

THE POSTCLASSIC STAGE IN MESOAMERICA

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INTRODUCTION

The subject of inquiry in this paper is the Postclassic stage in Middle America. As used by prehistorians, the term "Postclassic" has referred to either a developmental stage or to a chronological period. These two concepts are quite different, both operationally and theoretically. The stage concept in contemporary usage is a classificatory device for studying culture units in terms of developmental and theoretical problems. For comparative purposes, a stage is usually defined in broad and diffuse terms, in order to outline a culture type. A developmental stage is not temporally defined although it is necessarily a function of relative time. The chronological period on the other hand is defined through the temporal alignment of culture units and establishes the historical contemporaneity of those units. Thus the developmental stage is a typological device and the chronological period is a temporal unit.

There is a wealth of material on late pre-Columbian Middle America available in the chronicles and codices. However, the study of such materials is a specialty in itself, hence only a minimum of historical information will be presented in this paper and this will be of necessity, based on secondary sources.

The following procedure will be employed in this paper. First, brief summaries of formal statements by various authors on the developmental stage concept will be presented, as well as some temporal classifications of the Postclassic. Secondly, the available archaeological evidence will be summarized to provide a temporal framework. And finally, consideration will be given to the implications derived from the comparison of the Postclassic as a temporal category and as a developmental stage.

FORMULATIONS OF THE POSTCLASSIC

Willey and Phillips: These authors have offered the most comprehensive statement of developmental stages for the New World. They begin by attempting to determine the best method of organization for integrating archaeological data on a hemispheric or continental scale. While recognizing that horizon markers and horizon styles permit the equation of local and regional phases "into a reasonably precise space-time scheme for a particular area", they note, however, that there is "no device (except calendrical dating) by which cultural traditions can be temporally equated on a continental or hemispheric scale". Such a device must be "free from strict limitations of space and time," and yet have "a general historical validity in the widest sense". The conceptual scheme which they advance as meeting their requirements is "a series of cultural stages in a historical developmental sequence". Willey and Phillips then document their stage concept with

specific data from the Americas. Their definition of the Postclassic stage is as follows:

The Postclassic stage in the New World is defined by the features of, or tendencies toward, urbanism, secularism, and militarism. We are dealing here with the phenomena which are concrete or which leave concrete evidences in the archaeological record. It must be noted, however, that relative or comparative values also enter into this definition. The urbanism of the Post Classic does not deny some similar trends in previous stages, nor do the militaristic and secularistic aspects of this new stage stand in complete contrast to pacific and sacred modes or prior social and cultural behavior. There are, nevertheless, indications of shifts in emphasis in many of the cultural traditions of Middle America and Peru in this Post Classic stage so that city growth, warfare, and non-religious leadership reached an importance not heretofore accorded them. (Willey and Phillips, 1955:128-138) and (Willey, 1955:571-593).

An urban settlement is said to exist when some tens of thousands of people live permanently in a compact area. In Mesoamerica the urban center represented the seat of politico-religious affairs for outlying villages. Complex and diverse divisions of labor were maintained among its citizens. Along with the development of cities, widespread movements of people and ideas throughout the area was a characteristic of the Postclassic stage. There was trade in material objects as well as inter-regional borrowing of art and architectural styles, probably accompanied by actual movements of people escorted by military force. Also involved is the qualitative criterion of a waning artistic achievement, that is, a decline of the level of artistic expression in certain spheres, perhaps as a result of standardization and mass production.

Julian Steward: The concepts advanced by Julian Steward are of a different order than the above. According to Steward, three requirements for formulating cultural regularities are:

- (1) There must be a typology of cultures, patterns, and institutions that disregards peculiarities while isolating and comparing similarities.
- (2) Causal interrelationship of types must be established in sequential or synchronic terms, or both.
- (3) Formulation of independent recurrence of synchronic and/or sequential interrelationships of cultural phenomena is a scientific statement of cause and effect, regularities, or laws. (1949:1-27).

Steward states that reconstruction of local sequences has stressed art styles, which clearly show regional distinctiveness. Since agricultural proficiency, population density, settlement patterns, sociological complexity, and craft technologies are all functionally interrelated, a sequential scheme is needed that considers all of these aspects. Such a

scheme will present a variety of problems, such as a possible correlation between over-population and war, the question of whether American high cultures had reached the limits of their development in subsistence and technology, and the suggestion that artistic florescence occurred in theocratic societies.

Steward is interested in developmental regularities that are applicable on a world-wide basis. In his paper on "Culture Causality and Law" (1949), he proposes the following evolutionary sequence: Pre-Agriculture, Incipient-Agriculture, Formative, Regional Development and Florescence, and Cyclical Conquests. Data from Mesopotamia, Egypt, China, Mesoamerica and Peru are used to illustrate each stage. In a 1948 paper, Steward applies essentially the same criteria he later uses for his world-wide scheme to establish developmental stages for the high cultures of the Americas. His Cyclical Conquest is the only stage that concerns us here. Most changes that occur during this era are induced by warfare, which is seen as resulting from internal population pressure, competition for resources, and the attacks of outside nomads. Irrigation brought about an increase in agricultural production which in turn led to a growth in population. After a brief florescence, continued population pressure caused rebellion and a return to local states followed by a decrease in population. Peru witnessed two stages of imperial growth, with an intervening "Dark Age" of local states. Mexico is believed to have been in the first cycle of Empire (the Aztecs) at the arrival of the Spaniards. It can also be argued that the Aztecs state was the second cycle, while the Toltecs represent the first.

Militarism brought certain changes to an area. Towns became walled cities. A true military class developed with warrior priests ruling the states and empires. War gods became important, and overshadowed the more peaceful gods of the earlier period. All aspects of culture were regimented, to the detriment of creative effort, as indicated by artistic standardization. Sharper distinctions were drawn between social classes, and little social mobility was permitted. Occupational groups, including merchants, became stronger and more specialized. Learning in the realms of astronomy, theology, mathematics, medicine and writing was systematized. In general, technology did not change much from the previous period.

Steward phrases his statements on stages in general terms. He tends to think in terms of "universals" and easily makes the transition from archaeological data to generalizations. Militarism is certainly the most evident and striking element of the Mesoamerican Postclassic. Warfare is portrayed in art, documented by fortifications, and described in the historical records. Steward's theories as to the causes of warfare are less subject to verification. Over-population and exhaustion of the food supply may have occurred, but this is difficult to evaluate without better archaeological records of population size and density, combined with studies of maximum production possible in a particular area with given techniques. Outside pressure is an equally likely cause; there are countless historical references to barbarian invaders but these are harder to verify for the earlier period when reliance must be placed solely on archaeological data.

Pedro Armillas: Armillas focuses his attention on the abandonment and sometimes the destruction of most of the major ceremonial centers in Meso-america at the end of the Classic or Florescent period. (Armillas, 1948). He believes that the disintegration was from within; the result of economic factors, including the concentration of wealth in the hands of the upper classes, and a technological inability to reclaim new land to support the excess population that centuries of prosperous living had produced. The increasing demands of the gods and their priests led to mass exodus of the population and rebellion. The warfare which was resorted to in order to resolve the crisis resulted in arousing a militaristic spirit.

The Militaristic period, the term which Armillas uses in place of the Postclassic, saw the cessation of interregional trade and a brief return to local independence. Fortified sites became the order of the day and the military class became progressively more powerful. The gods of water gave way to the solar eagle. Cities grew up in some areas. The beginning of the Militaristic is marked by the widespread appearance of metal and Plumbate pottery. Metal was earlier in the south, where it has been found at the end of the Classic period in El Salvador, but its major spread is a feature of the Militaristic. Armillas tends to stress militarism as the outstanding characteristic of the Postclassic and he has been much concerned with various aspects of this warlike tendency, especially fortified sites. However, he also utilizes horizon markers for an archaeological definition of the Postclassic.

