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The Analysis of Archaeological Materials from El Ujuxte, Guatemala

Research Year: 2000
Culture: Maya
Chronology: Middle Pre-Classic to Late Pre-Classic
Location: Pacific Coastal Plain of Guatemala
Site: Ujuxte

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Introduction

The Ujuxte Project began in 1993 as a program of archaeological exploration in the Pacific coastal plain of Guatemala. The focus of the project, since its inception, has been on the transition from the Middle Formative to Late Formative and the development of social complexity in that region. The project has dedicated most of its efforts to the site of El Ujuxte, located in the department of Retalhuleu, some 10

kilometers from the Pacific Ocean. (Figure 1). The project has also undertaken region survey around Ujuxte to determine the nature of the region system associated with the site.

The site of El Ujuxte (Figure 2) is one of the largest pre-hispanic cities on the Pacific coast of Mesoamerica. During the first years of work, the Ujuxte project carried out mapping and surface collection at the site. Based on the analysis of the surface materials, including ceramics, obsidiana, and groundstone, a preliminary model of site development and its role in the development of social complexity in Mesoamerica was developed. (Love, 1994a; 1994b; 1995). During the 1995 season a program of excavation was carried out to test this model, and testing continued through the 1996 and 1997 seasons.

Since 1998 the Ujuxte Project has focused on the analysis of materials recovered by the surface collection and excavation programs. The program of laboratory study was temporally suspended in 1999, when funds from the National Science Foundation ran out. The program was re-opened in 2000 with funds from FAMSI and the Wenner-Gren Foundation.

The principal focus of the 2000 laboratory season was completion of the ceramic analysis. That analysis involved the detailed coding of data for over 50,000 pottery pieces, including over 200 whole vessels. The attributes coded included the typological data (ware and group classes), vessel form, and vessel decoration. These data will form the basis for developing a refined ceramic chronology as well as studies of social and economic organization at the household level.

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Figure 1: Map of Pacific Guatemala and Chiapas, showing the location of Ujuxte and other sites.

