markers within the early (Hocaba) and late (Tases) Postclassic periods at Mayapan. Two of these involve distinctive wares, Peto Crema and San Joaquin Buff, the former belonging strictly to the Hocaba, the latter to the Tases Ceramic Complex. Another Tases marker is the unslipped-exterior variety of the Mama Red Type; and most abundant and most characteristic of the Tases Ceramic Complex is the Chen Mul Modeled Type ... In table 24, which includes eight stratigraphic cuts, several facts emerge. In the early lots Tases Ceramic Complex types are absent. Hocaba types are predominant except in the Cenote X-Coton ... The early lots truly represent the Hocaba Ceramic Complex. Two important facts stand out in the early lot delineation: the large amount of weathered unidentifiable sherds and the relatively small number of Sotuta Ceramic Complex specimens ... The high percentage of unidentifiable sherds suggests that these sherds were exposed to weathering for a long time. We suspect a considerable interval of abandonment towards the end of the Sotuta Phase and before occupancy by Middle Postclassic people about the Middle of the Hocaba Phase. To a certain extent this would account for the small amount of recognizable Sotuta Phase pottery, a mere .4 percent of the total as compared to 1.6 per cent for the preceding Cehpech Phase ... A third factor important to the Hocaba Ceramic Complex is the relatively small part played by Peto Cream Ware. This ware which was found in large quantities at Chichen Itza and Dzibilchaltun in a phase immediately following the Sotuta, forms only 1.4 per cent of all sherds found at Mayapan and 8.5 percent of the total early lot sherds. This in turn suggests that early Hocaba is largely lacking at Mayapan and that the Hocaba people settled there closer to middle Hocaba when Peto Crema was on the wane (Smith 1971: 112).

Smith summarized the Middle Postclassic ceramics as follows:

“Hocaba Ceramic Complex types, although off to a rather late beginning at Mayapan, dominate the early and middle lots and show strength in the late lots. The pre-Hocaba sherds, never very plentiful, decline progressively in the middle and late lots, while Tases Ceramic Complex sherds, lacking in the early lots, have a modest beginnings in the middle lots, and reach their peak in the late lots ... Although the middle lots do not suggest a special Ceramic Complex, they are of importance as the high point for the Hocaba Ceramic Complex, the birthplace of the Tases Ceramic Complex, and the fading out point of the pre-Hocaba pottery and Peto Cream Ware” (Smith 1971: 113).

Smith acknowledged the different phenomenology of the Hocaba complex at Mayapan and Dzibilchaltun suggested by Andrews IV (1970):

“The Maya people responsible for the Hocaba Phase pottery probably came to Mayapan some time - perhaps fifty to sixty years – after the inception of this pottery style. One reason for entertaining this theory is the presence at Mayapan of Peto Cream Ware and the Xcanchakan Black on-cream Type always associated with Mayapan Red Ware, while at Dzibilchaltun, according to Andrews (1960: 256) “we find ceramics in this ‘black on cream’ tradition first in pure samples, later mixed with, and finally giving way to, the redwares of the Decadent Period. We have, without question, a clear period of transition, marked by the rise and fall of a distinctive pottery tradition, which again must be spliced into currently chronological frameworks ... Andrews and I differ on the interpretation of his findings. He believes that for a period of time what he calls the “black on-cream” tradition was the sole ceramic ware used at certain sites, particularly at Dzibilchaltun. My contention is that there are not enough shapes in the “black on-cream” collection and no unslipped utilitarian types present to warrant the hypothesis of a ceramic complex. Rather, I believe that the “black on cream” is a type pertaining to a cream ware which like Thin Slate Ware was made at a single (?) manufacturing center and distributed over a large region where it was used in conjunction with other wares. Actually this appears to be the normal procedure in the Maya area at all times. Even the widely spread and abundant

Mayapan Red Ware is never, to my knowledge, found alone. It is always accompanied by Mayapan Unslipped Ware and some examples of other local wares such as Peto Cream and san Joaquin Buff, plus a variety of trade wares. In earlier periods even a ware as important as slate is not found entirely by itself in normal stratified levels but is associated with other wares and types ... Perhaps this is a good place to redefine a ceramic complex. A ceramic complex is the total ceramic manifestation present in a single cultural phase. Usually it is made up of utilitarian and fine wares, both locally made and trade. Under certain conditions, as in a kitchen midden, one would not be surprised at the lack of trade wares of even locally made fine wares. But one would expect to find both unslipped and slipped utilitarian wares with most types represented, not just one type (black on-cream) of a single ware (cream)” (Smith 1971: 194).

About the character and origin of the Hocaba complex Smith wrote:

“Is the Hocaba Ceramic Complex influenced in any way by the preceding Sotuta Ceramic Complex? The answer to this question is yes, but largely through the cream Kukula Group of Peto Cream Ware. Only occasionally is the Red Mama Group affected ... On the other hand, new traits abound in the Hocaba Ceramic Complex that have no apparent connection with the immediately preceding complexes” (Smith 1971: 204).

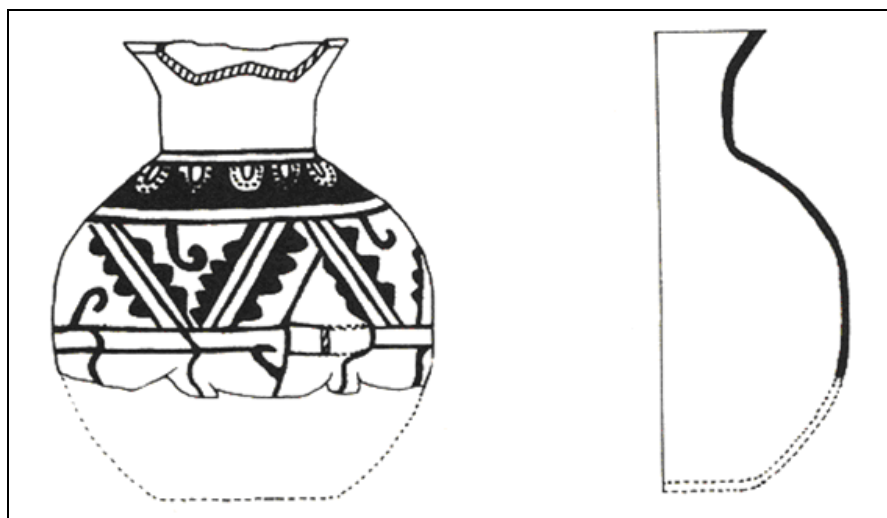


Figure 230: Xanchakan Black on Cream Jar found at Tulum, Test-pit 1. Layer 6 (Barrera 1985)

3.1.3 *Seeds of Doubt 1980-1990*

The placement, character and duration of the Middle Postclassic period, as viewed by the traditional model, were severely questioned in the 1980s. Various authors suggested an earlier date than the traditional model for the Peto Cream Ware.

E. Wyllys Andrews V stated in 1980 that:

“We prefer to place Peto Cream Ware earlier at Dzibilchaltun than at Mayapan, during the late Modified Florescent Zipche 2 phase. But it is also possible that part of the span during which Peto Cream preceded Mayapan Red at Dzibilchaltun fell within the Decadent period” (in Andrews IV and Andrews V 1980: 275).



Fernando Robles (1986: 129) thought that Kukula (Peto Crema) ceramics are diagnostic markers for a “transitional horizon” that begins at the end of the Late Classic and ends in the middle of the Postclassic. At Isla Cerritos, Fernando Robles dated Peto Cream ware in the Jotuto Sotuta Complex (A.D. 850-1150/1200):

“It is important to note that the type Xcanchakan Black on Cream is not only a very useful marker in order to date the end of the Classic period in northern Yucatan, but also represents the only pan-northern ceramic type produced in Yucatan, and that it is distributed in considerable quantities in most of the sites of the northern peninsula. In my opinion, the presence of type Xcanchakan Black on Cream can indicate the commercial expansion and/or military influence of Chichen Itza in northern Yucatan just before the end of the Classic period (1987: 105).



Arlen and Diane Chase (1985; fig.5) proposed dividing the peninsula into five regions, represented by different Postclassic traditions: I, Western Campeche; II, Northern Plains; III Eastern Yucatec; IV, Northern Belize; V, Central Peten (reproduced in Figure 231).

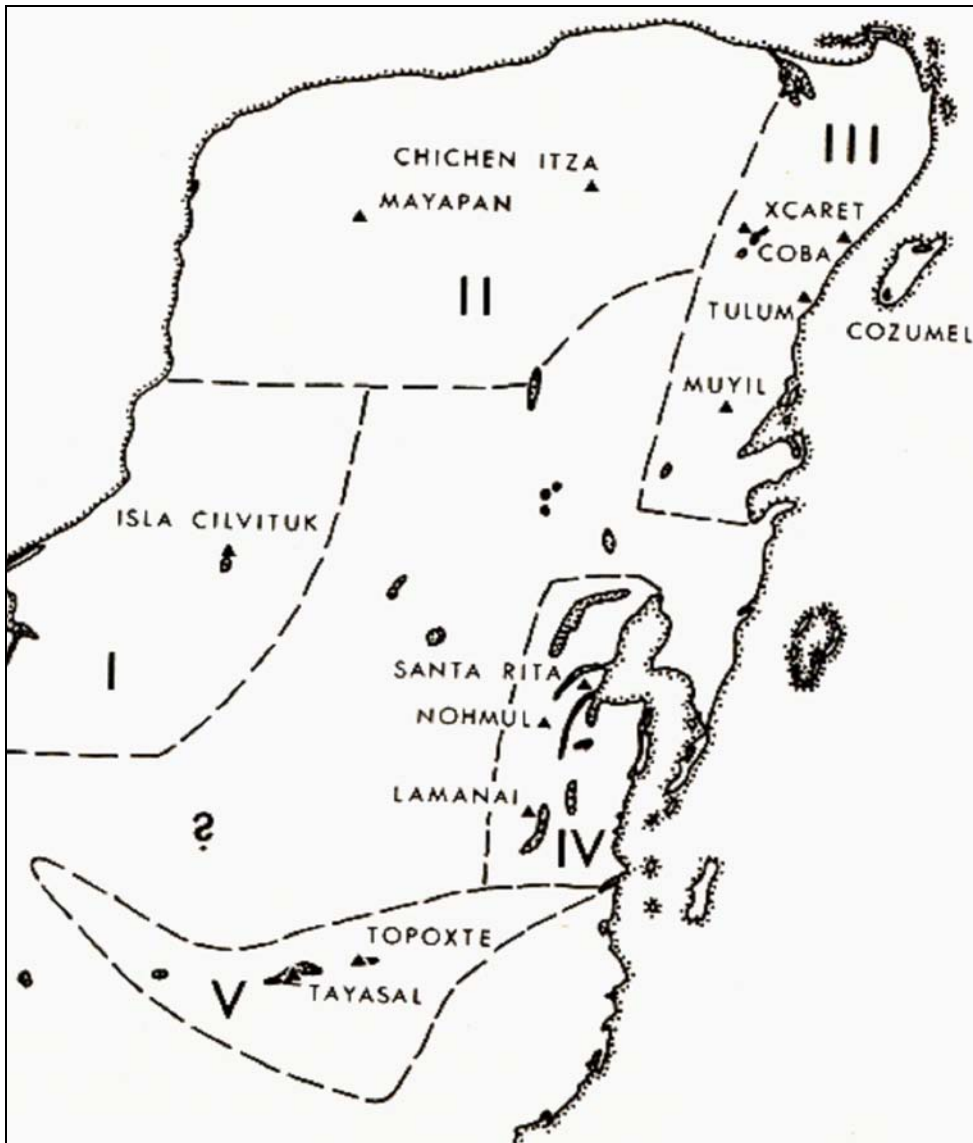


Figure 231: Postclassic Traditions (Chase and Chase 1985, fig. 5)

In opposition to the authors above, however, Alfredo Barrera maintained a traditional sequence in his vision of Tulum’s ceramics: “analysis of the ceramics from Tulum reveals that its occupation began between A.D. 1100 and 1200. The first ware of importance is Peto Cream (Xcanchakan Black-on-Cream type), which represents the transition from the Early Postclassic to the beginning of the Late Postclassic. This ceramic ware, found early in the history of Mayapan, is an indicator of the simultaneous emergence of the two sites. At Tulum it is found associated with eight structures” Barrera (1985: 51; my translation).

3.1.4 A Model under Attack 1990-2005

Charles Lincoln (1990) based on his collections at Chichen Itza asserted that some groups and types of the Sotuta Ceramic Complex are coeval with some Middle and Late Postclassic wares and types:

“it is one of the strongest, and most important, conclusions of this ceramic study that Chen Mul Modelled, Mayapan Red, and Kukula Cream must be analyzed as contemporaneous, at least in the early stages of the development of these wares, with Dzibiac Red and associated types, Silho Orange, Tohil Plumbate, and Balantun Black-on-Cream” (1990: 356).



John Ball (Ball and Ladd 1992) revised the late materials obtained from the Sacred Well and was faced with the difficulty of distinguishing between the unslipped ceramic wares of Hocaba and Tases complexes, partly because the incessant repetition of forms in both periods, and the absence of stratigraphy in Thompson’s collections. He proposed then to consider both complexes as Sub-complex Chenku at Chichen Itza.



The INAH project at Mayapan, according to C. Peraza (1997) continues to use Smith’s type-variety designations for ceramics at the site, but -accepting a total overlap model - they place Sotuta and Hocaba complexes in the Terminal Classic period. The materials resulting from the excavations of the Mayapan Project, located primarily in the construction fill of buildings in the Central Plaza, are largely Tases deposits mixed with a small quantity of ceramics from earlier components: Early Classic Cochuah, Late Classic Cehpech, and Terminal Classic Sotuta and Hocaba (in Milbraith and Peraza 2003: 3).



A revised Sotuta-Hocaba phase for Chichen Itza (dating A.D. 1000-1150/1200) was proposed at the end of the 1990s by Ringle, Gallareta and Bey (1998).

“There are good reasons for believing that Peto Cream Ware appears considerably earlier than A.D. 1200. Small amounts of Peto Cream were found in the structural fill of the Uxmal ballcourt in association with Muna Slate and caches of fine orange and Sotuta pottery. If dated by the ballcourt ring inscription, these can be no later than A.D. 905 (Kelley 1982: 15; Kurjack et al

1991: 156). Radiocarbon dates from Balankanche Cave (Andrews IV 1970; Andrews IV and Andrews V 1980) also indicate the appearance of Peto Cream prior to A.D. 1000, while those from Isla Cerritos (Andrews et al. 1988, Gallareta et al. 1989) are not long after” (Ringle, Gallareta and Bey 1998: 189).

Ringle, Gallareta and Bey are of the opinion that:

“Chichen Itza clearly was not abandoned during the Hocaba phase, because postconstruction debris is often substantial, yet, just as clearly, it was a center past its prime with little in the way of new construction and the cessation of hieroglyphic inscriptions. In this sense, we can say that there was virtually complete overlap of construction activity at Chichen with the Florescent (Puuc) architectural style of northern Yucatan ... Hocaba is thus better identified as a ceramic subcomplex overlapping late Cehpech/Sotuta assemblages as well as certain early Postclassic (Tases) deposits” (Ringle, Gallareta and Bey 1998: 190).



Milbraith and Peraza (2003) have offered the most recent re-examination of the city of Mayapan. In their opinion:

“Archaeological excavations begun at Mayapan in 1996 require re-evaluation of this site, sometimes disparaged as representing “decadent” Postclassic Maya culture. New discoveries show that the site was an international center that incorporated specific symbols in its art from areas as far away as central Mexico and Oaxaca. Indeed, there is evidence of trade with both areas. Another important Postclassic trade route connected Mayapan to Yucatan’s eastern coast and Peten, Guatemala. These connections are reflected in similar ceramics and architecture in the three areas. Revival of Terminal Classic traditions at Mayapan inspired certain architectural constructions and a stela cult marking Katun endings. The Katun-cycle chronologies of the Colonial period provide intriguing evidence that political events at Mayapan may be linked with the site’s architectural history. The “founding” of Mayapan may have occurred earlier than the conventionally accepted date of A.D. 1263 (end of Katun 13 Ahau). The Chilam Balam of Chumayel chronicles use of a 24-year Katun instead of a

Katun of 20 tuns, suggesting that the earliest founding event at Mayapan (Katun 8 Ahau) may date back to the eleventh century A.D. and overlap with the demise of Chichen Itza. Some of Mayapan's earliest architecture is contemporary with Chichen Itza's latest constructions. Several hundred years after Mayapan was founded, there was a renaissance of the Cocom heritage evident in specific architectural forms modeled on those from Chichen Itza" (Milbraith and Peraza 2003: 1).



The 'collapse' of the Sotuta complex into the Terminal Classic period caused a rearrangement of the later complexes of Hocaba and Tases, and, in an extreme view, the deleting of the entire Middle Postclassic period as well. This can be considered as a Total Overlap Model for the Postclassic. A. Andrews, Andrews V and Robles (2003) have recently stated that

"With the collapse of the northern cities of the Terminal Classic period between A.D. 900 and 1000, the Yucatec Maya appear to have entered a dark age lasting more than a century. Sotuta and Cehpech ceramics fade by A.D. 1050-1100, replaced by ceramics of the Hocaba and Tases spheres (Robles 1987, 1988). We have little evidence of large-scale construction until the rise of Mayapan and the coastal cities of the Caribbean and Southern Gulf Coast. These Postclassic cities probably began to emerge in the twelfth century... Mayapan is traditionally thought to have seen its major settlement from A.D.1200 or 1250 to 1450, but the beginning date is uncertain (Brown 2001). Some archaeologists are now willing to entertain a date 100 or 150 years earlier. This view results in part from the inability of excavators and ceramicists to demonstrate that the Hocaba and Tases ceramic complexes at Mayapan (Smith 1971) characterize separate and sequential phases. The appearance of Hocaba pottery (Peto Cream Ware) at the end of the Chichen Itza sequence therefore suggests that the rise of Mayapan follows the decline of Chichen Itza by only a short interval (Andrews et al. 2003: 153).



In contrast with this view, Milbraith and Peraza (2003: 7) believe that "the division between Hocaba and Tases at Mayapan proposed by Smith (1971) remains a useful construct".

3.1.5 Summary

In conclusion, we see a parallel evolution of the chronologies constructed for the Late Classic periods and the ones constructed for the Postclassic periods. The traditional model proposed a sequence of three Postclassic periods: Early, Middle and Late, also referred to as Early Mexican, Middle Mexican, and Late Mexican, with three correspondent ceramic complexes: Sotuta, Hocaba, and Tases (Figure 231a).

The overlap models developed in the 1980s implied that the Early Postclassic period of Chichen Itza was in fact a Terminal Classic phenomenon, and that the end of Chichen Itza happened before the traditionally accepted date of A.D. 1200. The immediate consequence of such a view was that the beginning of the Hocaba complex must be positioned earlier. This was solved by proposing the contemporaneity of the Sotuta and Hocaba complexes, using evidence of the Peto Cream Ware (Figure 231a, central column).

In its most extreme expression, the total overlap model proposed an end for the Terminal Classic Chichen Itza by A.D. 1000. As a result, the early Postclassic period disappears as such. If the Hocaba complex is also conflated into Sotuta, the Tases ceramic complex will start immediately after Chichen Itza's collapse. The third column in the diagram below shows such a panorama.

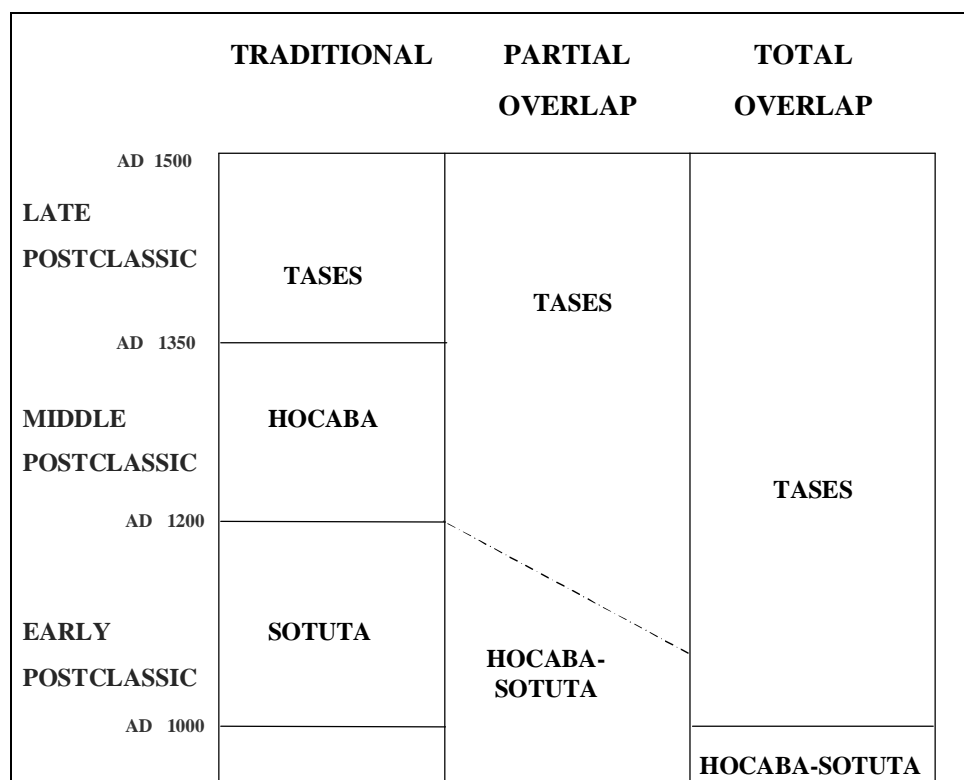


Figure 231a: Three models of Chichen Itza's Postclassic Chronology

Ceramic Contexts at Chichen Itza: Middle and Late Postclassic Periods

- 3.2.1 The Middle Post-Classic Period-The Kulub-Hocaba Ceramic Complex
- 3.2.2 The Late Post-Classic Period - The Chenku-Tases Ceramic Complex

3.2.1 The Middle Post-Classic Period: The Kulub-Hocaba Ceramic Complex

- 3.2.1.1 *Defining the Peto Cream Ceramic Ware in Northern Yucatan*
- 3.2.1.2 *The Peto Cream Ceramic Ware at Chichen Itza*
- 3.2.1.3 *Contexts of the Kulub-Hocaba Complex at Chichen Itza*
- 3.2.1.4 *Other Groups of the Kulub-Hocaba Complex at Chichen Itza*
- 3.2.1.5 *Summary of the Kulub-Hocaba Complex at Chichen Itza*

THE MIDDLE POST CLASSIC PERIOD

THE KULUB-HOCABA CERAMIC COMPLEX

AD 1150/1200-1250/1300

3.2.1.1 Defining the Peto Cream Ceramic Ware in Northern Yucatan

During the Hocaba ceramic complex the long-lived tradition of Slate ceramics is finally abandoned, and replaced by an imitation of lesser quality components known as Peto Cream Ware.

Peto Cream Ware was first called “Coarse Slateware” by Brainerd (1958). His description is the first detailed one for this tradition:

“Surface.- Slip with faint luster, but with lumpy surface – a fine-grained slip over a paste bearing protruding temper particles. Color is grayish-white occasionally smudged to dark gray; a variant has a dull orange colored slip (Orange Cinnamon or Pale Cinnamon Pink). The white slip may well be identical with the opaque white slip which is found on much Mexican Medium Slateware. Paste.- Coarse texture on fracture. Usually distinguishable from medium-textured paste of Florescent and Early Mexican wares by fracture as well as by rough surface. Temper determined by Miss Shepard on 36 specimens, all calcite. Paste color ranges gray to red-orange flecked with gray temper ... Comparisons: The distinguish feature of this ware is the use of a coarse paste with a few under surface finishing technique. Wall thickness is greater than that of its closest relative and predecessor, Mexican Medium Slateware, but form and design show only slight changes” (Brainerd 1958: 57).

Years later, in his work on the ceramics from Mayapan, Smith (1971) named these ceramics Peto Cream Ware, and elaborated further on their description:

“...none of the attributes associated with the ware bears any resemblance to Slate Ware as defined. The two common attributes of Peto Cream Ware and Chichen Slate Ware ... are a black tricklelike decoration and a number of vessel forms” (Smith 1971: 26). “Peto Cream Ware differs from Mayapan Red Ware principally in color and decorative treatment. Most of the forms are common to both wares and may derive their origin from Chichen Slate ware, particularly the water jars, restricted orifice bowls, tripod grater bowls, basins and tripod dishes with flaring or outcurving sides. The surface finish and paste composition appear to be the same as in Mayapan Red Ware. The color of Peto Cream Ware slip, however, may be either cream or beige, and the paste color may be the same plus light brown or cinnamon. Mayapan Red Ware features such decorative techniques as incising, modeling, and appliqué, whereas Peto Cream Ware has only a painted black on cream type and a rare incised variety” (Smith 1971: 234).

The characteristics of Peto Cream Ware in Smith’s description match those given by Brainerd in 1958.

“Paste composition: Coarse texture, usually undifferentiated opaque or cryptocrystalline calcite, less frequently gray limestone, and colors range from beige to cinnamon and reddish brown with beige and gray predominant. Pink and drab are also found. Surface finish: Smoothed, leaving a lumpy surface involving a fine textured slip covering a paste bearing protruding temper particles. The lightly burnished slip is opaque, usually cream in color but occasionally smudged to gray. A few sherds have a cinnamon (dull orange) slip. The color readings include: cream, beige, light gray, light brown and cinnamon” (Smith 1971: 26).

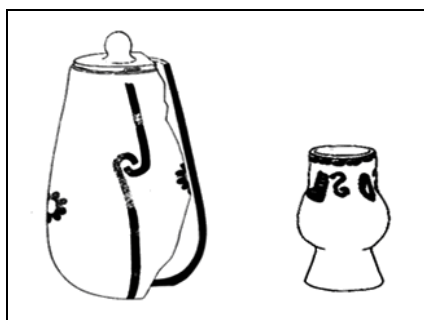


Figure 232: “Coarse Slateware” from Museum of Merida (after Brainerd 1958; fig 92)

The origins of the Peto Cream Ware were also addressed by R. Smith.

“It is more likely that this ware had its beginnings close to A.D. 1200 and was well developed when found at Mayapan, always associated with Mayapan Red Ware. At two sites, Dzibilchaltun and Tihoo in Yucatan, Peto Cream Ware has been found unassociated with Mayapan Red Ware. This suggests several things: that Peto Cream Ware may have an earlier beginning than Mayapan Red Ware; that it probably was not made in the same centers of manufacture as Mayapan Red Ware; and that it has its original source near Merida because of the close proximity of both Dzibilchaltun and Tihoo” (Smith 1971: 26).

Smith considered that the appearance of Peto Cream Ware may signal the beginning of deep changes in the regional tradition, ones which reach fruition in the culture of Mayapan:

“Peto Cream Ware may be considered the opening wedge of a new and certainly decadent era, that period which shows the establishment of Mayapan as an important center. [Mayapan] is decadent not only in its treatment of ceramic art but in all the aspects of its culture including sculpture, architecture, customs, and religious practices. To account for this radical change from the relatively high Toltec culture as seen at Chichen Itza, even considering a non-architectural Black-on-Cream transitional phase, the advent of new people must be predicated” (Smith 1971: 254).

In the case of Chichen Itza, Smith points out that

“out of a total of 25,716 sherds collected from all the nineteen cuts excavated in 1954, only 80 Hocaba and Tases sherds or 0.003 per cent were found. These late sherds all came from within or close to the surface levels ... The evidence presented by the few late sherds can hardly be construed to suggest an occupation of people taking over from the Sotuta Phase people or Toltecs. Even when we examine the material taken from nine house-type constructions ... the facts suggest that people were reusing the houses in late times. These people may have been pilgrims who occupied the better-preserved houses during their visits, leaving behind some broken utilitarian

pottery as well as censers. That people returned to an abandoned and ruined Chichen Itza to worship is made clear by Morris et al. (1931, pp. 179-180) in describing the pottery, mostly of the large effigy-censer variety but including some red ware tripod plates, found “in the vegetable mold just beneath the surface, most plentiful in front of the doorways and strewn down the stairs” (Smith 1971: 170).

Peto Cream seems to be most common along the east coast, an area extending from Cabo Catoche south to the border between Mexico and Belize, but it also appears in Central Yucatan, and in the Cupul area and neighboring Chikinchel region (Kepecs 1998: 128-129; Ringle et al. 1998: 191).

Virginia Ochoa (1999) suggests that Peto Cream may have appeared first at coastal sites and later spread throughout the peninsula via major sites, such as Mayapan, Dzibilchaltun, and Chichen Itza. Based on a study of Peto Cream from more than 50 Maya sites, Ochoa (1999: 77-78) believes that Peto Cream spans from A.D. 900/1050 to 1250/1300, indicating that the Cehpech, Sotuta, and Hocaba complexes are partially coeval. Heajoo Chung (2000: 69, 146-151) dates Peto Cream ware ca. A.D. 1100-1250, based on test-pits and thermo-luminescence studies of Peto ceramics (mostly from Edzna).

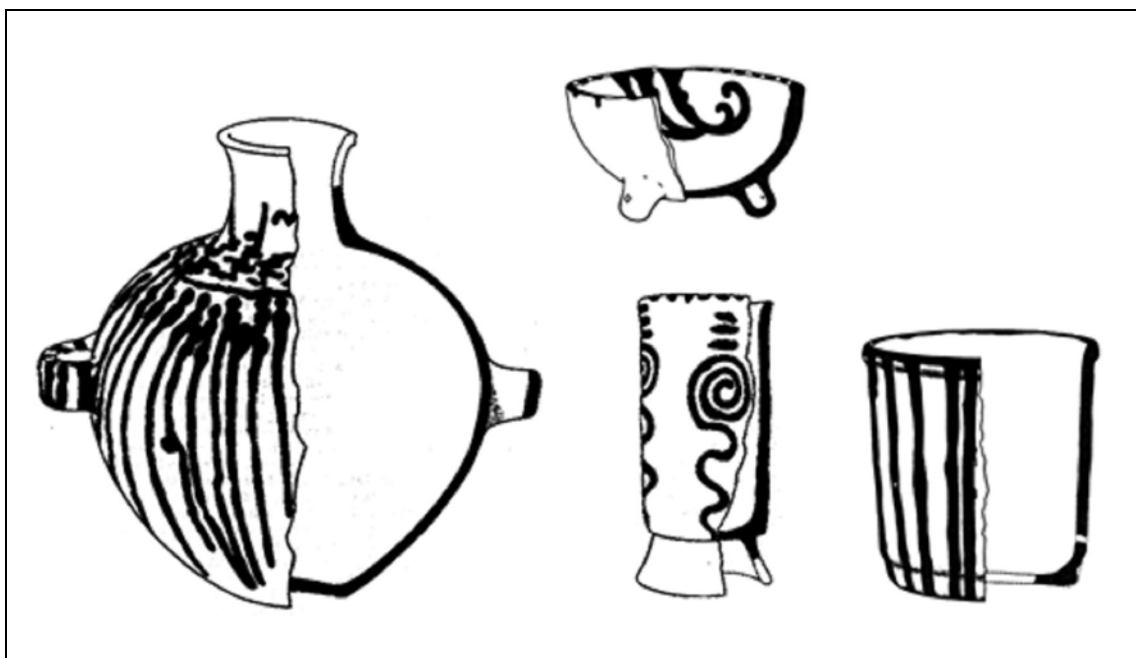


Figure 233: “Coarse Slateware” or Peto Cream Ware from Chichen Itza (after Brainerd 1958; fig. 92)

3.2.1.2 Peto Cream Ceramic Ware at Chichen Itza

At Chichen Itza, Peto Cream Ware does not show significant differences from the above descriptions. I have not yet realized an elaborate description of this ware based on our collections at Chichen Itza, but some of these materials were used in the study of Ochoa (1999). It is possible, though, that Peto Cream Ware originated at Chichen Itza (a point that will be elaborated further in this section), and therefore a specific study of this ware at the site is called for.

Brainerd stated that the main concentrations at Chichen Itza of Peto Cream Ware (or Coarse Slateware in his nomenclature)

“are in above floor refuse in the Mercado and the adjacent Southeast Colonnade, where architectural evidence of decadent reuse of buildings abounds, and above floors in the Temple of the Wall Panels and the East Building of the Monjas” (1958: 45).

Some examples of Peto Cream Ware surface treatment are shown in Figure 234.



Figure 234: Peto Cream Ware from the Initial Series Group at Chichen Itza

Jars of great capacity: *a, b, f*; Plate *c*; Grinding bowl: *d*; Drum: *e*; Vase: *g*.
Specimens *a, b, c, d, f* Xanchakan Black on Cream Type. Rest Kukula Cream Type.

3.2.1.3 CONTEXTS OF THE HOCABA COMPLEX AT CHICHEN ITZA

For a long time it has been considered that no major construction occurred during the Middle Postclassic period at Chichen Itza. This is true, but some minor constructions seem to have been carried on.

Construction Fill Contexts

CONTEXT H1: Construction Fill of Dais of El Mercado (3D11)

El Mercado, or the Market, is the biggest Patio-Gallery structure at Chichen Itza, and was excavated in 1932 by K. Ruppert (1943). George Brainerd analyzed the materials from the dais of the El Mercado gallery: *“Of the six sherds from within the dais, one is of Coarse Slateware, and all the others are unslipped. Thus, subject to some uncertainty since ... the collection may possibly have been mixed during or subsequent to excavation, the dais is datable as of the Middle Mexican substage”* (Brainerd 1958: 38).

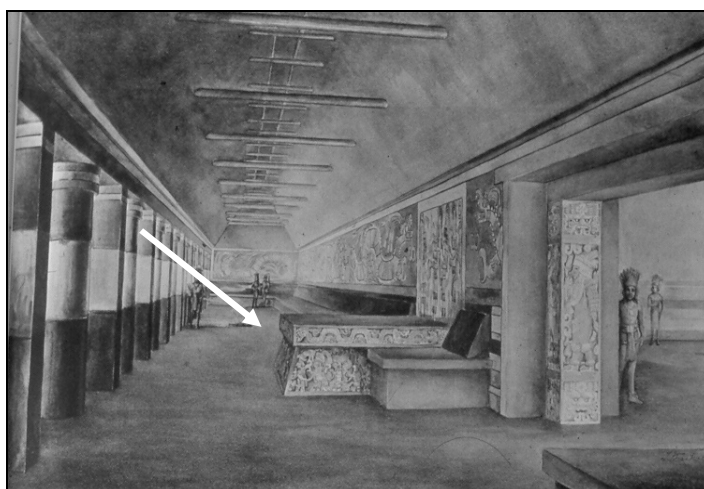


Figure 235: The Mercado Gallery showing the dais (Proskouriakoff 1946)

Whatever the case - I am willing to accept a Hocaba dating for this feature - the dais does not date the construction of El Mercado because it is clear from Ruppert's 1943 section drawing of the building that the bench and the dais are later additions to Structure 3D11. If we admit a Kulub-Hocaba date for the dais, then we could argue that the carving of ceremonial scenes was still in practice during the Middle Postclassic at least in the core of the city. On the other hand, the carved panels of the Mercado dais could have been manufactured earlier and reset in the Mercado at a later date.

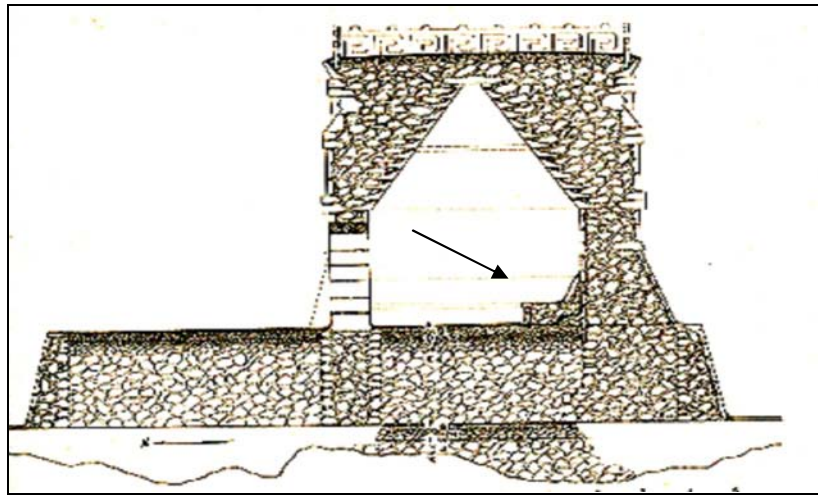


Figure 236: El Mercado, Section Drawing (from Ruppert 1943)



Figure 237: El Mercado, Decoration of the Dais (from Ruppert 1943)

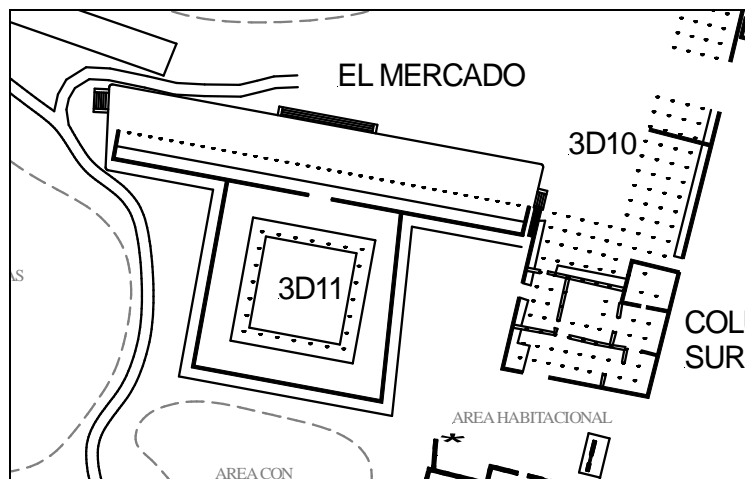


Figure 238: El Mercado

CONTEXT H2: The Construction of Round Platform 3C2, Osario Group

Structure 3C2 is a low circular platform located in front of the main stairway of the Osario pyramid, and was excavated by L. Fernández in 1994. A single sherd of the Hocaba Complex was found inside the construction fill of Structure 3C2, which could date the structure to the beginning of the Kulub-Hocaba Complex (A.D. 1150/1200; see Chart 100). However, it is unclear whether or not the sherd filtered into the platform from the surface since the stucco floor of the platform was in poor condition when excavated. If so, the placement will correspond to the end of the Sotuta complex.