Alfonso Caso: Caso suggests the following period divisions for Meso-american prehistory: Prehistoric, Primitive, Archaic, Formative, Classic, Toltec and Historic (1953:226-37). In Caso's scheme the last two stages are Postclassic. The definition of these stages deals with single traits rather than with concepts such as urbanism, militarism or secularism. The following are the criteria for the Toltec:

1. Use of metal. This may have been introduced at the end of the Classic.
2. The bow and arrow is introduced, probably by nomads from North Mexico. (Actually, it seems to have been introduced later.)
3. The widespread occurrence of Plumbate and Fine Orange.
4. Certain distinctive sculptures, such as the chac-mool.
5. The formation of societies like the Eagle and the Tiger.
6. Architectural features introduced are caryatids supporting tables or thrones, rings for ball courts, representation of the sun with rays, and the tzompantli (skull rack).
7. Glyph writing undergoes certain important changes.
8. Aztec gods are represented in sculpture, painting and codices.

9. A new form of writing on codices and inscriptions can be regarded as indicative of the Mixteca-Puebla culture.
10. Tula becomes the center of an empire. Toltec influences are seen in Chichen Itza, Tulum and other sites.
11. The fall of Tula marks the end of the Toltec and the beginning of the historic period.
12. At the end of the Toltec period, the pressure of nomads leads to large-scale migrations.

The Historical period begins at the end of the twelfth century, and ends in 1519. It is historical because of the many pre- and post-Columbian codices and other historical records. The same elements listed above continue through the Historic period.

Caso does not use broad generalizations and for that matter is not really concerned with developmental stages as such. His paper gives only concrete guides to a recognition of Postclassic archaeological material. By naming his late Postclassic period "Historical", he reflects the great interest of many Mexicanists in the various historical documents from that period as opposed to archaeological data. Such records give an infinitely broader and more detailed picture of the people who left the archaeological remains, and yet it is often difficult to relate information derived from excavation to the documentary evidence.

Bennett and Bird: Three divisions of the Postclassic in the Andean area are made by Bennett and Bird: Expansionist, City-Builder and Imperialist (1949:182-238). The Expansionist period witnessed the spread of the Tiahuanaco style over all six of the major areas of the Central Andes. There was a shift from technological advancement to elaboration of social and political organization. It is uncertain how the Tiahuanaco culture was spread, but very possibly it was by military conquest. The site of Tiahuanaco in Bolivia indicates a well-integrated and powerfully controlled religious organization, reflected in the large structures requiring mass labor, careful planning, and skilled masons. The Tiahuanaco art style is highly conventionalized. The over-all unity represented by Tiahuanaco was soon broken, but reorganization along social and political lines continued.

In the City Builder period, large apparently well-organized populations lived in planned building units that can be designated as urban, although these large cities are not found everywhere. Chan Chan, on the North Coast, one of the best known of these cities, covered about six square miles. Craftsmanship was at a high level of competence, but lacked individuality. Metal work became commoner and more complex.

During the Imperialist period the Inca came to exert political and military control over most of Peru. Bennett and Bird dismiss population pressure as a reason for military expansion in the period, feeling that the basic motive was a desire for economic gain in the form of new administrative posts, new produce, new labor supply, and more soldiers to solidify

the position of the new ruling class.

William Duncan Strong: Strong's classification (1948:93-102) is made on the basis of economic development, artistic level and political organization, insofar as this can be determined. He divides the Postclassic level into two phases, Fusion and Imperial. The Fusion period began with the breakdown of local groups due to military conquests or other ill-defined causes. Local artistic individuality was submerged. Strong feels that the Tiahuanaco style is merely an indicator that there was a general ferment, rather than the sole cause of culture change. During the Imperial period there was a renewed loss of regional autonomy in favor of wider control. First there was a coastal state, the Chimú, and later the pan-Peruvian empire of the Inca. Both were the results of military conquests.

Strong and Bennett and Bird state their classifications in developmental terms and while their work is designed for the Andean region, it is frequently accepted as applicable to Middle America as well, despite differences in detail between the two areas.

ARCHAEOLOGICAL SEQUENCES

The length of the Postclassic is still a matter of dispute. The end of the Classic period in the Maya area was about 10.4.0.0.0 in the Maya long count, a date which has been approximately equated either with 640 A.D. (Spinden correlation) or with 900 A.D. (Thompson correlation). Other correlations at 52 year intervals are also possible. Plumbate ware is the first recognizable horizon marker of the Postclassic. In the Valley of Mexico sequence the interval between the end of the Classic and the appearance of Plumbate pottery could probably be filled by the lower levels of the Coyotlatelco tradition and by Xochicalco. It seems that the gap between the end of the Classic and recognizable Postclassic must be considered as a separate problem in each area until sufficient information is available to permit generalization. One would suspect that the transitional period will not produce many large and impressive sites. It should be pointed out that the lower time limit of the Postclassic can be expected to have been earlier in some areas than in others. The upper limit is determined by the Conquest.

Time divisions within the Postclassic are no better established. No C-14 dates are available as yet, and there are few significant dated stelae. Historical documents may ultimately prove to be of great assistance in defining late Postclassic dates, but archaeological techniques of determining cross-cultural correspondences and assessing horizon markers must be relied upon to reveal many chronological relationships, especially in the earlier periods. Most area sequences limit themselves to relative chronology, except in the Valley of Mexico and Yucatan where interest in historical documents has led to attempts at assigning absolute dates.

VALLEY OF MEXICO AND ADJACENT AREAS

The exact beginning of the Postclassic is difficult to determine. Plumbate pottery is frequently referred to as the horizon marker that separates Classic from Postclassic. In the Valley of Mexico, Coyotlatelco ceramic wares are associated with Plumbate at Tula, but apparently not in earlier Coyotlatelco deposits at Teotihuacan.

There may be a time gap between the end of Teotihuacan and the beginning of Tula. The length of this possible interval is uncertain but may be as much as one hundred to three hundred years (Armillas, personal communication). The gap is in part filled with the Coyotlatelco deposits at Teotihuacan and Azcapotzalco, but it is possible that the main building phase of Xochicalco also falls within this intermediate period. The latter seems quite likely but difficult to prove as the ceramic picture of that site is confused. The fact that the site is well fortified and built in a defensive position would strengthen the argument which places it in this transitional era between the fall of Teotihuacan and the rise of Tula.

Coyotlatelco: This phase is characterized by a red-on-buff and, less frequently, a red-on-cream ware on which nearly all of the designs are geometric. Figurines are mold-made with elaborate flaring headdresses. It is possible that the pottery represents a continuation of an orange ware that is found throughout the Teotihuacan sequence in small quantities (Armillas, personal communication). Coyotlatelco pottery has been found in debris above the most recent floors of palaces at Tetitla and Atetelco, both located in the outskirts of Teotihuacan (Armillas, 1950). These deposits are two meters thick, and indicate that the Coyotlatelcans were living in abandoned palaces. It has also been found at Azcapotzalco, which seems to represent a peripheral flourishing of the Teotihuacan culture after the violent destruction of that metropolis. Cerro de la Estrella has yielded Coyotlatelco remains. Jiménez Moreno believes that Cerro de la Estrella was the Toltec capital during this early period; this is where the Aztecs later were to kindle the fire for their world renewal ceremony. Coyotlatelco ware has been found at Tenayuca in association with Aztec II pottery (Noguera, 1935), and in the Pedregal with Aztec III sherds (Acosta, 1945), perhaps indicating that this tradition existed at a later time to the south of Tula.

At Tula (Acosta, 1945), stratigraphic tests have shown that Coyotlatelco is present in the lowest levels, but disappears later. A new ware, "decoración esgráfica" occurs with Coyotlatelco at this site. The new pottery is reminiscent of Teotihuacan wares, but the supports are different. There are also some examples of negative painting in the lower levels that likewise are reminiscent of Teotihuacan. No information is available concerning the architectural remains of these early inhabitants of Tula, but apparently they were not responsible for the reconstruction of any of the ceremonial center.

The Aztec I and Aztec II pottery traditions were more or less contemporary with Coyotlatelco and Mazapan, but occupied an area to the south

and east of the Coyotlatelco-Mazapan distribution. Aztec I and II are orange wares, unslipped, with heavy black line decorations (Muller, 1951: 43).