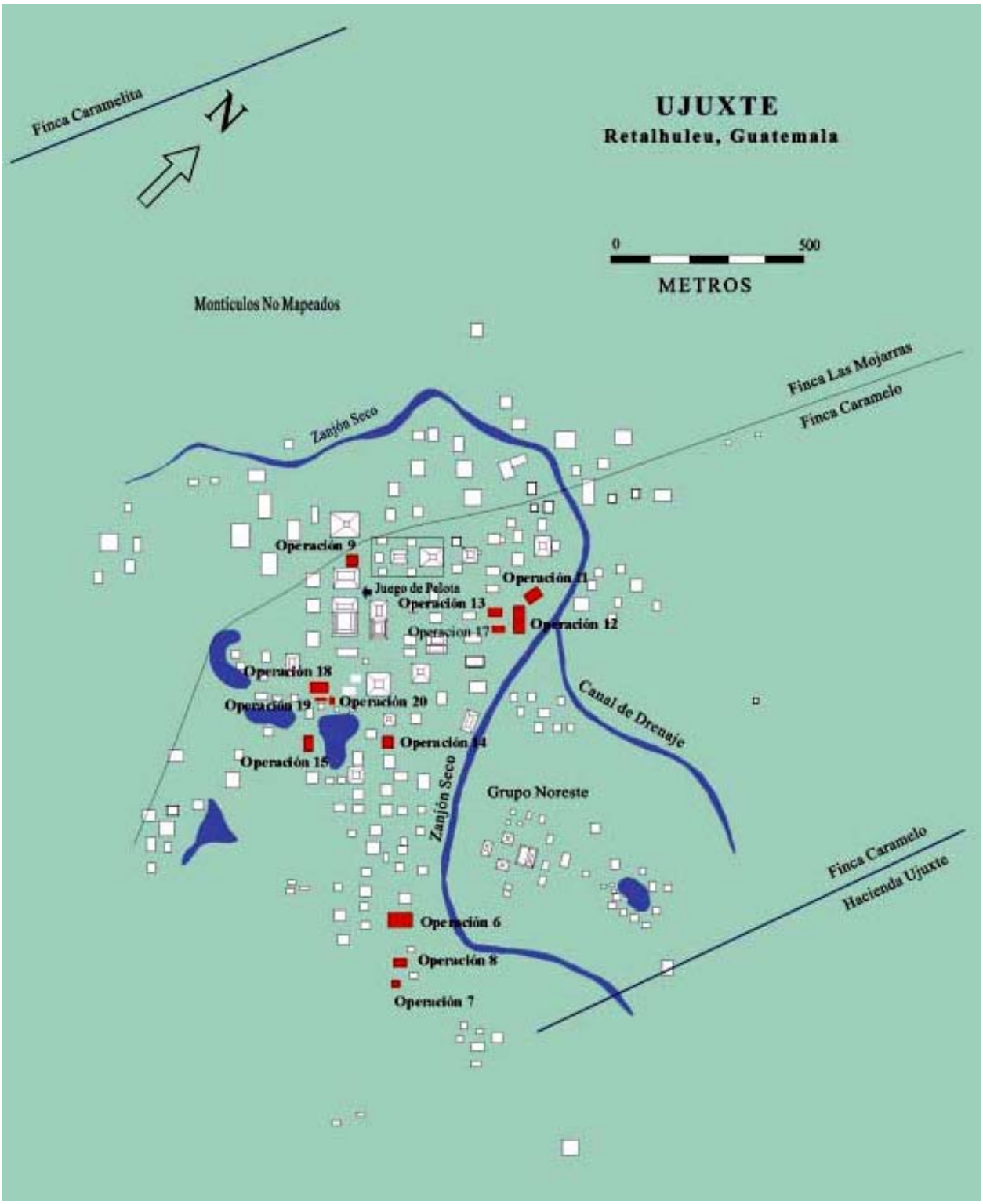

Figure 2: Map of the Ujuxte site. Locations in red indicate excavations.

Work Conducted in the Laboratory Season of 2000

Work was begun by Donaldo Castillo, the Guatemala co-PI on June 1, 2000. Castillo and the laboratory crew began transporting materials and furniture to set up the laboratory. Approximately one-half of the collection had been left with Castillo and the other half stored in the project's equipment warehouse near the site of Ujuxte on the Pacific coast.

In the time since the project had shut down in June, 1999, Castillo had been engaged in sorting most of the 22,000 unanalyzed sherds into types. The first task in 2000 was to lay those sherds out in the new laboratory so that they could be inspected by Love upon his arrival.

Love arrived in Guatemala on the evening of June 13, 2000. The next day he proceeded to the laboratory to begin work. Love began by reviewing the work of Castillo and making changes as needed. Once a final sorting had been made, Love began to sort the sherds by vessel form and to prepare lots for final coding.

Once the final classifications by type and form were made the lots were passed to a crew of six Guatemalan lab technicians. These six individuals had worked for the project since its inception and had learned the specifics of the coding manual. These technicians recorded data on each sherd, including the catalog number, provenience data, and information on the type, form, and decoration of each sherd.

While the lab crew proceeded with the coding, Love went with two U.S. students to transport an additional 5,000 unanalyzed sherds from the project storage facility. Those sherds had not yet been sorted when work was suspended in 1999 and because of space limitations could not be stored at Castillo's residence.

Upon returning to the lab, Love began to classify the latter sherds by type while the U.S. students sorted pieces by form. Love reviewed the students work each day and made changes as needed. The pieces were passed to the Guatemalan lab technicians as they were sorted. In the process new forms and decorations were identified. Drawings were made of each new form and decoration, then scanned and inserted into the ceramic coding manual.

Sorting of the ceramics was largely completed by August 1, but pieces sorted as 'eroded' or 'unknown' were reviewed by Love to see if more certain classification could be made. The process continued up until Love's departure on August 15.

After August 1, the Guatemalan crew was split into two groups. One continued coding while another began to enter data into the project ceramic database. Coding was completed by August 30, 2000 but data entry continued into December, 2000. Complete results of the summer's work will not be available until and statistical analysis of the data is undertaken. Nonetheless, a summary of the principal accomplishments is given below.

First and foremost, coding of the Ujuxte ceramic collection was completed. Over 22,000 pieces were worked and coded during the 2000 laboratory season. The overall project database now contains detailed information on 50,000 ceramic pieces (whole vessels and sherds) for surface collections and excavations. Analysis of this database will allow the development of a very refined chronology for the Middle and Late Formative periods in Pacific Guatemala.

