

The Prehistoric Civilizations of Nuclear America

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INTRODUCTION

THE native agricultural civilizations of the New World had their beginnings and their highest development in those areas that have been subsumed under the term "Nuclear America" (Kroeber 1948:779). The designation has both a geographical and a cultural connotation. The areas involved embrace central and southern Mexico, Central America, the north Andes, and Peru. This is the axis of aboriginal high culture in the Americas and, as such, the major center of prehistoric diffusion for the western hemisphere. To the best of our knowledge, it stands clearly apart and essentially independent from the comparable culture core of the Old World.

Kroeber (1948:784-85; 1952:377-95) has suggested the analogy between the American civilizational nucleus of Mexico-Peru and the "Oikoumene" of the Old World. Readapting the old Greek concept of the "inhabited" or civilized world (Kroeber 1952:379 and 392), he has defined the Oikoumene for purposes of culture-historical analysis as "... the millennially interrelated higher civilizations in the connected mainland masses of the Eastern hemisphere," and "as a great web of culture growth, areally extensive and rich in content." It is, in effect, a vast diffusion sphere (see Hawkes 1954) interlinked across continents by common cultural content. The comparison with Nuclear America seems particularly apt. In both cases the great historic nexuses have considerable time depth at their centers, and in both they have influenced those cultures marginal to them at relatively later points on the time scale. Further, as Kroeber (1952:383-84) has also pointed out, the essential and underlying bonds in each are those of content as distinguished from style or value. Within each, diverse civilizations (or styles) have sprung up as unique reworkings of a common cultural content held within the "Oikoumene." The differences in configuration between the Oikoumene of the Old World and what might be considered the New World "Oikoumene" appear to be functions of time. The much greater age of civilization in the eastern hemisphere seems to have allowed for a more complete dispersal of cultural content throughout the Old World Oikoumene. As Kroeber (1952:392) has stated: "... inventions or new cultural materials have tended to be transmitted, sooner or later, from end to end." Within the Americas these processes of dissemination were well under way, spreading fanwise from the Middle American and Peruvian nuclei, but they were terminated by the European conquests before much of the content of the New World "Oikoumene" had reached its outermost marches in the northern and southern continents. Similarly, certain styles, specific civilizations and their value systems spread throughout large parts of the Old World Oikoumene—their propagation and acceptance undoubtedly facilitated by the ancient base of mutually held cultural content upon which they rode; and these knit together more tightly the grand diffusion sphere of Eurasia-Africa. In America these epiphenomena of the "Oecu-

menical" base were in their infancy, yet the Inca style and civilization and its diffusion throughout much of Andean South America may be prototypical of events which, with opportunity, might have transpired on a wider scale.

This analogy between the Oikoumene of the ancient world and Nuclear America provides a basis of understanding for the following discussions of New World prehistory. We are considering the cultures of Mexico-Peru (and intervening areas) as a great historical unit or diffusion sphere which, in spite of important regional stylistic differences, possesses a certain common culture content. In the succeeding pages I propose to examine this content, to offer hypotheses as to its origins and dissemination, and to further treat the similarities and differences of the course of civilization in the two principal sub-centers of Nuclear America—Middle America and Peru. Before setting out on this task it seems advisable to review, briefly, a concept which is closely related to the Oikoumene analogy and which is fundamental to all our ensuing discussions. This is the idea of an "Archaic" or "Formative" type of culture (or cultures) as underlying, and basic to, the later American high civilizations.