Teotihuacan, Tula, and the Toltecs: Prior to 1940, when methodical excavations were begun at Tula in Hidalgo, the literature of Meso-American archaeology commonly accepted the identification of the legendary Tula with the site of Teotihuacan. It was natural for the archaeologist to turn to a site of known magnificence that seemed to confirm the reputation of the Toltecs as master builders. The architectural and monumental complex that was uncovered at Tula, however, fully lives up to the expectations for the "fabulous" Toltecs. Finally, nearly every trait identified as Toltec at Chichen Itza has been found in strikingly similar form at Tula. In 1941, the Mesa Redonda officially declared Tula to be the Tollan of the legends (Mesa Redonda, 1941). For a history of the archaeological confusion between Teotihuacan and Tula, see Armillas, 1950.

Mazapan: Mazapan peoples lived on the ruins of Tetitla and Atetelco after the Coyotlatelco occupation, and made their burials into the Coyotlatelco deposits. Mazapan wares include deep hemispherical bowls with decorations made in wavy parallel lines as if by a comb. Allied to these are other bowls with vaguely outlined maroon designs. Molcajetes with heavy scored floors and tripod supports are especially characteristic. Still another type of bowl has a flat floor and is slipped in distinctive colors of white or orange. As a rule, the Mazapan wares fall into the red on brown or red on buff range.

Two life-sized statues of Xipe, an important Mazapan deity, have been found modeled in clay. One of these is from Coatlinchan in the Valley of Mexico (Vaillant, 1941:77) and the other from Xolalpan (Linné, 1934). Spindle whorls were made or acquired by trade; this is their first appearance in the Valley of Mexico. Obsidian work was excellent. Figurines were mold-made but poorly fashioned. A mother god and a warrior god are represented.

Mazapan Period at Tula: This is the classic Toltec period at this site, the "Tollan" of the legends. Traditional dates for the site are 856-1168 (Jiminez-Moreno dates), but Acosta feels that this is too early for the appearance of Plumbate, and so prefers to place the sequence fifty-two years later, or 908-1220. Stratigraphic tests have shown that Mazapan wares are present in small quantities in the lower Coyotlatelco levels of Tula. Slowly the newer style comes to predominate, and the Tula Mazapan period sees the disappearance of the older wares and the overwhelming importance of Mazapan. Plumbate, accompanied by Fine Orange X, is probably found throughout the sequence, although initially it is such a minor ware that it is difficult to place its first appearance. Chame-levé wares from Jalisco are present as trade pieces, although not common. Spindle whorls occur and there is a jade plaque of Mayan origin (Ricardo de Robina, personal communication).

The total extent of Tula is not recorded, as most archaeological interest has been focused on the ceremonial center. The question of "urbanization" at the site therefore cannot be assessed. However, there is a vague reference to "habitaciones" to the south and west of the ceremonial center (Ricardo de Robina, personal communication). The ceremonial center at Tula includes a large pyramid facing a plaza which has at its center a small platform with stairways on each side. On the north side of the plaza is a raised platform upon which is erected a pyramid and temple, with a colonnade in front of this temple. Two ball courts form a part of the center, but only the northern one has been excavated. This one is similar in form and size to the court at Xochicalco.

There is little change in style of the building, despite several rebuildings. Elements occurring for the first time at Tula include column forms (serpent, anthropomorphic, and warrior types), colonnaded buildings that give interior space, and running friezes of walking jaguars, coyotes, eagles, vultures, and the man-bird-serpent. Decorative elements in Tula show a predominance of low relief sculpture. The flat roofs on palaces, temples, and colonnades were constructed by placing large timbers from wall to column, or between columns, and then covering these with small poles and a thick layer of rubble and earth.

The pyramid-colonnaded hall complex (a type of architectural design exemplified in Mound B at Tula, as well as by the Temple of the Warriors, the Temple of the Chac-Mool, and the Temple of the Wall Panels at Chichen Itza) represents one of the most complicated conceptions of the repertory of the late Mesoamerican architect. The temple and its pyramidal substructure face upon a colonnaded hall. The single staircase of the pyramid arises within this hall and passes through the roof of the latter. The pyramid loses its identity and impact when its dominating facade is hidden behind another building. This architectural complex is found in its fullest expression only at Tula and Chichen Itza. Tula was violently destroyed, although the site continued to be occupied for some time by makers of Mazapan ceramics. On the surface is a thin layer containing Aztec II sherds (also called Tenayuca Black-on-Orange).

Post-Tula times: There is a great deal of information from historical sources about the late period of the Postclassic, but very little archaeological data. Chronicles describe the invasion of the valley by bands such as the Chichimeca de Xolotl, who generally formed autonomous "states". The history of these states reflects a constant struggle for supremacy between tribal groups.

The best archaeological evidence for this period comes from Tenayuca, which was probably founded in the 13th century and continued to be occupied until the Conquest. There were five or six rebuildings, the previous structure being totally covered and enlarged each time. The first two temples, both rather small, belong to Aztec I and II times. Pyramid III is a transitional phase between the early architectural style and the true Aztec superimpositions of Pyramids IV, V, and VI. Pyramid III has four

terraces (simple taluds without tableros) but its outstanding characteristic is the double stairway, leading to twin temples which seems to be a mark of late Postclassic architecture. There is no information regarding a city around the pyramid. Pottery of the upper levels is designated as Aztec III, IV, and V, referring to a sequence of black-on-red, black and orange-on-red, and finally polychrome wares. Aztec V, which was in use at the time of the Conquest, is the last ceramic type. Other monuments of the post-Tula period are the Tepotzteco and Teopanzalco sites at Cuernavaca, both of which have a double stairway and twin temples.

Late Postclassic: The fifteenth century witnessed the emergence of Tenochtitlan, Texcoco and other cities in the Valley of Mexico. At the time of the Conquest, Tenochtitlan was well on the way to becoming the predominant power in the Aztec "Empire". There is little archaeological information about this period (except for such sites as Nezahuacoyotl's baths at Texcoco), but the general cultural development is clearly reflected in the historical sources, and illustrates the characteristics of the Postclassic far more fully than archaeology could. Consequently, a summary of major cultural developments will be given, taken mainly from Sanders' thesis on "The Urban Revolution in Central Mexico" (ms.)..

For the Central Mexican highlands, the dominant settlement pattern was the "township" which consisted of a principal town, called a "cabecera" by our sources, which had a population of five thousand or more and a number of small villages and hamlets surrounding and supporting the central town. Within the township the basic social unit was the calpulli, a patrilineal-patrilocal group. In the cabecera there were three main zones: the temple complex, the palace complex, and the market. Major towns were divided into from four to six barrios, each composed of several calpullis, and each with its own craft specialization. Some of the smaller villages had only one barrio. and in some cases, only one calpulli. Most of the population of the central town were specialists of some sort. In addition to the major temple, palace and market, each calpulli contained a smaller version of each of these structures. In the surrounding villages each house was constructed on a separate plot of farming land. These villages tended to merge on the outskirts of the cabecera. Houses in the cities, unlike those in the villages, were situated only a short distance apart. Narrow, meandering streets gave most urban residential areas an unplanned appearance, although Tenochtitlan seems to have been laid out rather geometrically.

Tenochtitlan was the largest urban settlement in America in 1519, with the possible exception of Chan Chan and Cuzco. It was originally built on the two islands of Tenochtitlan and Tlatelolco, but these were eventually joined together by chinampas. Each island had its own great ceremonial center, big daily market and an elaborate palace complex. The houses of the populace were on small chinampas. Canals criss-crossed the city, making water travel of primary importance. There were also paved roads, as well as three large causeways to the mainland. Fresh water was

brought to the islands by means of long aqueducts. The main temple in Tenochtitlan was dedicated to Huitzilopochtli and Tlaloc, the one in Tlatelolco, to Huitzilopochtli and Tezcatlipoca. The markets were huge plazas surrounded by roofed bins for maize, with a particular locality for each class of produce.

Moctezuma's court contained houses of over one hundred rooms. These houses were built of stone and lime, and roofed with wooden beams and planks, with courtyards around which the rooms were grouped. The latter included reception rooms, bedrooms, women's quarters, kitchens, store rooms and corrals for poultry. The whole house was constructed on a platform and had a terraced upper story. Large apartments could be made available by the use of columns to support the roof. The rulers also had country retreats, such as Moctezuma, at Chapultepec and Nezahuacoyotl's famous baths and gardens at Texcoco.

Sanders suggests that Tenochtitlan had a population of 100,000, although other estimates run as low as 30,000. The urban population was practically non-food producing, as the house chinampas did not afford room in which to grow sufficient crops.