Second, we were able to refine the ceramic typology, especially for the final part of the Late Preclassic. We will be able to split the Pitahaya phase, tentatively defined in 1999, into Late Preclassic and Terminal Preclassic sub-phases. This split will allow the project to study the decline of Ujuxte after it's Cataluña phase apogee. The late Pitahaya phase appears to be a time of encroachment by intrusive Maya groups, probably based at Abaj Takalik, into the Pacific coastal plain.

Finally, we were able to separate out and code definite trade wares from the Guatemalan highlands. These included various waxy orange and waxy black ceramics from the Quetzaltenanago and Quiché regions, along with fine red and streaky black-brown wares from Kaminaljuyú.

Results of the Ceramic Analysis

The archaeology of the Guatemalan Pacific coast has achieved notable results in the past 20 years. Nonetheless, we are still in the first steps toward understanding the prehistory of this important region. In particular, the ceramic chronology widely used is inadequate to study themes of anthropological interest.

An important part of the Ujuxte project has been to improve the ceramic chronology of the Pacfic coast, especially for the Middle and Late Formative periods. It must be noted at this juncture that within the Pacific coast there are clearly distinct cultural zones, and a single chronological framework will not be appropriate for the entire coastal plain and piedmont. We have achieved notable success in formulating a refined chronology for the western portion of the coast, however.

We have tentatively, and preliminarily, divided the Ujuxte sequence into three broad phases: Caramelo, Cataluña, and Pitahaya. Each of these is defined by changes in the frequency of major wares. Further refinements in the chronology will be made by studying the frequency of vessel form and decoration attributes. In Love's earlier work at La Blanca, such attribute analysis generated a chronology with periods no longer than 75 years in length (Love, 1989; 1993).

Methodology

Methodologically, the framework used at Ujuxte uses three principal dimensions of variability as the basis of analysis. Logically, these three dimensions are independent,

although in practice we see that there are statistically significant correlations between them. The first dimension is the ware, which we define as the combination of slip and paste. The second dimension is form, which we classify in three nested levels: general, specific, and variant. Finally, the third principal dimension of variability is decoration: modifications or applications made to the vessel, which include painted and incised designs, plastic applications such as effigies, and modifications, such as perforations or pinching.

Analyzing the data on vessel form and decoration will require statistical methods and will require several months to complete. At the moment, we can describe a tentative sequence at Ujuxte and the relations of the site to other zones, using the distribution of ceramic wares. The sequence covers the latter half of the Middle Formative (Middle Formative 2) and the first half of the Late Formative, or roughly 600 B.C. - A.D. 100. Figure 4 presents 12 radiocarbon dates from Ujuxte. All are from domestic contexts.

The Ceramic Chronology of Western Pacific Guatemala

The chronology of the southwestern Pacific coast is presented in Figure 3, along with comparative sequences. The latest phases within the Pacific Coast column are those newly defined from the Ujuxte project. Before describing those phases, some background on the preceding phases is needed.