The theory of an "Archaic" cultural substratum, characterized by sedentary village life, agriculture, pottery making, and other "neolithic" arts, as being basic to the later New World civilizations was first advanced by Spinden (1917, 1928). He concluded that these ideas of the old substratum were diffused north and south from Middle America to provide the basis for much of aboriginal culture in the New World. At the time Spinden proposed this, many of the earlier culture phases of Middle American and Peruvian prehistory, which have since been revealed, were unknown; hence he lacked data to support his hypothesis. Certain particulars of the scheme—such as the specific center of "Archaic" origins being attributed to the Valley of Mexico and the selection of pottery figurine types as inevitable hallmarks of an American "Archaic"—remain unproved or highly unlikely (see Kidder 1936). Nevertheless, the central theoretical theme stands. Continued archeological research has shown that the Middle American and Peruvian civilizations are preceded by less complex cultures of a village agricultural type, that these earlier cultures have a generally similar content, and that significant portions of this content were diffused widely beyond the geographical boundaries of the later civilizations. Recent recognition of New World "Formative" cultures is based upon these stratigraphic facts and their interpretation. The "Formative" concept, as it has been used in Peru (Larco Hoyle 1948; Strong 1948a; Willey 1948), Middle America (Armillas 1948; Caso 1953), and for interareal comparisons (Steward 1948, 1949; Willey 1950; Strong 1951), is a reformulation of the Spinden "Archiac" hypothesis. The Formative cultures are, in the sense of our foregoing analogy, the foundation layer of the New World "Oikoumene."

THE RISE OF THE AMERICAN CIVILIZATIONS: A SYNOPSIS

MIDDLE AMERICA

The prehistory of Middle America (central and southern Mexico and the Mayan regions of upper Central America—see Kirchhoff [1943] for a geo-

graphical definition of "Mesoamerica") is usually generalized under three main chronological subdivisions for which various terms have been used. Alternatives are included in parentheses:

1. Formative (Archaic, Developmental, Pre-Classic)
2. Classic (Florescent)
3. Postclassic (Militaristic, Expansionistic, Historic).

All these subdivisions refer to agricultural-sedentary patterns. Cultural remains preceding the Formative have been found, and some of these appear to be of remote age and to represent early hunting groups (De Terra 1949; Aveleyra and Maldonado-Koerdell 1953). Others, such as the Tamaulipas cave finds on the northeastern periphery of the Middle American area, are somewhat later, dating at about 2500 B.C. (MacNeish 1950; Libby 1952a, no. 687-2494 \pm 280 B.C.¹). The Tamaulipas caves reveal a primitive type of maize but no pottery, and the total artifact assemblages indicate hunting and collecting economies in spite of the presence of maize.

The earliest Formative culture phases, according to radiocarbon dating, are in the Valley of Mexico. Here, the Early Zacatenco level dates from the middle of the second millennium B.C. (Arnold and Libby 1951, no. 196-1360 \pm 250 B.C.). Early Zacatenco (Vaillant 1930) is represented by a large village site of deep living refuse. Corn-grinding metate and mano implements are numerous; the ceramic art is revealed in competently made incised and simply painted vessels; and handmade figurines of human form are abundant. A number of successive culture phases of the Formative follow the Early Zacatenco (Vaillant 1941; Porter 1953). There is substantial cultural continuity from one phase to the next, but the sequence also registers strong outside influences at various times. Toward the close of the Formative stage flat-topped or platform mounds appear, and these constructions seem to mark ceremonial sites. These are the first evidences in the Valley of Mexico of large-scale architectural works.

Elsewhere in Middle America the Formative pattern is repeated (Wauchope 1950; MacNeish 1954). This is not to say that culture is uniform throughout the area on the early time levels. There are some close cross-ties, such as the ones between the Formative phases of the Valley of Mexico and Michoacan (Noguera 1939) or between the earliest periods of the Huasteca and Peten Maya chronologies (Ekholm 1944; MacNeish 1954); but there are few widespread stylistic linkages at this time. The widely held similarities tend to be of a general technical sort—the predominance of plain and incised wares, handmade figurines, and the absence of well-developed architectural features—indicating a gradual diffusion of certain technologies rather than rapid dissemination of more specialized traits. Apparently, the mound building-ceremonial center complex is a late Formative concept, belonging to such phases as the Peten Chicanel (but not the earlier Mamom), the Cuicuilco (but not Early Zacatenco or other pre-Cuicuilco manifestations), and the Monte Alban I (see Wauchope 1950; MacNeish 1954). Yet it should be pointed