Chart 100: Materials from inside Round Platform (Structure 3C2)

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	7	4.3%
CEHPECH	1	0.6%
SOTUTA	148	92.5%
HOCABA	1	0.6%
NOT ASSIGNED	3	1.8%
TOTAL	160	

Lots: E-160, E-161, E-166, E-168, E-169

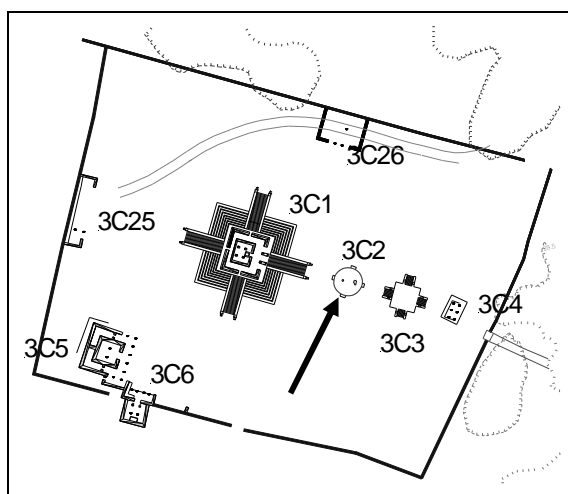


Figure 239: Structure 3C2 at the Osario Group



Figure 240: Structure 3C2 at the Osario Group

CONTEXT H3: Hocaba Tomb on the Monjas Terrace

Bolles presents a laconic description of the ceramics found during his excavations at the Monjas Complex, which are now housed at the “Palacio Cantón” Museum in Mérida.

“Two vases and two of the flat bowls or plates were found in the tomb north of the Northeast Terrace center line. These, along with a shallow bowl found above the floor in the east room of the East Building, had three hollow or cascabel-type legs ... The two vases were of redware. One was decorated with incised rectangular panels containing incised designs. These panels were of darker tone than the body color of the vase. Horizontal pointed lines of this same tone carried around the base at the top and bottom levels of the incised panels” (Bolles 1977: 237).

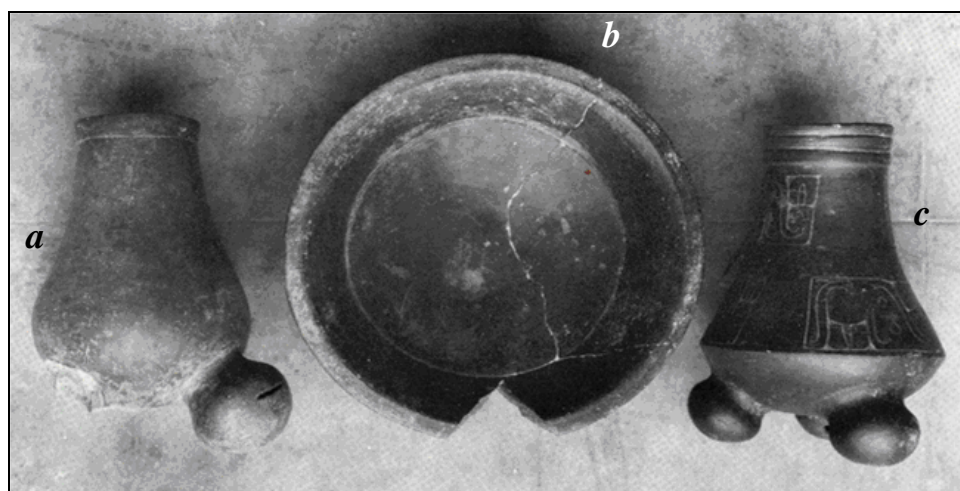


Figure 241: Vessels from the Vaulted Burial, Monjas Complex (Bolles 1977)



Figure 242: Vessel from the Vaulted Burial, Monjas Complex (Bolles 1977)

The vessels described by Bolles, are shown in Figures 241 and 242. The best identification of them is as follows: *a* pertains to the Dzibiac Red Group, while *b* and *c* pertain to Silho Fine Orange Group - all three vessels from the Sotuta ceramic complex. The grater bowl *d* pertains clearly to Peto Cream Ware of the Kulub-Hocaba Complex, dating this tomb to the Middle Postclassic period. A position in the Middle Facet of the Kulub-Hocaba Complex, around A.D.1200/1250 seems advisable.

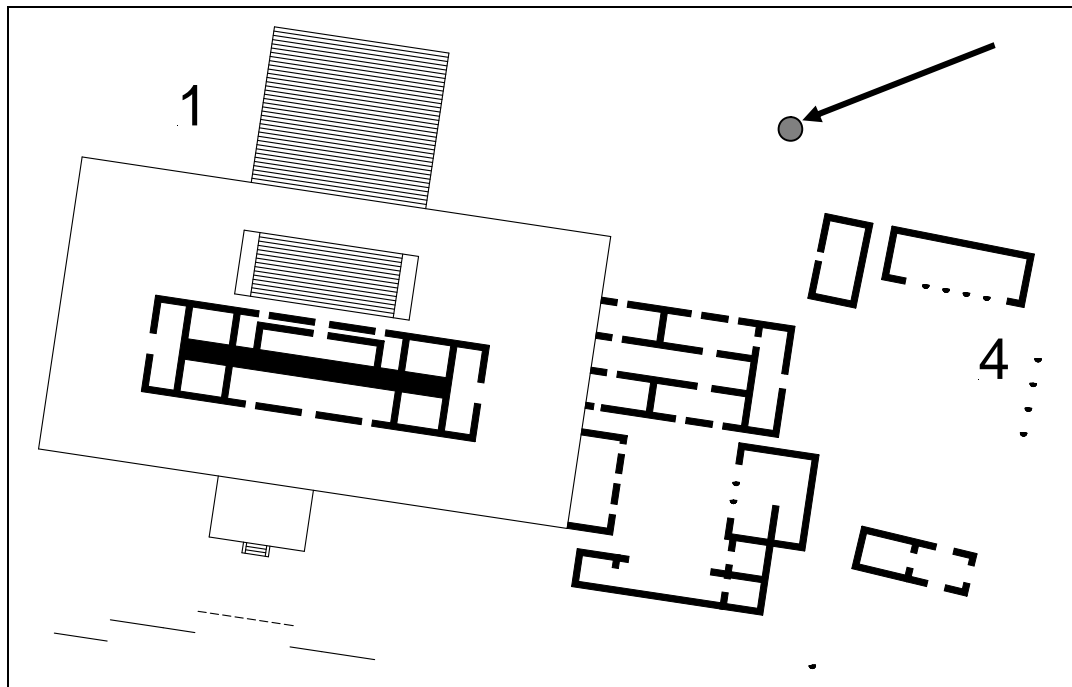


Figure 243: Approximate Location of the Vaulted Burial, Monjas Complex

We have to consider, nevertheless, that the tomb contained multiple burials. It is not clear by Bolles' excavations if they were deposited in a single episode or in several episodes.

CONTEXT H4: Clearing of the Tombs Platform (3C4), Osario Group

Structure 3C4 was looted by Edward Thompson, who found two tombs during his operations. L. Fernández cleared and restored this unusual construction in 1994. The materials from the clearing of the building show an important percentage of Kulub-Hocaba ceramics (Chart 101). It is uncertain, however, if the construction dates to this stage, because of the damaged state in which the platform was found.

Chart 101: Materials from the Clearing of the Tombs Platform (3C4)

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	14	0.6%
CEHPECH	16	0.7%
SOTUTA	1355	57.7%
HOCABA	559	23.8%
CHAUACA	2	0.1%
NOT ASSIGNED	406	17.3%
TOTAL	2353	

Lot: E27

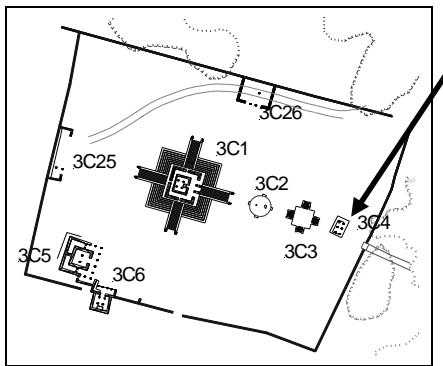


Figure 244: Structure 3C4, Osario Group Figure 245: Structure 3C4, Osario Group

The unusual form of structures 3C4 and 3C2, which affects the overall design of the group in a way not found on the Castillo Terrace, and the presence of Hocaba ceramics allows for a cataloguing of the structures as part of the Kulub-Hocaba complex.

From early on Brainerd reported the association of Kulub-Hocaba Complex ceramics with the occupation of Colonnades and Patio-Galleries (1958).

CONTEXT H5: Clearing of El Mercado (3D11)

According to Brainerd, twelve collections of El Mercado:

“come from debris overlying the structure and resulted from the process of clearing it ... The predominant slipped ware in all but two collections is Coarse Slateware, the Middle Mexican diagnostic. Coarse Redware is absent in several collections and in no case runs over 10 per cent of slipped wares ... It will be interesting to know when the amazingly light, broad vault of the northern gallery fell. The collections coming from the area of this vault all show Coarse Slateware, but nothing later ... the vault must have fallen before the end of the Middle Mexican substage” (Brainerd 1958:37).

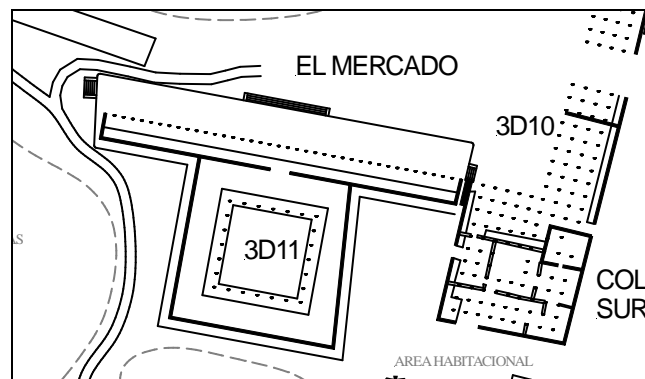


Figure 246: El Mercado (Structure 3D11)

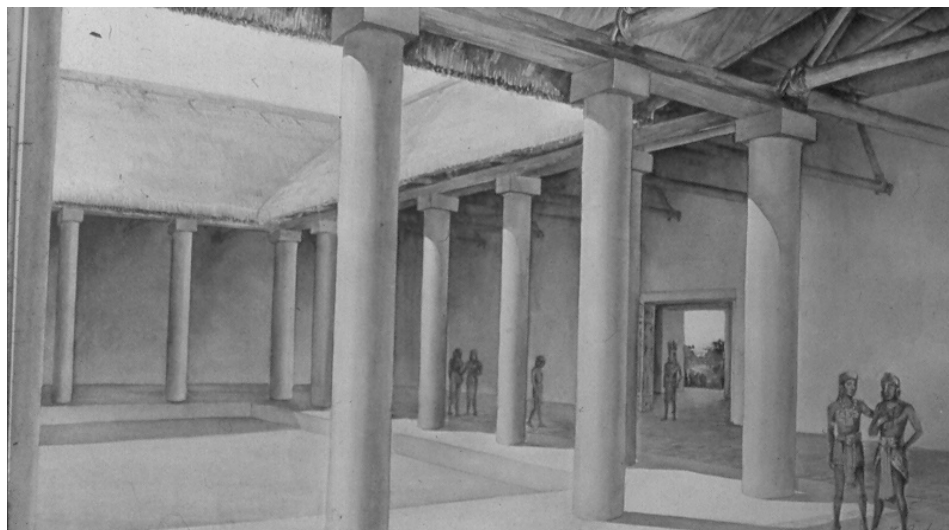


Figure 247: The Patio of El Mercado (Proskouriakoff 1946)

CONTEXT H6: Southeast Colonnade (Structure 3D10)

The southeast colonnade of the Thousand Columns complex is another well known example of the occupation of central Chichen Itza buildings during the Middle Postclassic period. Brainerd supports this scenario and argues for ...,

“a plausible reconstruction of the history of this area is as follows: Initial construction of the Southeast Colonnade began in the fully developed Early Mexican substage. Occupation during that substage was followed by compartmentation of the large hall in Middle Mexican times. The occupation declined during the Late Mexican substage. During the latter part of this lengthy time (the whole Mayapan occupation span), characterized here by very light ceramic deposition, there was probably no erection of new stone architecture. This area of Chichen Itza has descended from a cultural center to a sort of campsite” (Brainerd 1958: 38).

Middle Postclassic re-occupation of Colonnades and Patios-Galleries at central Chichen Itza is confirmed by data of the Chichen Itza project. These types of buildings usually show a presence of Kulub-Hocaba ceramics, which will range from 1 to 25 per cent (see following contexts).



Figure 248: Southeast Colonnade (Structure 3D10)



Figure 249: Southeast Colonnade (Structure 3D10)

CONTEXT H7: Clearing of Structure 3E1, Northeast Colonnade

The Carnegie Institution of Washington also collected Kulub-Hocaba ceramics at the Northeast Colonnade.

“A sherd collection, two restorable pottery vessels and a pottery pestle resulted from the clearing of the Northeast Colonnade ... One of the vessels is a Medium Redware jar (Dzibiac Red), and the other is a Coarse Redware Bowl (Mama Red) ... The sherd collection is rich (55.2 per cent) in pedestal-bowl incensario fragments. The remainder of the sample consists of Medium Slateware (73.1 per cent of slipped wares), Coarse Slateware (15.4 per cent), and Coarse Redware (11.5 per cent)... Only three fragments of figurine incensarios were found; they probably postdate the remainder of the collection. Thus the major occupation of the Northeast Colonnade was in Early Mexican times, and probably in the latter part of that substage. Occupational remains then dwindle to abandonment in Late Mexican times, probably in the early part of the substage” (Brainerd 1958: 40).

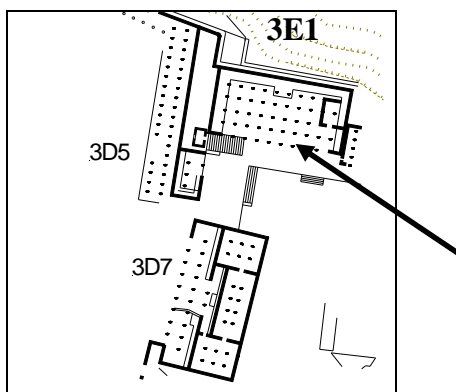


Figure 250: Structure 3E1 at the Northeast Colonnade

As in the rest of the Northeast Colonnades, the clearing of Structure 3E1 show an intense habitation during Kulub-Hocaba times, with a high residuality of Sotuta vessels, especially unslipped censers and slateware jars.



Figure 251: South façade of Structure 3E1, at the Northeast Colonnade

CONTEXT H8: Clearing of Structure 3D7, Northeast Colonnade

The Chichen Itza Project carried on excavations in 1993 and 1994 close to the works of the Carnegie Institution at the Northeast Colonnade. Materials coming from the clearing of Structure 3D7 show varying frequencies of Kulub-Hocaba materials, but in general evidence an important occupation of the building, and the still high percentage of the earlier Sotuta ceramics can be interpreted as a strong residuality of Sotuta vessels (Chart 102).

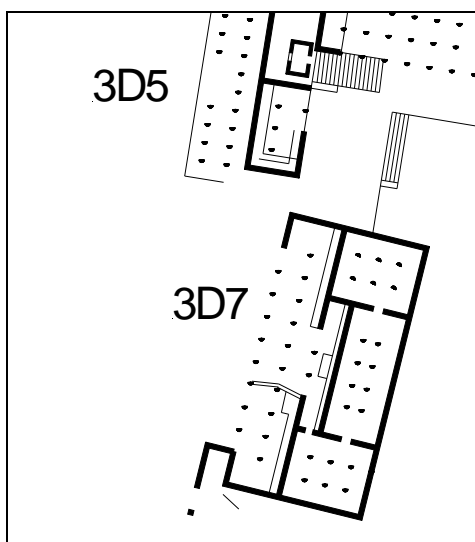


Figure 252: Plan of Structure 3D7

Chart 102: Hocaba materials from the clearing of Structure 3D7

AREA	NUMBER OF HOCABA COMPLEX SHERDS	PERCENTAGE BY AREA
North Façade	377	15.24%
Inside of NE Room	16	66.66%
Inside of Frontal Gallery	363	21.19%
East Façade	1272	42.85%
Platform and Stairs, West Façade	448	41.67%
TOTAL	2476	

Lot: B-87, B-88, B-89, B94, B95, B109, B 86, B97, B 105, B 106, B 117, B 118, B 126, B 137, B 138, B 145, B 146, B-90, B-92, B-93, B-110, B-111, B-112, B-113, B-114, B-130, B-131, B-132, B-1333, B-134, B-150, B-151, B-83, B-84 B- 99, B- 100, B- 102, B- 104, B- 120, B- 121, B- 123, B- 140, B- 141, B- 142, B- 143

The highest quantities of Kulub-Hocaba sherds occur at the East facade, which possibly represents a refuse deposit at the back of the Colonnade. The main West façade and the frontal gallery show important quantities as well, and in general, these collections can be interpreted as a continued habitation of the colonnade during Hocaba times.

A few sherds of the Kulub-Hocaba complex come from a small collection found near the Chacmool sculpture (Figure 253), in the front gallery of 3D7, as shown in Chart 103.

Chart 103: Materials from excavation around the Chacmool in Structure 3D7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	3	16.66%
SOTUTA	4	22.22%
HOCABA	11	61.11%
TOTAL	18	

Lot: B-CH-1



Figure 253: Chacmool of Structure 3D7 during clearing of the building

Also two hourglass spiked censers of the Espita appliqué type (Sotuta Complex; Figure 254), one complete and one semi-complete, were found broken around the Chacmool.

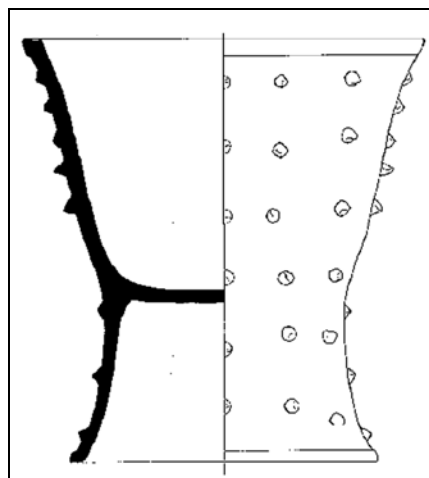


Figure 254: Sotute censer found close to the Chacmool of Structure 3D7, after restoration

CONTEXT H9: Clearing of Structure 3D5, Northeast Colonnade

The percentages of Kulub-Hocaba materials are not homogeneous in the colonnades and buildings of the Thousand Columns Complex. Colonnade 3D5 is a building of Sotuta complex construction (see Context S7). In Chart 104, the materials of the clearing of Structure 3D5 (located next to 3D7), show only 2% of Hocaba ceramics in the Gallery, and 10% outside the platform. The difference in percentages with 3D7 can be attributed to a different use of the buildings or to a different state of conservation of those buildings during the Kulub-Hocaba complex. It is logical to think, as Brainerd (1958) did, that buildings subject to collapse earlier will show smaller percentages of Kulub-Hocaba ceramics.

In the case of 3D5, however, a similar percentage of Tases ceramics is present (see Chart 132). Tases is not usually found in colonnades, (which again can be attributed to a differential use during Late Postclassic times, or to a collapse of the buildings prior to Tases complex period) and its presence here suggest that Colonnades must have been in use longer than Brainerd suspected.

Chart 104: Materials from the clearing of Structure 3D5 North-East Colonnade.

AREA	NUMBER OF HOCABA COMPLEX SHERDS	PERCENTAGE
Gallery of Structure 3D5	576	2.68%
Platform of Structure 3D5	585	10.63%
TOTAL	1161	

Lot: B-39, B-40, B-41, B-42, B-43, B-47, B-48, B-51, B-52, B-53, B-55, B-56, B-59, B-60, B-61c, B-62c, B-63, B-68, B-69, B-71, B-75, B-76, B-79, B-72, B-67, B-43a, B-47a, B-52a, B-55a, B-60a, B-63a, B-64a, B-70c, B-71a, B-76a, B-79a, B-45, B-49, B-50, B-57, B-58, B-65, B-66, B-73, B-74, B-81

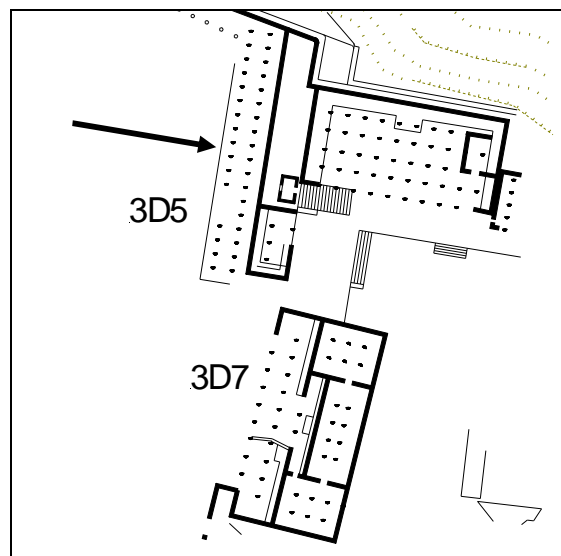


Figure 254: Structure 3D5 Northeast Colonnade

CONTEXT H10: Clearing of Structure 2D6

Structure 2D6 is a Patio-Gallery type of building adjacent to the Big Tables building (2D7). The clearing of Structure 2D6 was partial, limited to the south end of the gallery (see also Context S30). The collection contained 24% of Kulub-Hocaba ceramics (Chart 105), indicating a sizeable use during the Middle Postclassic period. No later ceramics were found, which is surprising, because Tases complex sherds are abundant in the Big Tables pyramid (see context T9).

Chart 105: Materials from the clearing of the Gallery of 2D6

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
SOTUTA	252	67.6
HOCABA	91	24.4
NOT ASSIGNED	30	8.0
TOTAL	373	

Lots: J1 - J9

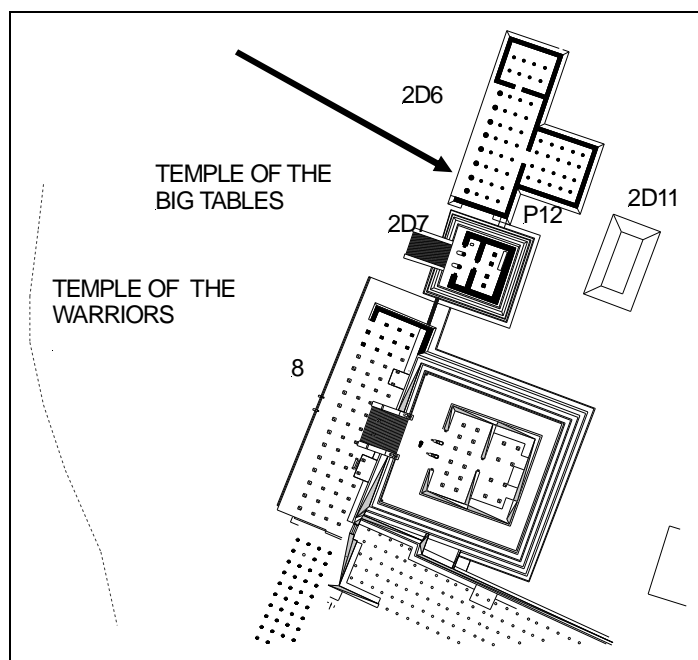


Figure 255: Plan of Structure 2D6

CONTEXT H11: Clearing of the Sweat Bath (Structure 3E3)

Structure 3E3, which adjoins the Ballcourt behind the Temple of Thompson, just at the back of the East Colonnade, has been classified as a Sweat Bath. Three collections of the excavations of this building by Ruppert (1952: 82-83) were tabulated by Brainerd (1958: 40). His percentages of slipped fragments are shown below in Chart 106. If only by the presence of Coarse Slateware, it shows an active occupation of the building during the Kulub-Hocaba Complex.

Chart 106: Materials from the clearing of the Sweat Bath “Zumpulche” (3E3)

SUBSTAGE		PERCENTAGE
Early Mexican	Medium Slateware	32.1
Early Mexican	Medium Redware	11.4
Middle Mexican	Coarse Slateware	32.6
Late Mexican	Coarse Redware	10.3
	X Fine Orange	12.0
	Plumbate	1.1
	Rare types	0.5
		100.0

(After Brainerd 1958)

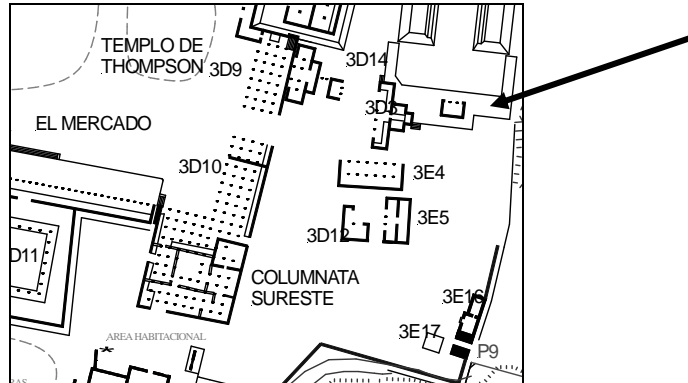


Figure 256: Location of Structure 3D3

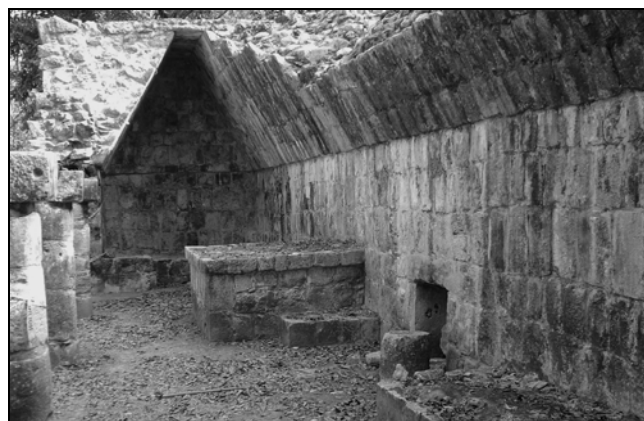


Figure 257: Frontal Gallery of Structure 3D3

CONTEXT H12: Clearing of the Temple of the Big Tables (2D7)

The clearing of the West Façade of the Temple of the Big Tables shows a small percentage of Kulub-Hocaba ceramics (442 sherds amounting to 3.7% of the collection; Chart 107). The Hocaba percentage is even smaller on the East façade (0.9%; Chart 108). Temple-like constructions are expected to have less ‘domestic’ quantities of ceramics than palace-like structures, and rather bigger amounts of ritual ceramics. Nonetheless, it is clear that no matter the type of the construction, Kulub-Hocaba Complex ceramics are found elsewhere at the Great Terrace, and evidence a regular occupation of this part of the site.

Chart 107: Materials from the clearing of the Western Façade of the Temple of the Big Tables

COMPLEX	NUMBER OF SHERDS	PERCENTAGE BY FACADE
HOCABA	442	3.7%
TOTAL	11836	

Lots: D1, D2 D3, D4, D5, D6, D7, D9.

Chart 108: Materials from the clearing of the East Façade of the Temple of the Big Tables

COMPLEX	NUMBER OF SHERDS	PERCENTAGE BY FACADE
HOCABA	47	0.91%
TOTAL	5134	

Lots: D-22

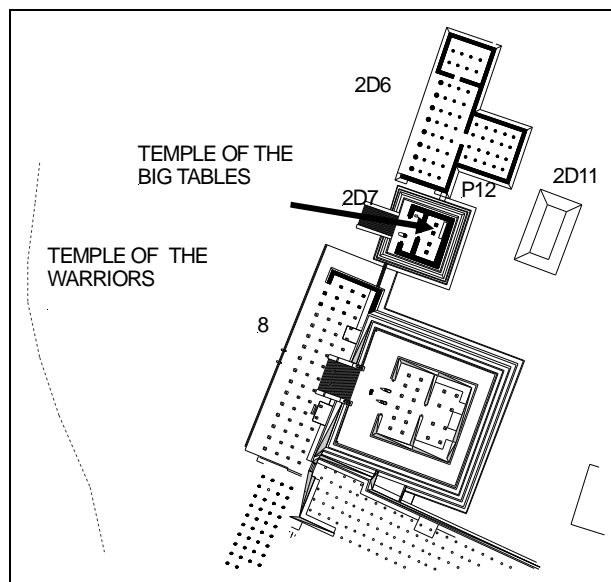


Figure 258: Temple of the Big Tables (Structure 2D7)

CONTEXT H13: The clearing of the Temple of the Warriors

A group of tall vases were found during excavations at the Temple of the Warriors (Morris, Charlot and Morris 1931: 101, fig 114) and classified by Brainerd (1958: 296) as Coarse Redware (they are now at the “Palacio Cantón” Museum in Merida; see Figure 259). Such tall vases are unusual in the Hocaba repertory, but parallel some Sotuta Slateware forms found in the refuse deposit at the back of the Gallery of the Monkeys. It could indicate that similar events, or ceremonies (in which this special form was used), were performed as well in the Kulub-Hocaba complex, another example of continuity between the two complexes.

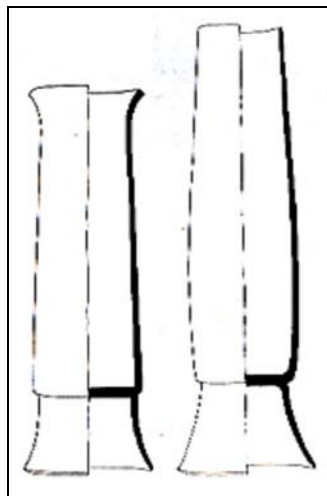


Figure 259: Mama Red Type vases from the Temple of the Warriors (Brainerd 1958, figs: 90s, t)

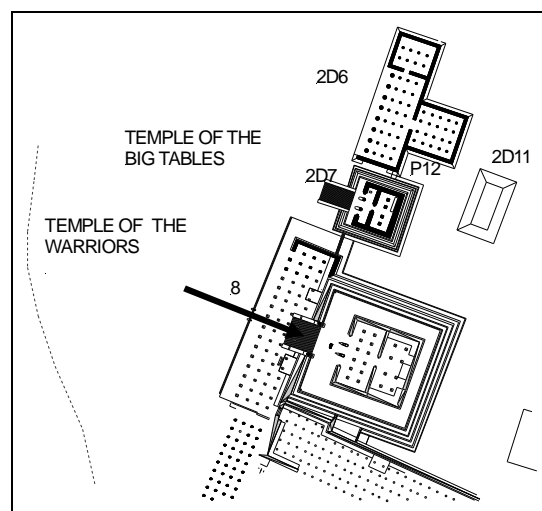


Figure 260: Temple of the Warriors (Structure 2D8)

CONTEXT H14: Clearing of the Pyramid of Kukulcan (El Castillo)

The collections obtained by P. Schmidt during the clearing of the East and South Facades of the Castillo Pyramid in 1980 show substantial percentages of Kulub-Hocaba Complex ceramics (see Chart 109).

Chart 109: Materials from the clearing of the Pyramid of Kukulcan

AREA	NUMBER OF HOCABA COMPLEX SHERDS	PERCENTAGE BY FACADE
East Side	7	5.46%
South Side	34	8.90%
TOTAL	41	

Lots: CHI-1980-2, CHI-1980-3, CHI-1980-4, CHI-1980-5, CHI-1980-6, CHI-1980-7, CHI-1980-8

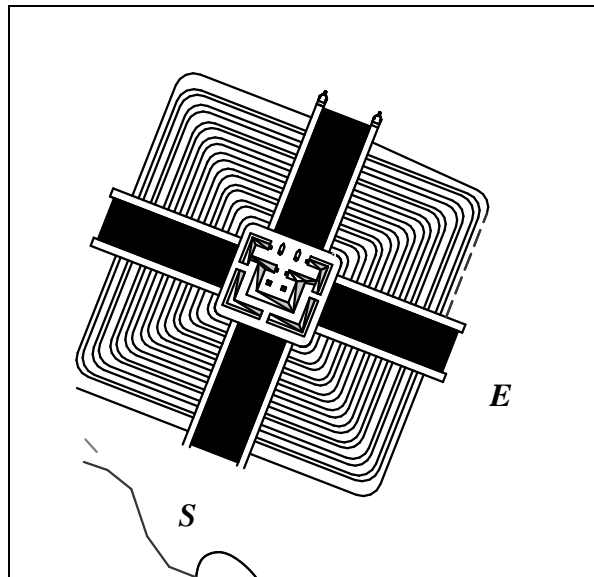


Figure 261: El Castillo Pyramid

Hocaba percentages could have been higher in the North (main) and West facades, but the materials from the clearing of the 1920s are unavailable.

CONTEXT H15: Materials on the surface of the Big Ball Court

A small collection was recovered recently by F. Pérez on the surface of the Ballcourt, in front of the North Temple, in a little paved section of the courts' floor. All four sherds collected pertain to the Kulub-Hocaba Complex. Though not representative of the (sadly unavailable) collections of the original clearing of this Ballcourt, they do indicate the continued use of the Ballcourt's space during the Middle Postclassic.

Chart 110: Collection on surface over pavement section in front of the North Temple, Great Ballcourt

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
HOCABA	4	100%
TOTAL	4	

Lots: C-300

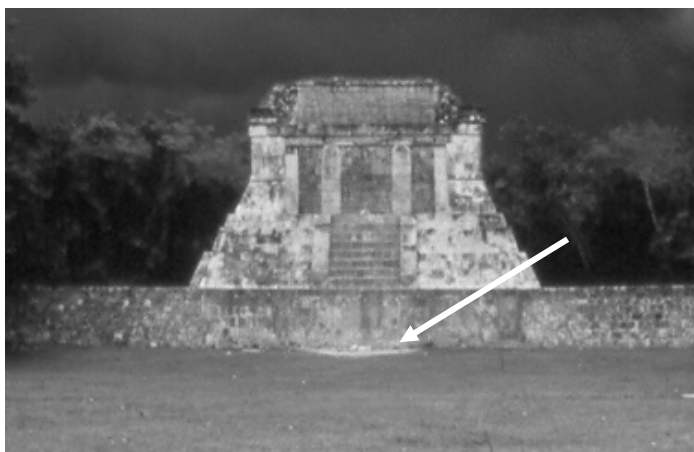


Figure 262: The North Temple of the Great Ballcourt
Arrow shows location of the sherds.

CONTEXT H16: The clearing of the Osario Pyramid

Percentages of Kulub-Hocaba ceramics in the Osario's clearing collections range from 7 to 15%, according to the sector in which they were found, but in general are higher than those of the Castillo Pyramid (Chart 111).

Chart 111: Materials from the clearing of the Osario Pyramid

AREA	NUMBER OF HOCABA COMPLEX SHERDS	PERCENTAGE BY AREA
North Façade	67	7.58%
East Façade	516	8.70%
West Façade	319	13.31%
South Façade	257	15.40%
Upper Temple	341	10.47%
TOTAL	1500	

Lots: H-91; H-92; H-93; H-99; H-114; H-117, H-38; H-51; H-52; H-53; H-54; H-55; H-56; H-57; H-58; H-59; H-97; H-98; H-100; H-111; H-113; H-118, H-94; H-95; H-96; H-112; H-119; H-127, H-36; H-37; H-44; H-46; H-115

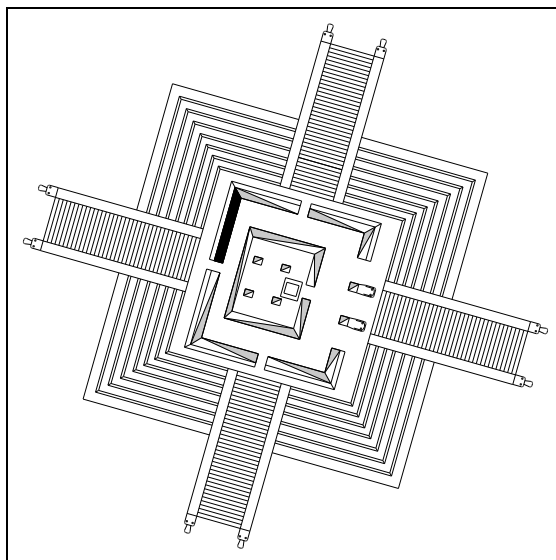


Figure 263: The High Priest's Grave, or Osario Pyramid

The materials re-excavated from the shaft and cave of the Osario pyramid by Schmidt in 1994 yielded 59 Kulub-Hocaba sherds (7.9% of that collection; see Context S39).