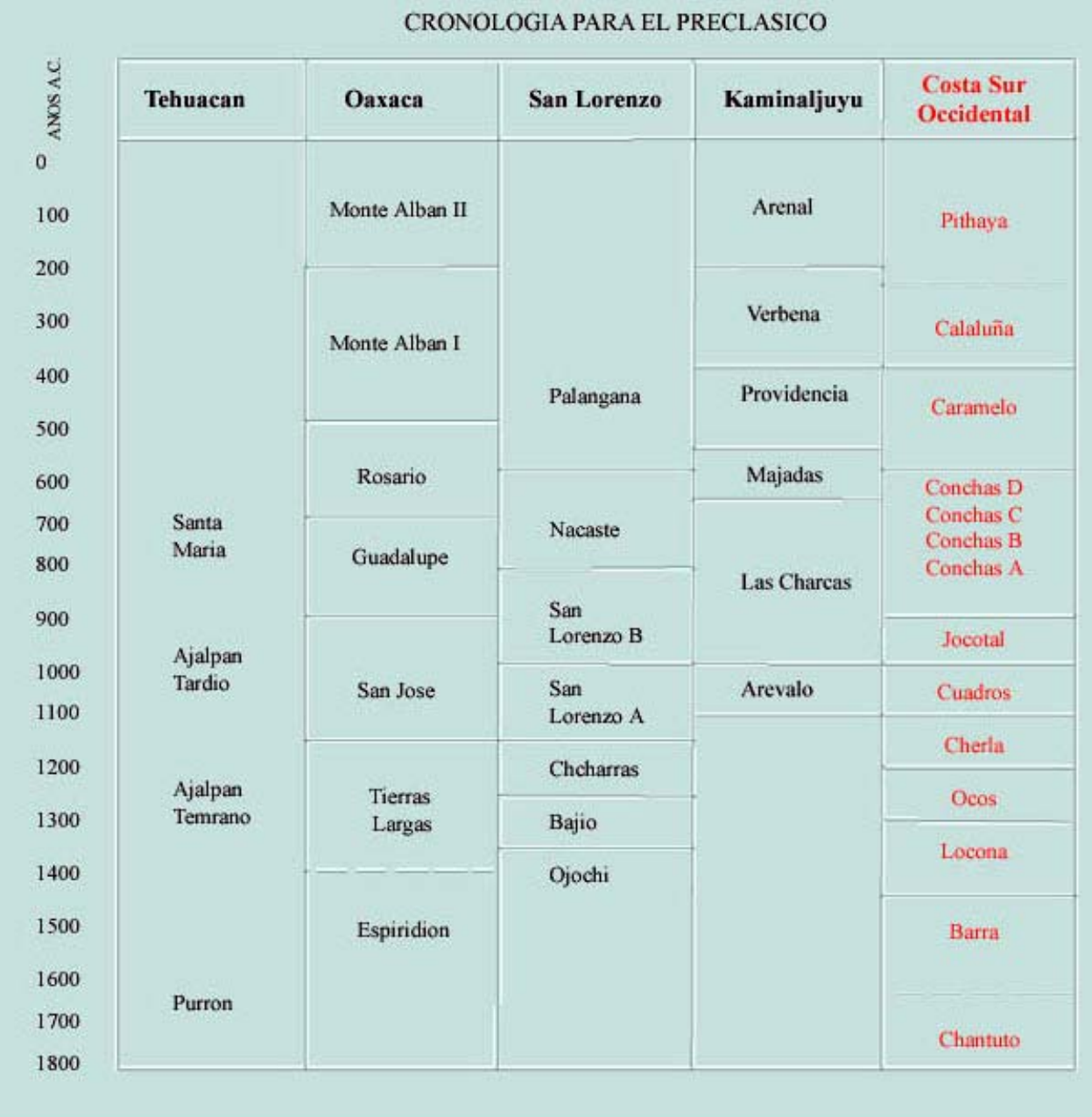

Figure 3: Chronology for the Pacific Coast and other regions of Mesoamerica.

Antecedents to the Middle Formative

The general sequence of the Early Formative has been described by various authors and seems relatively clear. There is, however, some uncertainty about absolute dates. There is a high degree of variability in the chronometric dates of the Cuadros and Jocotal periods (Early Formative 2), such that it is unclear just when the Early Formative

period ends. Blake *et al*. (1995) give a date of 850 B.C., but the dates from La Blanca (Love, 1989; 1993) suggests that the Middle Formative Conchas phase begins no later than 900 B.C.

Middle Formative 1

The first part of the Middle Formative period shows some important changes in the ceramic sequence. The Middle Formative begins with the Conchas phase, first defined at La Victoria, and subsequently redefined on the basis of excavations at La Blanca (Coe, 1961; Love, 1989).

There is a good sample of 5 radiocarbon dates for the Conchas phase at La Blanca. The dates lie within a range of approximately 300 years, from 900 B.C. to 600 B.C.

Conchas represents a direct evolution of the ceramics of the Jocotal phase. There is much similarity in the monochrome wares of the two phases and in the modes of decoration. The most common vessel of both time periods is the flat bottomed outleaning bowl. One important difference is that in Jocotal this form is not slipped on the exterior, while in Conchas it has a thick slip on both interior and exterior. During the Conchas phase one can also note changes in the form of the lip and in the frequency of design motifs. These differences form the basis for sub-dividing Conchas into sub-phases (Love, 1989; 1993).

Evolution in the tecomate is also noticeable in the Conchas phase. In the latter part of the Jocotal phase the tecomate is lightly brushed, with only a slightly raised. En Conchas, the band and the wiping disappear completely. Tecomates are most common in Alamo ware, but they are also found in Meléndrez White, Meléndrez Black, and Meléndrez Red on White. Alamo ware is one of the hallmarks of the Conchas phase. It consists of a dull orange/red slip over a coarse brown paste. The surface in all forms is lightly brushed, but never burnished.