out that the case for a "village farmer" preceding a "village farmer-plus-ceremonial center" complex is not a clear-cut one. In the long Formative sequence in the Guatemalan highlands at Kaminaljuyu (Shook 1951; Shook and Kidder 1952) platform mounds are placed in the next-to-earliest Arevalo phase and may even be part of the still earlier Las Charcas phase. In Yucatan there is also evidence that mounds belong to the earlier part of the Formative (Brainerd 1951). The difficulties in resolving this problem are those of cross-dating. For example, we cannot be certain just where the Guatemalan highland Arevalo phase equates with the Peten or Valley of Mexico Formative chronologies. Until this is established, the earliest appearances of a trait like temple mound construction and its diffusion cannot be pinned down and plotted.

In brief, the Formative cultures of Middle America come upon the scene as fully integrated sedentary agricultural, pottery making complexes. Formative pottery, though usually not elaborately decorated, was by no means crude or experimental. The total impression is that the Formative cultures have behind them a considerable period of growth and development. Evidences of this have not yet been found. The Tamaulipas cave cultures, such as the La Perra phase, may show the ancient beginnings of agriculture; but the intermediate periods, if such do exist, are still lacking. In the latter part of the Formative, ceremonial center construction began, and many of the mounds built at this time are of impressive size. Radiocarbon dates from the late Formative cluster between about 600 B.C. and 200 B.C. (Arnold and Libby 1951, no. 202— 615 ± 200 B.C.; no. 200— 472 ± 250 B.C.; no. 424— 650 ± 170 B.C.; no. 425— 273 ± 145 B.C.), suggesting a closing date for the Formative cultures at just before the beginning of the Christian Era.

The beginnings of Middle American Classic cultures coincide with the first Initial Series stelae of the Maya calendar in the Peten, with the Teotihuacan II (or Miccaotli) phase (Armillas 1950) of the Valley of Mexico, with Monte Alban IIIa in Oaxaca, and the Aurora-Esperanza phases of Kaminaljuyu. It is believed that these events are more or less contemporaneous. It is possible that the opening of the Teotihuacan II phase antedates the earliest Uaxactun stela by three hundred to four hundred years; however, if the 12.9.0.0.0 (Spinden) correlation of the Maya long count is followed rather than the 11.16.0.0.0 correlation (Goodman-Thompson), lowland Maya early Classic (Tzakol phase) beginnings would be about coeval with the advent of Teotihuacan II. The demographic trends between Middle American Formative and Classic are not clear. In some localities, such as the Valley of Mexico, the settlement indications imply population increase and population concentration (Armillas 1950); in others, as is the case in the Guatemalan highlands, overall population size appears to be as great in the Formative phases as in the Classic, and concentration of population seems to be even greater in the earlier periods (Shook and Proskouriakoff Ms.). A number of Classic trends are, however, definite and distinguish the stage quantitatively and qualitatively from the Formative. Ceremonial architecture is more elaborate, architectural de-

vices such as apron moldings and plinths are widely used, and the ceremonial units themselves—the mounds, plazas, temples, and palaces—are more numerous and more carefully planned than in the late Formative. There is a general tendency toward the production of more finely decorated pottery with the use of polychrome painting and ornate modeling. Similarly, other craft products enjoy an aesthetic refinement.