Craft specialization is clearly indicated in the chronicles, which list the following crafts: goldsmiths, lapidaries, feather workers, painters, sculptors, stone-cutters, plasterers, masons, carpenters, potters, mat-makers, hunters, fishermen, water carriers, porters, merchants, salt manufacturers, bee keepers, weavers, xicara manufacturers, sandal makers, tanners, cutlers, herbalists, druggists, restaurateurs, and barbers. The goldsmiths, lapidaries and feather workers, together with the Pochteca or merchants made up what amounted to a middle class. All three of the important groups of craft specialists worked exclusively for the nobility and were supplied with raw materials by the Pochteca. Certain craftsmen were organized into guilds which were linked to the capulli social system and engaged apprentices. Nearly all articles of consumption were obtainable in the market from food to clothing, ornaments and tools. There is some evidence for a separation of gatherers and producers, sometimes with professional merchants to dispose of the finished products. There was also local or areal specialization, with Tenochtitlan noted for artifacts in stone and wood, Texcoco for stone cutting and painting, and Atzacapotzalco for work in gold.

Land tenure can be classified into three types: (1) Calpulli lands owned in theory by the group, but utilized by individuals, (2) lands owned by a lord and worked by his clients and slaves and (3) an elaboration of the second type, adapted to conquered lands. Some tribute from lands of the third type went into the national treasury but much of it was allotted to high-ranking military and political officers of both the macehuale (commoner) and pilli (noble) classes. However, only members of the pilli class could sell their lands.

Tributaries were of three types: (1) tenant farmers assigned to the personal estates of government officials to whom they turned over a share

of their produce, (2) people of the Calpulli (or chinampullec) who worked lands communally for the lord of Mexico, as well as for their own local city lords, (3) merchants, traders, and craftsmen who paid part of the goods they traded or manufactured. In addition, calpulli men could be drafted for labor on government works, while every male citizen was liable for military service. Taxes were paid in common by the group. Government tax collectors, who were stationed in every cabecera, demanded payment from groups rather than from individuals. Tribute was not required in times of famine or pestilence, when government granaries were opened to the public. The Mendoza Codex, the best source of tribute lists, provides information as to what types of tribute came from different parts of the empire.

War captives were sacrificed rather than being used as slaves. There were special merchants and markets dealing in victims for private sacrifice. Penal slaves served the offended individual or worked for the government in tribute houses. A man might also sell himself or his children into bondage to escape economic distress. Children could be rotated to lessen the plight of each. Aztec slaves, unlike those in some other cultures, had definite rights and privileges. No one could be born a slave; slaves could not be killed; and they could own property. Penal slaves who were incorrigible could be yoked or delivered to the temples as sacrificial victims.

In each cabecera there was a central walled plaza which was the site of pyramid temples, priest's dormitories, nunneries, pools, bathing places, work shops, and skull racks. Each city-state had a divine patron and subsidiary deities, served by a priestly hierarchy. The state deity symbolized the independence of the town, and to capture it was to capture the town. The calmecac was the temple school for the sons of pilli and wealthy merchants. The girls of the nobility could enter a nunnery for life or for a stated period of time. Spinning and weaving were among the principal activities of the residents of such a nunnery. The lord of the city allotted land to each temple.

The basic political unit was the city-state. Although larger hegemonies arose from time to time, these tended to revert eventually to separate city-states. The city-states were ruled by hereditary lords who exercised extensive executive powers and enjoyed many ritual prerogatives. Apparently the leading city of the Valley of Mexico was successively Tula, Calhuacan, Texcoco, Azcapotzalco and finally the alliance of Tenochtitlan, Texcoco and Tlacopan; at the time of the conquest this alliance was rapidly coming under the domination of Tenochtitlan.

Usually the lord extracted tribute only from subject states, allowing them to retain control of their internal affairs. The lords of defeated states had to spend part of every year in the city of the victors. Frequently Aztec governors and garrisons were stationed in conquered areas.

These garrisons were supported by tribute leveled locally. City-states which accepted Aztec rule gracefully were usually left under native rulers. Native lords were rapidly bound to the Aztec suzerains by kinship and marriage. Military colonies were sometimes established, as when 9,000 soldiers with their families were sent to Oztuma on the Tarascan front. In many places the worship of Aztec deities replaced local cults, and the legal system was often remodeled to include Aztec judges. Restless areas were sometimes subjected to a redistribution of population.

The following were the major city-states in the Valley of Mexico at the time of the Spanish Conquest: Chalco (5 city-states finally welded into one), Xochimilco, Tepaneca (including Tenayuca, Tepeaca, Azcapotzalco, Tlacopan, Mixcoac, Tacubaya, Coyocan, and other communities), the Aztec Tenochtitlan-Tlatelolco and the more northerly Acolhua.

The Aztec Empire was divided into a number of tax-collecting districts, each of which had a central town. The Empire included all of Guerrero (except Acapulco), the western half of Oaxaca (Mixtec area), all of Puebla and Morelos, most of Hidalgo, the Chiapas Coast, and the Veracruz coast from Tuxpan to the Coatzacoalcos. The Aztecs claimed the Michoacan coast as well, but this claim was contested by the Tarascans. The two main frontiers were with the Tarascans on the west and with the Tlaxcalans on the east. Cholula and Huexotzinco (Puebla) were never conquered, but only forced into a military alliance and consequently did not pay tribute. The Zapotecs seem to have been intermediate between allies and tributaries.

Weapons included the bow and arrow, the sling, the atlatl, and the macuahuitl or war club. Cotton armor, shields, and headdresses served as defensive equipment. The fighting was done by organized squadrons of 200 to 400 men, trained at military schools in each *capulli*. A military class was in the process of formation, since experienced and successful captains were rewarded with many privileges and possessions. Fortifications varied from the walled precinct of the temple center to isolated fortified sites on the tops of hills in rough terrain. Some of these fortresses guarded population centers; others were part of a frontier chain.

Agriculture was particularly intensive, and made use of both chinampas and irrigation systems. The chinampas were situated in the lakes and gave the greatest yields. Acolhua, in the northern part of the Valley, had irrigation but lacked chinampas. In addition to providing excellent agricultural conditions, the area was rich in timber, flowers, and various kinds of fish and game. The latter added more protein to the diet than was usually obtained in Mesoamerica. The urbanism which is here represented, not by one city, but by many cities in a limited area, was made possible by the availability of a considerable agricultural surplus. Water transportation was of the utmost importance in supplying the cities.

Toluca: The sites that have received the greatest attention in the valley of Toluca are Calixtlahuaca and Malinalco. The first includes a

round pyramid and a number of rectangular ones. The apparently long ceramic tradition is characterized by red-on-buff wares that Garcia Payon feels to be related to Coyotlatelco-Mazapan. Malinalco, near Tenancingo, is a temple complex hewn largely from living rock. It dates from the late Aztec period. The door of the temple is carved at either side in low relief to suggest a serpent head in profile, while the entire doorway can also be visualized as a snakehead in full face with the open mouth represented by the entrance (Vaillant, 1941:160). The inner walls are encircled by a bench which gives the appearance of being draped with skins of eagles and ocelots carved in relief. An altar in the center of the room represents another eagle. Malinalco seems to have served for both ceremonial and defensive purposes..

Queretaro: Noguera (1931) reports briefly on two sites in the Sierra Gorda de Queretaro which he believes to be Toltec on stylistic grounds. The two sites, Toluquilla and Ranas, are some twenty miles apart. Both were fortress cities erected on cliffs, whose approaches were defended by double and triple walls. Each site had two great "ball-courts", or rectangular areas enclosed by massive stone walls. The cornices and facades are in the Toltec style. Totonac influence is seen in beautifully carved stone "yokes".

Cholula: This was one of the most important cities at the time of the Conquest, with an estimated population of 50,000 (Sanders, ms.). It was famous for its priests, merchants, and craftsmen (especially potters), as well as being a major pilgrimage center. There were several reconstructions of the main pyramid at Cholula, but only the last of these was Postclassic (Noguera, 1937). Three late periods have been recognized, Cholulteca I, II, and III. The first equates with Aztec I and II, the second with Aztec III, while the last equates with Aztec IV and V. Typical of the ceramics are several types of Mixteca-Puebla polychrome, often involving five to seven colors. Noguera makes several subdivisions of this pottery, and it is probable that subtypes will be worked out for the Mixtec area to the south. Cholula seems to have been on the crossroads between two dynamic cultures, the Valley of Mexico to the west and the Mixtec to the south, each of which apparently contributed to the florescence at this site.