In the Alamo ware, the tecomate represents 90% of all vessels. Other forms include necked jars, which is fundamentally a tecomate with a stubby neck applied. Comales are rare, but known in Alamo ware at La Blanca. Alamos ware is extremely conservative; it shows few changes over the 300 years of the Conchas phase.

The other important ware of the Conchas phase are Meléndrez White, Meléndrez Black, and Meléndrez Red on White. This family of wares is all made with the same paste and slip, with differences in firing conditions and decoration. Cuca Red on Buff is another important ware, made from the same clay body, but a distinctive slip. Cuca Red on Buff is interesting for two reasons. First, it appears to be an anachronism, in that it is made after the manner of the Jocotal phase; the flat bottomed bowls are unslipped on the exterior. Second, the ware was used for feasting bowl, used in Conchas period households for social display. The interior of Cuca Red on Buff bowls is highly decorated with incised and painted designs. The interior rim nearly always bears an

incised double-line break, while the interior bottom is incised with more elaborate designs.

Of further importance are several wares made with a fine white paste. These are Ramírez White, Ramírez Black, and Margarita Red on White. The clay used to make these ceramics is probably kaolin, but that hasn't been proven by chemical analysis. All of these ware can be reliably seen as elite in nature. In Ramírez White and Ramírez Black, the most common form is a small drinking cup. The size of these vessels suggests that they were for individual use.

There are a number of forms that are diagnostic of the Conchas phase, both temporally and as a ceramic complex. The first of these is the plate, small flat bottomed vessels with straight sides. These are of very limited distribution, confined largely to the area around La Blanca. Second, there are the grater bowls. These forms are within antecedents in the local area, and disappear completely at the end of the Conchas phase. Third, there are the shallow bowls with thick everted rims that occur predominantly in Meléndrez Black. These vessels mark the beginning of a long tradition of everted rim bowls that last through the Late Formative period. After the Conchas phase, however, they are rarely found in black, but become more common in red and orange wares.

Sub-divisions of the Conchas phase

Based upon excavations at La Blanca, Love (1989; 1993) has divided the Conchas phase into four sub-phases, Conchas A to Conchas D. The sub-phases are defined by the addition of new wares and forms through the sequence, changes in the relative frequency of various wares. The number of changes is extensive, but those that take place in the flat bottomed, outleaning bowls are the most strongly diagnostic.

As noted, the flat bottomed bowl with outleaning walls is very ancient and represents a very important vessel form throughout the Formative period. The form occurs in many wares, but here I will discuss three: Cuca Red on Buff, Meléndrez White, and Meléndrez Red on White.

In the three wares mentioned, the most diagnostic changes occur in the form of the rim. In the Meléndrez wares, there are three predominant lip forms: direct, thick-pointed, and thick-rounded. The direct form is dominant in the first two Conchas sub-phases, but the thick forms become more important in the latter two sub-phases, and continue into the later Caramelo phase. Cuca Red on Buff has its own distinctive rim forms, with non-direct forms dominanting in the first two sub-phases and direct forms in the latter two.

After Conchas

Until the Ujuxte project, the ceramic chronology for the Pacific coast in the post-Conchas period was poorly understood. Coe (1961) originally divided Conchas into two parts, Conchas I (ca. 850 - 500 B.C.) and Conchas II (ca. 500 - 200 B.C.). The data from La Blanca, however, showed that Conchas II was a product of mixed stratigraphy and did not exist as defined by Coe. There was therefore, a gap from 600 B.C. (the newly postulated ending date for Conchas) to at least 200 B.C., which Coe and Flannery (1967) defined as the starting date for the Late Formative Crucero phase.

The Crucero phase itself also had problems. The first was its length, over 500 years. The second was classificatory: ceramic types defined by Coe and Flannery simply didn't hold together. For example, an inspection of the type collections at the Museo Nacional de Arqueología y Etnología in Guatemala, Love found at least six distinct types within the 'Crucero Orange' category.

At the beginning of the Ujuxte project, then, it was decided that we would discard all of the define types and phases for the post-Conchas period, starting over from scratch. We have made much progress, but the results given below are tentative, pending a full quantitative analysis of the ceramic data.