There is observable continuity of early Classic out of late Formative cultures in most regions. In the Valley of Mexico the strong figurine tradition of the Formative is maintained in the Classic phases, but with the technical innovation of the mold. At Monte Alban the Classic anthropomorphic modeled urns have Formative prototypes in the same site zone, and the development of the Classic Zapotecan glyphs can be traced back to the Pre-Classic inscriptions (Caso 1938). In the lowland Maya regions there are a number of carry-overs in ceramic shapes and technical features from the late Formative Chicanel phase into early Classic Tzakol, but a host of new Maya traits—the stelae, sculpture, the corbelled vault, writing, and the calendar—appear with dramatic suddenness. Thus, in addition to local growth, the early Classic was a period of new ideas. Some of these ideas, like the basal-flanged bowl of Maya or the tripod fresco jar of Teotihuacan II-III, can be traced approximately as to original source and distribution; others are more difficult to plot as to origins and routes of dispersal. To generalize, the trait diffusions of the Classic, particularly the early Classic, must have resulted from rapid processes of dissemination of ideas and products (trade), whereas the Formative diffusions seem to have been much more gradual.

The end of Classic Teotihuacan is marked by the catastrophic destruction of that great site and by the appearances of new styles and, perhaps, peoples. In the south, the Maya Classic centers of the Peten, the Usumacinta, and the Motagua-Chamelecon were all abandoned shortly after the beginning of the tenth cycle of the long count. How closely co-ordinate in time these events were is debatable. If Teotihuacan was destroyed by A.D. 700, the collapse of the "Old Empire" Maya centers would be approximately coeval if the terminal date for the Maya lowland Classic is interpreted in the 12.9.0.0.0 correlation. Recent radiocarbon dates from the late Classic period at Tikal support this correlation (Kulp 1951, no. 113—A.D. 481 ± 120 ; Libby 1954, no. 948—A.D. 468 ± 120 ; Libby 1954, no. 949—A.D. 432 ± 170). On the other hand, the 11.16.0.0.0 correlation places the end of Maya lowland Classic at about A.D. 900. In general, the archeological sequences of Middle America as a whole seem to accord more closely with the 11.16.0.0.0 correlation than with the 12.9.0.0.0.

Causes of the decline and fall of the Middle American Classic cultures have been the subject of a good deal of speculation. In the Valley of Mexico there seems little doubt but what the immediate cause was military disaster, probably resulting from the pressure of new population groups entering the orbit of Mexican high civilization from the northern frontiers. Such happenings may also have had indirect effects upon the southern centers; the Tula-Toltec in-

fluences into Yucatan after the close of the Maya Classic certainly suggest this. There are, in addition, other possibilities as to causes which may have contributed to the Maya Classic decline (see Ricketson and Ricketson 1937; Thompson 1954; Meggers 1954).

The Postclassic stage of Middle American prehistory, which dates in the last eight hundred to five hundred years preceding the Spanish conquest, has been characterized as militaristic, expansionistic, secularized, and urbanized. There are evidences for these trends, but they are not manifested in all Middle American regions. An increase in warfare is reflected in the appearance of fortifications and fortified sites in many regions. This trend is paralleled by what were probably larger political domains than existed earlier, the Aztec state of the late Postclassic being the outstanding example. There is also considerable evidence of "expansionism" in the archeological and legendary-historical records. Toltec-style Chichen Itza in the heart of Yucatan, in the early Postclassic, and Nahua towns deep into Central America, in the late Postclassic, are examples. Secularism must be judged relatively. Religion seems always to have been a powerful force in Middle American civilizations. There is, it is true, something of a decline in the size, amount, and fineness of religious architecture in the Postclassic as opposed to the Classic. There are, however, exceptions to this; and, also, it must be questioned just how sure and sensitive a guide architecture is for the interpretation of cultural values. Urbanism, in the sense of population size and density, is easier to measure than the attribute of secularism, at least from the archeological standpoint; but, unfortunately, there has been little field research along these lines. In the Valley of Mexico there are some indications that Teotihuacan had, in effect, become an urban zone, in addition to the ceremonial precincts, before the close of the Classic stage. Certainly Postclassic Tenochtitlan, with its estimated 60,000 inhabitants, appears to have had urban qualifications. In Yucatan, Mayapan (Ruppert and Smith 1952), with its some four thousand houses within the enclosure wall, suggests the urban trend, but we know too little of the preceding Classic Maya settlement patterns to be able to judge its full significance. In highland Guatemala the Postclassic sites, although frequently fortified, are not especially large.