CONTEXT H17: Clearing of the Temple of the Wall Panels (Str. 3C16)

Brainerd studied a collection of 172 sherds and seven whole or restorable pottery vessels from the Temple of the Wall Panels.

“the ceramic sample dates Middle Mexican in major part, with smaller representations of Early and Late Mexican wares ... Of the whole specimens, only one is certainly of Early Mexican times ... The other six whole specimens are an incense ladle or “blower” of unslipped coarse gray found in debris within the colonnade, two Coarse Red pedestal vases found unbroken in debris in the south passageway of the temple between the bench and west wall of the inner room of the temple; and three broken, thin, coarse unslipped ware direct rim jars found in the talus of the temple pyramid. Five of these six specimens may be identified with reasonable safety as Late Mexican from counterparts found in the Late Mexican deposits at Mayapan; the incense ladle probably dates earlier. The two pedestal vessels are similar to specimens found cached beside a column in the North Colonnade, Temple of the Warriors” (Brainerd 1958: 41).



Figure 264: Temple of the Wall Panels from the north (Structure 3C16)

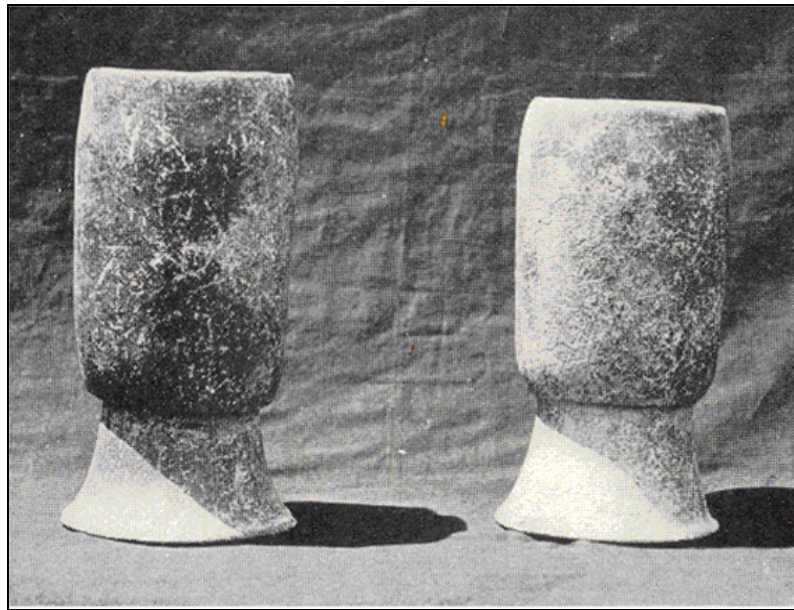


Figure 265: Vessels from the Temple of the Wall Panels (Ruppert 1931, plate 17)

“The combination of the heavy proportion of Coarse Slateware, nearly absent in the collections of the Caracol and from all but the East Building of the Monjas...place...the major occupation in Middle Mexican, and the collapse of Temple and Colonnade before the end of the Late Mexican period” (Brainerd 1958: 42).

In modern terminology, the Jars are clearly of the Yacman Striated type (Figure 266), and the vases of the Mama Red type (Figure 265), all of them pertaining to the Kulub-Hocaba complex.

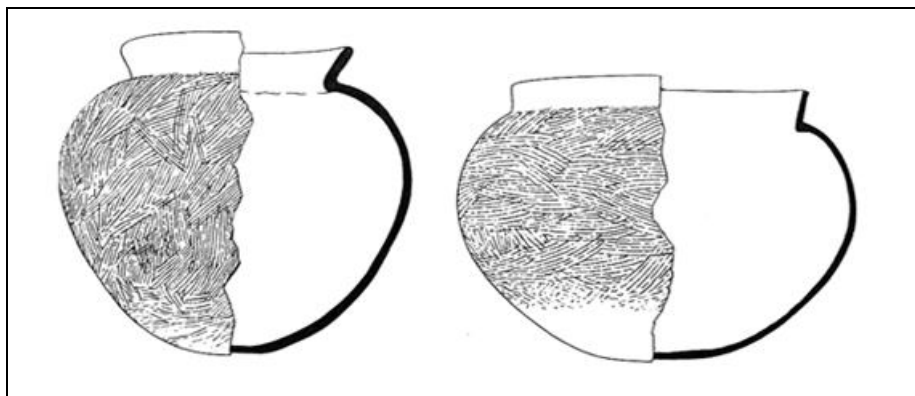


Figure 266: Vessels from the Temple of the Wall Panels (After Brainerd 1958, figs: 93a, b)

CONTEXT H18: Clearing of the Monjas Complex

The comments of George Brainerd on the Middle Postclassic ceramics obtained during the clearing of the Monjas architectural complex by Bolles are cited below.

“Evidence of Middle and Late Mexican occupation are slight relative to Early Mexican at the Monjas; their strongest representation is in the East Building, where collections from the building itself show 22.4 per cent Coarse Slateware and 6.9 per cent Coarse Redware ... The Coarse Slateware jar found only slightly broken in this building suggests that the last occupation was during the Middle Mexican period and that the Coarse Redware, which consisted mainly of small bowl fragments, should be assigned to the late pilgrimages which have left a surface ceramic layer over most of Chichen Itza” (Brainerd 1958: 44).

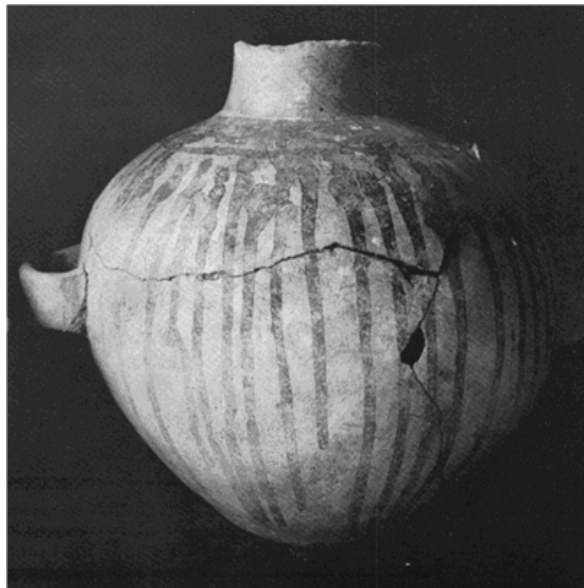


Figure 267: Hocaba complex jar from the Monjas Complex (Bolles 1977)

CONTEXT H19: Clearing of the Initial Series Building (Str. 5C4)

The Hocaba ceramic materials from the clearing of the Initial Series Building amount to 7.1% of the collection of all the lots pertaining to the clearing process (Chart 112). 931 sherds were classified as Kulub-Hocaba types.

Chart 112: Materials from the clearing of the Temple of the Initial Series (5C4)

COMPLEX	NUMBER OF SHERDS	PERCENTAGE OF THE TOTAL
HOCABA	931	7.12%

Lots: X400, X401, X402, X403, X404, X405, X406, X407, X408, X4032, X434, X435, X436, X437, X442

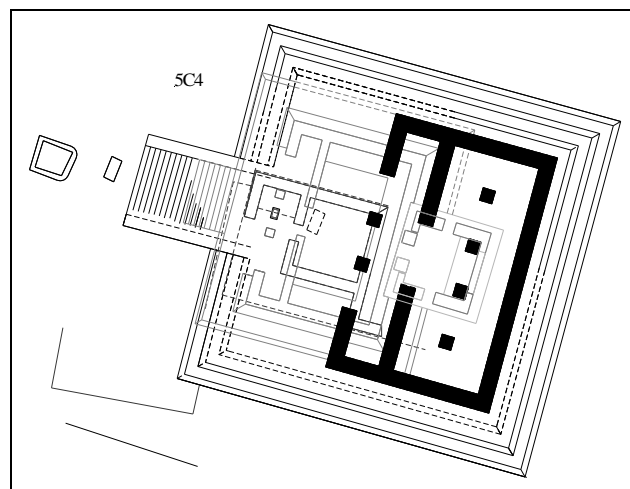


Figure 268: The Initial Series Building



Figure 269: The Initial Series Building before explorations by the Chichen Itza Project in 1998

CONTEXT H20: Clearing of Room 1 of Structure 5C14-II, Initial Series Group

Structure 5C14-II is an extension in the middle of the north façade of the Phalli building (Figure 270). A collection of 17 sherds found directly above floor of Room 1 of this construction shows 47% of Kulub-Hocaba materials (see Chart 113). Also 2 Tases sherds were found.

Chart 113: Materials from above floor of Room 1, Structure 5C14-II

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	2	11.76%
SOTUTA	3	17.64%
HOCABA	8	47.05%
TASES	2	11.76%
NOT ASSIGNED	2	11.76%
TOTAL	17	

Lot: X-101-A

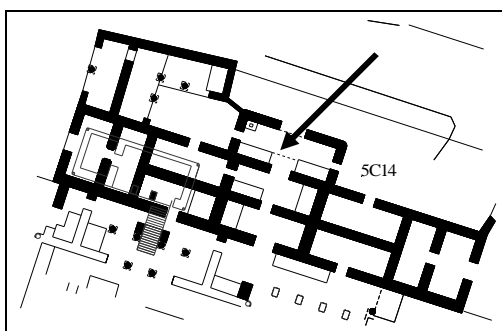


Figure 270: Structure 5C14, House of the Phalli, showing location of Room 1

Inside the Fire-box in the northwest corner of the room (Figure 271), was located an almost complete jar of the Yacman striated type (Figure 272), of the Kulub-Hocaba complex, though the firebox could date to the Tases complex and the use of the jar could represent a case of residuality.



Figure 271: Fire-box in Room 1, 5C4-II



Figure 272: Yacman Striated jar

CONTEXT H21: The clearing of Room 20 of Structure 5C14-III Initial Series Group

Structure 5C14-III is an extension at the northwestern corner of the Phalli building (Figure 273). Materials coming from above the floor on Room 20, close to the bench (Figure 274), are shown in Chart 114. It is a small collection of 49 sherds of which 55% pertain to the Kulub-Hocaba Complex. No later materials were found in this context.

Chart 114: Materials above floor of Room 20, close to the bench

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	1	2.04%
CEHPECH	1	2.04%
SOTUTA	19	38.77%
HOCABA	27	55.10%
NOT ASSIGNED	1	2.04%
TOTAL	49	

Lot: X104-D

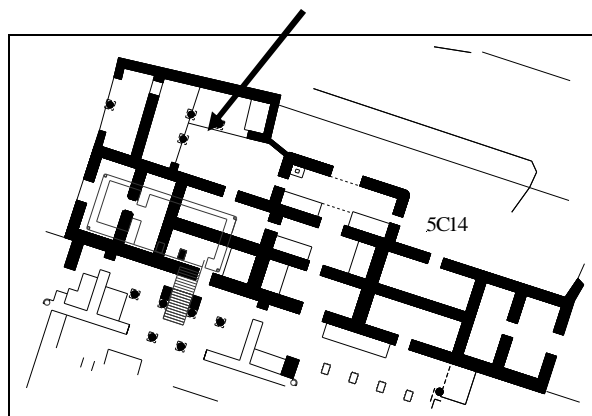


Figure 273: Structure 5C14, House of the Phalli, showing location of Room 20



Figure 274: Structure 5C14-III, House of the Phalli, Bench of Room 20

CONTEXT H22: Clearing of the inner room of the Temple of the Owls (Str. 5C7) Initial Series Group

Materials from the Kulub-Hocaba Complex were found in the inner room of Structure 5C7, or Temple of the Owls. The general clearing of the inner room only produced 9 sherds of the Kulub-Hocaba complex, but 15 sherds found directly above the floor of the frontal room amount 39% of that specific collection (see Charts 115 and 116).

Chart 115: Materials of the clearing of the inner room of Structure 5C7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	4	1.70%
SOTUTA	221	93.65%
HOCABA	9	3.82%
TASES	2	0.85%
TOTAL	236	

Lot: H-181

Chart 116: Materials directly over the floor of the frontal room of Structure 5C7

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
SOTUTA	23	60.52%
HOCABA	15	39.47%
TOTAL	38	

Lots H-181-Y, H-181-X

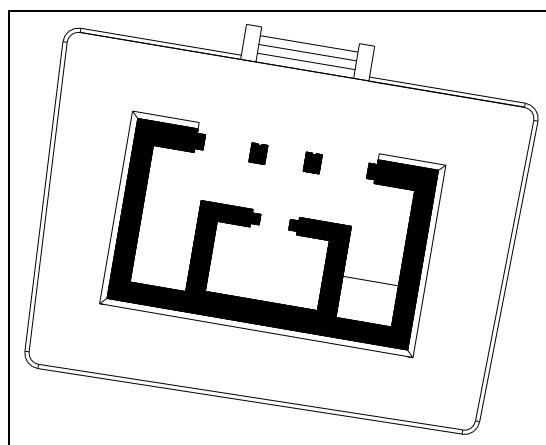


Figure 275: The Temple of the Owls

CONTEXT H23: Clearing of Structure 5C8, Initial Series Group

The collection from the clearing of Structure 5C8, located in the southwestern corner of the Initial Series Group, presents 210 sherds of Kulub-Hocaba Complex ceramics forming a substantial 5.5%. This collection testifies to an overall Hocaba re-occupation of the Initial Series Group.

Chart 117: Materials from the clearing of Structure 5C8

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	10	0.26%
SOTUTA	3527	93.62%
HOCABA	210	5.57%
TASES	20	0.53%
TOTAL	3767	

Lots: H-221, H-225, H-226

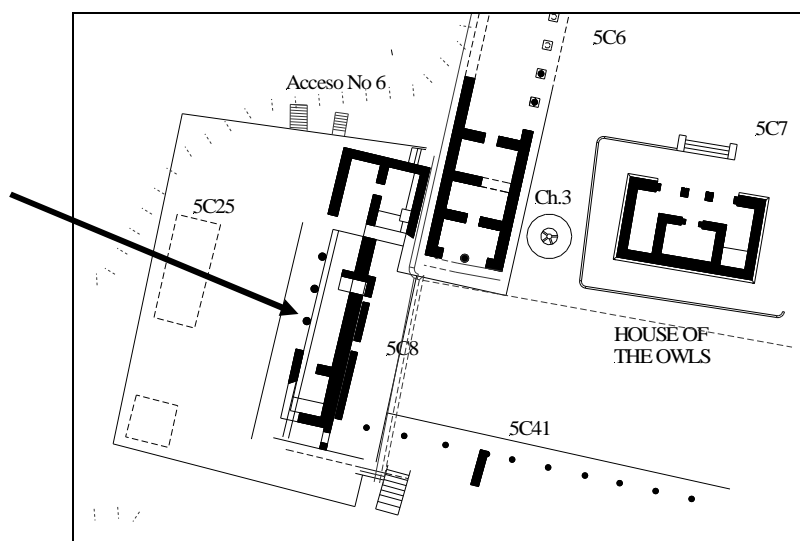


Figure 276: Structure 5C8

CONTEXT H24: Hearth in the corner of Room 2 at the Three Lintels Building

A similar firebox to that in Room 1 of the Phalli building (Context H20), is dated to the Hocaba complex. It was found during excavations at the Three Lintels Building in 2004, in the southeast corner of Room 2 (Figure 277). The firebox is made by an alignment of stones, forming a rough rectangle inside which a concentration of ashes, soil and sherds was found. Of a total of 67 ceramic fragments found in its interior, 52.2% pertain to the Kulub-Hocaba Complex, being these the latest ceramics present. This hearth can be dated as the earliest to the Middle/Middle-Late Facet of the Kulub-Hocaba Complex, ca A.D. 1250.

Despite the absence of Tases sherds, it could also be possible that a Tases date applies, as reasoned in the case of the Phalli Building.

Chart 118: Hearth in the corner of Room 2 at the Three Lintels Building

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	1	1.49%
CEHPECH	1	1.49%
SOTUTA	19	28.35%
HOCABA	35	52.23%
NOT ASSIGNED	11	16.41%
TOTAL	67	

Lots: F351E-I to F351E-IV



Figure 277: Firebox in the corner of Room 2 at the Three Lintels Building
Notice layer of sherds at the bottom

Deposits of Refuse outside Terraces

The percentages of Kulub-Hocaba Complex ceramics in refuse deposits outside terraces are characteristically small, especially if compared to the overwhelming percentages of the previous Sotuta Complex in this kind of contexts. The refuse deposit excavated at the Northeast Colonnade yielded only 92 Hocaba sherds, 0.4% of that collection (see Chart 52; Lots: B-61, B-62, B-70, B-78, B-192). Also a very small percentage of Hocaba was found at the Refuse Deposit in the back of the Gallery of the Monkeys (469 sherds totaling 0.2% of the collection; see Chart 53; Lots: H287, H287a, H310, H311, H312, H313, H314, H316, H317, H319, H320, H322, H323, H324, H325).

If compared with the two previous deposits, the percentage of Hocaba ceramics is slightly bigger in the refuse deposit at the south side of the Initial Series group, reaching a 1.5% with 58 sherds (see Chart 54; Lots: H288, H289).

Deposits of Refuse in Chultuns

Also very low percentages of Kulub-Hocaba Complex ceramics are found in refuse deposits inside Chultuno'ob. Hocaba Complex is represented only by 50 sherds, a 0.1% of the fragments in the deposit found inside the Chultun of the Three Lintels (see Chart 58). Despite the small quantity of sherds, this presence is remarkable because it shows the extension of this complex as far as this southern group, evidencing that occupation of Chichen Itza was widespread during the Middle Postclassic.

In the Chultun of the Owls the quantity of Middle Postclassic ceramics is slightly bigger than in the Chultun of the Three Lintels (231 sherds representing 3.5% of the collection; (see Chart 59; Lots: G-51, G-52, G-53). It is also a bigger percentage than that of the close-by situated refuse deposit at the back of the Gallery of the Monkeys.

Sacbes and Altars

At the beginning of Sacbe 1 Kulub-Hocaba materials are scarce. In Trench 7, conducted at the east side of the Sacbe 1, of a collection of more than 11000 sherds, 86 fragments (0.7%) pertain to the Hocaba complex (see Chart 89). A very similar percentage of Hocaba appears on the west side of the Sacbe, with 89 sherds (0.6%; see Chart 90; Lots: F1, F2, F3, F4, F5, F6, F7, F8, F9). At the altar of Sacbe 19 we found a similar panorama as that of Sacbe 1 shown above. Here the percentage of Hocaba is 1% of the collection with 10 sherds (see Chart 91). On Altar 3E22 we find a very similar percentage of Hocaba

Complex ceramics, in this case a 1.42% (16 fragments; see Chart 92; Lots: B3, B4, B5, B8, B9, B10, B11). And again, in the little altar in front of structure 5C4 (Initial Series Building) only 2 Hocaba sherds represent 0.48% of the materials recovered (see Chart 93).

CONTEXT H25: The Sacred Well

A total of 6,050 sherds of the Sacred Well collection of the 1960s were classified as pertaining to the Kulub-Hocaba Complex (Pérez de Heredia 1998). They represent a 8.4% of the total (see Chart 137). This represents a big percentage of Hocaba if compared with that found in other ritual contexts at Chichen Itza, such as altars.

At the Sacred Well, the most important group of this complex is Mama Red, in the form of little and medium sized tripod bowls. Peto Cream ware was not present in the collections of Thompson analyzed by Vaillant (1927) and Brainerd (1958), and it was then thought that it was absent from the Sacred Well (Ball 1992, Coggins 1992). Nevertheless, 1,867 sherds of Peto Cream ware are present in my analysis, representing a 30.8% of all Hocaba Complex ceramics in this collection. The main form of Peto Cream in the Sacred Well is constituted by jars (Figures 278, 279).



Figure 278: Xcanchakan Black on Cream Type jars from the Sacred Well



Figure 279: Xcanchakan Black on Cream Type jars from the Sacred Well

CONTEXT H26: The Cave of Balancanche

Hocaba ceramics were found by W. Andrews IV (1970) in the Cave of Balancanche. This collection has been used by some scholars to argue for an early date for Peto Cream ware, by assigning to it a contemporary date with the C14 date for the Sotuta censers (i.e. Ringle and Bey 1998; Robles 1987; see Context S40). A close look at these ceramics is therefore necessary.

In a section named “Slipped, coarse-paste vessels of possibly later date”, Andrews IV placed the group of vessels which could pertain to the Hocaba complex:

“a number of the smaller vessels, including two effigy forms, show traits which may indicate the placing of offerings at or near the adoratorios in later than Modified Florescent times ... Beside, but not among, the offerings at Group II, was the broken half of a bolster –rim basin. In paste and temper it was identical with the large censers. In form it was identical to the Modified Florescent basins, highly incurving at the rim, with flattened and deeply grooved bolster. It was covered with an opaque chalky-white slip and painted with vertical of “trickle”. Before slipping and firing, the potter added an appliqué ornament, of which only a corner remains. It was probably the Tlaloc-effigy face added to so many types of vessels at Balancanche. Found elsewhere and without the appliqué design, this would have been classified without hesitation as “Black on Cream Ware” (Andrews IV 1970: 60; emphasis is mine; see Figure 280).



Figure 280: Xcanchakan Black on Cream modeled basin, found in Group II (from Andrews IV 1970, fig. 18c)

Another diagnostic Xcanchakan Black on Cream Type vessel, in this case a bowl, and a possible Peto Cream bowl were also found at the cave (Figures 281, 282). The Xcanchakan bowl was submerged in waterway between Groups III and IV, while the Peto

Cream bowl was found in Chamber IV, again not necessarily associated with offerings (Andrews IV 1970: 44, fig 37a, e).



Figure 281: Peto Cream bowl in waterway between Groups III and IV (from Andrews IV 1970, fig. 37a)



Figure 282: Possible Peto Cream bowl found in Chamber IV (from Andrews IV 1970, fig. 37e)

Accordingly, the placing of these Peto Cream vessels should not be associated with the Sotuta complex ceremonial activities evidenced by the groups of censers, or with any other Sotuta materials.

A second bolster rim basin with appliqué Tlaloc (Figure 283), possibly from the Hocaba complex is presented by Andrews IV.

“This time coarse paste and limestone temper are again those of the censers; the basin form is that of the Modified Florescent slatewares; but the slip is a light, highly fugitive pinkish red. One is tempted to make comparison with the coarse redware of the Decadent period. This specimen was found in more than a meter of water along the now flooded passageway between Groups III and IV” (1970: 60).



Figure 283: Possible Red Mama basin from Balankanche Cave (Andrews IV 1970, fig. 18d)

Another group of vessels which can be classified, with reserves, into the Hocaba complex was found in association with the Sotuta vessels. They are a group of 4 red bowls of different profiles (possibly, but not surely, of Red Mama Type; see Figure 284). Andrews IV stated that

“...other slipped bowls, all of the soft, coarse, censer paste, were associated with the offerings. Three were coated with a fugitive dull-red matte slip (fig 37b-d), two of which had subsequently been coated with a layer of postfire Mayapan blue pigment, presumably at the time of the offering” (Andrews IV 1970: 44, 61, fig 37b, c, d, f).

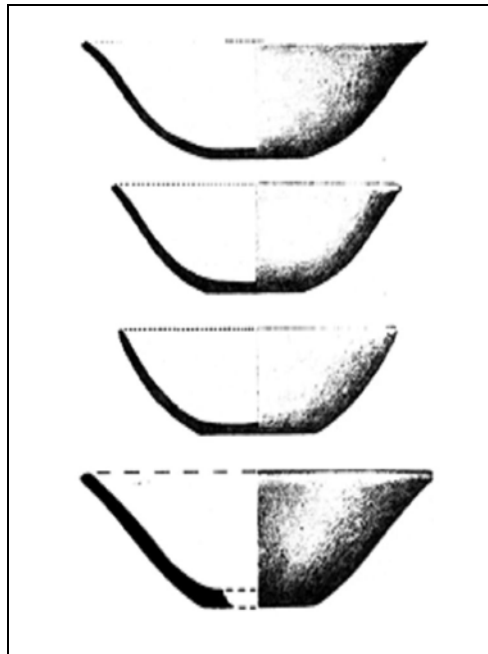


Figure 284: Possible Red Mama bowls. Balankanche Cave (after Andrews IV 1970: 60; fig. 37b-d,f)

In sum, there are three diagnostic Kulub-Hocaba vessels not associated with Sotuta ceramics and five possible (but not diagnostic) Hocaba vessels associated with Sotuta ceremonial foci. The simplest explanation is that the cave continued in use during the Middle Postclassic. No evidence of contemporaneity of production of Sotuta and Hocaba ceramics can be inferred. Balancanche, in my opinion does not carry much weight in the definition of Peto Cream Ware and the Hocaba Complex chronology.

Furthermore, as shown in the next section, Balancanche Cave was possibly still in use during the Late Postclassic period (see Context T14).

3.2.1.4 Other Groups of the Hocaba Complex at Chichen Itza

The Kulub-Hocaba Complex at Chichen Itza shows a similar ware repertoire as those present at the same period at Mayapan, with a few exceptions (i.e. we have not found yet Mayapan Black ware, nor clear Matillas Group).

According to Smith “at Mayapan, three principal local wares were identified: Mayapan Red (54.3%), Mayapan Unslipped (19.8%), and Peto Cream (10%), in order of quantitative precedence. Another local ware of minor importance is Mayapan Black (0.2%). The only trade ware significantly associated with this ceramic complex is Fine Orange of the Matillas Group (0.3%)” (Smith 1971: 202).

The unslipped ware presents during this complex several forms, as striated jars (see Figure 272), and ladle censers. Two items of a decorated type of the Navula Unslipped Group, the Kanasin Red on Unslipped Type, are shown in Figure 285.



Figure 285: Kansin Red on Unslipped Type (Initial Series Group)

The third predominant pottery of the Kulub-Hocaba Ceramic Complex at Chichen Itza is the Mama Red Group (see Figure 286), manifest in the form of big and medium jars (*f*), basins (*d*), medium, small and miniature bowls (*a*, *b*, *c*), and even drums (*e*).

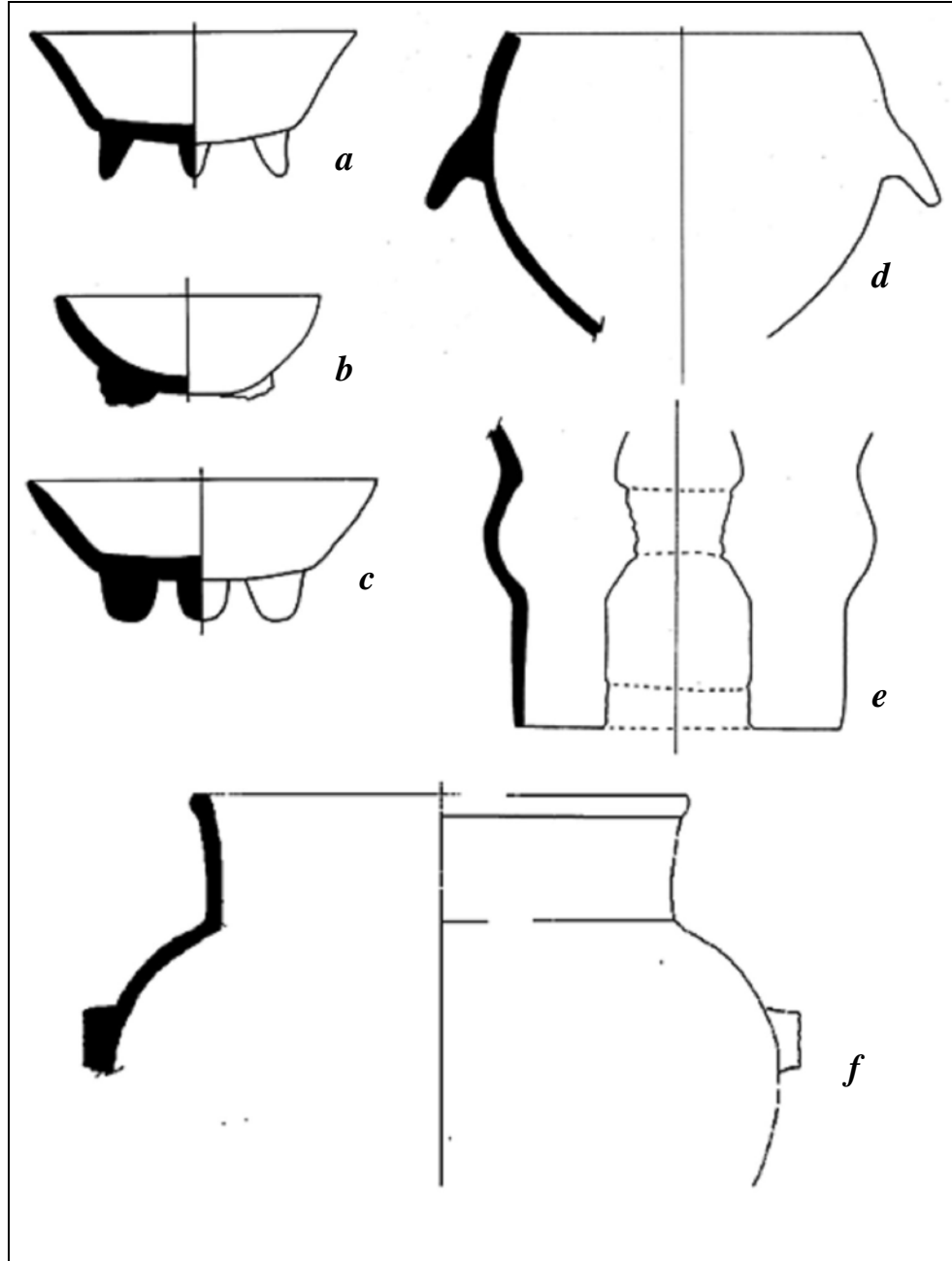


Figure 286: Mama Red Type forms from Chichen Itza
 Structure 2B2 (*a*); Northeast Colonnade (*c*) Initial Series; (*d*) Temple of the Big Tables; (*e*)
 Chultun of the Owls; (*b*, *f*) Osario Pyramid.

3.2.1.5 Summary of the Hocaba Complex at Chichen Itza

Some statements can be made about the phenomenology of the Kulub-Hocaba Ceramic Complex at Chichen Itza. Here, Kulub-Hocaba complex ceramics derives mainly from surface contexts. They are absent from sealed Sotuta construction fill contexts. There are a few cases in which Hocaba sherds have possibly filtered prior or during excavations, but they are exceptional, and do not represent a pattern. At Chichen Itza there is not stratigraphic evidence to propose contemporaneity between the production of Hocaba and Sotuta ceramics, and therefore the beginning of Kulub-Hocaba ceramics production should be placed at the end of Sotuta ceramics production, around A.D. 1150-1200.

Hocaba ceramics appear to concentrate in the core of the city, where some minor constructions may date also to this period. Evidence suggests that during the Middle Postclassic period Chichen Itza was still a functional city, maybe the largest and most important in the northern plains. It is clear that no major construction activity was attempted in this period, but construction may not have been a primary necessity, since most buildings of the city were still available and in a good state of preservation. As we have seen, a significant habitation during the Kulub-Hocaba complex has been detected also in several different groups at Chichen Itza, as in the Group of the Initial Series, and Hocaba ceramics are documented as far as the Three Lintels Group.

The first appearance of Kulub-Hocaba ceramics in the archaeological complex cannot yet be dated with certainty, and the construction of Structure 3C2 seems to be the earliest datable example (see Context H2).

It is also difficult to fix the end of production of Kulub-Hocaba ceramics. According to the modest quantities present at Chichen Itza, a maximum period of 100 years of production seems prudent, and therefore, an end of production by A.D. 1250/1300.

The last appearance of Kulub-Hocaba ceramics can be dated by some vessels still in use when the final abandonment of some buildings occurred at the late/end facet of the Tases period (A.D. 1400-1500; see next section).

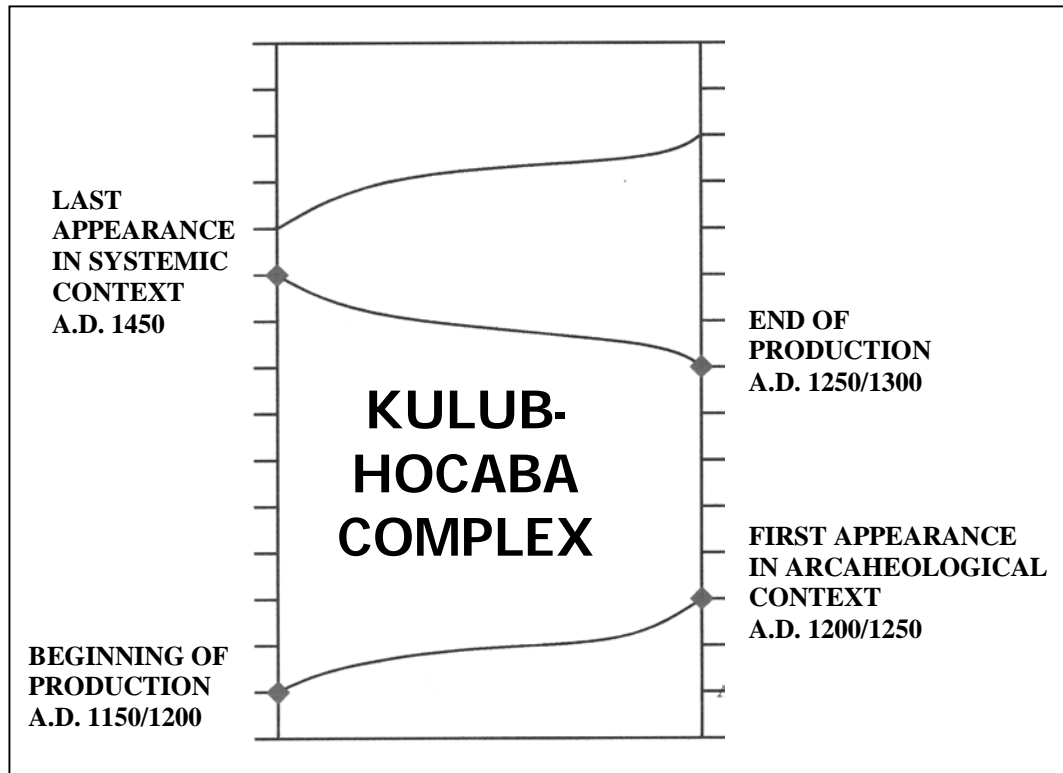


Figure 287: Dates of the Kulub-Hocaba Ceramic Complex

TYPES OF THE KULUB-HOCABA CERAMIC COMPLEX **AT CHICHEN ITZA**

NAVULA UNSLIPPED GROUP

Navula Unslipped Type: Navula Variety
Yacman Striated Type: Yacman Variety
Cehac Hunacti Composite Type: Cehac Hunactí Variety
Kanasín Red on unslipped Type: Kanasín Variety

MAMA RED GROUP

Mama Red Type: Mama Variety
Papacal Incised Type: Papacal Variety
Papacal Incised Type: Cream-slip Variety
Chapab Modeled Type: Chapab Variety

KUKULA CREAM GROUP (PETO CREAM WARE)

Kukula Cream Type: Kukula Variety
Xcanchakan Black on Cream Type: Xcanchakan Variety
Xcanchakan Black on Cream Type Type: Sharp Incised Variety
Pencuyut Incised Type: Pencuyut Variety
Another Type of the Kukula Group: Gouged Incised
Another Type of the Kukula Group: Red on Cream
Another Type of the Kukula Group: Black and Red on Cream

3.2.2 THE LATE POST-CLASSIC PERIOD THE CHENKU-TASES CERAMIC COMPLEX

- 3.2.2.1 *Defining the Panaba Ceramic Group in Northern Yucatan*
- 3.2.2.2 *The Panaba Ceramic Group at Chichen Itza*
- 3.2.2.3 *Contexts of the Chenku-Tases Complex at Chichen Itza*
- 3.2.2.4 *Other Groups of the Chenku-Tases Complex at Chichen Itza*
- 3.2.2.5 *Summary of the Chenku-Tases Complex at Chichen Itza*

THE LATE POST CLASSIC PERIOD

THE CHENKU-TASES CERAMIC COMPLEX

1250/1300 – 1500/1550 AD

Brainerd's thoughts on the Southeast Colonnade (3D10) provides insight into the general view of Chichen Itza at the end of the pre-Hispanic period.