Radiocarbon Dates for Ujuxte

Twelve radiocarbon assays for Ujuxte have been run to date (Figure 4). These establish a framework for chronological ordering of the ceramic variability that we see stratigraphically. The means for the 12 dates span approximately 700 years, from 600 B.C. to A.D. 100. This span falls completely within the Formative period, and starts at the end of the Conchas phase.

Within these 700 years we have tentatively identified three ceramic phases at Ujuxte: Caramelo, Cataluña, and Pitahaya. Each of these phases is identified on the basis of the dominant wares present in a series of major depositional units: natural stratigraphic levels, sealed deposits (such as trash pits) and ritual offerings found at the site core. It is anticipated that each of these phases can be subdivided into at least two sub-phases. It is also likely that a late facies of the Pitahaya phase can de re-defined as a separate phase. Thus, it appears likely that at the end of the analytical trail we will have chronological units no longer than 100 years in length.

In what follows, each of the newly defined phases is described and illustrated.

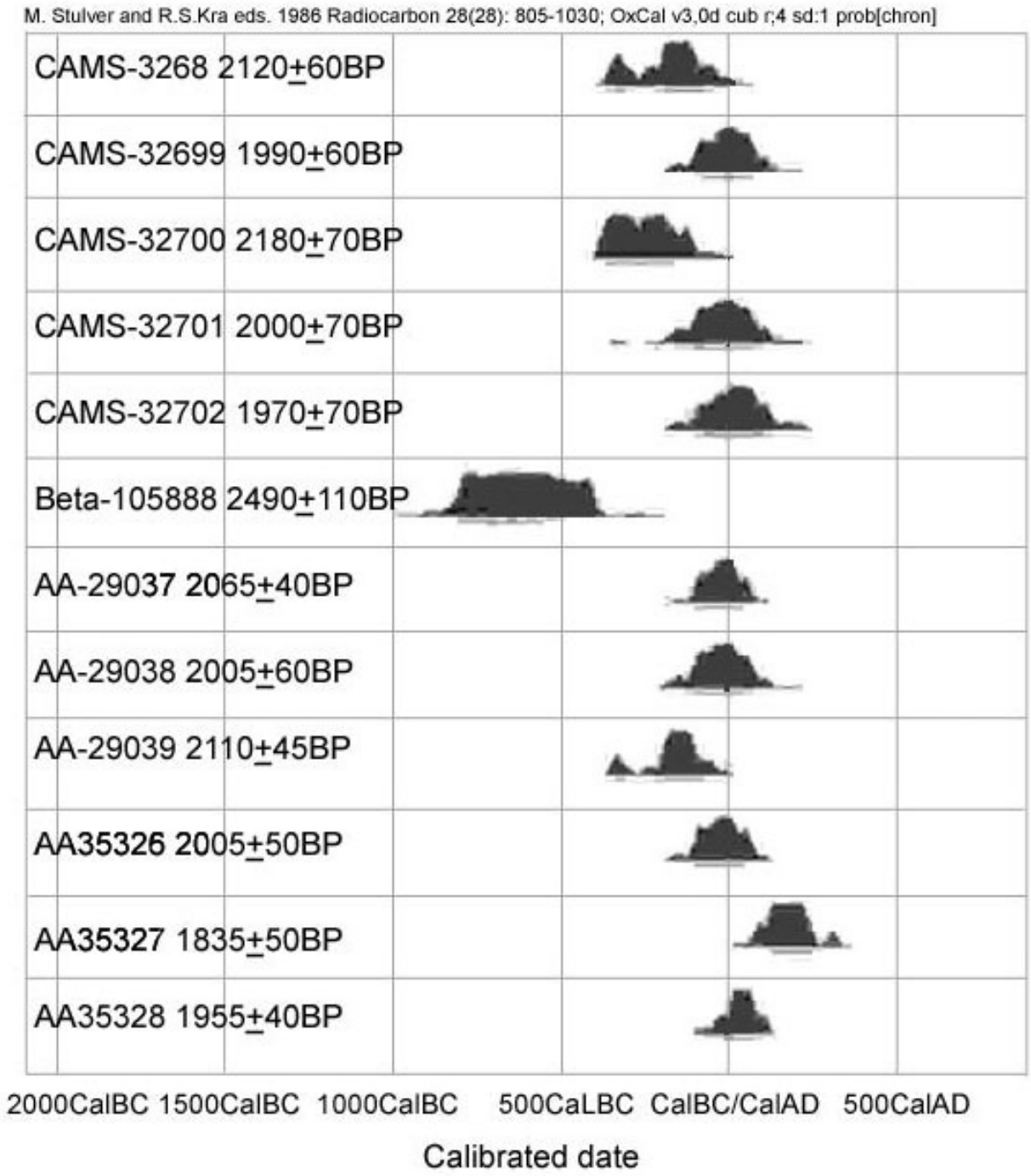

Figure 4: Radiocarbon dates for Ujuxte.