There are a number of horizontal traits which characterize the Middle American Postclassic, such as the widespread appearances of Plumbate and Fine Orange wares in the early part of the stage and the popularity of Mixteca-Puebla polychrome pottery and related styles in the later periods. Metals come into use in the Postclassic, particularly in southwestern Mexico, and there is some evidence to suggest that irrigation now became important in western Mexico and in the Valley of Mexico (Angel Palerm, personal communication, 1954).

Finally, and somewhat impressionistically, most Middle American prehistorians agree that there is a tendency for aesthetic decline in the Postclassic. This is difficult to measure, and it may be that, rather than decline, a plateau of achievement was attained in the Classic which was not, subse-

quently, surpassed in the Postclassic cultures. In some places, as in the Mayan regions, this putative decline does seem to have been accompanied by a lessening of intellectual and scientific accomplishments, as revealed in the calendar, astronomy, and writing.

PERU

The natural environment of the Peruvian area, by contrast with the varied regional settings which compose Middle America, has an impressive uniformity. There are essentially two types of country for human occupation: the small oases valleys of the desert coast and the highland basins. These two types are in juxtaposition to one another. Many of the coastal streams head up into the highlands in such a way as to offer reasonably easy means of contact between sierra and coast. The archeology of Peru, or Peru-Bolivia, seems to reflect this environmental homogeneity. Regional styles develop, but they are, again and again, interpenetrated by styles which have an area-wide or broad horizontal significance (Kroeber 1944; Willey 1945). This complex interlacing of small regional cultures, over long periods of time, has given rise to the "co-tradition" or culture-area-in-time-depth concept (Bennett 1948). Regional independence should not be minimized, but it is important to note that Peruvian prehistoric cultures, *in toto*, form a somewhat tighter diffusion sphere than do those of Middle America.

Peruvian archeology has been divided into major chronological segments in much the same fashion as Middle America. These divisions have varied in name, number, and, to some extent, in attributed content, but in essentials they are similar. All classifiers agree upon a Formative (Evolutive, Cultist-Experimenter) stage or epoch as marking the beginnings of maize agriculture and developed pottery (see Larco Hoyle 1948; Strong 1948a, 1951; Willey 1948, 1950; Bennett and Bird 1949). This is followed by a Classic (Regional Classic, Florescent, Mastercraftsman) stage of artistic climax and architectural achievement. The final stage, or stages, which we will refer to here as Post-classic, have been designated variously as Fusional-Imperialist, City Builder-Imperialist, Expansionist, and Militarist.

As with Middle America, this classification refers to the fully agricultural patterns. The projectile points and other flint tools of early hunting groups have been found in both Peruvian highlands and coast (Bennett and Bird 1949), but these remains appear to long antedate the Peruvian Formative. On the north Peruvian coast, immediately precedent to the Formative phases of that region, there is evidence of a long occupation of agricultural-collecting peoples which ranges from about 2500 B.C. (Libby 1951, no. 598—2348 ± 230 B.C.) up to the advent of the Formative Cupisnique and Middle Guañape phases at approximately 1000 B.C. (Libby 1952b, no. 75—715 ± 200 B.C.; Kulp 1952, no. 122A—1199 ± 90 B.C.). This agricultural-collecting period is without maize and lacks pottery except for its final three or four centuries when a plain ware of simple vessel forms makes its appearance. There is, however, a continuity, or near-continuity, of occupation and culture between the

premaize period and the subsequent Cupisnique phase of the early Formative.