“The occupation declined during the Late Mexican substage. During the latter part of this lengthy time (the whole Mayapan occupation span), characterized here by very light ceramic deposition, there was probably no erection of new stone architecture. This area of Chichen Itza had descended from a cultural centre to a sort of campsite” (Brainerd 1958: 38).

Nevertheless, excavations by the Chichen Project prove that architectural activity, to some extent, still occurred at the city during this period. This activity took the form of some platform extensions, shrines and benches. Some of the remodelling and subdivision of existing buildings may be tentatively assigned also to this period.

Though the axis of political power moved to Mayapan and the coastal sites, the importance of Chichen Itza as a pilgrimage center cannot be denied, and some sort of political control and social organization must have persisted at the site albeit diminished in comparison to the apogee of the early Postclassic.

Ceremonial activity at the Sacred Well, and in the more prominent temples and pyramids of the city's central section was intense during this period [as evidenced by the quantity of Chenku-Tases complex ceramics found throughout the site] Most ceramics of the Chenku-Tases Complex are clearly ceremonial (modeled urns and censers, ladle censers, little and miniature offering bowls) and associated with the burning of copal, rubber, bones, etc.

3.2.2.1 Defining the Panaba Unslipped Ceramic Group in Northern Yucatan

Since the tradition of Slatewares ends with the Peto Cream “imitation slate” during the Kulub-Hocaba Complex, it is difficult to select a diagnostic local ware with the same chronological value. The most predominant ware during Chenku-Tases complex is Mayapan Unslipped (Panaba Unslipped Group) but it has some handicaps for dating purposes: first, as an unslipped ware it erodes more easily than slipped wares; second, it is mostly ritual (with a high proportion of Chen Mul Type Modeled censers); and, finally, non-diagnostic parts of vessels (such as body-sherds) are more difficult to differentiate from the precedent Navula Unslipped Group.

On the other hand, production of the same Mama Red ware that started during Hocaba Complex continues during the Chenku-Tases Complex, and it is very difficult to differentiate between them. Therefore, and despite the handicaps mentioned above, I will rely on the Panaba Unslipped Group due to its high frequency and diagnostic anthropomorphic censer forms (see Figures 288-290).

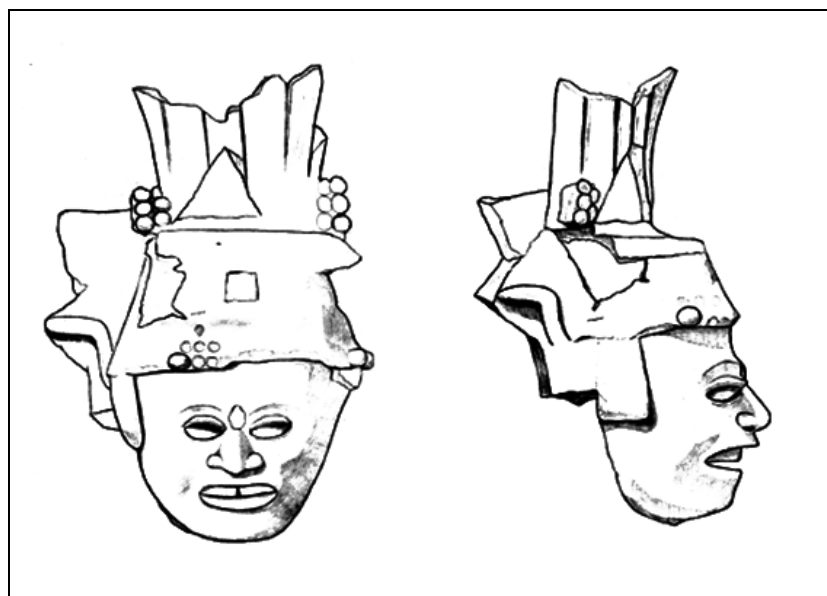


Figure 288: Fragment of a Chen Mul Type censer from the Osario Pyramid, Chichen Itza

According to Smith,

“this is a ware which has its beginning in the Hocaba Ceramic Complex and develops new types, varieties, and forms in the Tases Ceramic Complex. The group associated with the Hocaba Ceramic Complex is the unslipped Navula Group, and the group connected with the Tases Ceramic Complex is the unslipped Panaba Group. Ware attributes are consistently the same for both groups. Paste composition. Coarse texture and apparently heavily tempered with calcite, either cryptocrystalline, chalky white limestone, or a gray limestone. The paste colors are much the same as those of the surface. Frequently the predominant light gray (10YR6/1, 7/1, 8/1) will have a cinnamon core, and many are cinnamon (5YR6/6) clear through. Surface finish. Normally fairly evenly smoothed, sometimes imperfectly smoothed, never polished. The surface texture ranged from smoothed through fine sandpaper finish to the coarseness of a wood rasp. Many vessels, especially jars, were lightly striated over part of exterior. Colors are light gray (10YR6/1, 7/1, 8/1) which is most abundant, then dark gray (10YR5/1), cinnamon (5YR6/6), beige (10YR7/3, 7/4), cream (10YR8/3, 9/2) and pink (2.5Y8/2)” (Smith 1971: 23).



Figure 289: Chen Mul Type Censers from Chichen Itza
(e from the Temple of the Big Tables; rest from the Osario Pyramid)

The above description provided by Smith covers accurately the Panaba Unslipped Group characteristics at Chichen.



Figure 290: Chen Mul Modelled type censer from the Osario Pyramid

The problem remains that at Chichen Itza the complete Chenku-Tases complex ceramic inventory is still poorly defined.

3.2.2.2 Contexts of the Chenku-Tases Complex at Chichen Itza

CONTEXT T1: Construction of the Shrine of the Initial Series Lintel (5C4-IV)

Structure 5C4's architectural stage III corresponds to an extension of the Initial Series Building's platform in size and height, and the addition of a new stairway. There is no solid evidence that indicates whether a new temple was constructed on top or if it was razed totally (Osorio 2004). No ceramics of that phase were recovered during excavations by Osorio.

In the last phase of this building's construction (Stage IV), Structure 5C4-II interior rooms were filled with a compact mixture of sand and ordered rows of stones, in order to give support to the construction of the shrine bearing the reused lintel of the Initial Series (5C4-IV; Osorio 2004). Since this fill was very compact, filtration cannot be used to explain its contents, which surprisingly contain an important percentage of Late Postclassic ceramics. 184 sherds were classified as of the Chenku-Tases ceramic Complex, representing 12.3% of the collection found in this fill (Chart 119). The materials were recovered in a series of consecutive layers, demonstrating that Chenku-Tases ceramics occur in all of them, and therefore that the fill of this room can be safely considered a Late Postclassic construction. The date proposed is the early facet of the Tases Complex, ca. AD. 1300-1350.

Chart 119: Materials from the fill of the interior of Room 2, Initial Series Building

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	4	0.24%
COCHUAH	3	0.18%
MOTUL	197	13.19%
CEHPECH	1	0.06%
SOTUTA	1007	67.44%
HOCABA	82	5.49%
TASES	184	12.32%
NOT ASSIGNED	15	1.00%
TOTAL	1493	

Lots: X454-I to X454-V

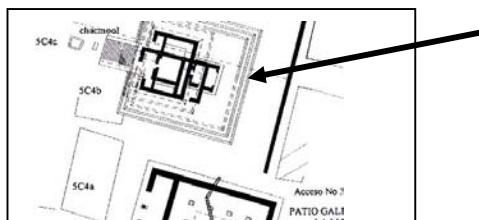


Figure 291: The Initial Series Building



Figure 292: The Initial Series Building. Edward Thompson's reconstruction of shrine (in Willard 1930)

The lintel with the Initial Series Inscription, which gives both the building and the group its name, was possibly removed from a nearby construction -most likely the Phalli building -, and placed atop the atlantean columns.

This could mean that the builders claimed some sort of continuity with the previous periods, and this could have some significance for the politics of the time. Alternatively, it may have been merely a random use of a power symbol from a forgotten time. Thompson found it fallen inside the shrine's debris.



Figure 293: The Initial Series Building after Paul Martin's excavation (in Marquina 1950, Fot. 465)

**CONTEXT T2: The construction of the Bench in Room 21, Phalli Complex,
Initial Series Group**

Several of the excavated benches inside the rooms of the Phalli Complex were constructed during the ‘decadent’ periods of the city. The construction fill of the Room 21 bench (Figure 294), in the Phalli Complex, would be dated to the Hocaba Complex except for the presence of one sherd pertaining to the Tases phases. 538 sherds have Hocaba Complex associations (41.8% of this collection; Chart 120). The Tases sherd, found in layer III of the excavation inside the bench, can hardly be considered as a product of contamination. It pertains to the San Joaquin Buff type, possibly imported to the site. So, either San Joaquin Buff dates from the end of the Kulub-Hocaba complex at the site, or the bench must be dated to the very beginning of the Chenku-Tases Complex.

Chart 120: Materials from inside the Bench of Room 21. Phalli Complex

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	37	2.87%
SOTUTA	699	54.39%
HOCABA	538	41.86%
TASES	1	0.07%
NOT ASSIGNED	10	0.77%
TOTAL	1285	

Lots: X54A, X54B, X54C, X55A, X55B, X55C



Figure 294: Bench in Room 21, Phalli Complex, after excavating its fill

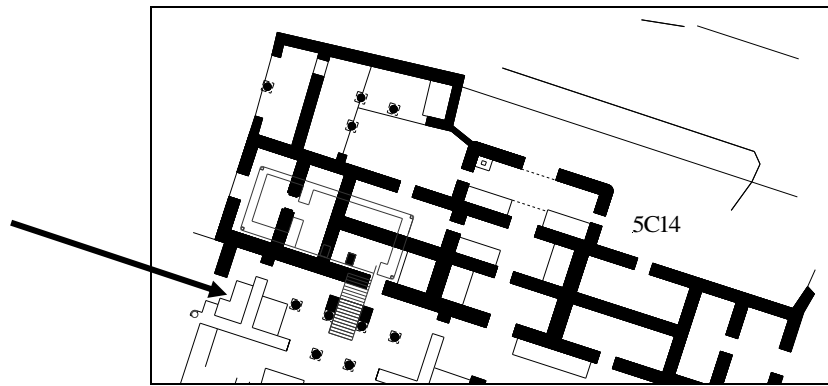


Figure 295: Bench in Room 21, Phalli Complex

A limestone sculpture fragment (torso and head) of a seated ruler, which belonged originally to the south frieze of the House of the Dancing Jaguars (on the second story of the Phalli building; Figure 296), was found inside the bench as construction fill. This could suggest that the House of Dancing Jaguars was partially collapsed by the time the bench was constructed.

The bench was constructed after intense Hocaba habitation of the structure as evidenced by the materials on the floor under the bench and the existence of a fire pit in the corner of the room, which was covered by the bench. All these facts point to a later placement of the bench, and a placement in the early facet of the Chenku-Tases Complex seems very plausible.



Figure 296: House of the Dancing Jaguars and location of sculpture

CONTEXT T3: Construction of Sweat-bath at the Edge of the sacred Well

According to a photograph of the excavations of Román Piña Chan in the 1960s, and published by Ediger (1971), the construction fill of the Sweat-bath at the edge of the Sacred Well contains Chen Mul type censer fragments (Figure 297). There are no tabulations of the frequency of Tases ceramics in that fill that lead to a precise dating, but its presence (if Ediger's account is correct) would assign the construction of this building to the Late Postclassic period.



Figure 297: Chen Mul Type fragment reported as from the construction fill of the Sweat-bath (in Ediger 1971)



Figure 298: Excavations of the interior fill of the Sweat-bath (in Ediger 1971)

CONTEXT T4: The extensions of the Terrace of Structure 3E19

Different extensions of the terrace that support structure 3E19 were constructed during the Chenku-Tases Complex according to the materials found in the construction fill (Pérez Ruiz 2005). The results from the ceramic analysis of Structure 3E19's terrace extension to the south, constructed during the seventh phase of construction as defined at this group by F. Pérez Ruiz (2005) are shown in Charts 121 to 124. Materials from the fill of this extension were recovered in different parts of the terrace, and collections are organized accordingly.



Figure 299: The Terrace of Structure 3E19

Chart 121 shows 1.8% of Chenku-Tases sherds, in the fill of the extension to the south of the Terrace of Structure 3E19.

Chart 121: Materials from the fill of extension to the south of the Terrace of Structure 3E19

(Phase VII)

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	288	9.21%
CEHPECH	30	0.96%
SOTUTA	2435	77.92%
HOCABA	48	1.53%
TASES	59	1.88%
NOT ASSIGNED	265	8.48%
TOTAL	3125	

Lots: Z-102 to Z-105, Z-10, Z-117 to Z120, Z-11, Z-122, Z-12

Another collection from the fill of the same extension, located between the south side of Sacbe 32 and the lateral basement north of Structure 3E19 is shown in Chart 122. It contains 83 sherds of the Chenku-Tases Complex, which represent 6.44% of this collection.

Chart 122: Materials from the fill of extension of the Terrace of Structure 3E19 (Phase VII) Between South side of Sacbe 32 and the Terrace of Structure 3E19

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	19	1.47%
CEHPECH	2	0.15%
SOTUTA	1015	78.86%
HOCABA	23	1.78%
TASES	83	6.44%
NOT ASSIGNED	145	11.26%
TOTAL	1287	

Lots: Z-95 to Z-97, Z111, Z-112

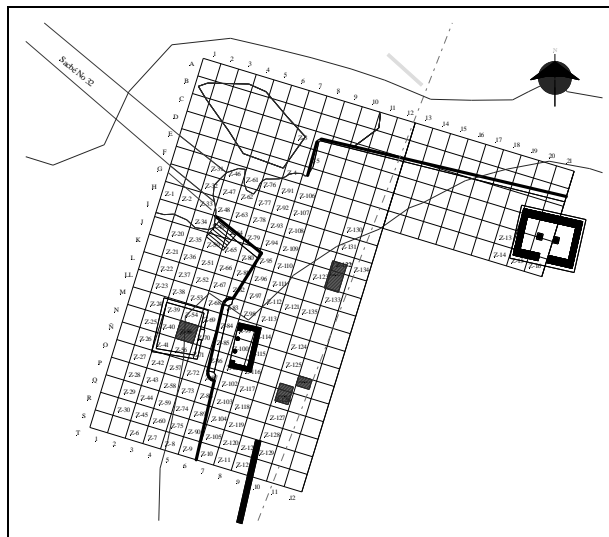


Figure 300: Excavations in the area around Structure 3E19 (F. Pérez 2005)

The third collection comes from the fill of the northern terrace extension. This fill blocked the entrance to a small cave located to the north of Sacbe 32. It shows 3.4% of Chenku-Tases sherds inside the construction fill (Chart 123).

Chart 123: Materials from the fill of extension of the Terrace of Structure 3E19 (Phase VII) to the North side of Sacbe 32

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	37	4.08%
CEHPECH	15	1.65%
SOTUTA	587	64.86%
HOCABA	12	1.32%
TASES	31	3.42%
NOT ASSIGNED	223	24.64%
TOTAL	905	

Lots: Z-76, Z-77, Z-91, Z-92, Z-106, Z-107

All the Tases materials found in the fill of the terrace extensions amount to 173 sherds and represent 3.25% of those collections as shown in Chart 124. This supports a general date for the construction of this extension to the Early Facet of the Chenku-Tases Complex ca. A.D. 1250-1350.

Chart 124: All the Materials from the fill of extension of the Terrace of Structure 3E19 (Phase VII)

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	344	6.46%
CEHPECH	47	0.88%
SOTUTA	4037	75.92%
HOCABA	83	1.56%
TASES	173	3.25%
NOT ASSIGNED	633	11.90%
TOTAL	5317	

Lots: Z-76, Z-77, Z-91, Z-92, Z-106, Z-107, Z-95 to Z-97, Z111, Z-112, : Z-102 to Z-105, Z-10, Z-117 to Z120, Z-11, Z-122 and Z-12

The construction of this Terrace, the Sweat Bath, and of the Initial Series Shrine during the Tases Complex, contradicts Brainerd's view of Chichen Itza as a mere "campsite" during the Late Postclassic Period.

CONTEXT T5: Last Renovation of Floor at the Caracol Tower (Structure 3C15)

Excavations by Ruppert (1935) at the Caracol located several vessels under the last floor inside the Tower (Figure 302).

“Under the floor of the outer chamber of the Caracol Tower, an unslipped turtle effigy of Coarse Grayware decorated in unfired bluish-green, yellow and black paint; an unslipped miniature Coarse Grayware conical jar painted red on white and black; a Coarse Redware jar; two small unslipped jars and an unslipped figurine of a jaguar painted white ... The Coarse Redware jar found under the floor inside the west doorway of the Caracol superstructure is of Late Mexican period, as are probably the turtle and the miniature jars ... since they are described from under floors, the supposition is that they date from either the period of construction or at least a period during which floors were still being replaced; a period of occupation rather than one of visitation by transients. A number of other whole or restorable vessels have been found at the Caracol, the majority of them dating from the Late Mexican period and being chiefly small Coarse Redware bowls such as were found containing copal in the Sacred Cenote” (Brainerd 1958: 37; figs 93, 94).



**Figure 301: Vessels reported as coming from under the floors of the Caracol Tower
(after Brainerd 1958, figs. 93-94)**

Nevertheless, the floor as shown in Ruppert's photograph (reproduced in Figure 302), seems too thin to cover completely the full body of the jar. This casts some doubt about the exact location of the vessels, at least of the jar, which may have been found above the latest floor.

In any case, these vessels would only represent floor renovations during the Chenku-Tases complex, but not any major construction activity.



**Figure 302: Floors inside the Tower of the Observatory (in Ruppert 1935, fig. 282)
Arrow points to the latest floor.**

Clearing of Temple-like constructions

The Chenku-Tases Ceramic Complex is the last prehispanic occupation period at Chichen Itza, and therefore all the open contexts of the site could have been altered by this occupation. Because of this fact, they also represent the only ceramics whose location can be used to construct direct-reliable inferences about functional areas. Chenku-Tases Complex ceramics, especially of the Chen Mul Modelled Type, abound in Pyramids and Temple-like structures at Chichen Itza, evidencing a continuous and intense ritual activity at the site during the end of the pre-Hispanic era. This is clear at the most important pyramid of the site, known as the Pyramid of Kukulcan or El Castillo.

CONTEXT T6: Clearing of El Castillo Pyramid

As stated earlier, in 1980 Peter Schmidt recovered materials during the clearing of the East and South façades of the Castillo. Below, the analysis of the sherds recovered during this clearing is presented. Chenku-Tases Complex reaches 23.4% in the East façade, and 45.2% in the South façade (see Chart 125).

Chart 125: Materials from Clearing of the Castillo Pyramid

AREA	NUMBER OF TASES COMPLEX SHERDS	PERCENTAGE BY FACADE
East Side	30	23.43%
South Side	173	45.28%
TOTAL	203	

Lots: CHI-1980-2, CHI-1980-3, CHI-1980-4, CHI-1980-5, CHI-1980-6, CHI-1980-7, CHI-1980-8

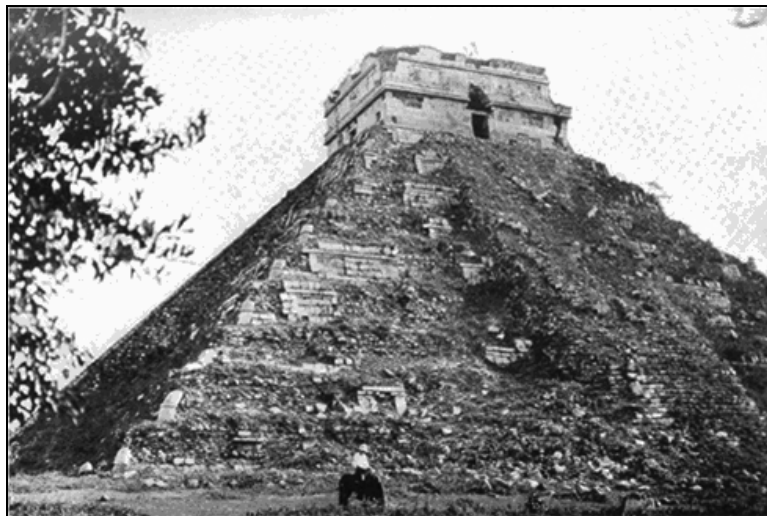


Figure 303: El Castillo Pyramid before clearing

CONTEXT T7: Clearing of the Osario Pyramid (Structure 3C1)

Another important collection of Late Postclassic ceramics was collected during the clearing of the Osario pyramid by P. Schmidt in the 1990s. All the materials recovered from the excavations at the Osario pyramid have been analyzed.

Chart 126 shows the results of the sherd classification from the clearing collections. The percentages of Chenku-Tases Complex ceramics (again principally Chen Mul Type figurine censers, but also Mama Red Group miniature bowls) vary from 62.6% on the main East façade, to 13.1% on the North, to 27.1% on the West, and to 27.9% on the South. The biggest concentration of Chenku-Tases ceramics was found in the rooms of the Upper Temple, where Chenku-Tases represents 81.6%. Taken together, those collections are formed by 7,607 fragments, a 62.6% of all the ceramics recovered during the clearing of the pyramid.

Chart 126: Materials from the clearing of the Osario Pyramid

AREA	NUMBER OF TASES COMPLEX SHERDS	PERCENTAGE BY AREA
North Façade	116	13.13%
East Façade	3714	62.64%
West Façade	651	27.17%
South Façade	467	27.99%
Upper Temple	2659	81.68%
TOTAL	7607	

Lots: H-91; H-92; H-93; H-99; H-114; H-117, H-38; H-51; H-52; H-53; H-54; H-55; H-56; H-57; H-58; H-59; H-97; H-98; H-100; H-111; H-113; H-118, H-94; H-95; H-96; H-112; H-119; H-127, H-36; H-37; H-44; H-46; H-115

Many of the sherds could be fitted together, and several restorable Chen Mul type censers, Panaba Group censers and Mama red type bowls have been restored through patient work (see Figure 289).

CONTEXT T8: The Shaft and the Cave under the Osario Pyramid

Edward Thompson discovered the shaft opening in the upper temple of the Osario, and explored its contents - which resulted in a succession of 7 graves - finding and exploring the cave underneath. Eric Thompson later published the data available from this exploration (Thompson and Thompson 1938; see Figures 304 and 305). All graves in the shaft contained mostly Mama Red type tripod bowls (Figure 305*d*) and Chen Mul Modelled type censers (Figure 304 and 305*b, c*), all from the Tases Complex. Grave 7 possibly contained a Silho Fine Orange group vase from the Sotuta Complex (Figure 305*e*).



Figure 304

Tripod bowls (possibly Motul Complex) in Figure 305*f* are possibly of other location at Chichen Itza than the Osario Pyramid Cave.

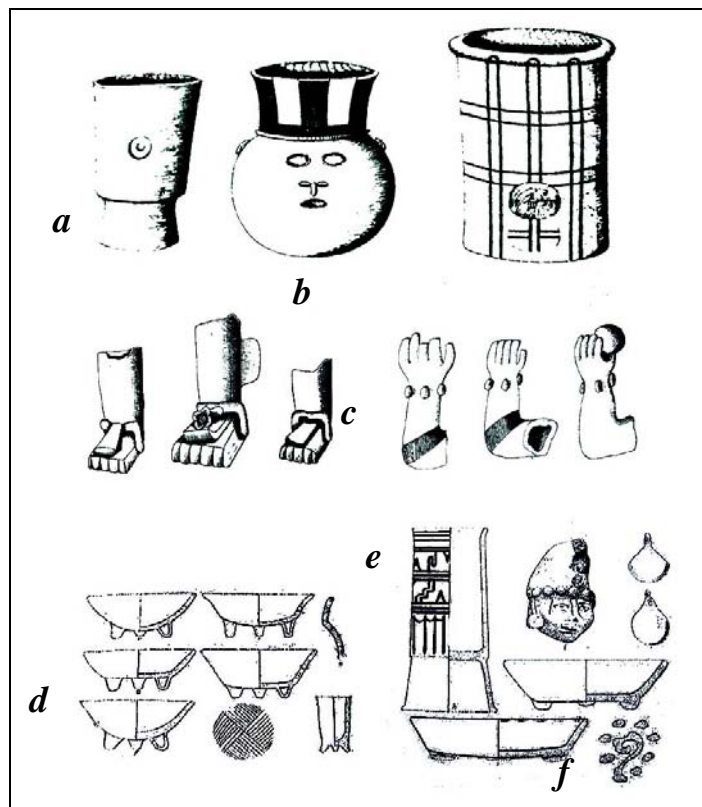


Figure 305: Vessels from Thompson's explorations (after Thompson and Thompson 1938)

The re-excavation of the Shaft and the Cave in the Osario Pyramid by P. Schmidt in 1994 recovered ceramic materials in several areas left behind by Edward Thompson's unfortunate exploration.

The central shaft collection shows 6 sherds of the Chenku-Tases Complex (15%; Chart 127), probably fallen in from the top after Thompson's work.

Chart 127: Materials from the clearing of the Central Shaft to the Cave of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
MOTUL	1	2.50
CEHPECH	3	7.50
SOTUTA	21	52.50
HOCABA	9	22.50
TASES	6	15.00
TOTAL	40	

Lot: H-116

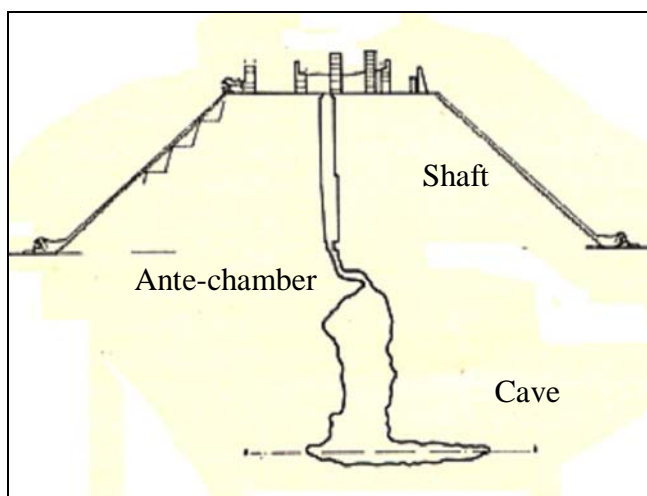


Figure 304: The Cave and the Shaft of the Osario Pyramid (after Marquina 1950, Lám. 275)

In the offering space inside a lateral niche of the shaft, Chenku-Tases material was abundant (48 sherds totaling 81.3% of that collection; Chart 129), possibly left behind or unexcavated by Edward Thompson.

Chart 129: Materials from the Niche of the Shaft to the Cave of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
HOCABA	11	18.64%
TASES	48	81.35%
TOTAL	59	

Lot: H-156

In the ante-chamber of the cave, 10 sherds pertain to the Tases Complex (1.6%).

Chart 128: Materials from the clearing of the ante-chamber of the Cave of the Osario Pyramid

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	2	0.32%
MOTUL	41	6.60%
CEHPECH	48	7.72%
SOTUTA	444	71.49%
HOCABA	39	6.28%
TASES	10	1.61%
NOT ASSIGNED	37	5.95%
TOTAL	621	

Lot: H-120

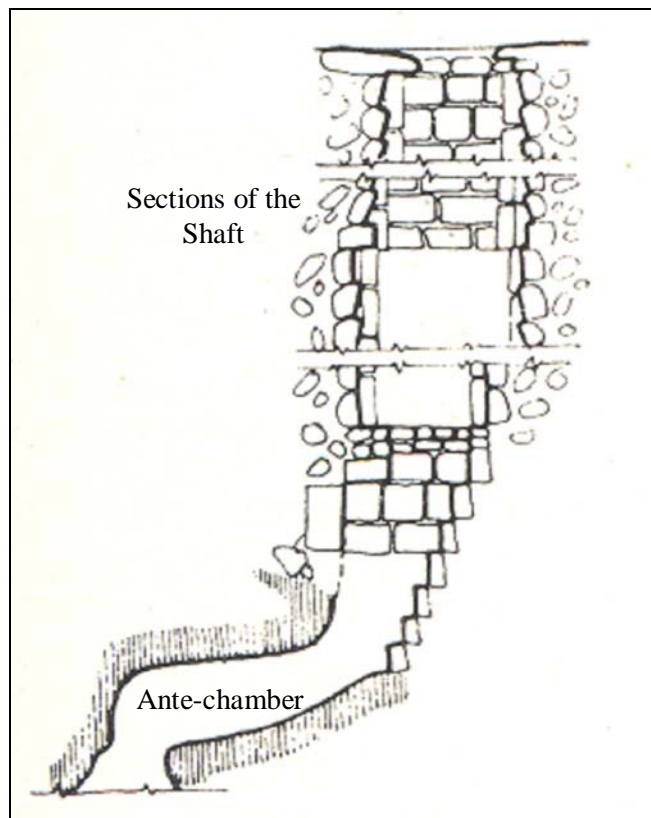


Figure 305: Reduced drawing of the Shaft and Ante-chamber of the Osario Pyramid (in Marquina 1950, Lám. 275)

The interior of the cave lacked Tases complex sherds completely, a phenomenon also mentioned by Eric Thompson (1938).

CONTEXT T9: Clearing of the Temple of the Big Tables (Str. 2D7)

Structure 2D6 is a pyramidal structure in the fashion of the adjacent Temple of the Warriors, but of smaller dimensions. It shows an important Chenku-Tases occupation, stronger on the main West façade where it reaches 60.5%, and less abundant in the opposite East façade, with 14.8% (Chart 130). Taken as a whole, all the Tases ceramics analyzed from the clearing of this construction consist of eight thousand fragments, representing 46% of all the clearing collection.

Chart 130: Materials from the clearing of the Temple of the Big Tables

AREA	NUMBER OF TASES COMPLEX SHERDS	PERCENTAGE BY FACADE
West Façade	7166	60.5%
East Façade	760	14.8%
TOTAL	7926	

Lots: D1, D2 D3, D4, D5, D6, D7, D9, D22

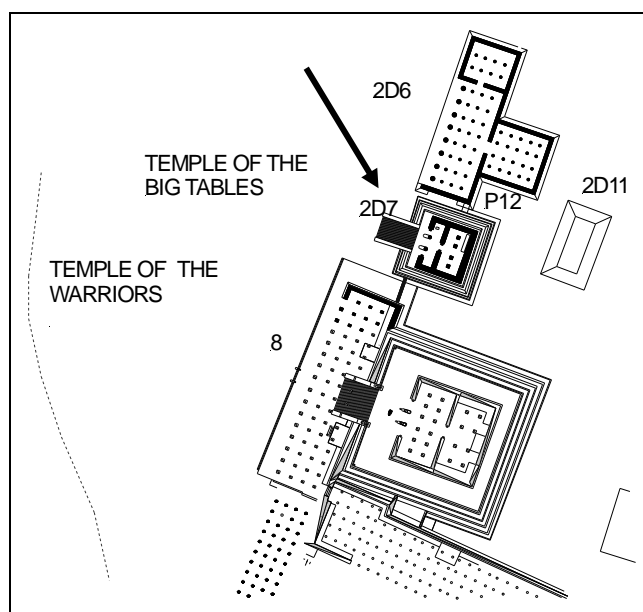


Figure 306: Temple of the Big Tables (Str. 2D7)

CONTEXT T10: The clearing of the Temple of the Initial Series (Str. 5C4)

Materials from the Temple of the Initial Series show a lesser percentage of Tases sherds than other temple-like structures presented earlier, 22.7% of the total clearing collection (Chart 131). It must be noted that Vaillant excavated this building concentrating on the upper part and main façade (see Figure 307), and so he possibly collected many of the Late Postclassic ceramics. In any case, the Tases collection of this building adds up to almost three thousand sherds, evidencing intense use of the building during the Late Postclassic period.

Chart 131: All the materials from the clearing of the Temple of the Initial Series.

COMPLEX	NUMBER OF TASES SHERDS	PERCENTAGE IN THE TOTAL COLLECTION
TASES	2977	22.77%

Lots: X400, X401, X402, X403, X404, X405, X406, X407, X408, X4032, X434, X435, X436, X437, X442



Figure 307: The Initial Series Building after Vaillant's excavations and before excavations by the Chichen Itza Project (1998)

CONTEXT T11: Clearing of the Phalli Complex (Initial Series Group)

Several almost complete ceramic pieces of the Chenku-Tases Complex were found at the Phalli architectural compound: one hollow bird figurine of the Chen Mul modeled type (Figure 308); two ladle censers of the Panaba Unslipped Group (Figure 309*a, b*), and a Modeled jar of the Chapab Modeled type of the Mama Group (Figure 309*c*). This last one pertains to the Hocaba complex and can be considered among the last appearances of Kulub-Hocaba Complex vessels during the Late Postclassic period. The jar was found laid on top of the debris of a partially collapsed room and it may be inferred that the building was partially in ruins.

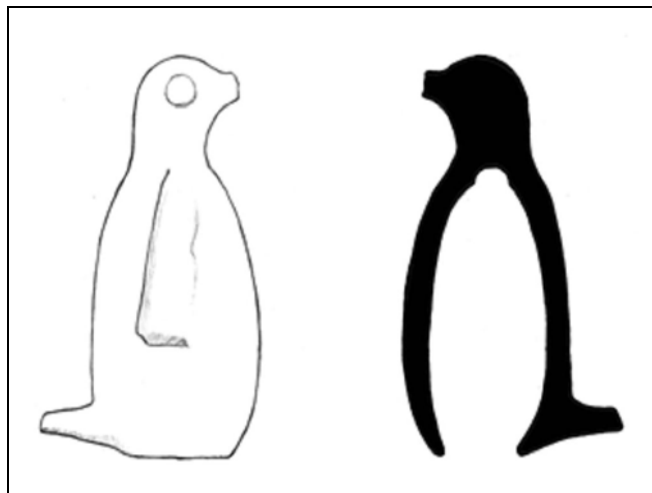


Figure 308: Chen Mul Modeled Type figurine found in the Phalli Complex

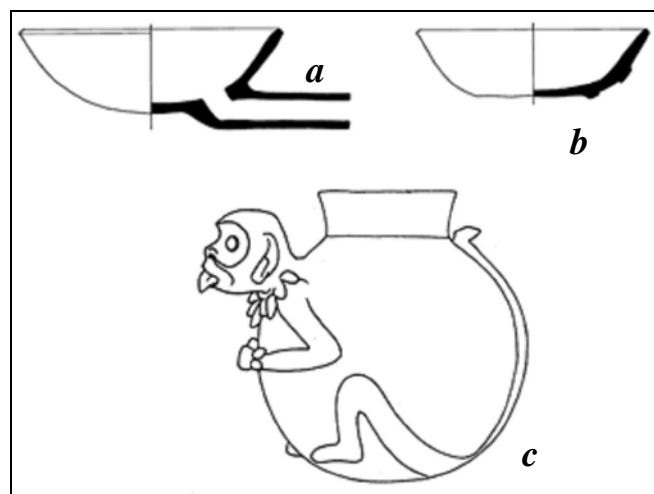


Figure 309: Two Panaba Unslipped Type censers and one Chapab Modeled type jar from the Phalli Complex

Colonnades and Buildings during the Chenku-Tases Complex

Chenku-Tases pottery collected during the clearing of Colonnades and Palace-like structures contrasts significantly from collections recovered during the clearing of pyramids. At Colonnades and palaces, Late Postclassic ceramics are scarcer, and some sectors of buildings and complexes show none at all. This phenomenon can be attributed to a different use of colonnades (more functional and less ritual) during this period, or to the fact that Chenku-Tases Complex users of the Colonnades were still using Hocaba and Sotuta residual vessels. Since we differentiate the Tases complex mainly in form of censers and little ceremonial bowls, an occupation of the colonnade using residual Hocaba vessels could not be easily detected in the archaeological record. It is also possible that most of the colonnades were collapsed or collapsing by the Chenku-Tases Ceramic Complex.

A small percentage of Tases ceramics (1.8%, 133 sherds) has been found at Structure 3D5, in the Northeast Colonnade (Chart 132). In the Initial Series Group, the Gallery of the Monkeys (Str. 5C6) presents a meager percentage of 0.5% of Chenku-Tases fragments. A similar percentage appears in the context of the clearing of the interior of the inner room of the Temple of the Owls or Structure 5C7 (0.8%; Chart 132).

Chart 132: Tases Complex percentages in Colonnades and Buildings

TASES COMPLEX	NUMBER OF TASES SHERDS	PERCENTAGE BY STRUCTURE
Structure 3D5	133	1.80%
Structure 5C6	20	0.53%
Structure 5C7	2	0.85%

CONTEXT T12: Clearing of Structure 3E19 and surroundings

Materials recovered on the surface of the floor of the interior of Structure 3E19 show an important percentage of Tases ceramics (36 sherds equivalent to 20.4% of the collection (Chart 133). Materials recovered on surface of the platform of Structure 3E19 contains a 27.3 per cent of Tases ceramics (427 fragments; Chart 133). Finally, materials from the clearing of the exterior of the terrace show a 16.3% of Chenku-Tases Complex sherds (596 fragments; Chart 133). Also materials from the interior of the cave located north of Sacbe 32 show a use during Tases complex (11.5%; Chart 133).