The Caramelo Phase

The Caramelo phase represents the latter portion of the Middle Formative (Middle Formative 2). The phase is clearly derivative of Conchas and shows a great deal of continuity with that phase, but there are also major and significant changes evident in the ceramic assemblage.

We have three radiocarbon dates for the Caramelo phase at Ujuxte. The oldest indicates the beginning of the phase is at about 600 B.C., which is consistent with the stylistic similarities seen with Conchas. The second and third dates have averages of 300 and 150 B.C., respectively, both of which appear to be too late; they may indicate that the contexts from which they come are redeposited. Alternatively, we can simply accept the earlier range of the probability distribution as reflecting the true age of the samples. Whatever the case, however, it seems unlikely that the end of the Caramelo phase lies after 400 B.C.

The continuity from Conchas to Caramelo is noted in the Mopa wares, a major component of the Ujuxte assemblage (Figure 5). Superficially, Mopa is similar to the Meléndrez wares of the Conchas phase. There are a series of monochrome and bichrome wares using the same clay, fired in different conditions. Like Meléndrez, Mopa also has a micaceous slip, although the Mopa slip is generally thinner than in Meléndrez, and becomes thinner through time. There are significant differences, however, in form and decoration.

Forms in Mopa do exhibit continuity with Conchas. As noted above, some of the rims forms that develop late in Conchas outleaning bowls continue into the Caramelo phase. In outleaning bowls, however, the round base replaces the flat. (The rounded base did appear in the Conchas D subphase, but was rare.)

The decoration of Mopa ware bowls is also distinct from Meléndrez. In place of the double line break, designs in Caramelo included triple and quadruple line motifs. The execution of the incised line is also different. Mopa lines are much thicker than their Conchas counterparts, and the lines are irregular and wavy, rather than uniform and straight.

Many Conchas phase forms disappear during the Caramelo phase. The grater bowl and the flat plate are no longer seen, although small shallow bowls may be the successors to the plate. The tecomate declines markedly in frequency, although it is still seen in the ware we call Castaño. Castaño also has a large number of jars with short necks, so it is in many regard the succesor to Alamo ware.

Figure 5: Mopa Black and Mopa Brown.

The Late Preclassic Period

We consider that the Middle Formative ends with the Caramelo phase. The beginning of the Late Formative is defined by the appearance of a new suite of ceramic wares, and punctuated by the dominance of red wares.

The Cataluña Phase

The description of the Cataluña phase is provisional, and based on the analysis of ceramics from Feature 20, a large trash pit found in Operation 7, and Feature 9, a trash pit in Operation 6. It is likely, based on differences in ware frequencies and vessel forms between these two contexts, that we can divide the Cataluña phase into at least two sub-phases.

In the Cataluña phase we can note at least one significant change: the appearance of a polished red ware that we call Chorrera. Chorrera is divided into two distinct type: one with pumice temper and one without. As of this writing we have not been able to note

temporal differences between the two, and it is likely that they represent distinct production locales, rather than time periods.

Chorrera ware occurs in a variety of forms. The most frequent are a bowl with a short, straight neck, and a bowl with a thick everted rim. The latter form is derived from the Meléndrez Black everted rim bowls of the Conchas phase. Chorrera Red is also associated with jar forms, mostly small jars with short necks.

Mopa ware continues to be strongly present in the Cataluña phase, but it is changed. First, Mopa Black is reduced in frequency. Second, Mopa White is less decorated, and incised designs becomes more rare. Third, Mopa Orange becomes more frequent. Fourth, the slip in all Mopa wares becomes thinner. Feature 8 has a high percentage of a Red on Orange ware, which is not noted in Feature 20. This difference, and others, probably indicates that Feature 8 is later in date than Feature 9.