MIXTECA ALTA

The attention of archaeologists had only recently been directed toward the important area from which the Mixtec documents come. Certainly Mixtec designs were an important influence in Cholula pottery, and the Mixtec goldwork was among the finest in the New World. Bernal (1949) carried out investigations in the ceremonial center of Coixtlahuaca, in some of the surrounding dwellings, and in burials and tombs, in addition to making ceramic stratigraphic tests. On the basis of the presence of Aztec III trade sherds and the absence of Aztec II sherds, he has tentatively

dated the site at approximately 1300 to 1500 A.D. Coiztlahuaca is considered typical of the Mixteca Alta. Ceramics include unpolished red-on-cream, polychrome, tall tripod vessels of polished gray, "aztecoid", and Molcajetes of Aztec III. The ceremonial center consists of four large mounds, three of which face a large plaza containing several platform mounds. The habitations are two-roomed rectangular structures. Burial practices resemble those portrayed in the Mixtec codices. That is, burial was in a seated position, with the body wrapped in a petate, which was often painted, and with the face covered by a mask. Gold jewelry is known from this site.

OAXACA

The standard classification for the Postclassic in Oaxaca is Monte Alban IV and V. Little has been published on either period. The site of Monte Alban was probably abandoned at the end of period IIIB, or perhaps in the early part of Period IV. In Monte Alban V, the Zapotecs were driven from the valley by the Mixtecs, who used the hill of Monte Alban as a burial ground. It was during this period that the fabulous grave offerings were deposited. This is a very inadequate picture of activity in the valley of Oaxaca during Postclassic times. From historical sources we know of several towns in the valley, as well as of an Aztec garrison.

Mitla is the site of the famous stone mosaics in geometric patterns, a style reminiscent of the Puuc and Chan Chan. Instead of presenting the usual Mesoamerican picture of high platform and small building, Mitla architecture is remarkable for its extremely low platforms and large buildings. The walls are composed of a rubble core faced with the intricately cut stone mosaics. Columns are used to give interior space. Subterranean cruciform tombs have frets carved in solid relief. Buildings in the ceremonial center include the Palacio, the Hall of the Monoliths and the Hall of the Paintings. Mitla was the burial place of the Zapotec Kings.

There is an adobe ruin across the river from Mitla which Beals suggests may post-date the latter site, since the adobe structures are partially built over earlier ones of stone (Beals, 1934). Furthermore, a fortress on a hill top about two miles west of Mitla seems to fall into the same adobe period. This fortified site is a walled village with easily defended gates. Adobe buildings are built around two courts. Buildings showing structural similarities to Mitla stone mosaic work are located at Yagul, near Tlacolula. This site is purported to be earlier than Mitla (Armillas, personal communication).

VERACRUZ

Of the four ceramic periods at Cerro de las Mesas, the last two (Upper I and II) pertain to the Postclassic (Drucker, 1943). Assignment of Upper I to this stage rests on similarities to Cholulteca pottery types. Polychrome wares become more numerous in the Upper periods, with complicated

Polychrome being very closely related to the "policroma laca" ware of Cholula. Zoomorphic vessel legs, bowls with molded decoration on the base, and very flat molded figurines of Colulteca type accompany this Highland ware, apparently as integral parts of an imported complex. Black and White-on-Red ware is another indicator of Highland influence.

Upper II is superimposed on Upper I. The first copper occurs in this level. There is little ceramic change, but handles with zoomorphic ornament, tall pitchers with vertically placed cylindrical handles, stepped flat slab legs, large clay tubes and a few pieces of Tan Polychrome ware are introduced. The latter ware is found at Isla de los Sacrificios. A Plumbate whistling jar was found in a burial of doubtful association, which makes it useless for dating purposes. Drucker places the termination of occupation at this site just before the Conquest. In view of the fact that it does not appear to overlap in time with Cempoalla, it would seem that Cerro de las Mesas ended considerably before that date. Drucker feels that Cerro de las Mesas does not represent a coastal complex, but rather cultural extension of the highlands into the coastal plain.

The Teayo site appears to have been occupied throughout the entire Postclassic, although no formal excavations have been carried out to ascertain this. The main pyramid, in the center of the town plaza, consists of three superimposed sections, with the stairway on the western side. A single temple was constructed at the top. There are many elements of Toltec style, including a walking tiger sculptured in low relief upon a tablero of the pyramid, standard bearers, and a sculpture in the round of a feminine deity. The site was also an Aztec garrison, and has been identified as Mictlan or Miquetlan, capital of the old province of Tuxpan. (Garcia Payon, 1950a: 55-64).

The site of Cempoalla was occupied at the time of the Conquest and was visited several times by Cortez and Bernal Diaz. The city consisted of ten walled ceremonial centers scattered over a large area (Garcia Payon, 1949b). Between these pyramid complexes were the houses of the populace, erected on low mounds. Most of the centers contained a large plaza surrounded by rooms and temples. In only three cases were buildings erected on the plaza itself. The walls around the centers seem to have been for protection against floods rather than enemies. The entrances varied but the walls were often ascended by monumental stairways. Only one pyramid was round, the rest being square or rectangular. The larger ones had three terraces, the smaller ones only one or two. The Great Pyramid had a large substructure of three terraces with bifurcated stairs. On the top was a long building suggesting a Maya palace. All buildings were stuccoed, and many had figures painted directly on the stucco. These murals were geometric and hieroglyphic rather than realistic. River boulders were used to face dirt or rubble platforms. Walls were slab stone facings on rubble cores. Some sculpture was in stone, but the bulk of it was in modeled clay. The large population of Cempoalla was made possible by irrigation, lacking which this section of the coast supports only sparse slash-and-burn agriculture. Sanders (1953) feels that the economy of Cempoalla rested partially on slash-and-burn agriculture and partially on the intensive gardening of root crops.

Garcia Payon recognizes four ceramic stages in this late Cempoalla range (there is an earlier preclassic occupation). The first period has a great deal of pottery made of very fine clay with extensive use of engraving, scraping, champlévé, and zoomorphic figures. Plumbate and Fine Orange occur either in this lower level, or in one slightly older. Isla de los Sacrificios Types A and B are found in Period 1, and only Type B in Period 2. The fine clay pottery evolves from brown monochrome in the first epoch to polychrome in the fourth. In the second period Mixteca-Puebla pottery appears, becoming more abundant in the third period. There is a small amount of Huastec pottery as well. Two types of tombs have been found. The older is subterranean (square, conical or rectangular), lined with stones and stuccoed. Tombs of this type were used for multiple burials and were closed with slab stones.

Late tombs (there is some question whether they are pre- or post-Spanish) were small mausoleums built on platforms, giving them the appearance of small temples. There was a burial depression in the square or circular platform.

Quauhtochco is a fortified site on the Rio Atoyac. The city was walled, and its approaches well guarded. The houses were scattered over the rough terrain below the ceremonial center which was located on higher ground. This center consisted of some 30 constructions, of which the most important were the main pyramid and the "capilla", a large platform supporting at least two buildings. The site has three separate occupation levels (Medellin Zenil, 1952). The middle level is undated, but was probably Classic or earlier. The ceramics of the latest occupation place it in the Late Postclassic, and in fact, the city was taken by the Aztecs in 1450. Pottery includes "policroma laca", an early Cholulteca type, Aztec III ware, and a "sellado" ware similar to that found in the coastal and Mixteca areas.

Ocaloapan is a hilltop site with a pyramid of seven terraces and, at some distance from the center of the site, the remnant of a wall. Ocaloapan seems to correspond to level II and III at Cempoalla. The large number of Huastec (Panuco VI) sherds indicates that Ocaloapan had much more contact with the latter area than with the central highlands, which are represented by only a few sherds, possibly of Aztec origin (Garcia Payon, 1949a: 492-501).