Chart 133: Clearing of Structure 3E19 and surroundings

AREA	NUMBER OF TASES COMPLEX SHERDS	PERCENTAGE BY AREA
Interior of Structure 3E19	36	20.45%
Surface of platform of Structure 3E19	427	27.33%
Exterior of platform in front of Structure 3E19	596	16.35%
Interior of the Cave near Structure 3E19	12	11.53%

Lots Z-99, Z-100, Z-101, Z-83 to Z-86, Z-98, Z-103, Z-113 to Z-116, Z-66, Z67, Z68, Z69, Z70, Z71, Z72, Z73, Z74, Z75, Z-8, Z-80, Z81, Z82, Z83, Z84, Z85, Z86, Z87, Z88, Z89, Z90 and Z-9, Z61

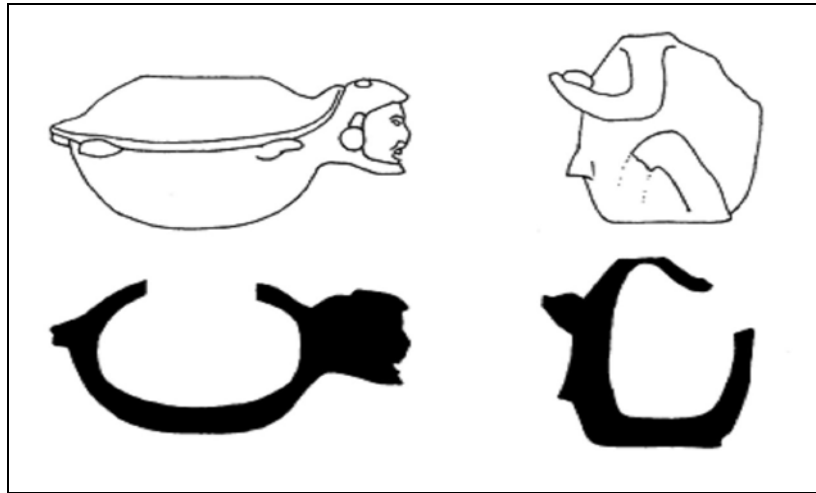


Figure 310: Structure 3E19



Figure 311: The terrace of Structure 3E19

Two little figurines, almost complete, of the Chen Mul Modeled type were found at the back of 3E19, lying directly on the floor (Figure 312).



**Figure 312: Chen Mul type figurines from Structure 3E19
Chenku-Tases Ceramic Complex**

Deposits of Refuse outside Terraces

Very slight evidence of Chenku-Tases ceramics has been detected in the large refuse deposits found outside platforms.

Only 19 fragments of the Chenku-Tases Complex (0.1%) were found in the refuse deposit outside the Northeast Colonnade's terrace edge. (Chart 134; see Context S17). An even smaller percentage of Tases sherds (0.01%) is present in the secondary refuse deposit at the back of the Gallery of the Monkeys (Chart 134; see Context S18). Also, the nearby refuse deposit from the Initial Series Terrace's south edge amounts to less than 1% of Tases ceramics (0.4% Chart 134; see Context S19).

Chart 134: Tases Ceramic Complex in Secondary refuse deposits

TASES COMPLEX	NUMBER OF SHERDS	PERCENTAGE BY COLLECTION
North-East Colonnade	19	0.10 %
Gallery of the Monkeys	19	0.01%
South edge I. Series Group	15	0.40%

Deposits of Refuse in Chultuns

The refuse deposits inside Chultuns likewise present a very low percentage of materials pertaining to the Chenku-Tases ceramic complex.

The collection from the Chultun of the Three Lintels shows only 0.02% of the total collection pertains to the Tases Complex. Only 2 sherds of the Tases complex were found in the Chultun of the Owls. Other chultuns lack Chenku-Tases sherds entirely.

Chart 135: Tases Ceramic Complex in Chultuns

TASES COMPLEX	NUMBER OF SHERDS OF TASES COMPLEX	PERCENTAGE BY COLLECTION
Chultun of the Three Lintels	7	0.02%
Chultun of the Owls	2	0.03%

Sacbes and Altars

Other kinds of deposits excavated at Chichen Itza like Altars and Sacbes, show similarly low percentages of Chenku-Tases Complex ceramic evidence. At the entrance of Sacbe 1 to the Sacred Well, on the east side only 0.6 per cent is Tases (as revealed by trench 7), and even smaller is the sample on the West side (0.1%; see Chart 136). Similarly, Altar 19 presents a very slight percentage of Chenku-Tases ceramics (0.1%; see Chart 136).

The altar from the Temple of the Initial Series (5C4) was covered by 203 Chenku-Tases sherds, representing a 49.5% of that collection, an unusually large percentage that could be explained by its location just in front of the stairway to the temple (see Chart 136).

Chart 136: Materials from Sacbeoob and altars

TASES COMPLEX	NUMBER OF SHERDS	PERCENTAGE BY AREA
Trench 7 of the Altar of Sacbe 1	72	0.60%
West side of Sacbe 1.	20	0.13%
Altar of Sacbe 19	1	0.10%
Altar in front of 5C4	203	49.51%

CONTEXT T13: Residual Kulub-Hocaba Vessels at the Caracol Tower

Several residual vessels of earlier complexes were found at the Caracol Tower, and it can be assumed that they were in use during the Chenku-Tases complex, since Tases ceramics were also found at this building. If we follow the division between Chenku-Tases and Kulub-Hocaba Redwares proposed by Smith (1971), at least two of the six bowls found under talus in the northeast corner of the lower platform pertain to the Mama Red type of the Hocaba complex (Figure 310),



Figure 310: Two Mama Red bowls found at the Caracol (after Ruppert 1935, fig. 48)

Another vessel can be included in this section. Following Brainerd,

“a puzzling find is that of an unbroken plumbate jar, (fig 91f) in the talus slope of the tower just under the five member cornice in the west side ... Either the jar was a heirloom of long standing at the time it was left in the talus, or it had been deposited in the upper part of the tower and slumped with the talus, remaining unbroken in the fall” (Brainerd 1958: 37; see Ruppert 1935, fig.128).

I think we can consider this vessel as the last appearance of the Sotuta Complex in systemic context.

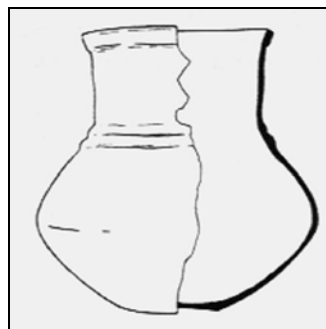


Figure 313: Plumbate vessel found just under the five-member cornice (after Brainerd 1958, fig. 91f)

CONTEXT T14: The Balancanche Cave

Some uncertainty remains as to whether a set of tripod and ringstand bowls (W. Andrews IV; fig 36) from the Balancanche Cave pertain to the Kulub-Hocaba or to the Chenku-Tases complex.

“Three very distinctive hemispherical bowls were among the offerings on the “altar” at Group I, again with coarse, black limestone tempered paste indistinguishable from that of the large censers. (.) In slip and decoration they are most distinctive. A yellowish buff underslip covers the paste on all examples. Over this is a ferruginous red pigment, laid on with some very coarse applicator in thin streaks, so that the buff underslip remains on about half the surface area” (W.Andrews IV 1970: 44, 60).

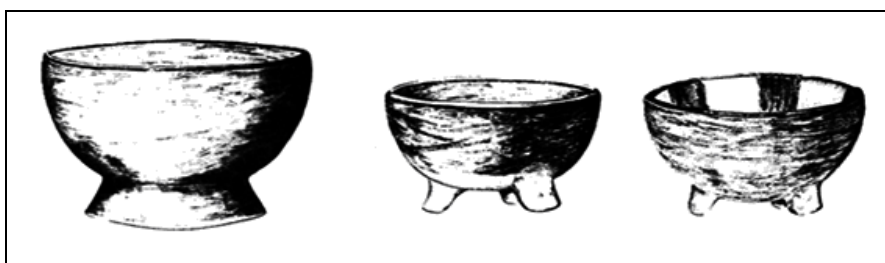


Figure 314: Possible Tases Complex bowls from Balancanche Cave (after Andrews IV 1970)

A position in the Chenku-Tases Complex seems the most sensible solution, since these kinds of vessels has never been found associated in other Hocaba contexts at Chichen Itza. Similar surface treatments and forms are known only from the Sacred Well (see Figure 330), where Chenku-Tases ceramics are very abundant.

If this interpretation is correct, it means that the Balancanche cave was open until Postclassic times, and possibly did not close until the arrival of the Spaniards. It should be mentioned, however, that other collections from inside the cave lack other Late Postclassic (Tases) diagnostic vessels such as Chen Mul type censers.

CONTEXT T15: The Sacred Well

The sacred Well produced a high quantity of Late Postclassic ceramics, mainly ritual, which have been interpreted by most of the authors as “offerings” made by the Maya (Brainerd 1958, Coggins 1992, Ball 1992, among others).



Figure 315: Diego de Landa

I have proposed instead that most of the Chenu-Tases materials recovered from the Sacred Well were thrown there not by the Maya themselves, but by a famous character from Yucatan’s Colonial history: the Spanish friar Diego de Landa (Figure 315; Pérez de Heredia and Victoria 1995, Pérez de Heredia 1998).

In his book “Relacion de las Cosas de Yucatan”, Landa described the building on the edge of the Sacred Cenote which we know today as the Sweatbath (Figure 316):

“On the top, close to the edge, is a small building in which I found idols made in honor of all the principal gods of the country, almost like the Pantheon at Rome. I do not know whether this was an ancient idea or one of the people of the present time, so as to find their idols when they went with offerings to that well. I found there lions sculptured in the round, vases, and other objects” (Landa 1966: 183-184; emphasis is mine).



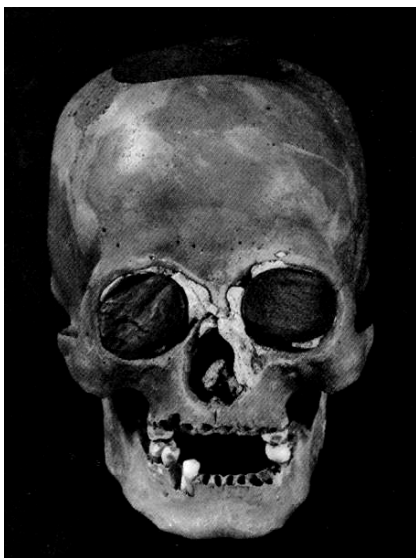
Figure 316: The Sweatbath at the Sacred Well

Landa's mention of the "lions sculptured in the round" is important because they are most possibly the same jaguar sculptures excavated by Piña Chan and Folan in the 1960s (Figure 317).



Figure 317: Sculptures found inside the Sacred Well (1960's)

In his account, Landa omits mention of his "purifying act", which he performed at Chichen Itza: throwing in the idols, vessels and sculptures into the cenote. The act could have been done on the same journey that took him, in 1551, to the village of Dzitas (a few kilometers from Chichen Itza). E. Ancona describes Landa's entry to Dzitas:



318: Human Skull Censer

"When he arrived, he found the village much adorned, as if a party was taking place. A young man, bound to a pole, was being prepared for sacrifice. Large vessels with liquor were resting in front of the idols. Landa entered in a rage, unbound the boy, broke the vessels and idols and severely reprimanded the Indians" (E. Ancona 1960; in Liano 1988: 28; my translation).

It seems only logical that upon seeing so many objects of idolatry at the Sacred Well of Chichen Itza, Landa would have destroyed the "Maya Pantheon", in the most expeditious way: throwing the heathen **Figure** objects to the bottom of the Cenote.

In other passages the Bishop gives additional information of the pre-hispanic rituals, and the use and making of the Idols:

“And so they used to go visit these places and to offer presents there, especially to Cozumel, as we do to holy places, and if they did not go themselves, they always sent their offerings, and those who went there were in the habit of entering the abandoned temples also, as they pass by them, to offer prayers there and to burn copal. They had such a great quantity of idols that even those of their gods were not enough; for there was not an animal or insect of which they did not make a statue, and they made all these in the image of their gods and goddesses” (Landa 1966: 109-110; emphasis is mine).

I underlined some other passages of Landa:



“They had some idols of stone, but very few, and others of wood, and carved but of small size, but not as many as those of clay. The wooden idols were so much esteemed that they were considered as heirlooms, and were (considered) as the most important part of the inherited property” (Landa 1966: 110-111).

Landa speaks of *“statues of pottery made hollow”* in which the ashes of “princess of high rank” were enclosed. There are wooden statues left hollow for the ashes “of the rest of people of position.” (Tozzer 1966: 111, Note 504; emphasis is mine).

Willard, discussing the pottery of the Cenote states that *“the range in pattern and workmanship of potsherds is wide. The larger vessels or fragments of*

Figure 319: Wooden Statue *them – cinerary urns and incense holders – were generally of a coarse granular biscuit mass, well turned but unevenly burned ...*

They are capable, however, of withstanding a considerable degree of heat. Between this class and a hard gray-slate ware almost as thin and fine as porcelain, are many grades and numerous interesting forms, such as well-made models of human heads, manikins, animals, reptiles,-especially crocodiles,- grotesque atlantean figures, and tripodal temple vessels used in the sacrificial ceremonies, to hold votive offerings or viands” (Willard 1930:113; emphasis is mine).

Some of the idols Landa mentions can be identified with both ceramic figurine censers of the type known as Chen Mul (Figures 289, 290) and wooden figures recovered from the Cenote (Figure 319). As it has been shown in this section, Chen Mul censers are characteristic of the Tases Complex at Mayapan, Chichen Itza, and elsewhere in northern Yucatan. They portray a variety of figures of gods, priests and animals.



Figure 320: Rubber Figure in Bowl

With respect to the wooden idols, in the words of Alfred Tozzer: *“Dredged from the Cenote of sacrifice is a large number of wooden armatures of idols in human shape. These armatures seem in many cases to have been covered with rubber or copal. There are also in the Cenote collection human and animal figures (idols?) made entirely of copal or of rubber”* (Tozzer 1966: 111, Note 505).

What it is clear is that the “Pantheon of Rome” was no longer at the edge of the Sacred Well when Thompson arrived in 1894. No earlier adventurer who visited Chichen Itza during in the nineteenth century mentions it. Furthermore, the excavations of the temple and adjacent platform by the Mexican expedition in 1968 did not find the accumulation of ceramic refuse which would be expected of such a “Pantheon”, nor any wooden idols on the surface. In other words, Landa is the last person known to have seen the evidence.

What the bishop could not have imagined is that several centuries later evidence of his acts would resurface thanks to the tenacity of Edward Thompson and later of Roman Piña Chan and William Folan. It is also evident that Landa’s destruction ‘contaminated’ the original archaeological contents of this deposit, but this contamination has never been taken into account by the authors who studied the objects recovered in the different explorations.

I will examine briefly the ceramic collections. Each of the explorations divided the ceramics into a sub-collection of sherds and another of complete and restorable vessels.

The ceramic materials have been studied in varying detail several times, but results of the different collections have shown contradictory results.

1.- The sherd collection of Thompson has been lost. Of the thousands of fragments recovered, only an analysis of 322 sherds by George Vaillant was carried out in 1926. This small collection showed a predominance of the Cehpech-Sotuta Complexes from the Terminal Classic to Early Postclassic periods -70% of the total - while the Hocaba-Tases Complexes of the Middle and Late Postclassic periods only represent 30% of the collection.

The collection examined by Vaillant was lost by the time Brainerd began working in Yucatan. Brainerd, however, commented on Vaillant's tabulation; he remarked on the absence of Coarse Slateware (Peto Cream Ware) in the collection as well as indicating that "the practice of throwing pottery ceremonial vessels into the Cenote was not common until the Late Mexican substage. During this and later times, as detailed elsewhere, there is no evidence for the use of the site of Chichen Itza save as a goal for pilgrimages" (Brainerd 1958: 45).

Some drawings of the vessels (some Late Postclassic) from Thompson's explorations appeared in Willard's book *The City of the Sacred Well* and are reproduced below.

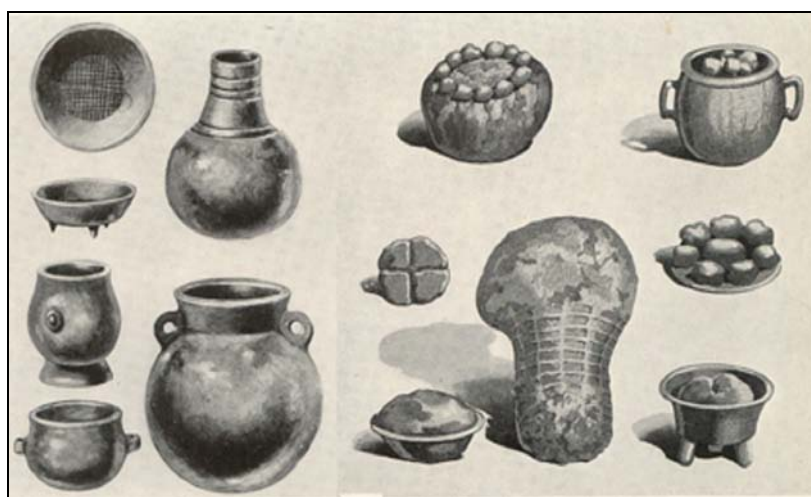


Figure 321: Vessels illustrated by Willard (1930)

2.- Brainerd examined the Sacred Cenote collection of whole and restorable vessels from Thompson's explorations now at the Peabody Museum, Harvard University: "*these objects reinforce the conclusion drawn from the sherd collection that the Sacred Cenote at Chichen Itza was used as a depository for ceramic offerings, as opposed to its use for dumping and as a water supply, chiefly during the Late Mexican period*" (Brainerd 1958: 45).

Years later, in 1992, Joseph Ball published the vessels from the Peabody collection. He reported a total of 104 vessels, dividing them into two broad cultural periods:

Terminal Classic- Early Postclassic: Only 4 vessels pertain to this group of ceramics associated with the Cehpech-Sotuta Complexes. According to Ball, the ceramics suggest that during these times the primary function of the Sacred Well was as source of water and refuse deposit (Ball 1992: 192).

Middle and Late Postclassic: This period is represented by the vessels of the Hocaba-Tases Complexes and accounts for 96 items. Ball considered that the apparent functional, ceremonial homogeneity of this group of ceramics and the formal redundancy of Late Postclassic ceramics are consistent with the pattern expected from of a temporary discrete episode of repetitive and formalized offering rituals performed at the Sacred Well (Ball 1992: 193).

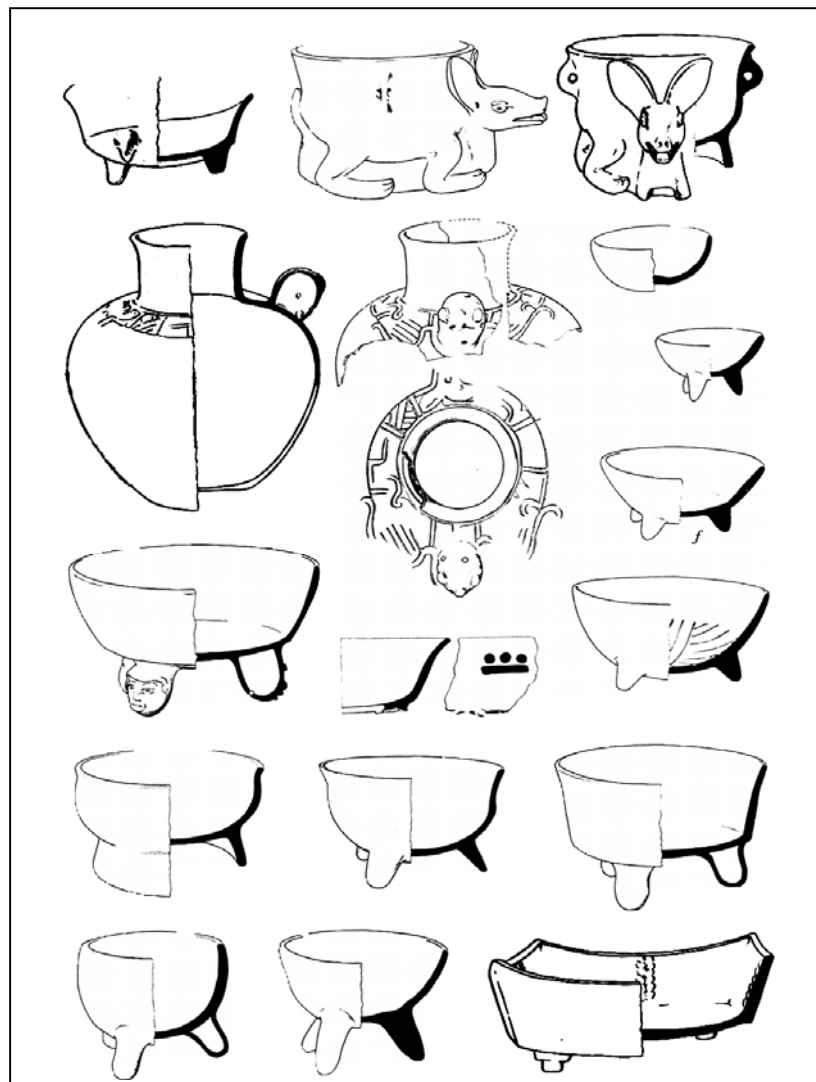


Figure 322: Vessels from the Sacred Well (Brainerd 1958, fig. 96)

Ball found himself with the difficulty of differentiating between the Middle and Late Postclassic periods, because the similarities between the Unslipped Wares of the Hocaba and Sotuta complexes, the repetition of forms, and the absence of a clear stratigraphy in Thompson's materials. He therefore concluded that both complexes on the Cenote must be considered as a Chenku Subcomplex, with censers and bowls used mainly for the use of burning copal (Ball 1992).

3.- Another group of ceramic materials from the Sacred Well is a set of complete and restorable vessels recovered by the INAH excavations during the 1960s. This set resides in Mexico but is scattered throughout various Mexican museums and research institutes (Mérida, Mexico City, Chichen Itza).

The collection preserved at the 'Palacio Canton' Museum in Mérida, Yucatan, contains 155 ceramic items. The vessels of this collection can be divided preliminarily as follows: 42 vessels pertain to the Hocaba-Tases Complexes, while 103 pertain to the ceramic complexes Cehpech and Sotuta (personal observation 1994). This collection requires further study because the state of their surface is somewhat deteriorated by their long immersion in the water. Several vessels from the Sacred Well are on exhibition in the (Chichen Itza site museum): one is a Motul or Cehpech Thin Slate vase, shown in Context C4 (Figure 95); two of them are from the Cehpech-Sotuta complexes, and one of the Tases complex.

I do not have information of the vessels preserved at the 'Museo Nacional de Antropología' in Mexico DF. A catalogue and analysis of those vessels is imperative for increasing our knowledge of the ceramic inventory of the Sacred Well.

4.- The sherd collection assembled from the 1960s explorations constitutes the fourth set of ceramics. I analyzed what is left of this group of ceramics in the storeroom of the INAH Center Yucatan (Pérez de Heredia 1998). The collection includes more than 70,000 ceramic fragments, showing the most complete sequence of ceramic periods from the Sacred Well; it ranges from the Preclassic Period up to Colonial times (Chart 137).

The percentages of complexes show a predominance of the late material, with more than 61.6% of the fragments pertaining to the Hocaba-Tases complexes (33.900

sherds). These percentages do not correspond to those of other collections, based on much more selective samples.

Chart 137: Sherds from the 1960's explorations of the Sacred Well

COMPLEX	NUMBER OF SHERDS	PERCENTAGE
TIHOSUCO	242	0.33
COCHUAH	878	1.23
MOTUL	2368	3.70
CEHPECH	552	0.77
SOTUTA	22352	31.37
HOCABA	6050	8.49
TASES	37871	53.15
NOT ASSIGNED	934	0.31
TOTAL	71247	



Figure 323: Chen Mul fragment from the Sacred Well

An explanation for the disparity shown above can be given as follows. First, the small size of Vaillant's sample makes its percentages non-representative of the Cenote's cultural life; second, the Peabody collection is formed by the vessels first excavated, and therefore could be expected to represent the latest period. Finally, the INAH collection of Mérida, which was obtained later, does not include so many complete late vessels, because most were excavated by Thompson, and, therefore, it contains mainly vessels of the previously deposited Cehpech-Sotuta complexes.

The "Landa Factor" has not been considered in previous interpretations of the ceramics of the Sacred Well. Willard (1930) is possibly the first writer to think that the Postclassic vessels recovered by Thompson from the Cenote of Sacrifice were there as a result of ancient ceremonies. This view has remained unchanged since then. Brainerd (1958) also assumes that the ceramics dredged by Thompson were thrown into the Sacred Well during pre-hispanic times. More recently, the abundance of the Postclassic ceramics in the Peabody collection was used by Clemency Coggins (1992) to propose a Postclassic cult at the Cenote, in which these ceramics were thrown to the well as offerings.

An examination of the different characteristics of the ceramics from the Sacred Well casts reasonable doubt over such a view. I will use mainly the data of the collection of 70,000 sherds classified in 1998 (Pérez de Heredia 1998). I will start by reviewing the predominant forms across the different periods, since it can help to clarify the character of the different facets of use of the Sacred Well.

Ceramics from the oldest periods represented in the collection (Preclassic and Early Classic), suggest the Cenote's use as a refuse depositary and as a water source. Jars are the most common form during these periods. It is possible that the Cenote already had a special sacred signification, but the small quantity of early sherds in the collection does not help to determine this question.



Figure 324: Chen Mul Type fragment

The earliest exotic and sumptuary objects, jade and other imported ceramics, present in the Sacred Well correspond to the Late Classic Period (Motul Complex A.D. 600-800/830). These materials, clearly brought from afar to Chichen Itza, provide the earliest evidence to support a ritualistic use or cult status for the Cenote that would support the the throwing of fine objects into the well. The number of imported ceramics, however, is too small to further elaborate on this subject. Also, there is a clear absence of vessel forms clearly associated with ritual such as censers.

Few fine objects appear in the following period, the Cehpech Complex of the Terminal Classic period (A.D. 800/830-920/950).

The highest frequency of fine materials appears to be associated with the Early Postclassic period (Sotuta Complex A.D. 920/950 – 1150-1200). In addition to exquisite examples of jade, metals, and other materials, the fine and imported vessels present in the collection are more common than in all the other periods together. Censers and other ritual forms (local and imported) are present, but in low quantities.

In contrast, the city's decadence of the city is reflected in the repertoire of objects from the Middle and Late Postclassic periods (A.D. 1150-1200- 1500). The figurine censers of Chen Mul type must have been very valued, but the rest of the vessel forms

pertaining to this late period correspond mainly to crude, unslipped and undecorated pottery. While some of these objects also functioned as incense burners, their value could not have been very high. In general, the Middle and Late Postclassic repertoire can be considered predominantly ritual-ceremonial.

The collection of recovered vessels corresponding to the Hocaba-Tases complexes cannot be linked conceptually with collections from the other periods; therefore, it can be surmised that before the Middle Postclassic period there did not exist a tradition of throwing ceremonial vessels into the Sacred Well.

Other questions can be asked from the ceramics of the Cenote collections: Is it possible to calculate a minimum number of Middle-Late Postclassic individual ceramic vessels? How many of those were figurine-censers? How many were undecorated censers? Can we estimate the number of ceramic vessels and idols seen by Landa?

Though the loss of many collections makes the task close to impossible, I make an educated guess with the data at hand.

Taken together, all the surviving complete vessels from the different explorations that pertain to the Kulub-Hocaba – Chenku-Tases Complexes, form a set of only 150 items. The large quantity of ceramic sherds attributed to the Middle and Late Postclassic period from the 1960s excavations presents this panorama: they total 33,900 fragments, and pertain mainly to little bowls; figurine-censer fragments scarcely appear. The number of fragments produced by the breakage of these two forms differs dramatically. Because the figurine censers are bigger and much more complicated in design, they can produce in excess of a 100 sherds, as demonstrated by the reconstruction of some similar examples from other areas in Chichen Itza. On the other hand, the small tripod bowl-censers usually break into fewer than 30 pieces.

With respect to the scarcity of Chen Mul fragments, I suspect that Chen Mul figurine censers were probably sorted and selected during the explorations of the 1960s, and sent to the National Museum in Mexico City. This might have been the fate of published Chen Mul censer fragments whose current location is uncertain (see Ediger 1971). A simple way of calculating the number of individual Chen Mul Modeled censers would be by counting faces, but since the collection appears to be incomplete, this is impossible.

Though it is lost, the Thompson's collection must have come mostly from the upper levels, Middle and Late Postclassic. His work was carried out for a longer period than the explorations of the 1960s, and accordingly he must have recovered a greater quantity of Hocaba-Tases fragments. This view is supported by Willard's account:

“Weight by weight, I imagine we accumulated ten times as many potsherds as all other specimen material combined. At times, a large portion of the silt in the dredge seemed to consist of terra-cotta grains – an indication of the enormous number of earthenware vessels which have must been hurled into the well. Probably for centuries the custom was observed of casting into the pool these containers filled with burning incense or copal ... to furnish all this red-gray mud and burnt earth-silt an almost incalculable number of vases and jars and basins must have been required. Scores were saved entirely whole and among them are many strange and interesting ones” (Willard 1930:113).

Taking these considerations into account, I present two estimates for the Minimum Number of Vessels in Chart 138.

The more crude estimation, presented in the upper row, considers possible totals from the 1960s explorations and Thompson’s collection. The vessel total from the 1960s work considers each vessel to consist of a approximately 100 sherds, independent of their form. This procedure gives us a figure of 339 items, which can then be added to the 150 complete vessels. If we add another 300 which can perhaps be deduced from Thompson’s lost collection of sherds, we will reach 789 vessels. If this total number of vessels was deposited at the edge of the Sacred Well, as has been previously suggested, and found by Landa, then his comparison with the Pantheon at Rome would seem reasonable.

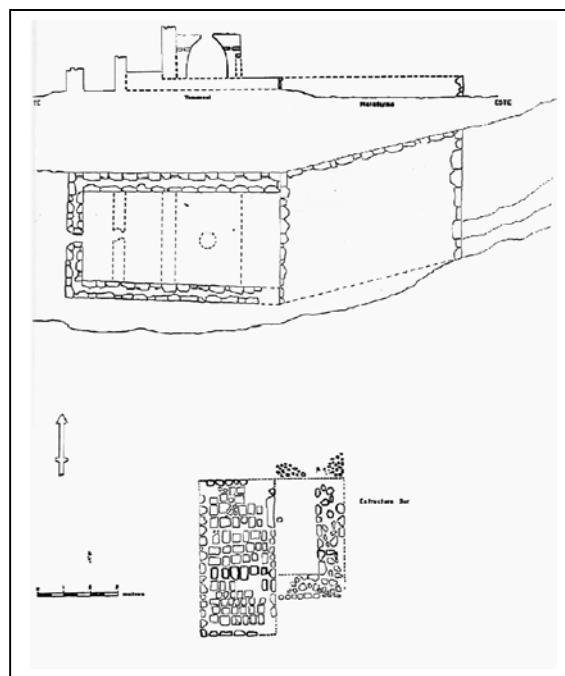
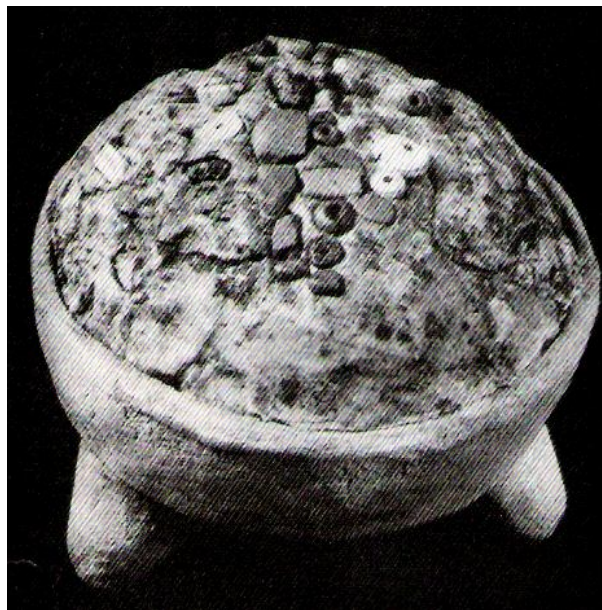


Figure 325: Excavation plan of structures at the edge of the Sacred Well (Piña Chan 1971)

Chart 138: Minimum Number of Vessels Estimates

	1960s Sherds	Complete Vessels	Thompson's sherds	TOTAL
Rate: 100 Even	339	150	300	789
Rate: 100/30	1140	150	1140	2422

Applying different ratios of sherds by vessel type produces a more accurate estimation as shown in the second row of Chart 138. Only 424 sherds of Chen Mul type, ratio 100, give a number of just 4 censers. The tripod bowls combined of the Red Ware (1,800) and the Unslipped Ware (33,307) amount 34,107 sherds, which divided by a ratio of 30 sherds per vessel, accounts for 1,136 vessels. Admitting a similar estimation for Thompson's sherds, and adding the 150 complete vessels, we reach an estimate number of 2,422 vessels



**Figure 326: Unslipped Bowl from the Sacred Well
(Chenku-Tases ceramic complex)**

The various explorations' crude forays into the sacred well of the make it impossible to recover a clear stratigraphy. Nevertheless, Willard's account (1930: 106) can be used to reconstruct a rough sequence of the findings' deposition, which can shed light on the problem presented here.

According to Willard, the first layer reached by Thompson's dredge consisted in just mud with a few occasional potsherds.

The following, second layer contained cultural remains such as:

1. Pot-sherds
2. Balls of incense
3. Baskets with copal, copal, rubber, tripod vessels and wooden objects (spear throwers, dolls)
4. Large quantities of ceramics (broken and whole) mostly of Postclassic types.

A statement by Willard after his description of the second layer is of great importance to our task:

“Not always did we have such good fortune in our dredging. At times the soft upper layers of mud caved into the pit we have excavated and we spent many days and weeks in hauling up this mud before we again reached the treasure level” (1930: 113-114).

Since the visibility into the well was nil, Willard’s observation regarding this “caving in of the upper layers of mud” can only be speculation on his part. The existence of a sterile mud layer deposited earlier seems much more probable and better explains the situation, especially if they “spent many days and weeks in hauling up”. After the third layer, human remains and the fine gold and jade objects associated with Florescent times appeared.

A reconstruction can be made as follows (see Figure 327):

- Layer 1.** Sterile Mud, sedimented since Landa’s visit in 1500’s till 1900’s
- Layer 2.** Postclassic censers and idols thrown by Landa
- Layer 3.** Sterile Mud, sedimented since abandonment of Chichen around 1200’s until Landa’s visit in the 1500’s.
- Layer 4.** Florescent items.

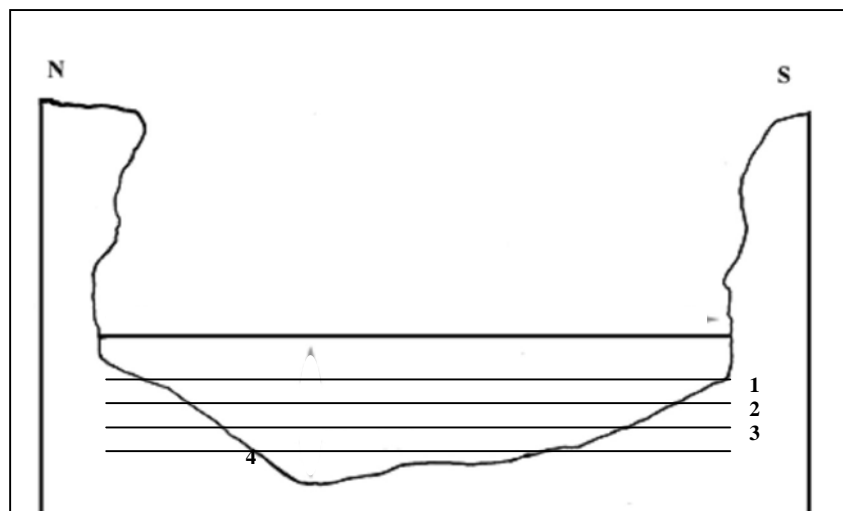


Figure 327: The layers of Thompson’s excavation mentioned by Willard shown in profile of the Sacred Well

3.2.2.4 OTHER GROUPS OF THE CHENKU-TASES COMPLEX AT CHICHEN ITZA

Types of the Chenku-Tases Complex at Chichen Itza cover only partially the ceramic type diversity of the same period at Mayapan. According to R. Smith,

“In the Tases Ceramic Complex (A.D. 1300-1450) as established at Mayapan, three principal local wares were identified. These comprise Mayapan Unslipped Ware (59.4%), Mayapan Red Ware (27.6%), and San Joaquin Buff Ware (.9%) ... Only two trade wares are involved: Fine Orange Ware, the fine-orange Matillas Group (.3%), and Tulum Red Ware (.01%)” (Smith 1971: 242).