The early Formative cultures of the Peruvian coast have as their basis the small agricultural village. It is doubtful if the canal irrigation, which was to make possible the dense populations of the later periods, had yet appeared. Sites are relatively few in number. Platform mounds, which almost certainly represent religious, or politicoreligious, centers, were constructed. Cerro Blanco and Pungurí in the Nepeña Valley are the best known coastal examples (Tello 1943), and others have been reported from the Chicama Valley (Larco Hoyle 1941). These early-period phases of Peru are linked by a developed and sophisticated art style, the Chavín. The Chavín style, with its specialized feline-condor iconography, covered all north and central Peru on this early horizon, varying in its expression from the monumental stone carving of highland Chavín de Huantar to the incised pottery decoration of the coastal valleys.

Most of our knowledge of the development of the Peruvian Formative cultures comes from the north coast, so it is from this region that the trends or changes which are here briefly reviewed have been observed. Between early and late Formative there was a great population upswing, and this increase in numbers of people in each valley almost certainly is related to the appearance of canal irrigation (Willey 1953). Village communities remained small, but there are numerous evidences of multivillage activity in addition to the canal systems. Large hilltop fortifications and platform mounds are the principal examples. At the very close of the late Formative, or the beginning of the Classic phases (depending upon where the classifier draws the line), canal systems are so complex that it is obvious that there were sociopolitical means of close co-operation within each coastal valley. The degree of centralization and authoritarianism can only be speculated upon, however. In general, the late Formative was a time of technical advance or experimentation. Metallurgical techniques, as applied to ornaments, were diffused. Ceramics lacked the distinctive Chavín-style incised decorations, and a variety of simple painting techniques (white-on-red, two-color negative) were substituted; but new firing methods, vessel forms, and life modeling came to the fore.

Regionalism and regional traditions in prehistoric Peru must not be lost sight of in the above generalizations, which, as stated, apply to the north coast. It is probable that population increase characterized most of Peru during the Formative, but this is not certainly known. Some strong regional tendencies are, undoubtedly, tied to environmental differences between coast and highland. Adobe architecture as opposed to stone, or the emphasis upon canal irrigation versus terracing, is self-evident. Other regional differences cannot be explained so readily. On the south coast and in the south highlands Formative pottery is often multicolored, whereas in the north painting always took a secondary role to incising and modeling. It is noteworthy, too, that Chavín stylistic influence was never strong in the south and that the art of the south, while showing some element similarities to the central and northern Peruvian regions, followed traditions of its own.

Peruvian Classic cultures, such as Mochica, Early Lima (or Maranga), Nazca, Classic Tiahuanaco, and Recuay, apparently date from about the beginning of the Christian Era. This is in accordance with radiocarbon datings (Libby 1951, no. 619—A.D.112 ± 190—Mochica; Arnold and Libby 1951, no. 460, no. 521—38 ± 200 B.C. and A.D.272 ± 200—Nazca; Libby 1952a, no. 658—A.D.636 ± 250—Nazca). Guess estimates (see Bennett and Bird 1949; Strong and Evans 1952; Willey 1953) have been somewhat later. Judging from the settlement studies in a single north coast valley (Willey 1953), there was little population increase between late Formative and early Classic. However, larger site concentrations are reported, as well as more impressive mound and ceremonial constructions. This increase in site size, particularly of ceremonial or politicoreligious centers, seems to hold for the north and central coasts (Stumer 1954) and, probably, for the south coast (Strong 1954). In the highlands this trend is not definite. Classic Tiahuanaco and Pucara of the south highlands, both large and elaborate architectural complexes, would seem to be consistent with it; but Chavín de Huantar, the Formative stage center, is probably larger than later shrines or centers in the north highlands. On the north coast the fortified strong points of the late Formative developed into specialized military centers, and Mochica representative art is a testimonial to warfare. Large buildings with big rooms and corridors are also constructed in conjunction with great platform mound sites. Presumably these had palace or administrative functions.