Another Postclassic site in Veracruz is Isla de los Sacrificios. Pottery types found most frequently at this site are widespread in this region. Two traditions have been defined. Type A may have a black, gray or cream base, with white lines around the outside border. Interior designs are voluted, geometric, and often outlined in black. Forms include plates, bottles with globular bodies, and tripod vessels. Supports are typically cylindrical. Type B appears in many forms and is dichrome. It may or may not have an overall slip of red, orange, brown, or black. The decoration is geometric, with special emphasis on serpentine forms. Types A and B are found in the lower levels of Cempoalla. They also occur at Xiuh Tetelco in Puebla, as part of a ceramic assemblage that Garcia Payon believes equates with Coyotlatelco-Mazapan in the highlands. (Garcia Payon, 1950c: 397-426). This hypothesis would make both types either pre-Plumbate or on the Plumbate horizon.

HUASTECA

Panuco V and VI fall within the range of the Postclassic (Ekholm, 1944). Period V is represented at the Pavon site and at Las Flores. Period VI is found at Pavon and in excavations 1 and 3 at Tancol. Period V, which shows the clearest external relationships, has been regarded as corresponding to the Aztec I-Mazapan-Chichen horizon mainly on the basis of similarities in vessel shapes. The local redware is similar to a Cholula ware, and designs are found that resemble Isla de los Sacrificios and Cerro Monteso. Plumbate has not been found. One vessel has the "ilhuitl" sign for "day" which occurs first in Aztec I. Most Panuco VI pottery is a black-on-white ware, similar to ceramic types from the southwestern United States, and ancestral to modern Huasteca wares. Tancol brown-on-buff is also typical of this period.

Spindle whorls first appear in Panuco III, but are most numerous in Panuco V, which is contemporary with their first appearance in the Valley of Mexico. Mold-made figurines, tubular earplugs, clay beads, stamps, and wheeled toys occur in Period V. Copper work, which is limited to this period, includes bells and ornaments of hammered sheet copper. Shell artifacts, including carved faces, mosaic fragments, shell rods and buttons, are also absent from all other periods. Bark beaters have been found.

Platform mounds are predominantly round in form. Ekholm feels that they are possibly associated with Quetzalcoatl and that this cult and the round mound both diffused to the south from the Huastec area. The mounds are surfaced with plaster or asphalt and have fired clay floors. Period VI campsites are found at intervals all along the Gulf Coast, nearly to the Rio Grande (David Kelley, personal communication).

YUCATAN

With abandonment of the Classic period sites, the Peten practically disappears from the archaeological record. In Northern Yucatan, Mexican or Toltec traits usher in the Postclassic.

Chichen Itza had been an important center even in the Classic, but the Toltec period witnessed new building at the northern end of the state. Architecture is a sensitive indicator of Maya-Toltec interaction. Toltec concepts of design and space are combined with Maya structural knowledge. Most of the Maya-type corbelled vaults, which are supported by vast colonnades, have collapsed because of structural weaknesses, although much of the Classic Maya architecture at the site is still standing. Specific architectural elements showing Toltec influence include feathered serpent doorway columns, offset at the tail to support the lintel; serpent balustrades; carved lines of warriors, sometimes in eagle and jaguar knight costumes; Atlantean figures supporting altar tables and doorways; great colonnades; and the Tzompantli (skull rack motif). Wall carvings and mural show many military scenes some of Toltec warriors attacking Maya. Shields, spear throwers, spears, and clubs are depicted. A gold disc from the cenote shows triumphant Toltecs sacrificing

defeated Mayas (Lothrop, 1952). There are no Maya long count dates that apply to the Postclassic, since these were no longer being inscribed on stelae. Glyphs continued in use, particularly name glyphs with representations of individuals; a trait derived from Mexico.

The predominant pottery at Chichen Itza is Slate ware, which is difficult to distinguish from a similar type of the preceding Puuc period. Diagnostic wares are Plumbate and Fine Orange X. Plumbate is present in very small quantities, and it is questionable whether it will be possible to establish the exact time of its introduction into the site. The ceramics of Chichen have not been published. Most of the metal from this center has been recovered from the Sacred Cenote (Lothrop, 1952), a major pilgrimage center. The period of the establishment of the Cenote cult is unclear, but should probably be placed in the Classic. The ritual associated with the Cenote continued through the Mexican period and flourished until the Conquest, even after Chichen Itza had lost its political importance.

Mayapan was the principal city of Yucatan during the Mexican Absorption Period (ca. 1200-1460) which followed the decline of Chichen Itza. Under the ruling Cocom family, Mayapan exercised a considerable amount of political power, which extended over at least twelve other city-states. Mayapan was a walled city (Shook, 1952a) with a great wall which stands 1.5 to 2 meters high at the present. The twelve gates which gave entrance to the city were not guarded by gate houses or wall house sites. The city had a small ceremonial center centering around a pyramid. This pyramid was similar to the Castillo at Chichen Itza, but not nearly as imposing, and lost some of its magnificence by being included in a maze of other buildings (Shook, 1954a).

Buildings were frequently colonnaded, and may have served as residences of the nobility (Thompson, 1954) or as civil buildings (Shook and Irving, 1955). Groups of three low residential mounds were usually located closely together with small walls surrounding them, apparently as property markers (Bullard, 1952). Ceramics consist mainly of a continuation of the Yucatan Slate tradition.

About 1460, the Cocombs were overthrown and their city sacked and looted. The empire of Mayapan dissolved into local states. The new capitals were small and unimpressive, and have left little in the way of archaeological remains. The ball game was no longer played. Continuous warfare between the small city-states characterized this terminal period.

Intensive agriculture is not possible in Yucatan, since irrigation and chinampa systems could not be constructed. Consequently Mayapan with its estimated 10,000 inhabitants (Thompson, 1954) had to depend upon milpa agriculture. The large area required to furnish food for an urban population may possibly explain the scarcity of large cities in Yucatan.

The Mexican Absorption period witnessed a shifting of population to the east coast of Yucatan, where many new cities were founded. Lothrop suggests that the trend toward the sea may have been linked with an increased trade

along the east coast of Central America and the establishment of contacts from Honduras to Panama (Lothrop, 1952: 7). Many sites in this region are reported by Lothrop (1924: 173) and Sanders (1955: 179-221). Tulum is the only site which has been described in detail (Lothrop, 1924). A brief summary of its main features will be given here.

This site of Tulum is located on a cliff overlooking the Caribbean Sea. An area of perhaps 600 feet by 1400 feet is surrounded by a rectangular wall on the three landward sides. The principal temple, facing a plaza flanked by buildings, overlooks the cliff. Other low platform mounds and colonnaded buildings are scattered throughout the city. The temples on the east coast are not set on substructures as high as those encountered elsewhere in the Maya area. At Tulum the substructures are particularly low and are not terraced.

Palaces consist mainly of two long rooms. The front room has a wide colonnaded front, with perhaps a second row of columns down the main axis. Serpent columns similar to those of Chichen Itza are found in the main temple. Sunken door panels seem to be especially typical of East Coast architecture. The rear room has a small shrine or sanctuary set against the back wall. The sanctuary, a feature peculiar to the East Coast, is a small building in itself, with a roof of its own.

East Coast sculpture chiefly takes the form of stucco relief over a framework of stone. These reliefs were painted with generous use of color. An unusually large number of frescoes, generally dealing with religious subjects, have survived in this region. Close stylistic links between the frescoes of Santa Rita Corosal in British Honduras and the Mixtec codices have been pointed out by Lothrop (1952; 7)

GUATEMALA

Two Postclassic phases are represented at the Zacualpa site (Wauchope 1948). The earlier or Tohil phase is marked by the occurrence of Tohil Plumbate pottery. Other ceramics include a variety of red and brown wares, some negative painting, black ware, plain orange, red-on-cream, white, red-on-white, one sherd of Polychrome, "Tarascan" pipes from Michoacan, and incense burners of the Mixtec type. Some of the building groups were probably abandoned by the Postclassic. Although Group C was rebuilt twice during the Tohil phase, no pyramids or other major structures were constructed. Burial was in small stone slab or masonry tombs. During the Tohil period close contact was maintained with Lake Chukumuk, Chintinamit Atitlan, Alta Verapaz II and III, Zaculeu, the Mixtec area (Oaxaca), and Tajumulco. Wauchope believes that there were some part-time specialists who also engaged in seasonal agricultural activities, and probably a few full-time city-planners and civic and religious leaders.