At Chichen Itza we have not yet identified sherds of the Matillas Fine Orange Group, Unslipped Uayma, or Red Moyos ceramics. The most common group at Chichen Itza is the Panaba Unslipped Group, to which the anthropomorphic censers of the Chen Mul type pertain, but also other censer forms have been recovered (See Figure 328).

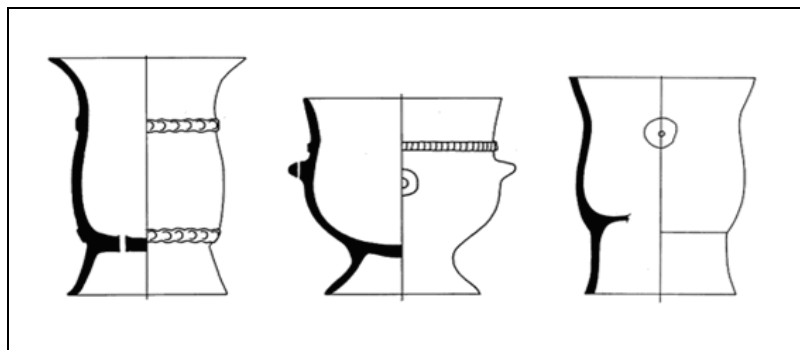


Figure 328: Panaba Group censers from the Osario Pyramid, Tases Complex, Chichen Itza

The vessel forms of Red Panabchen Group during the Chenku-Tases Complex display a more restricted inventory, producing a variety of mostly miniature tripod bowls with an unslipped exterior (see Figure 329).

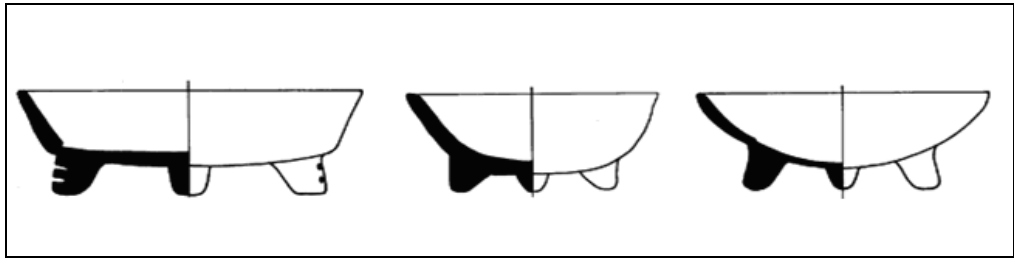


Figure 329: Unslipped exterior Mama Red Type Bowls, Tases Complex, Chichen Itza



Figure 330: Unidentified bowls, possibly Chenku-Tases Complex, Chichen Itza

3.2.2.5 SUMMARY OF THE CHENKU-TASES COMPLEX AT CHICHEN ITZA

The absence of absolute dates associated with the beginning of Tases Complex ceramic production at Chichen Itza requires that the phenomenon be dated by setting it at the end of Kulub-Hocaba Complex ceramic production, earlier assumed to be ca. A.D. 1250-1300. The best contexts available for defining the first appearance of Tases complex ceramics in the archaeological record are the construction of the Initial Series Shrine (5C4-IV; Context T1), the extensions of the Terrace of Structure 3E19 (Context T4) and the construction of the bench of Room 21 at the Phalli Complex (Context T2). These small construction efforts appear to concentrate in the Early Facet of the Chenku-Tases Complex.

The end of production of Chenku-Tases ceramics occurs logically with the arrival of the Spaniards. The end of ceremonial activity at Chichen Itza can be directly associated with the visit of Diego de Landa around the 1550s. It is evident that residual ceramics of the Tases complex, and even earlier ones, were still in use during the initial facet of the Colonial period, but giving an exact date to the last appearance of Tases ceramics in the systemic context is still very difficult. I propose a date ca. A.D. 1650 for this phenomenon.

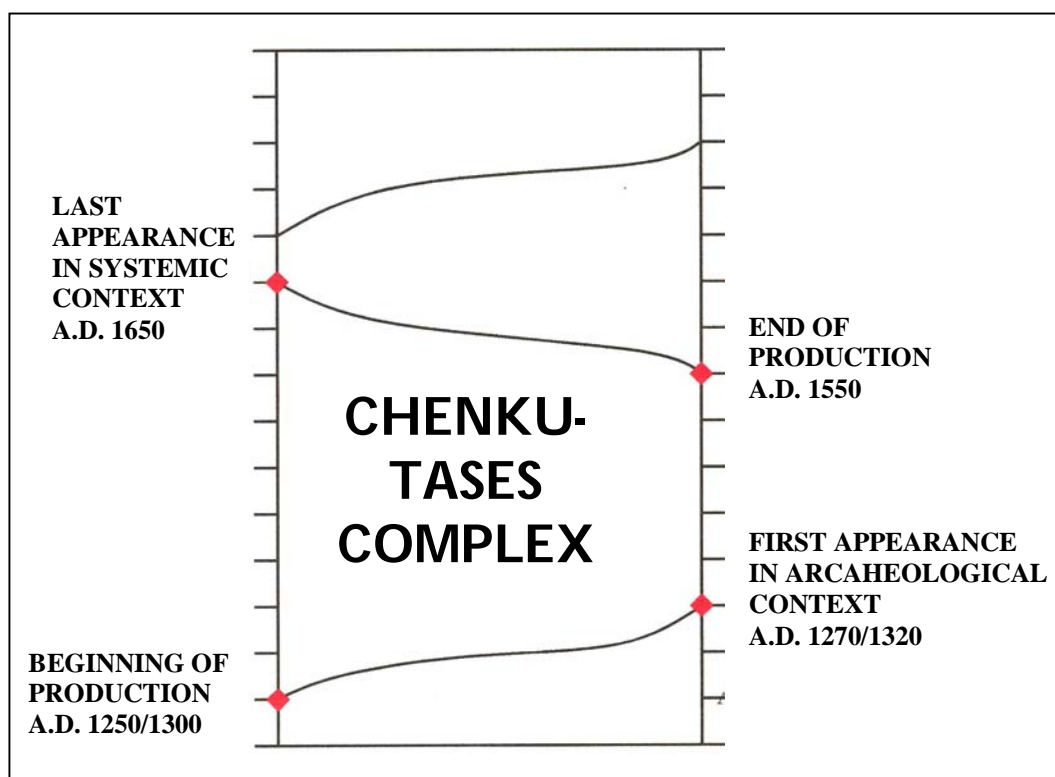


Figure 331: Dates of the Chenku-Tases Ceramic Complex

Accepting these dates, the production of Tases ceramics covers a long period of time, approximately 250 to 300 years. This period represents the real material decadence of the city, but most importantly the loss of Chichen Itza's political primacy. During the Late Postclassic period Mayapan is the city that rules the northern lowlands. Chichen Itza's importance dwindles to that of a pilgrimage center.

Chenku-Tases ceramics are abundant at the core of the city. In a north-south axis, they are found from the Sacred Well to the Monjas complex, where according to Brainerd: "*several sizeable collections composed almost entirely of figurine incensario fragments (were) found on the top of the pyramid and on its slopes*" (1958: 42). They are also found in good quantities at the Initial Series Group, though they are almost absent from in the Three Lintels Group collections.

The gradual decline of the population during the Chenku-Tases complex seems a reasonable assumption. As it declined the population likely contracted towards the core of the city.

I think it is possible, at least on a figurative level, to subdivide the Late Postclassic Period at Chichen basically into two facets. During the Early Facet some of the buildings were still in use, and small new constructions were continued. The residuality of Kulub-Hocaba and Sotuta ceramics was still high.

During the Late Facet many buildings were collapsing and/or collapsed, especially the weaker colonnades, and habitation concentrated in the most stable structures, such as range type buildings and in general those constructed of walls instead of columns. Many buildings were still visited, and ceremonial activities persisted, even on top of the debris of collapsed sections of the buildings. The ceremonial activities focused on the Sacred Well and selected high buildings in the central core.

Due to the lack of domestic ceramic items in the Chenku-Tases Complex record at Chichen Itza, Peter Schmidt considers that no sizeable population inhabited the core of the site during the Late Postclassic period. He suggests that the population centered on the area covered by modern-day Piste (Schmidt pers. comm. 2006). In my opinion, the final abandonment of Chichen Itza's central part following Diego de Landa's visit may have also contributed to the absence of Chenku-Tases complex domestic ceramic items at the site.

TYPES OF THE CHENKU-TASES CERAMIC COMPLEX **AT CHICHEN ITZA**

PANABA UNSLIPPED GROUP

Panaba Unslipped Type: Panaba Variety
Panaba Unslipped Type: Orange paste Variety
Panaba Unslipped Type: Brown slip Variety
Chen Mul Modeled Type: Chen Mul Variety
Huhi Impressed Type: Huhi Variety
Chenkeken Incised Type: Chenkeken Variety
Thul Appliqué Type: Thul Variety
Acansip Painted Type: Acansip Variety
Acansip Thul Composite Type: Acansip Thul Variety

PANABCHEN RED GROUP

Mama Red Type: Unslipped Exterior Variety
Panabchen Red Type: Panabchen Variety

POLBOX BUFF GROUP

Tecoh Red on Buff Type: Tecoh Variety

PAYIL RED GROUP

Payil Red Type: Payil Variety

Conclusions

Conclusions

Evaluation of the Method

A Sequence for Chichen Itza Ceramics

The Yabnal-Motul Ceramic Complex

The Huuntun-Cehpech Ceramic Complex

The Sotuta Ceramic Complex

The Kulub-Hocaba Ceramic Complex

The Chenku-Tases Ceramic Complex

From Classic to Postclassic

The question of the Overlap

Remaining evidence for an Overlap at Chichen Itza

Evidence for an Overlap in northern Yucatan

Middle and Late Postclassic

The question of the Peto Cream Ware

Chichen Itza during the Late Postclassic period

Graphics and Chronology

Evaluation of the Method

In this thesis, and for chronological purposes, Ceramic Complexes have been defined as the period of production of a contemporary set of local ceramic groups. The emphasis on the local production avoids chronological interference of imported items, and the emphasis on production avoids chronological confusion with the use of residual ceramics of previous complexes.

Four of the five ceramic complexes examined in this thesis show a very similar composition. With the exception of the Tases Ceramic Complex, they present three major groups: The first one, the Slate Group, is slipped, very hard and durable, and it was used for multiple purposes, like storing, cooking and serving, and even some ritual purposes. The second major group is the Unslipped Group, divided in two principal types and forms: striated jars for containing water, and ritual incense burners. The Red Group, mostly a serving ware, is the third major group, and at least in the case of the Sotuta Complex is made out of the same paste as the Slate Group. The Slate and Unslipped Groups each amount in all complexes for around 40% of the ceramic inventory, with Red Group in the order of less than 10%, and the rest 10% composed of minor or imported groups.

Slate, Unslipped and Red Groups are considered here to be locally produced. Since they amount together to ca. 90% of each complex, and since the goal of this study is to arrange the collections in three major facets (early, middle and late), I have not excluded the known imported wares of my tabulations, since they do not affect the position of the dates. The assumption of the three major wares being locally produced is substantiated by two facts: the large quantities of them found at the site, and the big size of the most popular forms, such as large bowls and big jars. I can not imagine the logistics to import so many big items. Nevertheless, we are still waiting to final petrographic studies on clay sources from Chichen Itza to settle this assumption.

A specific ceramic group has been selected for defining each complex, based on its diagnostic characteristics, durability, and expected dating potential. The selection of the Slate Group has proved successful, and allowed the definition of four different, sequential, ceramic traditions: Say Slate Group, Muna Slate Group, Dzitaz Slate Group, and the Slate imitation Peto Creamware.

The method of dating frequencies of ceramic complexes by a graphic of curves was developed for this study forced by the necessity of finding a method simple enough to handle vast quantities of ceramics in a reasonable period of time. In my opinion, it has been effective, and sensitive enough, in most of the cases examined, to register temporal facets inside a Complex, allowing a finer tuning of the chronology. The results of the application of this method to Chichen Itza's ceramics are encouraging, though still preliminary. I believe that the continued, careful application of the system will permit to estimate the chronological value of the temporal clustering of the contexts, validating and enriching the sequence of events proposed here.

Taking into account context formation theory provided a better understanding of the influence of the particular context formation in the correct dating of the different target events. It is evident that many factors affect the formation processes of each particular context, but in general the sequence of relative dates obtained by measuring the frequencies of ceramic complexes at Chichen Itza matches well the stratigraphic sequence of construction and the sequence of basic architectural styles.

Though the technique of counting sherds is a rather rough measure for the understanding of ancient ceramics, is still the only viable technique to deal with very large quantities of fragments produced by the excavation of a city of Chichen Itza's magnitude. Nevertheless, in the case of this thesis it seems to work well enough at the level of the Ceramic Complex, if only used to create a logical seriation.

The goal of this thesis was to solve some chronological questions of Chichen Itza's ceramics, and I consider it to be essentially achieved. Though the raw data that has been presented constitutes in itself a valuable contribution to the understanding of these periods at Chichen Itza, this work does not represent yet the definitive sequence of the city's ceramic history. There are still some ceramic contexts whose investigation must be further pursued, such as contexts of the Early Yabnal-Motul Facet, and the Middle and Late Huuntun-Cehpech Facets. It is also necessary to better illustrate the Early Facet of the Sotuta Complex.

Also evident is the necessity to improve our ability to determine the disjunction between dated and target events, especially with respect to construction fill contexts. The

fixed points of each complex (beginning and end of production) are still inferred from association with only a few absolute calendar inscriptions, and we are still badly in need of more absolute dates, such as C14 dates.

The ceramic sequence obtained in this thesis has been contrasted with a very simplistic division of architectural styles (i.e. “Maya Puuc” and “Toltec”). It seems clear that the ceramic sequence could be better contrasted with a finer architectural sequence, but that work is still to be done. Meanwhile, the ceramic sequence supports the differences between the traditionally named “Maya” and “Toltec” styles as defined since the early 20th century.

In the future, ceramic studies at Chichen Itza must focus on solving the shortcomings mentioned above. Also, given the new types and varieties defined during these last years it is necessary to establish a full typology of the ceramics of Chichen Itza. Urgent studies refer also to sources of materials, production, distribution, use and refuse of pottery at the site. As Orton, Tyers and Vince have suggested:

“There should be continuous feedback between our understanding of trade-patterns, sources, site formation processes, function and chronology. The last cannot in any sense be placed in a separate box; it is only one of the factors controlling the variation within and between sites and cannot be considered without the others” (Orton et al. 1993: 196).

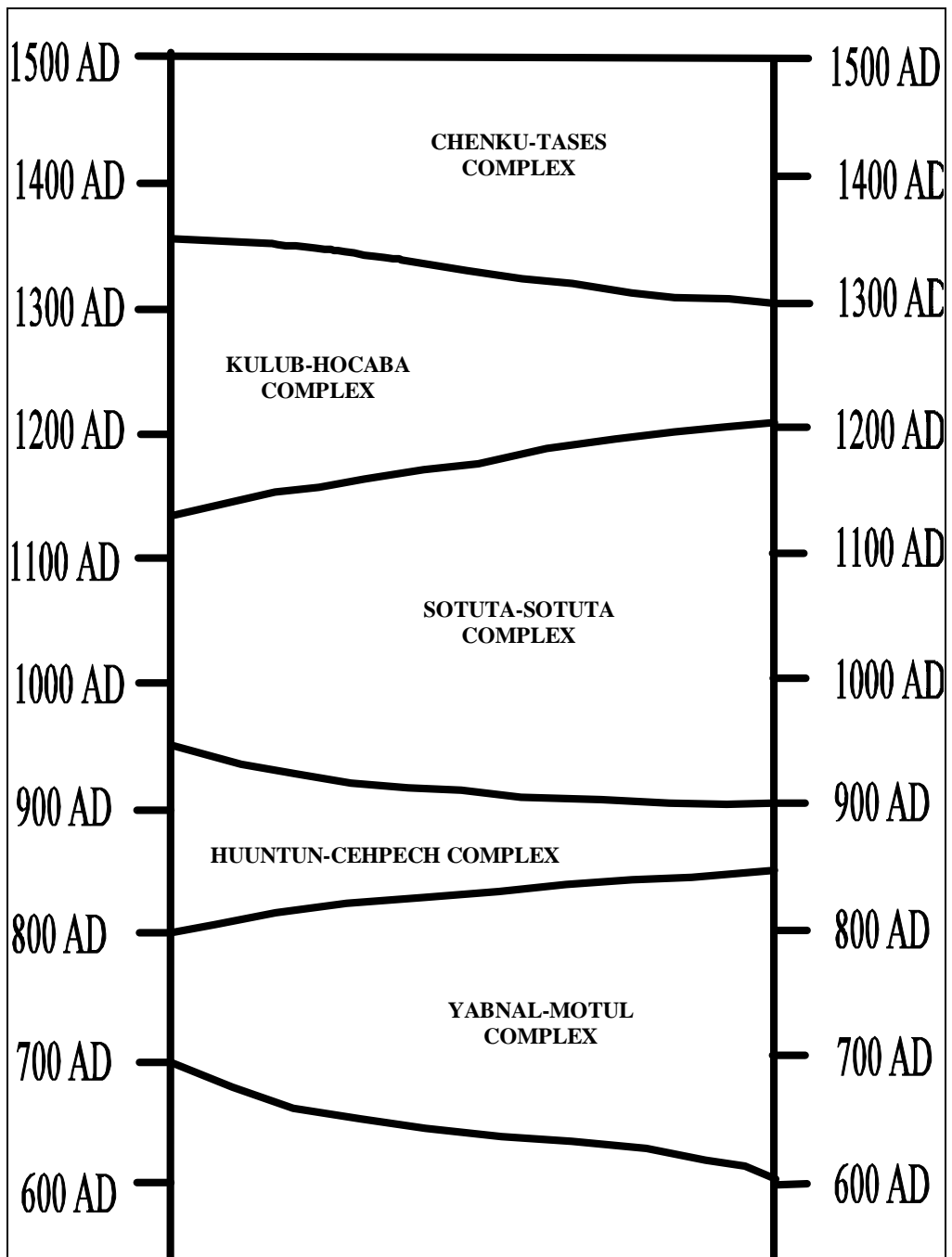


Figure 332: Chichen Itza's Ceramic Sequence (Perez de Heredia 2004)

A Sequence for Chichen Itza Ceramics

The Yabnal/Motul Ceramic Complex. AD 600 to 800/830

Late Classic Period

The Yabnal-Motul Complex is characterized by the creation of a ceramic tradition of high quality pottery: the Slate Ware. The origins of this ceramic tradition are still not very clear. Some antecedents for the Say Slate Group have been proposed by Boucher (1992), and she is possibly right, but a clear link (transition or substitution) with previous wares has not yet been demonstrated. Motul sphere ceramics are present throughout the northern plains, suggesting a homogeneous ceramic tradition with many production centers. The cultural continuity or disruption with the previous period is a matter for further research and debate. The most developed architecture during the Late Classic period occurs in the Puuc region and it is clearly there that this question will be better answered.

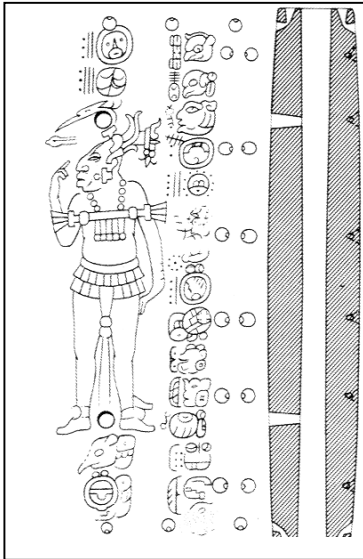
The best dating, based on the available data for the Yabnal/Motul ceramic complex at Chichen Itza, is between A.D. 600 and 800/830. The beginning of production of this complex is very difficult to determine, since we lack absolute dates to fix the early contexts of this period at Chichen Itza. The date A.D. 600 was proposed by Smith (1971) with sound, not yet disproven, arguments and it seems prudent, while lacking better information, to accept it for the time being. Further excavations of early contexts of the Yabnal/Motul complex are vital to fine-tune this date.

The apparent depopulation of the site during the previous Middle Classic period (Coahuac ceramic complex) alters in some way the percentages of the Motul ceramic complex. If no refuse deposits from earlier periods were available to fill Motul constructions, and only Yabnal-Motul ceramics were used for that purpose, the percentages found in these construction fills will always show high percentages of Yabnal-Motul ceramics, pointing to a late facet of that complex even if the construction took place during an early facet.

The Yabnal/Motul ceramic complex is so far associated at Chichen Itza with the construction of massive terraces and at least one building of crude architecture with

modeled and painted stucco decoration (the Terrace of the Three Lintels Building, the Early Terrace of the Initial Series Group, the levels of Terraces at the Plaza del Castillo, and the Building of the Stuccoes-5C4-1).

The beginning of urbanization at Chichen Itza can possibly be traced to this period, but no monumental structures have been firmly dated to this complex (the best candidate being Platform 1 of the Monjas Building). In any event, Chichen Itza was possibly a very secondary site during this time, and no local hieroglyphic inscriptions can be firmly associated with the Late Classic period. Some carved jades from the Sacred Well bear inscriptions with dates or styles that fall into the Late Classic period (Proskouriakoff 1974; see Figure 333), but they are imported items, and their arrival at Chichen Itza, and deposition at the Sacred Well, cannot be dated with certainty.



**Figure 333: Jade from
the Sacred Well**

Nevertheless, the high quantities of Yabnal-Motul complex ceramics found at Chichen Itza, and the extension of the area in which Yabnal-Motul ceramics are found suggests a rather dense population or a long period of production, or both.

The end of production of Yabnal-Motul Complex pottery is based on the date suggested for the beginning of the following complex Huuntun/Cehpech, ca. A.D. 800/830, or slightly later. As shown in many contexts, residuality of Motul ceramics during the Terminal Classic period is very high.

The Huuntun/Cehpech Ceramic Complex. AD 800/830 to 920/950
Terminal Classic Period

The beginning of the Cehpech ceramic complex at Puuc sites was placed around A.D. 800 by R. Smith (1971). At Chichen Itza, the beginning of production of the Huuntun-Cehpech ceramic complex must be dated slightly later, and a date A.D. 800/830 seems to be a prudent position. This date could even be as late as A.D. 850, given the scarcity or absence of Huuntun-Cehpech ceramics in the “Maya” style constructions. In fact, at some “Maya” style buildings with hieroglyphic inscriptions related with the ruler Kakupacal (such as the Three Lintels Building) the latest ceramics found in the construction fill pertain to the previous Yabnal/Motul Complex. Other cases, such as the Akabdzib Building, show significant percentages of Huuntun-Cehpech ceramics in their construction fill. These differences may be the result of the contents of the available refuse deposits in the vicinity of each of these buildings, but in general suggest that production of the Huuntun-Cehpech Complex at Chichen Itza started shortly before the construction of the “Maya” style buildings of Kakupacal, which are clustered in the second half of the 9th century.

The explanation for the absence of Huuntun-Cehpech ceramics inside some “Maya” style buildings can be explained by a late beginning of production of Cehpech ceramics, and by the high residuality of Yabnal-Motul ceramics during the early facet of the new ceramic complex. Anyway it is proven that during construction of “Maya” style buildings, Huuntun-Cehpech ceramics were already in production, and that a great quantity of refuse deposits of the Motul ceramic complex was available for use as construction fill.

The Muna Slate Group at Chichen Itza shows close links with the precedent Say Slate Group, both in form and in surface treatment, during the Early Facet of the Huuntun-Cehpech complex. This fact argues for a close continuity, at least in the ceramic technology, for the inception of the Huuntun-Cehpech complex at Chichen Itza. The most logical place of origin for the Muna Slate Ceramic Group, however, is the Puuc area, where it is most abundant, as was proposed by Ball (1979), and where Cehpech ceramics may have started earlier than at Chichen Itza.

Contrary to the claims of the supporters of the Total Overlap Model, **pure Huuntun-Cehpech ceramic contexts do exist at Chichen Itza**, and have been found in different architectural groups (such as the Initial Series Group, the Great Terrace, and Structure 4D6). These contexts are associated with the use of “Maya” style buildings, such as the House of the Phalli, or the Akabdzib building. Usually these pure Cehpech contexts are covered by later Sotuta constructions, making them difficult to find during superficial excavations such as clearing operations. This may be the basic reason for the long inability to locate such contexts by earlier archaeological projects working at the site. Huuntun-Cehpech ceramics are only scarcely found in surface contexts, and often they present a different state of preservation from their Sotuta complex counterparts.

The quantity of Huuntun-Cehpech ceramics collected so far is very low, suggesting a short period of production, matching the short period of construction of “Maya” style architecture. The end of production of Huuntun-Cehpech ceramics is inferred from the beginning of production of Sotuta complex pottery, which is here placed at A.D. 920/950. In its shortest expression the Huuntun-Cehpech ceramic complex would account for only two or three generations of rulers.

The Huuntun-Cehpech Ceramic Complex corresponds with a brief period of intense architectural activity, which took place on top of pre-existent Yabnal-Motul complex terraces, or atop extensions of those. During this time architecture develops to a very high quality, creating some of the most beautiful monuments at Chichen Itza, such as the Caracol, the Iglesia, or the Three Lintels Building.

The period of production and use of Huuntun-Cehpech ceramics at Chichen Itza saw the conversion of the site into an important capital on the northern plains. Though still smaller than Uxmal during these times, Chichen Itza became an important player in the political arena of the Terminal Classic. The memory of the ruler Kakupacal reached the indigenous chronicles of the Spanish Colonial era, as did his conquests of Izamal and Motul. Whether true or not, these feats echo the importance of the site during the 9th century, which would increase mightily during the next period.

We do know almost nothing about the historical events that took place during the tenth century at Chichen Itza, apart from the abrupt substitution of a ceramic technology, that of the Muna Slate Group, by other totally different, the Dzitas Slate Group.

The Sotuta-Sotuta Ceramic Complex. AD 920/950 to 1150/1200

Early Post-Classic Period

The pottery of the Sotuta complex is well known from the work of Brainerd (1958) and Smith (1971). It represents the apogee of the city, and is associated with the densest population and intense construction activity at the site. Most of the buildings that can be seen today (restored or collapsed) at the site pertain to the so called “Toltec” style, and are associated (in construction and use) with the Sotuta ceramic complex. The sequence of construction of many of these buildings is long and complicated, evidencing a long period of architectural activity.

The beginning of production of Sotuta complex pottery is here inferred from the association of small percentages of Sotuta ceramics in the construction fill of both the terrace and the pyramid of El Osario, combined with the hieroglyphic date A.D. 998 in a column of said pyramid that seems to be a dedication date. This association suggests that the beginning of production of Sotuta ceramics must not be dated much earlier than A.D. 998, and I suggest a date around A.D. 920/950. I consider that the evidence is strong enough to place the beginning of production of Sotuta ceramics. Anyway, Sotuta ceramics cannot be dated earlier because no “Maya” style buildings of the second half of the 9th century contain Sotuta ceramics in its construction fill.

The traditional date for the end of production of Sotuta ceramics was placed at A.D. 1200 by R. Smith (1971). Given the sheer quantity of Sotuta ceramics, and the extension and sequence of “Toltec” style architecture, this seems a reasonable date. Nevertheless, an earlier date may also be possible. A date of A.D. 1150/1200 allows a probably enough margin for the end of this ceramic complex.

The Sotuta ceramic complex includes the greatest variety of long-distance imported ceramics of all periods at the site, including Silho Fine Orange from the Gulf Coast (Brainerd 1958: 57; Smith 1971: 184), Tohil Plumbate from the eastern Soconusco Region on the Pacific Coast (Neff and Bishop 1988), and Nicoya/Papagayo and Las Vegas polychrome pottery from Central America. It is also associated with obsidian from the Central Highlands of Mexico (Braswell 1997), and turquoise, gold and metal objects, in a quantity without precedent or counterpart in any other Maya site. This array of long-distance goods does not exist in any previous or posterior periods at the site.

***The Kulub/Hocaba Ceramic Complex. AD 1150/1200 to 1250/1300
Middle Post-Classic Period***

Monumental construction ceases during the Kulub/Hocaba ceramic complex at Chichen Itza. Pottery experiments a clear drop in quality and volcanic ash is not used anymore in ceramic production. Nevertheless the forms and surface treatment imitate straightforwardly those of the previous Sotuta complex.

A beginning of production of Hocaba pottery is proposed after the date for the end of Sotuta complex ceramics, around A.D. 1150/1200. Hocaba complex ceramics are not found inside any sealed “Toltec” style construction fill, and overlap between both complexes seems almost non-existent. Nevertheless, Kulub-Hocaba ceramics appear in several small-scale constructions, such as benches and platforms.

Though it is clearly a period of decadence, if compared with the rich Sotuta complex, Chichen Itza during the Middle Postclassic was possibly still a powerful city in the northern plains. In fact, not other known center seems to have rivaled with Chichen Itza during this period. The decline in architecture and ceramics suggests rather that the energy and power of the city was directed to other purposes.

Residuality of Sotuta ceramics (especially fine and imported items) is very high during the Middle Postclassic period and still noticeable during the Late Postclassic period. Possibly they were inherited and appreciated as symbols of the once uncontested power of Chichen Itza in northern Yucatan.

The quantity and extension of Hocaba ceramics is clearly lesser and smaller than those shown by the Sotuta complex ceramics. I infer from this a shorter period span and a smaller population than during the Early Postclassic Period. The decline was probably gradual, and aggravated by the end of the period, when the center of the political power moved to Mayapan.

A period of 100 years for the production span of Hocaba pottery seems reasonable. This implies an end for the Hocaba ceramic production around A.D. 1250/1300 at Chichen Itza.

The Chenku/Tases Ceramic Complex. AD 1250/1300 to 1550

Late Post-Classic Period

The last documented period of habitation/use at Chichen Itza is the Chenku/Tases ceramic complex. Construction of small architecture and extensions of terraces can be dated to this period. The repertoire, composition and quality of the ceramics is quite different from those of previous complexes. Peto Cream Ware, the Hocaba complex imitation of the Dzitas Slate Group, ceases to be produced, and it is not replaced by a similar ware. The Mama Red Type continued to be produced during this period. An emphasis in ritual ceramics is evident in the Chen Mul Modeled censers and the small tripod bowls.

During the Late Postclassic period Chichen Itza is substituted by Mayapan as the ruling center of the northern plains, but remains highly respected, and possibly permanently occupied. Together with Cozumel Island, it becomes the most important center of pilgrimage in the northern peninsula.

The beginning of production of the Chenku/Tases ceramic complex can be tied to the end of the Hocaba ceramic complex, ca. A.D. 1250/1300. The first appearance in the archaeological context at Chichen Itza is represented by small constructions only, such as the bench in Room 21 of the Phalli Complex or the Shrine of the Initial Series building (5C4-IV). Ceramics of the Chenku-Tases complex appear scattered throughout the site, indicating the habitation of usable spaces at the site. Possibly some buildings were collapsed already or had started to collapse, especially the structurally weaker colonnaded structures.

The end of the Chenku/Tases ceramic complex corresponds with the arrival of the Spaniards and specifically with the visit of Diego de Landa to the site in the middle XVI century. The destruction carried out by Landa at the site marks the end of open ritual activities. It is very possible that most of the Postclassic items found inside the Sacred Well were thrown there by Landa himself.

Clearly some vessels must have remained in use during the early colonial times, and many censers may have been hidden from the Europeans. The cave of Balancanche may have been closed at this time, to avoid a similar desecration as that suffered by the Sacred Well.

From Classic to Postclassic

The question of the Overlap

The collections from the Initial Series Group and the Great Terrace by the Chichen Itza Project demonstrate the presence of pure contexts of the Yabnal-Motul, Huuntun-Cehpech and Sotuta Ceramic Complexes ordered in a clear sequential stratigraphy (Figure 334).

Slate Groups of the Yabnal-Motul, Huuntun-Cehpech and Sotuta complexes show distinctive modal characteristics, and different manufacture techniques. These three complexes show also different diagnostic ceramic imports. Each one of these ceramic complexes is associated with a particular architectural style and with a different sculpture style.

The last two complexes, Huuntun-Cehpech and Sotuta, are also associated with different epigraphic systems, and can be also tied with distinct mural painting styles and techniques (Magaloni 2001: 184). Buildings associated with Cehpech ceramics were constructed with stones of different sources than those associated with Sotuta ceramics (C. García, pers. comm. 2006).

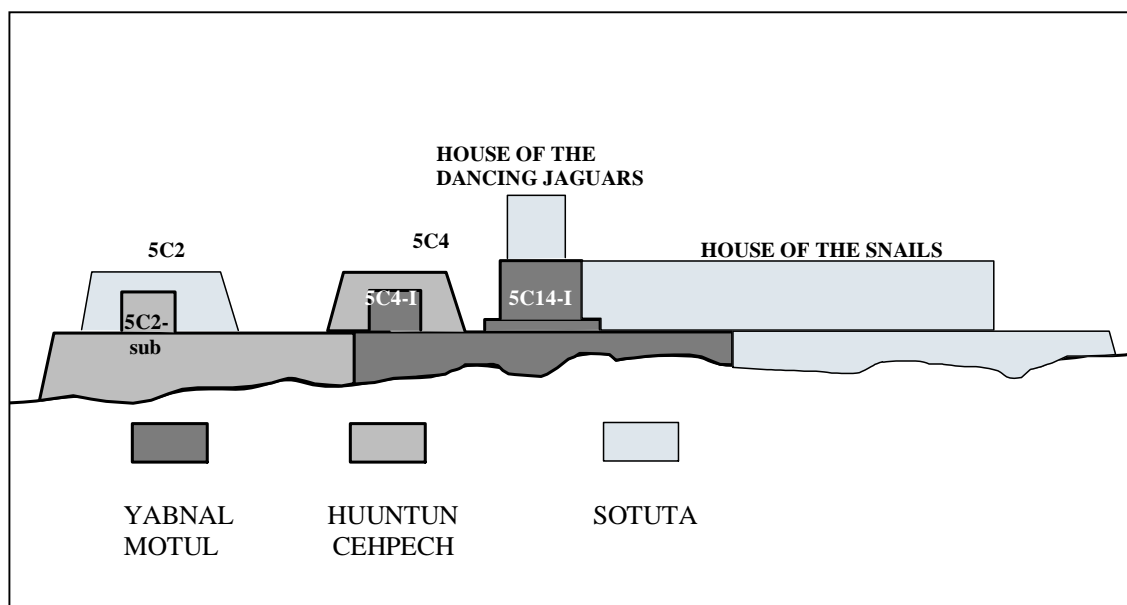


Figure 334: Schematic section of the Ceramic Periods of Construction at the Initial Series Group

I consider therefore that the evidence for a sequential arrangement of the historical periods that span from the Classic to the Postclassic at Chichen Itza is overwhelming. Despite recent assertions, there is no evidence at Chichen Itza for a total overlap. Ceramic evidence from sites apart from Chichen Itza that “show” evidence of such a total overlap must be carefully re-examined, especially that of Isla Cerritos (see below). On a regional level, there are indications that point to a partial overlap between Cehpech and Sotuta complexes (meaning that Cehpech ceramics may have been still produced at some sites after the Sotuta complex started at Chichen Itza). The duration of this partial overlap depends then on the date for the end of production of Cehpech ceramics at each particular center (in the Puuc sites, in the Northern Plains, and in the “Oriental Cehpech Sphere”).

For the sake of discussion, if we admit an end for Cehpech ceramics production at Puuc sites around A.D. 1000, as the traditional view has claimed (Smith 1971 for example), we would have period of overlap of around 80 years. That could be well the case for the city of Kabah (Perez de Heredia 2000). Unfortunately, the null advance in the understanding of Uxmal ceramics by recent projects makes it impossible to assess the duration of the possible overlap between the Uxmal Cehpech Complex and the Chichen Itza Sotuta Complex.

As was suggested by Andrews and Sabloff in 1986, quantities of overlap can be variable for different sites. In fact, many problems with the chronology of Northern Yucatan stem from an excess of homogenization and generalization (as Ball pointed out in 1979).

The regional panorama cannot be obtained by the generalization of data of a handful of sites, but rather has to be inferred from the comparison of a whole series of particular cases. The data presented in this thesis invalidates some arguments used by the overlap models supporters, such as the absence of pure Cehpech contexts, or the lack of a clear stratigraphy at Chichen Itza.

I will examine briefly the data that could be used to substantiate an overlap model for all Northern Yucatan, first at Chichen Itza itself, then the data from sites outside Chichen Itza.

Remaining evidence for an overlap at Chichen Itza

The sequence of ceramic complexes at Chichen Itza presented in Figure 333 is solidly based on stratigraphical and seriation evidence, but there are still some buildings and monuments which do not seem to correspond exactly with the sequence of events proposed in this thesis, and they merit some attention.