Figure 6: Vessels from a Cataluña phase cache. Vessel on left is Mopa Orange. Vessel on right is Chorrera Red.

Also noted in Cataluña phase contexts is the presence of several orange wares with Usulután decoration. In these contexts the Usulután is the cloudy type, rather than showing distinct straight or wavy lines.

In general, the ceramics of the Cataluña phase are similar to those of the Guatemalan piedmont and the highlands of Chiapas. Chorrera ware is associated with the red ceramics of the Escalera and Francesca phases of Chiapas. We also note, however,

many similarities with the highlands of Guatemala and the eastern Pacific coast. We have examples of Monte Alto Red, Xuc, and Graphite on Red.

Ceramics from ritual offerings in the central Plaza of Ujuxte illustrate many Cataluña phase diagnostics. In Stratum C of the plaza, we excavated over 35 caches with a total of more than 155 vessels, most of which date to the Cataluña phase.

In these offerings we can note similarities with piedmont sites, such as Abaj Takalik. The use of small plates in ritual offerings is also noted at that early Maya site.

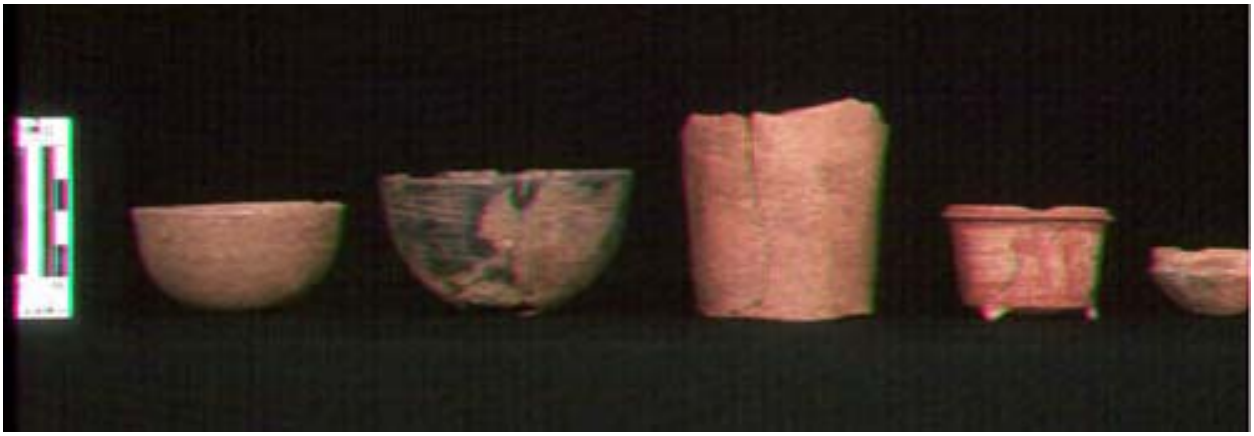

Figure 7: Pitahaya phase ceramics.

The Pitahaya Phase

The Pitahaya phase represents a drastic change at Ujuxte. There are three dates for the phase, which place it in the range of 100 B.C. to A.D. 100.

The definition of the Pitahaya phase is preliminary, because the lots analyzed are small. Nonetheless, the changes noted are strong.

First, in this phase we can note the dramatic decline of the Mopa and Chorrera wares. In the contexts that have been studied in detail, Mopa is present only in small amounts, although it is strongly present in a gravelot tentatively placed in the early part of the Pitahaya phase.

The Pitahaya phase is notable for the increase in polished orange wares and red on orange ceramics of various types. There are more than a dozen orange wares at Ujuxte, and nearly the same number of red on orange.

The ceramics of the Pitahaya phase show a strengthening of ties to the Guatemalan highlands and piedmont, and a weakening of links to the Chiapan coast to the east. The

presence of Usulután decoration is stronger than in earlier time. There is also a coarse utilitarian ware that project co-director Donaldo Castillo believes linked to the nearby piedmont site of Abaj Takalik.

Conclusion

The Ujuxte project has provided important insights into the development of social complexity during the Formative period, and especially the development of urbanism during the Late Formative period. The ceramic studies conducted during the year 2000 will allow the development of a refined ceramic chronology, which will anchor all other analyses. Once that chronology is fully explicated, studies of household organization, economics, and social relations will be able to proceed with a very secure base.

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