The succeeding Yaqui phase saw no new construction at the site. During this time the site was probably abandoned and used only as a burial ground. Dating of this phase depends upon the time of the introduction of cremation.

If this practice was introduced by Tlaxcallan soldiers with Alvarado, it marks the movement of the population from old Zacualpa to the modern town after the Conquest. If, on the other hand, it was brought in by the Quiche, the original population probably removed to a hilltop fortress. Since cremation seems to have been a pre-Conquest custom in much of Guatemala, the latter alternative is the more probable. Wauchope feels that the Yagui was a very short phase. Pottery shows less variety in the later phase, and includes only unslipped, white-on-red, and polychrome with geometric and representative figures. The latter ware was used for crematory urns.

Two Postclassic phases have been distinguished at Zaciuleu (Woodbury and Trik, 1953). The Qankyak phase represents the Plumbate horizon. Besides the Plumbate type itself, which occurs in abundance, ceramic materials appearing in this phase include Fine Orange, Nicoya Polychrome, effigy head tripod bowls, tripod censers, and double-bottomed pedestal vases. Polished gray, streaky red-brown and incensarios continue from previous periods. The first spindle whorls and carved stamps make their appearance at this time. Figurines are fairly abundant in the refuse remains.

The most common type of substructure was a terraced platform. Buildings were rectangular and consisted of single rooms with multiple front entrances. Late in the period, a round adobe building was constructed. Square columns were commoner than round ones and preceded them at the site. Battered balustrades at the ends and middle of stairways were a Mexican introduction, as were the small ceremonial platforms. Rectangular altars and long benches were erected against the rear interiors of the rooms. Burials were placed in masonry vaults, seated or lying in a supine position. Cremation made its appearance at the end of the Qankyak phase.

Stone artifacts include tripod metates (sometimes in effigy shapes), straight cylinder manos, chipped points made on blades, flake blades used as grave offerings, a few pyrites plaques, turquoise and jade mosaics, carved obsidian, and alabaster vases. Gold foil ornaments, and an effigy pendant of tumbaga gilded by mise-en-couleur and copper bells cast by the lost wax method have been found.

Most of the traits that first appear in the Qankyak phase are considered by Woodbury to be Mexican (metal, Plumbate, Fine Orange, Nicoya Polychrome, battered balustrades, small ceremonial platforms, and the round building). He extends the Qankyak past the Plumbate horizon, as this pottery is not found in late graves, and includes cremation in the last part of the phase. It would appear that the disappearance of Plumbate and the introduction of cremation would mark a more natural division between periods, and one corresponding to those used at sites such as Zacualpa.

The architecture of the succeeding Xinabahul phase shows Mexican influences more clearly. The chamber buildings with two round columns at the entrance, long galleries with multiple entrances, and two circular rooms are typical of the period. Conspicuous battered balustrades are present on all stairways. Building construction made greater use of well-shaped slabs tightly laid in adobe mortar than was the case, in the previous period. A

good lime plaster covered the buildings, replacing the earlier adobe plaster.

Cremation was the characteristic method of disposal of the dead in the Xinabahul phase. Cremations were placed in jars which were deposited upright in structural fill. Personal ornaments of metal were placed with the cremations as offerings.

Fortress White-on-red and Cinnamon pottery are the major ceramic types. Other wares are Xinabahul Orange-red, Streaky red-brown, and mold decorated. Chinautla Polychrome is rare, as are carved stamps, and it is uncertain whether spindle whorls and incensarios occur. Stone implements closely resemble those of the previous phase, with some shifts in projectile point types. A tumbaga effigy pendant, gilded by the mise-en-couleur process, and copper bells were among the metal objects from this period.

There were no marked changes in the Xinabahul period, except for the stronger Mexican influences on the architecture. Woodbury suggest that White-on-Red pottery was of Quiche origin, and suggest Quiche occupation of the site during this short period preceding the Conquest.

Stratigraphic tests on two burial mounds at Chame have provided evidence for four periods in the Alta Verapaz (Butler, 1940). The only two that pertain to the Postclassic are Chipal 2 and 3. Chipal 2 represents the Plumbate horizon, associated here with red and brown wares, as well as with Fine Orange. Incensarios occur. Burials are seated, and grave offerings recovered include an alabaster jar and pyrites mirrors. Chipal 3 is post-Plumbate. Pottery types are red, smoked, household, one red-on-buff and one white line on red. Decoration is applied grotesque effigy. Metal occurs for the first time, in the form of copper bells, rings, and hair ornaments, as well as gilded sheet metal and perforated gold strips. Burials are seated.

In a survey of the Guatemalan Altiplano in the vicinity of the Guatemala Valley, Shook lists 102 sites, of which only 8 are Postclassic (Shook, 1952b). These are late in the stage and are usually characterized by heavy fortifications and the presence of Chinautla Polychrome. Chinautla, the type site, is located on a small plain surrounded by steep barrancas, in a natural defensive position. Remains of dozens of mounds encircle a number of plazas. Temples are double structures on a single substructure. A ball court of late type (open ends) is present. An artificial reservoir was constructed for water storage. Many stone and obsidian points are scattered over the site. Pottery is predominantly Chinautla Polychrome; minor types are Cinnamon and White-on-red. Comals are textile imprinted. All possible approaches to the town were guarded by small garrisons.

Thompson (1949) describes several other sites, all of which are equally well fortified. Rabinal is a Plumbate-bearing site in a defensible location. There is a temple consisting of a single chamber with a triple entrance. A low platform mound is situated in front of this temple. A building with 8 columns is on the north side of the patio.

Utatlan was the Quiche capital just before the Conquest. It is located on a tongue of land surrounded on three sides by deep barrancas. Iximche, the

Cakchiquel capital, was likewise surrounded by deep barrancas.

Proskouriakoff and Shook (1954) describe certain general trends in the Guatemala Valley. Kaminalyjuj was probably abandoned at the close of the Classic. The Ayampuk phase of early Postclassic times is known only from finds, and no evidence of occupation sites of this period has yet come to light. The final Chinautla phase reflects strong fortification of relatively small sites, as has already been described for the Chinautla site proper.

SOUTHERN PERIPHERY

In the Postclassic, Plumbate ware in association with Nicoya effigy polychrome appears to have swept over El Salvador and western Honduras, virtually eliminating many Classic ceramic traits. Plumbate is also present although rare, in northern Honduras. The "early Pipil" phase at Tazumal has both Nicoya Polychrome and Plumbate along with knobbed incensarios. On the Bay Islands and the adjacent mainland, Bay Island Polychrome (a thin polychrome ware with black and red-on-orange), decorated with applique, occurs with Plumbate. Copper, three-legged metates, bark beaters, large stone tablets, and shell and bone work are also present (Strong, 1935).

Naco (Strong, Kidder and Paul, 1936) is a site in northwestern Honduras obviously dating from a late period. It is described by Bernal Diaz as having some 2000 houses. If his estimate is correct, Naco was a small city of perhaps 10,000 inhabitants. The central portion of the site is occupied by a ceremonial center. There are a number of mounds, none of which are very large. The largest is four meters high, square, flat, and faced with stone. Plaster was used in addition to stone to face adobe fill. Structures presumed to have been dwellings extend some distance outward from the ceremonial center. A ball court with stone rings has been discovered. Plumed figure designs on pottery link Naco to central Mexico. The principal ware has a white slip with red and black designs.

WESTERN MEXICO

This region is peripheral to a general description of the Postclassic stage and will, therefore, be treated much more briefly than the areas previously discussed. Although only a very sketchy picture can be obtained from the published literature on this area, western Mexico clearly appears to comprise several sub-areas. A generalized red-on-brown pottery occurs throughout western Mexico, from Oaxaca and Toluca, through highland Michoacan and northern Jalisco to Sinaloa, Durango and Zacatecas. It seems likely that this ceramic tradition first spread in the Toltec horizon, as Plumbate has been found in association with it at Cojumatlan (Lister, 1949: 94). The red-on-brown pottery is believed by many archaeologists to be related to Coyotlatelco and Mazapan. Kelly has defined three horizons in the Tierra Caliente of Michoacan, (Kelly, 1947). The two pertaining to the Postclassic

are a red-on-buff Mazapan phase and a later horizon characterized by polychrome molcajetes and braseros. The culture of the Tierra Caliente has closer affiliations up the coast to Nayarit than with the Tarascans of highland Michoacan.