Temple of the Hieroglyphic Jambs (6E3)

Apart from the Osario, the Temple of the Hieroglyphic Jambs (6E3) is another building showing “Toltec” architectural traits (a Patio-Gallery plan) together with Maya style hieroglyphic inscriptions. Recent examinations of the West Jamb by Graña-Behrens confirmed recently the date 10.0.2.7.13 9 Ben 1 Sak, first proposed by Krochock, making it one of the earliest known dates from the site, falling in A.D. 832 (in Grube, Lacadena and Martin 2003). *“None of the historical individuals that would show up later in Chichen’s history is mentioned here”* (Grube, Lacadena and Martin 2003).

Sherds from a trench dug there by Roberts in 1933 are mentioned by Brainerd (1958: 41), who suggests an Early Mexican dating. *“Roberts notes two strata but sees no difference in the collections from the two. He tabulates 51 rims, 25 of them slateware (Coarse not distinguished from Medium), 7 sherds of X Fine Orange, one plumbate, and the remainder unslipped jars. Three slateware basin sherds out of thirteen are of Puuc form”* (Brainerd 1958: 41). This is a very unusual association, and I suggest, as a possible explanation, that the Jambs pertained originally to another building and were re-used during Sotuta Complex times to construct the Patio-Gallery.

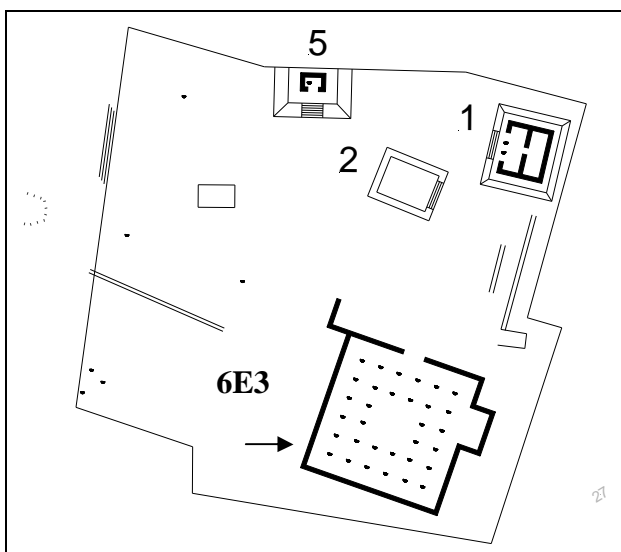


Figure 335 Group of the Hieroglyphic Jambs

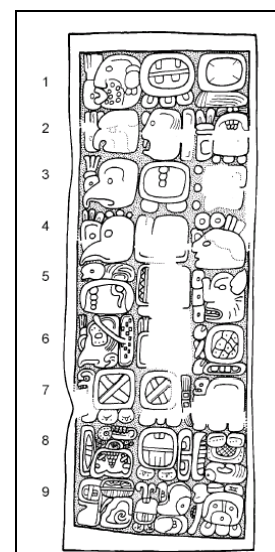


Figure 336: Jamb of Structure 6E3

Structure 6E1

Structure 6E1, in the same group as the previous building, shows Maya hieroglyphs associated with what Tatiana Proskouriakoff defined as “Toltec” sculptural traits (Proskouriakoff 1950). This could be explained if some of the so called “Toltec” traits were in fact of earlier appearance in Northern Yucatan.

The plan of 6E1, a building with two rooms and a door with columns on the façade, is the same as that of the second stage of the Initial Series building (5C4-II; Temple of Sacrifice), a construction dated to the beginning of the Cehpech ceramic complex (see Context C6).

It seems to me that these so called “Toltec” sculptural traits are more a problem for stylistic analysis and art history, but of no importance for the dating of this building. The association of the building plan and the hieroglyphs indicate a date in the second half of the 9th century, during the Huuntun-Cehpech complex.

My prediction is that the ceramics of this building’s construction fill will pertain to the Early Facet of the Huuntun-Cehpech complex or to the Terminal Facet of the Yabnal-Motul complex.

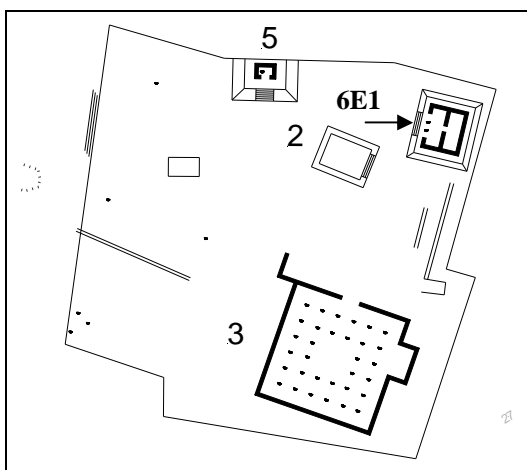


Figure 337: Location of Structure 6E1



Figure 338: Sculpture of Structure 6E1

The Altar of the Great Ballcourt

The circular Altar found somewhere near the Great Ballcourt bears a possible date of 10.1.15.3.6 A.D. 864 (Wren and Schmidt 1991). This date of the altar was proposed by Wren and Schmidt as the possible date for the construction of the Ballcourt. If so, it will be proof of a coeval construction of the Great Ballcourt, a “Toltec” style building and the “Maya” style buildings commissioned under Kakupakal’s rule during the 9th century.

A recent re-examination of the inscription confirm that the date is not as clear as desirable: *“The text is so heavily eroded that the reading of the date remains highly problematic, and at the same time we cannot even be sure that the stone was in fact found in association with the Ballcourt. Eric Thompson wrote that there was no archaeological connection between the Ballcourt Stone and Chichen Ballcourt, and that the monument was removed from another place”* (Grube, Lacadena and Martin 2003: II-39).

Since the date is not yet accepted by a majority of epigraphers, and the Altar is not architecturally integrated to the Ballcourt this monument does not constitute a strong argument for the overlap. Even if the date A.D. 864 were correct, it will apply to the altar, but not necessarily to the Ballcourt.

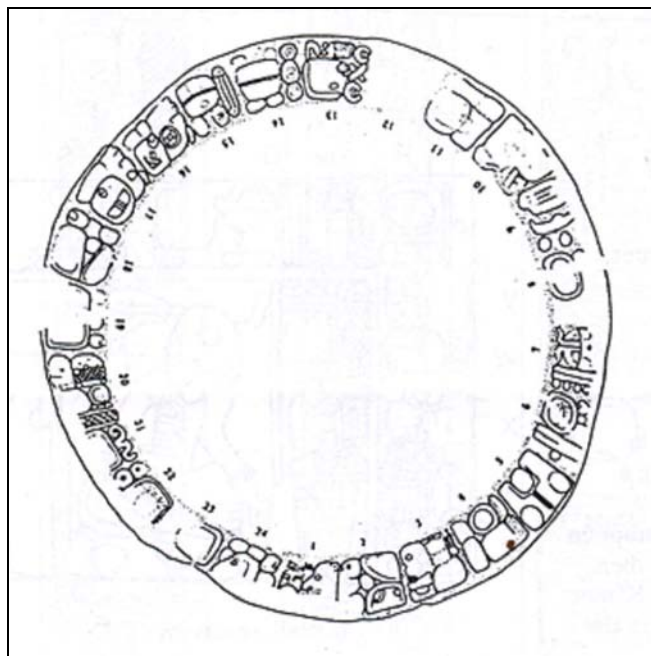


Figure 339: The Altar of the Great Ballcourt

The Capstone of the Temple of the Owls

The Capstone of the Temple of the Owls (Structure 5C7) presents a hieroglyphic inscription with a date, interpreted as \pm A.D. 870 (Graña-Behrens 2002: 429). On the other hand, as it was demonstrated in this thesis, the section of the terrace on which the Temple of the Owls was constructed contains Sotuta Complex ceramics in its construction fill, and therefore the Temple of the Owls also must date to the Sotuta Complex, after A.D. 900 (see Context S5).

This contradiction could be explained if the capstone was removed from a previous building and re-used in the construction of the Temple of the Owls.

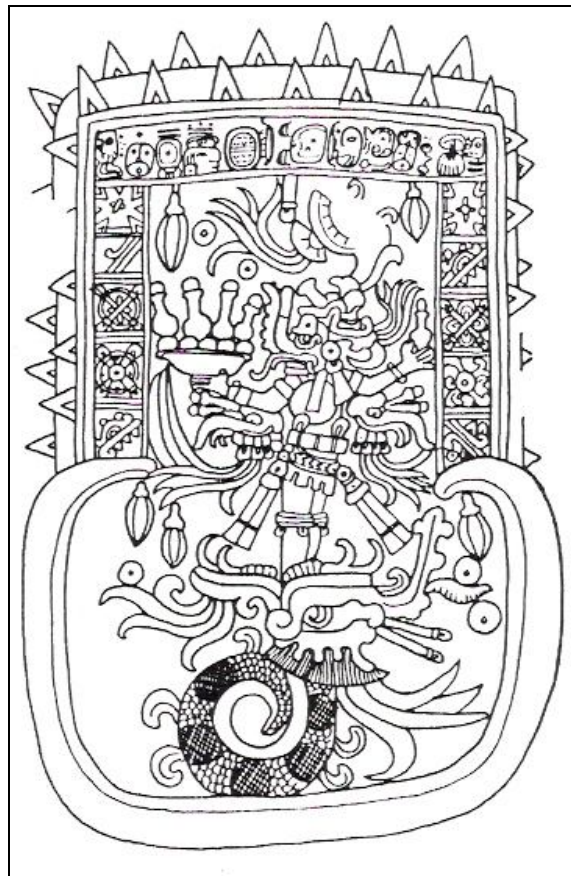


Figure 340: Capstone of the Building of the Owls

Evidence for an Overlap in northern Yucatan

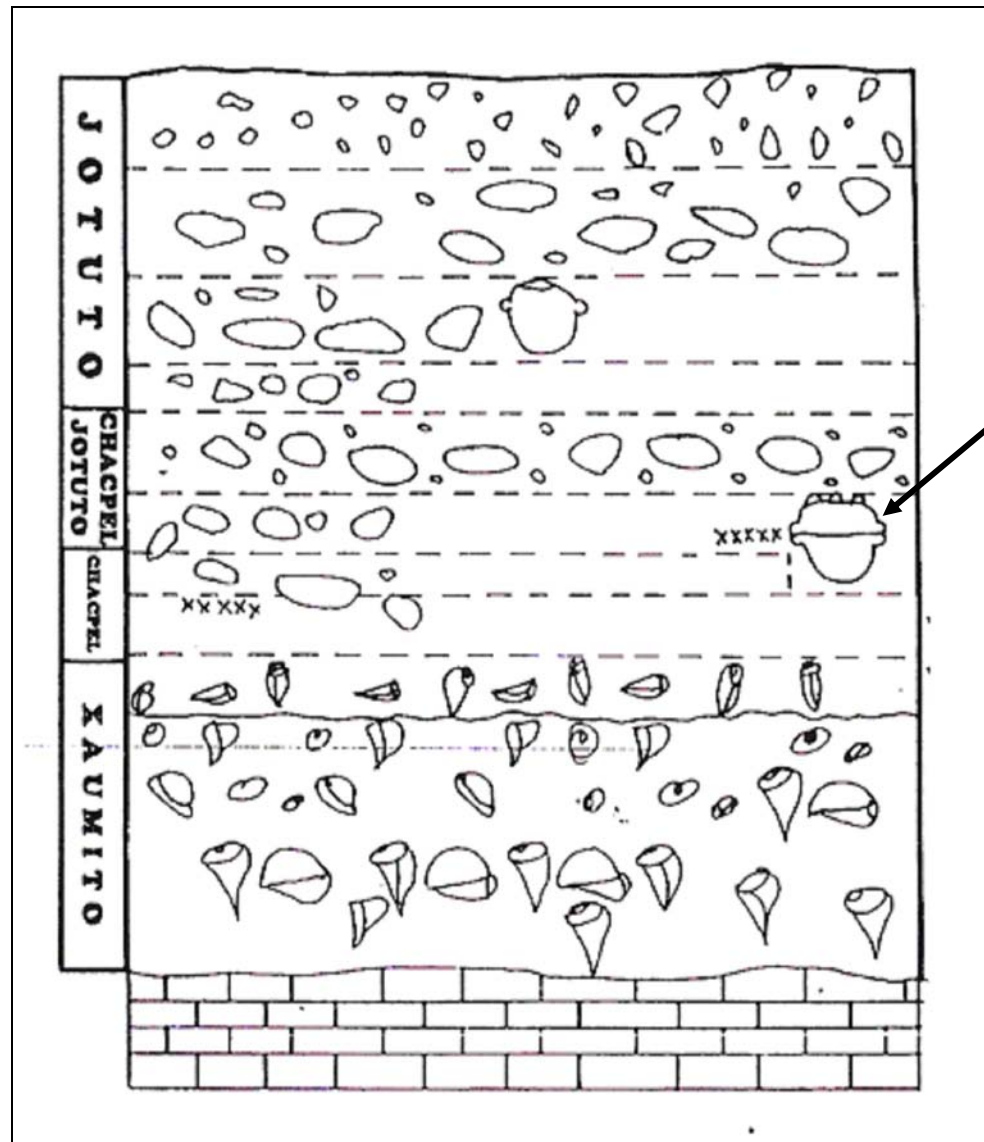
While the evidence presented at the 1982 Congress at Santa Fe (Andrews and Sabloff 1986) in favor of the overlap models was not conclusive, later ceramic findings at Isla Cerritos were considered as final proof of the contemporaneity of the Cehpech and Sotuta complexes. Generally accepted as correct, the evidence of Isla Cerritos has escaped critical examination. The Isla Cerritos project accomplished two field seasons during the summers of 1984 and 1985 on the small island located off the north coast, 5 kilometers west of the village of San Felipe. During 1984 around 4000 artefacts were recovered. Most of the ceramics (55%) pertained to the Sotuta Complex. During 1985, a total of 17 test-pits were excavated. More than 45,000 sherds were recovered from 170 stratigraphic contexts (T. Gallareta et al. 1989).

An infant burial found at Isla Cerritos (Andrews et al 1988) has been presented as further proof of the overlap between Sotuta and Cehpech ceramics (see Figure 341). The vessels containing the remains were identified as a Sotuta Complex Slateware Jar (*a*, Balantun Black on Slate type), and a Cehpech Complex Puuc Redware tripod bowl (*b*, Teabo Red type; Andrews et al 1988). The association of these vessels was then interpreted as evidence of the total overlap of Sotuta and Cehpech complexes. The stratigraphic position of this burial is shown in Figure 342.



Figure 341: Isla Cerritos, Infant Burial Vessels

Nevertheless, examination of the vessels at the Museum “Palacio Cantón” in Mérida by me and Sylviane Boucher provides a different typological identification. The jar pertains to the Chemax Black on Slate type of the Motul complex, while the tripod bowl can be either a Red Teabo Type (Cehpech complex) or a Redware vessel of the Motul complex. In either case these vessels have no weight in the discussion on the overlap between Cehpech and Sotuta complexes, because none of them pertains to the Sotuta Complex.



**Figure 342: Isla Cerritos, Schematic section of Test-pit 11, Structure 22 (Cervera 1996)
Arrow points to the infant burial of Figure 341**

But not only was that identification wrong. The methodology to create ceramic complexes at the site, is also questionable. According to Robles (1987), the ceramicist of the project:

“the basis to delimit a ceramic complex from another is by the stratigraphic association of certain ceramic groups. These present different percentages of co-occurrence clear enough to differentiate them from other similar clusters (complexes) inside the stratigraphic sequence. The temporary limits of each complex depend on the variable behaviour of each of the ceramic groups. Therefore, ceramic complexes are not absolute units, and while some groups can be located in one single complex, others can be part of one or more complexes” (F. Robles 1987: 101; my translation and emphasis).

While the association of ceramic groups to determine a ceramic complex composition is valid, this should be done by association in pure ceramic contexts (such as burials, or pure refuse deposits). From my understanding of the Isla Cerritos published reports, and looking at the stratigraphy shown in Figure 342, Isla Cerritos is in great part a human-constructed island, built up by the addition of successive layers of terraces. The construction fill of the different levels can then be attributed to several processes, mainly as displaced refuse used as fill, or even as refuse deposits entombed by posterior layers of terrace.

Robles did not state his view on the subject whether the Cehpech and Sotuta ceramics were produced at the site or imported to it. I consider very possible that part, at least, of the ceramics found in the test-pits were displaced refuse transported to the island from the coast, along with other construction materials. If so, this would add to the disturbance and mixing of the contents of the stratigraphic layers.

Robles inferred his complexes **directly** from this stratigraphy, without considering factors of residuality or any formation process. What he proposed was in fact that contiguous findings in stratigraphic association are to be considered **always** coeval, and ignore the difference between the target event and the dated event.

It also can be criticized that Robles does not consider ceramic complexes to be “absolute units”, because if they are not, their value as temporal analytical units is close to nil, and they can not be used to construct chronologies. If ceramic complexes are to be used for chronological purposes, they must be defined as absolute units, and once defined,

no longer subject to discussion. “*This monosemic property then enables us to discuss the sets of elements and to connect the propositions in a sequence of truths which can become undebatable, that is, logical.*” (Bertin 1989: 179).

In my view, ceramic complexes can be defined for historical purposes as temporal units of use, but in order to date ceramic complexes we must consider them as temporal units of local production. Therefore, I consider that the Chacpel-Jotuto complex does not exist as a temporal entity of simultaneous production, and that stratigraphic levels with such a mixture of ceramics must rather be considered as an early facet of the Jotuto (Sotuta) complex.

No wonder, then, that Robles wrote the following paragraph:

“One of the most important findings during the 1985 field season for the understanding of the cultural history of northern Yucatan was the constant appearance of a high quantity of sherds of the Dzitas (Chichen Slate), Sisal (Chichen Unslipped) and Silho (X Fine Orange) groups, components of the Sotuta Sotuta complex of Chichen Itza from the Early Postclassic (Smith 1971) in stratigraphic association with Cehpech materials of the Terminal Classic. In fact, we could not find any Chacpel Cehpech strata in our excavations without Sotuta materials. Nevertheless, sherds of the Dzitas, Sisal and Silho ceramic groups continued being abundant during the next complex Jotuto Sotuta, when the ceramics identified as Cehpech (Puuc) in Isla Cerritos are not used anymore or are not imported and/or produced in a significant number ... The important presence of sherds of the Dzitas, Sisal and Silho groups inside the Chacpel Cehpech Complex indicates that production of several groups traditionally assigned to the Sotuta Sotuta Complex at Chichen Itza (Smith 1971) must have started in an earlier period to that commonly accepted” (Robles 1987: 104; my translation, my emphasis).

The last, underlined, sentence is a classic statement of tele-chronology (if this type in one site dates from the year X, then the same type dates X in another sites, or in all sites). This dangerous method of dating one site with data from another site has often been used to substantiate a total overlap model for Chichen Itza (see for example Lincoln 1986). I will examine some examples.

The Silho Fine Orange Ware vessel found inside the **Ballcourt at Uxmal** (Maldonado 1979), associated to a date A.D. 906 has been used to accept that Sotuta ceramics were contemporary with Cehpech ceramics after A.D. 900 (Andrews V and Sabloff 1986). The flaw in the reasoning is the fact that Silho Fine Orange Ware is not a local product, but an imported one, and therefore cannot be used by itself to date the beginning of production of local (Sotuta) ceramics in northern Yucatan. Silho Fine Orange Ware could have been in circulation before the beginning of the Sotuta complex. What must be done is to date the beginning of production of Silho Fine Orange Ware at its production center (possibly in the lowermost Usumacinta area).

A different case is that of **Nohmul** (Chase and Chase 1982) in Belize. Here, a round structure was compared by the authors with the Caracol at Chichen Itza, and a 'patio-squad' structure was compared with the patio-gallery structures from Chichen Itza. The associated ceramics pertain to the Cehpech and Hocaba complexes. Then, the authors argue that *"evidence presented here could link the Maya collapse in the southern Lowlands either directly or indirectly to the rise of Mexican Chichen Itza during the Terminal Classic period"* (Chase and Chase 1982: 610).

Apart from the use of the tele-chronological method, other aspects of the argument can be questioned. First, it needs a great effort of imagination to admit a direct correlation between the architectural structures of Holmul and Chichen Itza. Second, no explanations are given for the formation processes affecting the ceramic collections, and no consideration is given to the Hocaba ceramics. In my opinion it is very possible that the structures pertain to the Hocaba complex, and then they will not bear on the chronology of the overlap.

In summary, the evidence of an overlap from Isla Cerritos, Uxmal, and Nohmul is very circumstantial and farfetched. It does not prove a date for the beginning of the Sotuta Complex before A.D. 900, and also fails to prove conclusively the simultaneous production of Cehpech and Sotuta ceramics.

Finally, in considering overlaps between ceramic complexes it has to be specified the type of overlap: i.e. production overlap, use overlap, or discard overlap. Confusion between these types leads to incorrect chronologies.

Middle and Late Postclassic

The question of the Peto Cream Ware

Parallel to the Overlap models for the transition from Classic to Postclassic, it has been proposed that the Middle Postclassic Period could be absorbed into the previous Sotuta Complex (i.e. Robles 1987; Lincoln 1990; Ringle et al. 1998). This alternative view was based on the chronological position of Peto Creamware (the characteristic pottery of the Hocaba complex), which was, in the opinion of the scholars mentioned above, coeval with the Dzitas Slate Group of the Sotuta Complex. It is necessary then to examine this issue from the perspective of the data generated at Chichen Itza.

I consider as highly probable and the most logic assumption, that Peto Creamware originated at Chichen Itza itself. In fact, the Kukula Group of Peto Creamware is just like the Dzitas Slate Group with a cruder paste. The absence of volcanic ash temper, and its substitution by calcite may have affected also the quality of the slip, (obtained possibly from the same paste), but not its appearance. A Peto Creamware jar, for example, is very similar in appearance to a Dzitas Slate jar, only its strength is lesser, and its durability shorter, but without closer examination both can be visually confused.

If Peto Creamware originated at Chichen Itza, then the determination of the chronological position of the beginning of its production will be better established at this site. At Chichen Itza, Peto Creamware is an above floor phenomenon, absent from “Toltec” style-Sotuta complex construction fills in all the sealed contexts examined here, and therefore it cannot be placed before A.D. 1150.

Peto Creamware at Chichen Itza is not an isolated group. It is regularly associated with the Mama Red and the Navula Unslipped groups, forming together the local pottery of the Kulub-Hocaba complex.

The Kulub-Hocaba Complex phenomenology at Chichen Itza points towards a short living complex, and a production span of 100 years allows settling the end of production of Peto Creamware, and the beginning of the Chenku-Tases Complex at

around A.D. 1250. A production span of 150 years would settle the end of Peto Creamware at A.D. 1300.

The historical events that took place at Chichen Itza from A.D. 1150 to 1250/1300 are of utmost importance, and in need of better understanding and definition, because they shaped the history of northern Yucatan during the long Late Postclassic period including the rule of Mayapan.

Chichen Itza during the Late Postclassic period

The Tases Ceramic Complex has been conceptualized as a decadent period of abandonment during which Chichen Itza became a pilgrimage center. This single image is expected to reflect the city's history during the whole Late Postclassic period. I have problems reconciling the idea of a pilgrimage center, which was compared by Landa with Jerusalem or Rome, with the abandonment state of the city that the word 'campsite' evokes.

I consider that a period as long as the Chenku-Tases Ceramic Complex (spanning 200 to 250 years) needs to be subdivided into shorter segments. A hypothetical model of gradual decay, contraction of population, and abandonment could be applied. Also a model of gradual specialization in the ritual management of the ceremonial sanctuary can be applied, and it does not contradict the first one.

Historical events during the 16th century may have influenced the type, pace and quality of the final abandonment of the site, and need to be taken into account in order to explain the phenomenology of the Chenku-Tases ceramic contexts at Chichen Itza.

Graphics and Chronology

The basic tool used in all the stages of dating ceramic contexts is the graphic representation. According to Bertin, *“Graphics is a very simple language. Its laws become self-evident when we recognize that the image is transformable, that it must be ordered, and that its transformations represent a visual form of information-processing”* (Bertin 1987: 183).

Treatment Graphics

For placing and ordering the complex frequencies of the different contexts a graphic of treatment is used, in which the frequencies are sorted according to the adjustment to an unimodal curve which in turn is based on the principle of popularity (Figure 343).

“Graphic processing involves two imperatives which do not apply to graphic communication: it must transcribe all the data from the tables, that is, the “comprehensive” data; and it must answer all the pertinent questions and allow the two components of the data table to be simplified” (Bertin 1987: 22).

Figure 343 shows a seriation of contexts used in this thesis. It proves clearly a linear arrangement of complexes. The next step is to simplify the information obtained by the treatment graphic. *“We can state that the simplification is no more than regrouping similar things. The eye simplifies by correcting the irregularities it notices in the initial disorder. Indeed, the original inventory is a disorder, produced by the random nature of human imagination and the contingencies of general classifications. The eye simplifies. This means that it eliminates differences of position, “visual distances” which signify nothing. The permutation of lines removes everything which hides the specific inherent organization created by the finite set of data. When this organization emerges, it permits subsequent discussion, not about the organization (which only depends on the data), but:*

- 1. about the nature of the data considered at the outset; and*
- 2. about the modifications which would ensure a better understanding of the discovered information”* (Bertin 1981: 7).

In order to simplify the information of the seriation presented in Figure 343, I present a graphic constructed using areas instead of bars (Figure 344). This graphic permits a clearer visual understanding of the complexes involved, their substitution patterns and their durations.

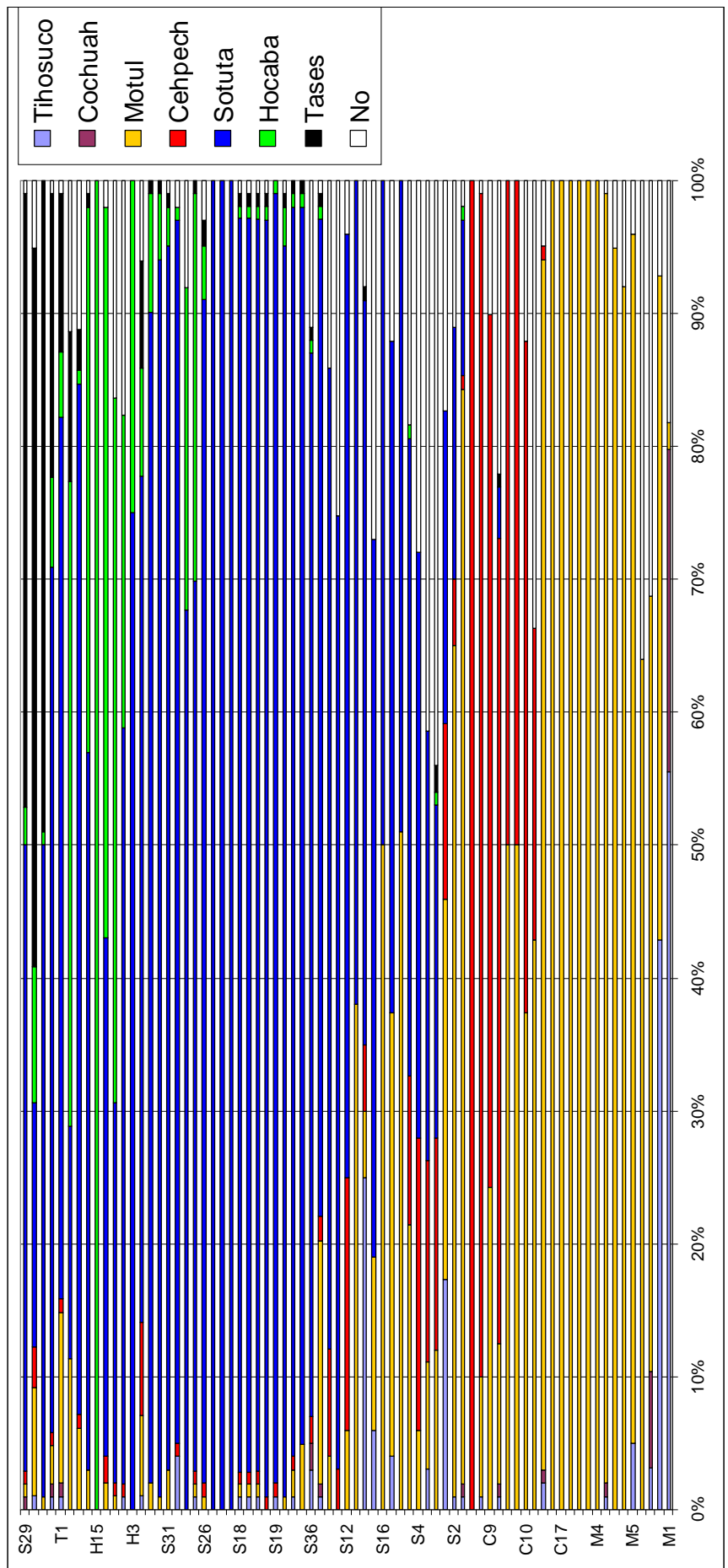


Figure 343: Seriation of Contexts

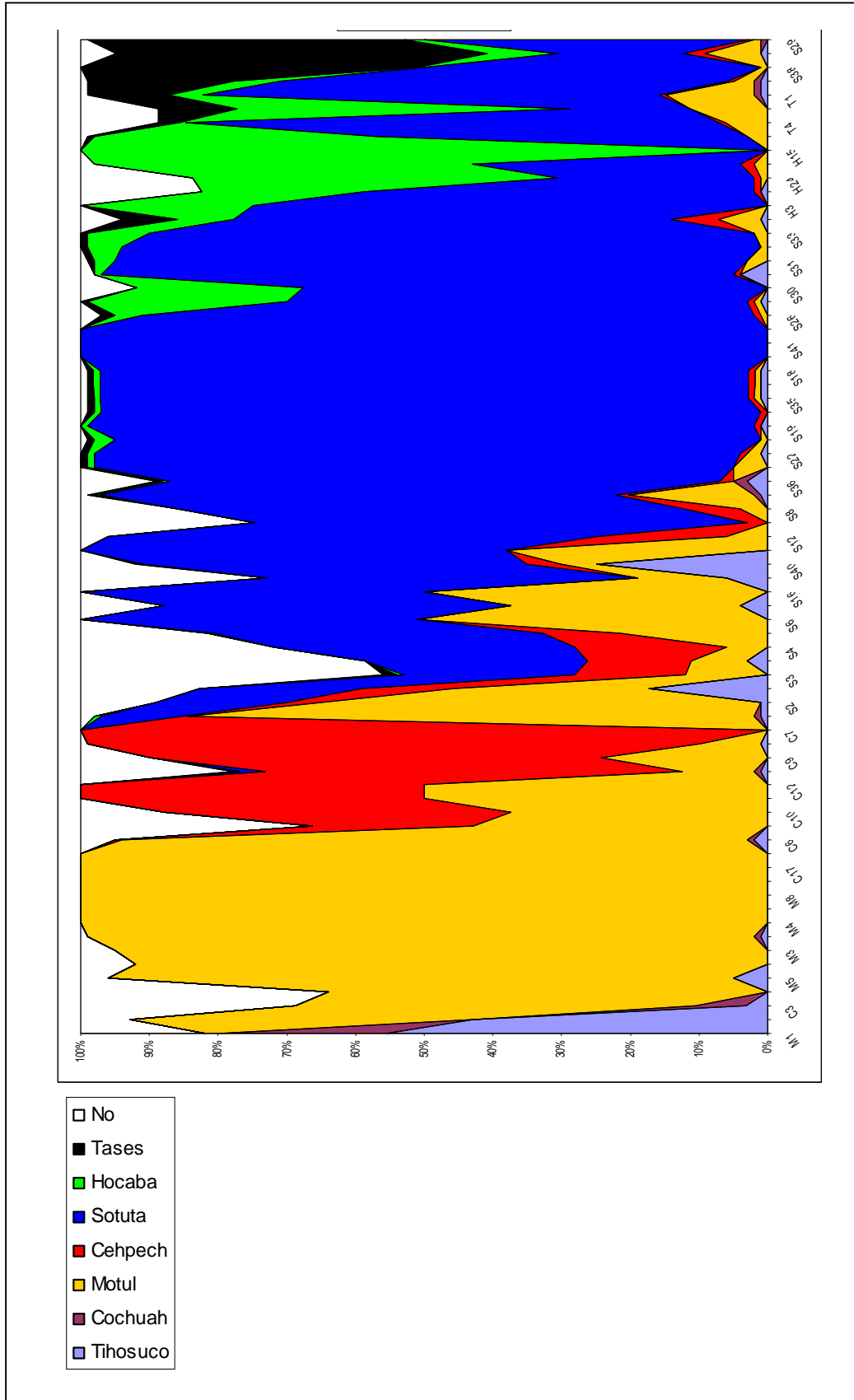


Figure 344: Seriation of contexts by areas

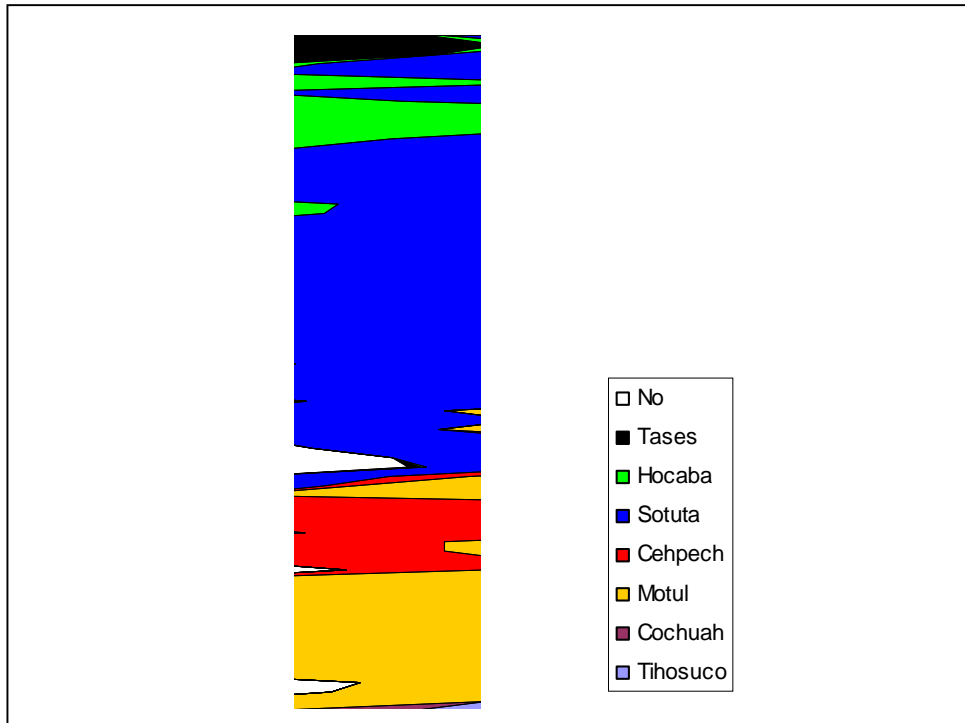


Figure 345: Central detail of Figure 344

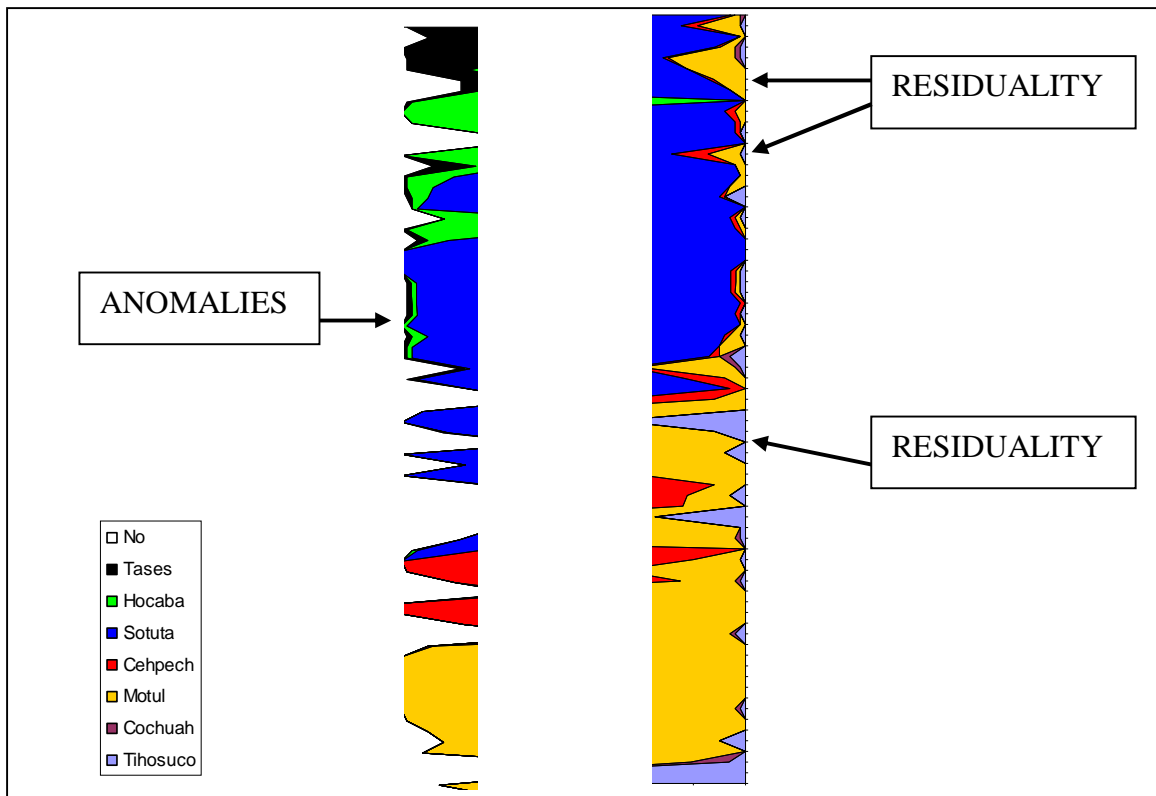


Figure 346: Lateral sides detail of Figure 344

Figure 344 can be subdivided in order to analyze different aspects of the chronology. For example, the central vertical axis shows the abstraction level that we call ceramic complexes (Figure 345). The sides of the column of Figure 344 are shown in Figure 346. The left side illustrates some anomalies by isolating ceramics of later periods in contexts of earlier period's formation (in the case of Figure 346 shows Hocaba and Tases ceramics present in Sotuta contexts). This can be explained by the type of context (open contexts), or by contamination during the excavation or handling of collections.