The uplands of Michoacan form a well-defined sub-area associated historically with the Tarascans. The Tarascan capital was Tzintzuntzan, a site with five "yacatas", or connected pyramid mounds. Many metal tools have been discovered here (Rubin de la Borbolla, 1941). The Tarascan state appears to have been expanding at the time of the Conquest. The military strength of the Tarascans enabled them to hold the Aztecs at their borders, as is evidenced by the large frontier garrison at Oztuma.

Cojumatlan, in northern Michoacan, is a site without Tarascan remains, probably because it antedates the spread of this people. The ceramics of both the red-on-brown horizon, which is associated with Plumbate, and the later Mixteca-Puebla horizon are present, as are metal tools (Lister, 1949).

Lister (1955) defines the Chalchihuites culture of western Durango and Zacatecas, which is associated with the impressive fortified site of La Quemada. Sites are generally on the tops of hills and often cover several acres. Hillside terracing was practiced. House outlines indicate the construction of rectangular stone buildings. Urn burials are of non-cremated remains.

A surface survey of the Autlan-Tuxcacuesco area of Jalisco by Kelly (1945) revealed many sites varying in size from 54 to 1200 mounds. The early Spanish chronicles describe large villages, thriving commerce, and irrigation in this region. Three pottery complexes have so far been identified. The Autlan and Mylpa complexes fall into the late pre-Conquest period, while Cofradia may equate with the Mazapan horizon.

In Sinaloa, cultural sequences have been determined for the sites of Culiacan, Chametla and Guasave. The Aztatlan phase shows the greatest influence from central Mexico. (Kelly, 1941; Ekholm, 1941). Ceremonial and ritual objects bear intricate Mixteca-Puebla designs. After this phase the northern frontier of the central Mexican culture retreated from Guasave to Culiacan, and local Sinaloan styles reasserted themselves over the foreign traits.

SUMMARY

Major Postclassic Traits: The early Postclassic horizon marker is Plumbate ware. The occurrence of this ware need not indicate exact contemporaneity wherever found, however, since Plumbate apparently persisted in its popularity for some two or three hundred years. The only other major ceramic horizon marker is the Mixteca-Puebla Polychrome, which likewise had a rather long vogue. The Mixteca-Puebla tradition will be useful for more exact dating when its subtypes have been recognized. Metal is a poor time indicator, since it occurs early in the Postclassic in some areas but not until the late Postclassic elsewhere.

Major architectural innovations in the Postclassic include colannades, low platforms, round buildings (believed to be associated with Quetzalcoatl), and the tzompantli. The pyramid with double stairways and twin temples is a late Postclassic development. The frieze, as an element of architectural decoration, becomes more popular during the Postclassic.

Chac Mools and Standard Bearers seem to be the most common sculptures. Spindle whorls and pipes are Postclassic innovations. The bow and arrow was either not present or was unimportant in the early part of this period, but its use increased with the arrival of the Chichimecas.

Comparison of temporal and developmental Postclassic schemes: The three major developmental criteria of the Postclassic, as defined by Willey and Phillips (1955), will now be summarized in the light of the archaeological information.

Urbanism: It is difficult to formulate a satisfactory definition of urbanism. Density of population is perhaps the best indicator from an archaeological viewpoint. The problem must be approached both from the standpoint of concentration of population within the "city-limits" and from that of the distribution of population within the ecological area. For instance, urbanism as manifested in the Valley of Mexico, with its many large cities, can hardly be equated with Mayapan, an isolated large settlement in the north of Yucatan. Assuming a certain minimum population density, several other aspects of urbanism can be expected, such as craft specialization, commercialism, stratified social classes, public works and taxation.

The rural population and its agricultural techniques must be considered as an integral part of the urban matrix, since the subsistence of the city-dwellers depended upon the outlying farms and since rural areas were integrated into the economic and political systems of the urban center. Consideration should be given to the economic possibilities of an area in estimating the human population which could be supported by the known or inferred agricultural techniques.

Urbanism is not a constant feature of the Postclassic stage. For the early part of the period, size and density of the population, as well as urban traits such as craft specialization and large markets, are frequently hard to infer from archaeological data. Archaeological research has tended to emphasize the more impressive ceremonial center, especially the temples and palaces, while ignoring the habitations of peasants and laborers. It is much easier to assess urbanism from the many archaeological remains of the late Postclassic. Few sites dating from the early Postclassic can be called urban, and the identification as cities, of such settlements as Tula, Chichen Itza, Xochicalco and Cholula is based more on inference than on positive archaeological evidence. Historical documents are the primary evidence for late Postclassic urbanism. The most important urban area was the Valley of Mexico. Intensive agriculture and the ease of transportation in this ecological area allowed a dense population to develop. Within the Valley, population was distributed among several large cities (of which Tenochtitlan was the largest) and their respective rural hinterlands.

Outside of the Valley of Mexico there probably were no cities with populations exceeding 50,000, and only Cholula and Tlaxcala are likely to have been even this large. Certainly there were no other regions with as many cities concentrated in as small an area as the Valley of Mexico. Smaller urban sites included Cempoala, with a population of perhaps 20,000, Mayapan with 10,000, and Naco with 5,000. There probably were small urban centers in western Mexico, especially at Tzintzuntzan and in Jalisco.

The above named sites represent the urban centers known archaeologically, although there are many historical references to other large towns at the time of the Conquest.

The pattern of urban development was reversed in the Guatemalan highlands. The large centers were either abandoned or declined greatly in population at the end of the Classic, settlement throughout the Postclassic being typically in relatively small fortified sites.

Militarism: Militarism entails a class of professional warriors for the reduction of neighboring groups to the status of tributaries. Organized warfare must be distinguished from simple raiding, which does not result in the establishment of political control over the conquered peoples. A knowledge of tactics and of fortified positions are part of the militaristic complex.

Warfare was known in the Classic period, but seems to have become associated with the extension of conquests over wide areas. Only in the Postclassic the Toltec style was apparently spread with the aid of military might, as many scenes depict fighting and warriors are a favorite decorative theme. The Aztecs had a well-organized army, and we know a good deal about their weapons and tactics from historical sources. The relative importance of warfare to Aztec culture is reflected in the military class which was developing at the time of conquest by the Spaniards.

Fortifications are numerous throughout the entire Mesoamerican area. Where these fortifications can be dated, the great majority fall into the late Postclassic. Many can be definitely assigned to the Aztec Empire in the central highlands. Most of the fortresses in Guatemala were also erected in the late period.

Secularism: There was a tendency during the Postclassic for social control to pass into the hands of individuals who were not under the domination of the religious authorities. Political institutions arose for governing the denser populations, accompanied by a decline in the influence exerted by the theocratic organization. Whereas urbanism and militarism can be considered as independent developments, secularism can be viewed as a by-product of either or both of the other phenomena.

Archaeological evidence for secularism is sometimes difficult to interpret. Architecturally, there are buildings which can be designated as "civil" on the negative evidence of the absence of household or religious objects. Certain public works, such as aqueducts and roads, also suggest secularism. There was a shift away from the peaceful gods of water and

agriculture to warlike deities. Religious themes figured less prominently in art.

On the historical level, there is ample evidence that the Aztecs had a large secular bureaucracy for handling matters of taxation, civic works and military matters, although the priesthood was not divorced from the state.

Conclusions: The emphasis of this paper has been on an examination of the three major criteria of a Postclassic developmental stage, as set forth by Willey and Phillips. It has been shown that the Postclassic stage proceeded unevenly in time and space. Furthermore each of the three criteria, taken separately, will yield a different picture of the scope of the Postclassic stage. True urbanism was characteristic only of a few ecologically favored regions. Evidences of militarism permeated the entire area. The growth of secularism is difficult to assess archaeologically.

In the opinion of the author, urbanism is the most important of the three criteria established by Willey and Phillips. Militarism and secularism, while partially independent phenomena, are intimately linked to urbanism in a setting such as the Middle American Postclassic. Actual urban conditions of the various subareas of Middle America can only be ascertained by further field work. The concept of urbanism needs to be refined, especially with a view toward defining distinct types of urban situations.

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