The column on the right hand side shows peaks of residuality of earlier ceramic complexes in contexts of later formation.

Communication Graphics

Another different problem (or set of problems) is posed by the graphics of communication. *“Graphic communication involves transcribing and telling others what you have discovered. Its aim: rapid perception, and potentially, memorization of the overall information. Its imperative: simplicity. This simplicity of forms authorizes the superimposition of images. Graphic communication poses problems on the level of simplification and selectivity”* (Bertin 1987: 22).

It is at the level of communication that we find the main difficulties to express chronologies as graphics. If we only want to express a succession of complexes in time, a traditional graphic, using straight lines, or bars, is enough (Figure). Such a graphic only expresses change, and duration of complexes.

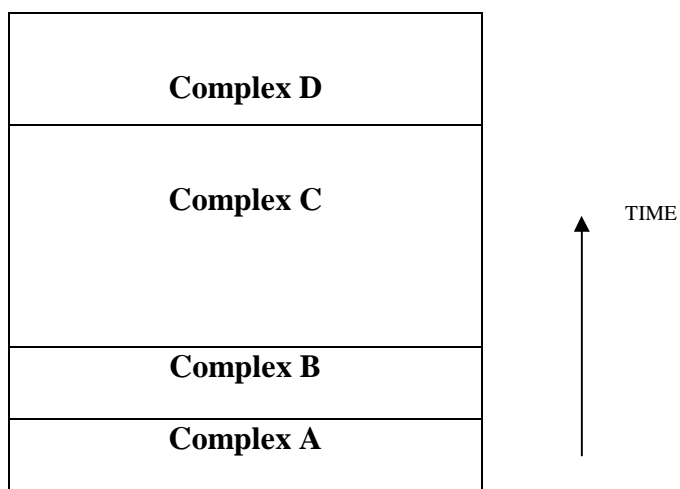


Figure 347: Traditional sequence of complexes

If we try to express the range of uncertainty about the start and end of each complex, then a graphic using curves is advisable (Figure 348).

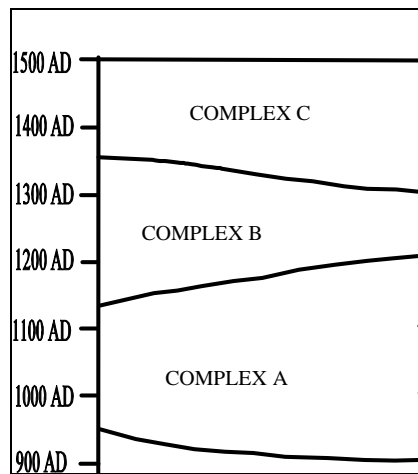


Figure 348 : Sequence of complexes using a graphic of curves

If we try to express not only the beginning and end of production of a single complex, but also the first and last appearance in the archaeological context, it is also effective to use a graphic of curves (Figure 349).

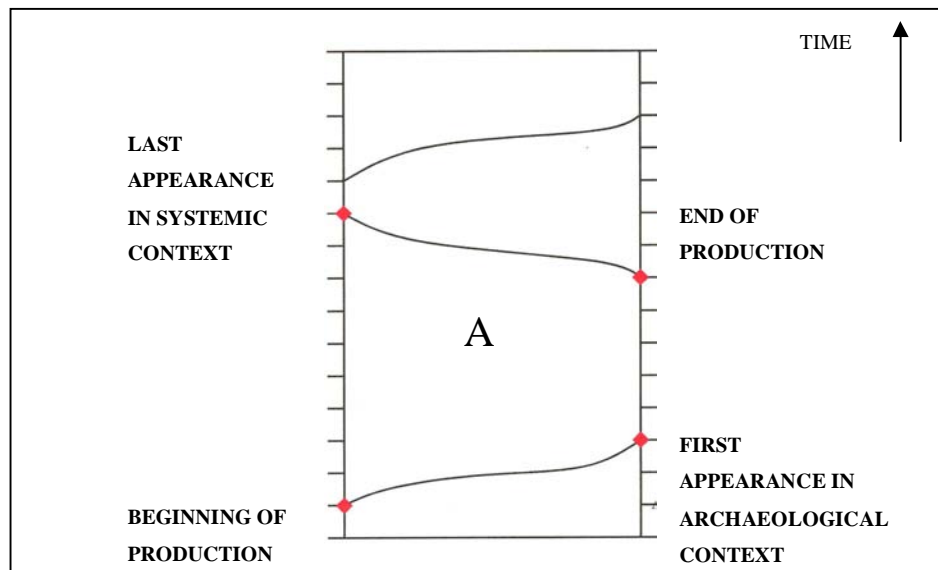


Figure 349 : Dates of a single complex using a graphic of curves

But if we try to express these four chronological moments for a set of complexes (in a sequence) we are confronted with the limitations of the graphic system. *“The image has only three dimensions. Can we superimpose several images? Can we superimpose several different characteristics on a map and still retain the properties of the image? No more than it is possible to superimpose several photos on the same film. The image has only three dimensions. This is its limit. The fourth dimension is time”* (Bertin 1987: 182).

I have tried to produce such a graphic with poor results, being the problem that the overlapping of the residually of the different complexes impedes a clear visual understanding (see Figure 350).

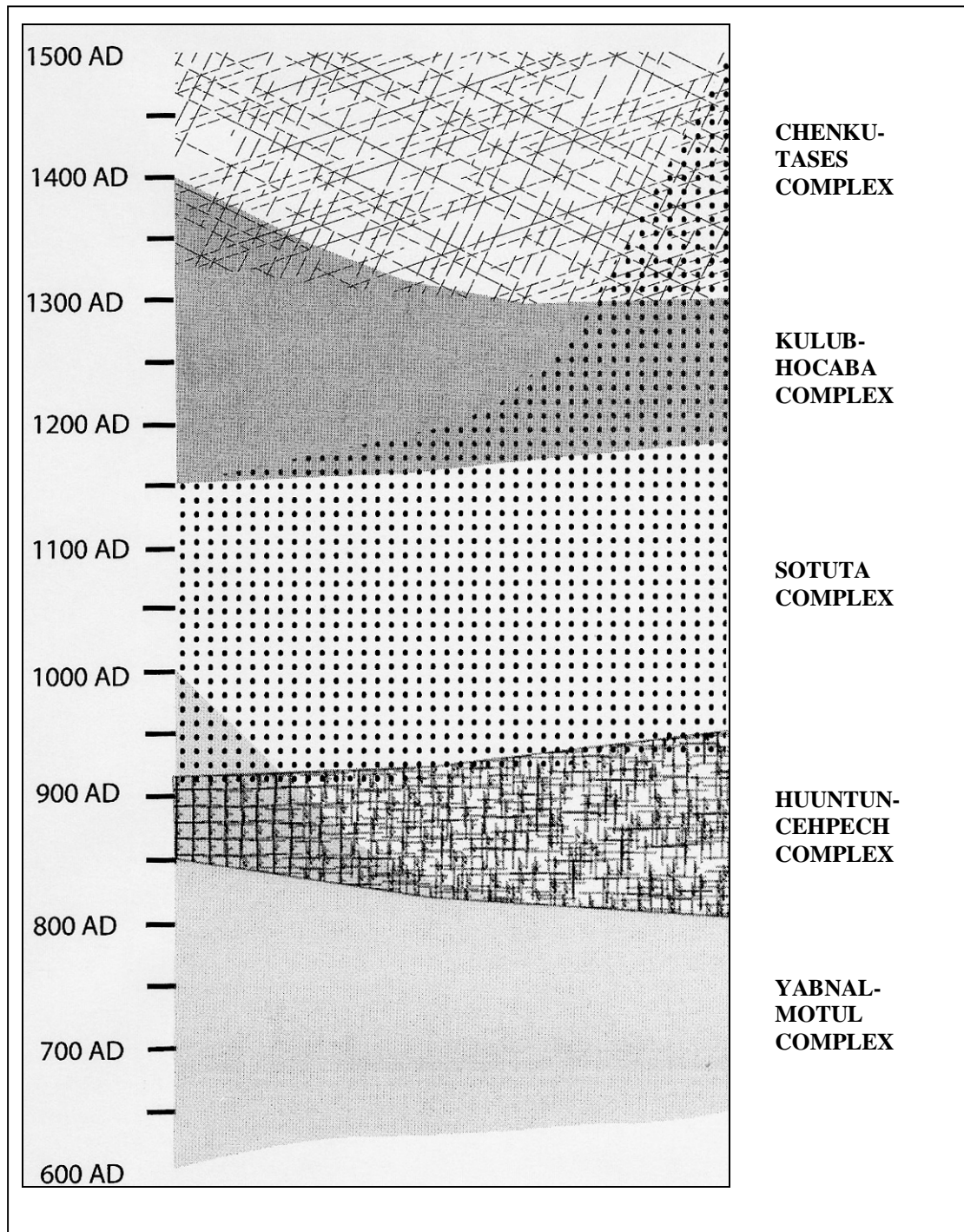


Figure 350 : Dates of a sequence of complexes using a graphic of curves

In order to show the phenomenology of residuality a “battleships” graphic is more effective (Figure 351).

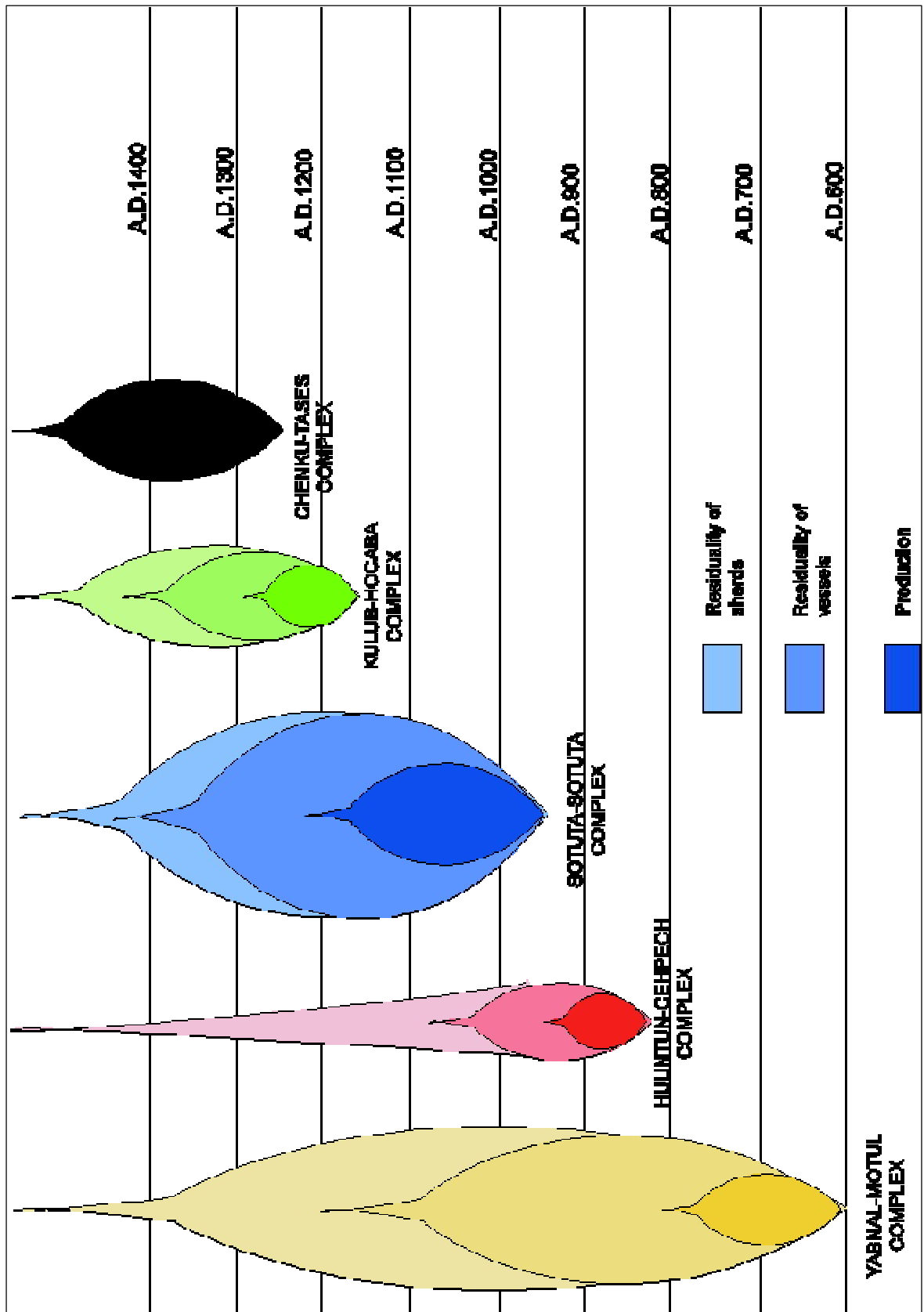


Figure 351: "Battleships" graphic of Chichen Itza's Ceramic Complexes

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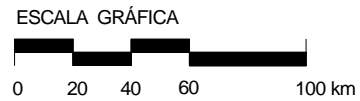
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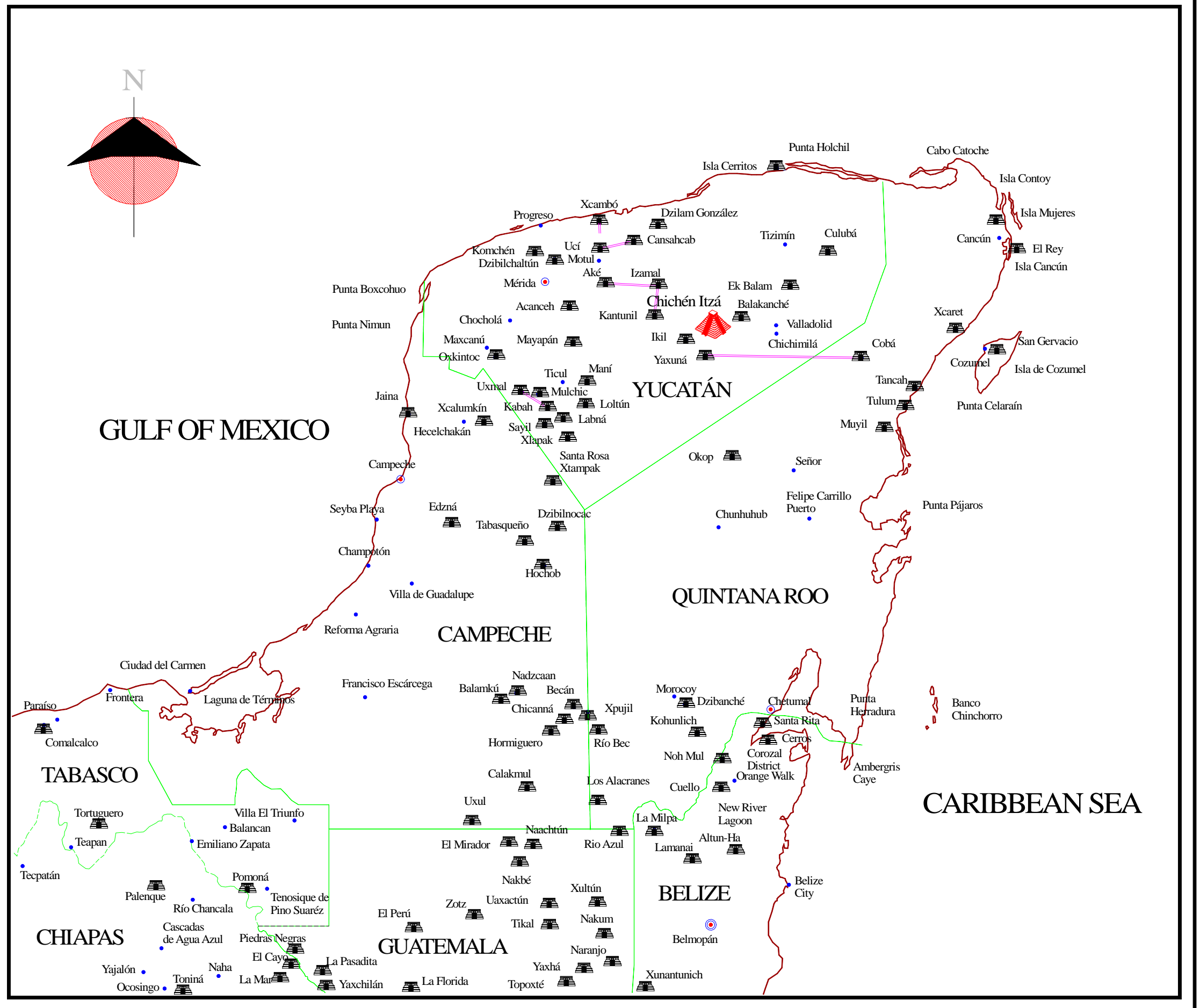
MAP OF MEXICO

SYMBOLOLOGY

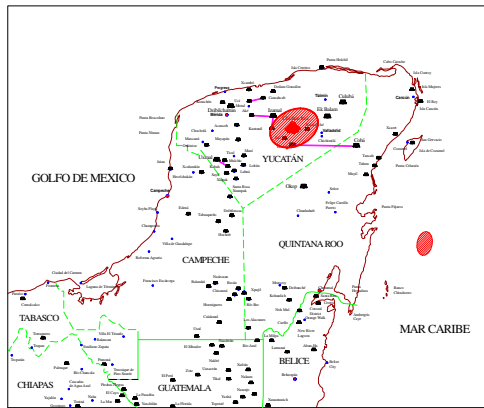
-  Chichén Itzá
-  Archaeological Site
-  Sacbe
-  International Limits
-  State Limits
-  Country Capital
-  State Capital
-  Cities



	PROYECTO ARQUEOLOGICO CHICHEN ITZA		
	UBICACION: Centro INAH Yucatán	CUADRANTE: -----	ESTRUCTURA: -----
PLAN OF THE YUCATAN PENINSULA			
DIR. DEL PROYECTO: Dr. Peter J. Schmidt S.	FECHA: 9/12/04	ESCALA: 1 : 1000000	
DRAWING: Arqlogo. Francisco Pérez Ruiz	CAD FILE: Plano1.cad		



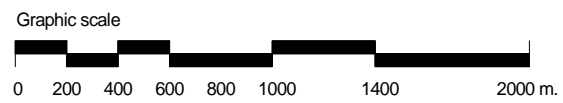
Map 1.- Some important archaeological sites of the Yucatan Peninsula.



PLAN OF THE YUCATAN PENINSULA

SYMBOLOLOGY

- Poligone of Site Protection
- Level Curves
- Archaeological Constructions
- Walls
- Modern Construction Areas
- Barricades
- Cenote
- Sacbes
- Rejolladas



PROYECTO
CHICHEN ITZA

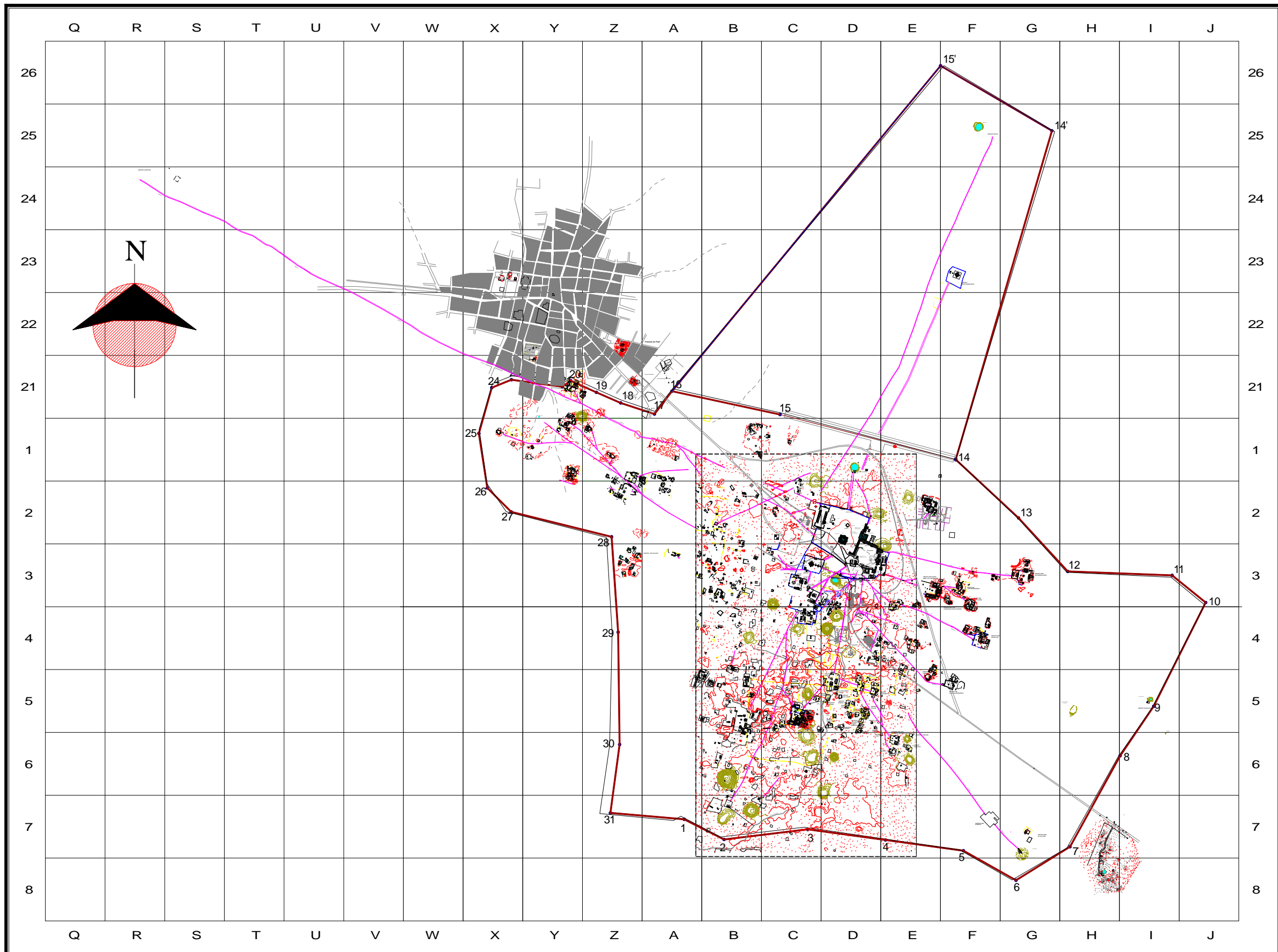
PROYECTO ARQUEOLOGICO CHICHEN ITZA

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 P.J. Schmidt, F. Pérez, R. Cobos, R. González y T. Hernández 1983-2002
 Ch. Lincoln 1963-1965, A. Peña 1959-1991
 K. Rappert 1935-1952, D. Polanco 1980-1981
 J. G. Kilmartin 1924-1929, J. P. O'Hair 1932

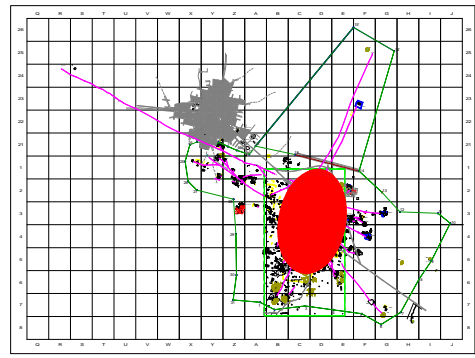
DEPENDENCIA
C.N.C.A.- I.N.A.H.

PLANO GENERAL

DIR. DEL PROYECTO Peter J. Schmidt S.	FECHA 9 / 12 / 04	ESCALA 1 : 30000
ELABORO Francisco Pérez Ruiz	CAD FILE Chichen.Cad	



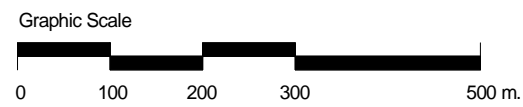
Map 2.- General Plan of Chichen Itza



GENERAL PLAN OF CHICHEN ITZA

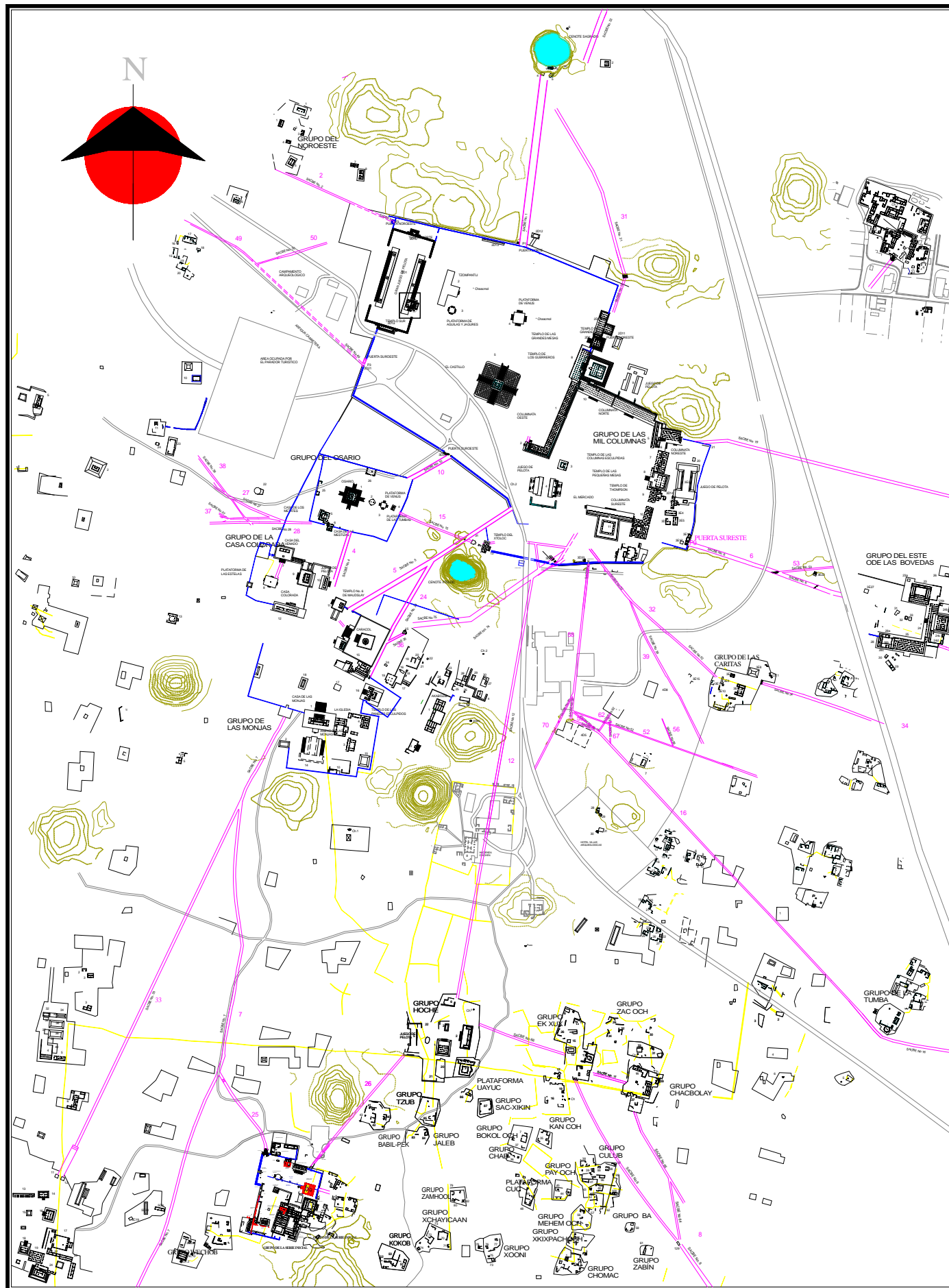
SYMBOLOLOGY

- Archaeological Constructions
- Walls
- Modern Constructions
- Barricades
- Sacbes
- Rejollada
- Cenote

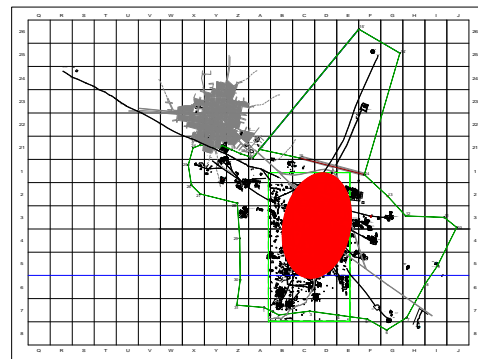


PROYECTO ARQUEOLOGICO CHICHEN ITZA

UBICACION:	CUADRANTE:	ESTRUCTURA:
PLANO GENERAL DEL CENTRO DE CHICHÁN ITZÁ		
DIR. DEL PROYECTO	FECHA:	ESCALA:
Dr. Peter J. Schmidt S.	9/12/04	1 : 8500
LEVANTO Y DIBUJO	CAD FILE:	
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Map 3.- Central detail of the plan of Chichen Itza.

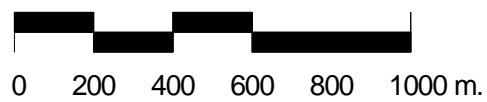



PLANO GENERAL DE CHICHÉN ITZÁ

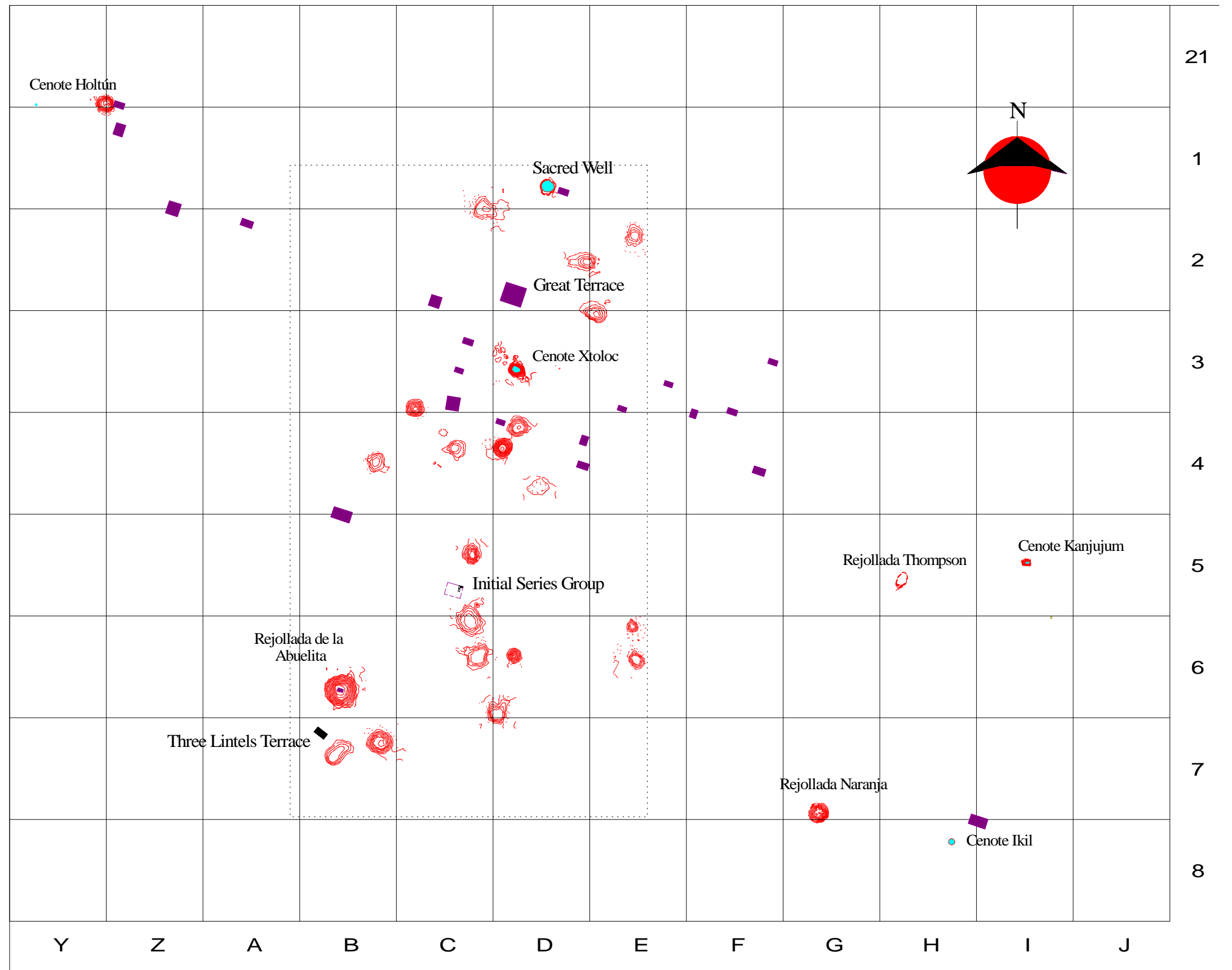
SYMBOLOLOGY

- Constructions of the Motul Complex.
- Presence of Yabnal-Motul ceramics.
- Rejolladas
- Cenotes

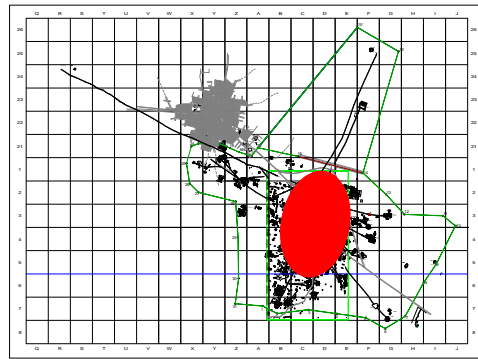
Graphic Scale



 PROYECTO CHICHÉN ITZÁ	PROYECTO ARQUEOLOGICO CHICHEN ITZA		
	UBICACION	DEPENDENCIA	
CENTRO INAH YUCATAN		C.N.C.A.- I.N.A.H.	
DISTRIBUCION DEL ASENTAMIENTO DURANTE EL CLASICO TARDIO			
DIR. DEL PROYECTO	FECHA	ESCALA	
Dr. Peter J. Schmidt S.	9 / 12 / 04	1 :20000	
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Map 4. Chichen Itza during the Late Classic Period (Yabnal-Motul ceramic complex)

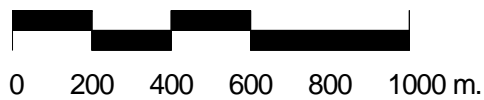



PLANO GENERAL DE CHICHÉN ITZÁ

SYMBOLOLOGY

- Buildings with Inscriptions of the 9th Century
- Range-type Buildings
- Temples with double room
- Presence of Huuntun-Cehpech ceramics
- Rejolladas
- Cenotes

ESCALA GRAFICA



 PROYECTO CHICHÉN ITZÁ	PROYECTO ARQUEOLOGICO CHICHEN ITZA		
	P.J. Schmidt, F. Pérez, R. Cobos, R. Gonzalez y T. Winemiller 1993-2003 Ch. Lincoln 1983-1985, A. Peña 1990-1991 K. Ruppert 1935-1962, D. Patterson 1980-1981		DEPENDENCIA C.N.C.A.- I.N.A.H.
	PLANO GENERAL		
	DIR. DEL PROYECTO Peter J. Schmidt S.	FECHA 19 / 12 / 03	ESCALA 1 :30000
ELABORO Francisco Pérez Ruiz	CAD FILE Chichen.Cad		



Map 5. Chichen Itza during the Terminal Classic period (Huuntun-Cehpech ceramic complex)