The art of the Peruvian Classic is regionally specialized and technically and aesthetically climactic. Old regional continuities can be detected in all the great styles. Mochica sculptured and moldmade pottery derives from the sculptural and modeling tendencies of the earlier north-coast Cupisnique, Salinar, and Gallinazo phases. In the same manner the polychrome features of the south-coast Paracas phase are retained and elaborated in the subsequent Nazca styles. Trade and exchange among regional centers appears to have been going on at this time, particularly between coast and highland, but these contacts do not seem to have been sufficient to have deflected or modified well-organized regional styles.

The Tiahuanaco horizon style has been used by archeologists to mark the termination of the Classic cultures. However this style and its near pan-Peruvian diffusion are interpreted, there can be no doubt that it was concomitant with significant social and political changes (Willey 1948, 1951). New settlement and architectural types appear on the central and north coasts at this time. These new types and changes include the planned rectangular inclosure site; a multiroomed dwelling unit of symmetrical plan ranging from small to great size; large, apparently empty, garrison-like inclosures; the widespread use of massive tapia, rather than small brick, adobe; and a definite decline in platform mound construction. Stylistic changes vary in kind and intensity during the Tiahuanaco horizon. On the south coast the changes are definite, but there is a tendency for a blending of old Nazca vessel shapes, designs, and colors with the Tiahuanaco iconography. On the central coast the

Tiahuanaco artistic impact is somewhat starker, while north coast Mochica styles are virtually obliterated by the new influences. The origins of the Tiahuanaco influences are still a puzzle. Wari, a great ceremonial and dwelling site in the central highlands, may be the most important source of the art style and, perhaps, some of the forces behind the diffusion of the style (Bennett 1953). The actual iconography of the pottery paintings and textiles which are found so widespread over coast and highland may have an earlier and Classic-level origin at the Tiahuanaco site proper in highland Bolivia. Rowe (1945), by historical reckoning, has placed the onslaught of the Tiahuanaco stylistic wave at A.D. 1000. If this is correct, and if radiocarbon dates are also correct, the Classic civilizations of Peru had a time range of a millennium or more.

The latter part of the Peruvian Postclassic stage is the period of the large local kingdoms of the coast, such as the Chimú and the Chincha, and of the various states of the highlands which were, subsequently, overrun by the Inca empire. On the coast the late Postclassic sites—Chan Chan, Pacatnamu, and Cajamarquilla, to name a few—represent the largest population concentrations of Peruvian, and perhaps New World, prehistory. The planned rectangular inclosure community, noted in early Postclassic times, is the dominant architectural motif of these late coastal cities. Some of these aggregates and complexes of inclosures with their numerous rooms and courtyards also contained units which appear to be palaces or temples. These have been referred to as “urban elite” centers; other massed clusters of houses and rooms without the more elaborate specialized buildings are designated as “urban lay” centers (Schaedel 1951). The various late Postclassic states are characterized by distinct new styles, but styles of a quality inferior to those of the Classic cultures. The Chimú pottery and metalwork show an interesting blend of old Classic Mochica concepts, Tiahuanacoid infusions, and other less readily identifiable elements. Similar fusions of local and Tiahuanacoid traditions are seen elsewhere. Throughout Peru, at this time, metalcraft was widely known. Ornaments of gold, copper, silver, and alloys were manufactured and widely traded, and in some regions weapons and tools were made of copper or bronze.

The Inca expansion from a small national hearth around Cuzco, in the south highlands, to a domain reaching over the entire Peruvian area and far beyond was a series of events that can be telescoped into the last century before the arrival of the Spanish in 1532. In general technology and culture the Inca participated in the common Peruvian co-tradition. Their empire thus appears to be an achievement of social and political organization. That there was precedent or tradition for empire building in pre-Incaic Peru is probable in the light of such a phenomenon as the Tiahuanaco stylistic diffusion.

CHRONOLOGICAL CORRELATION OF MIDDLE AMERICAN AND PERUVIAN SEQUENCES

The above synopses are attempts to present the salient facts—plus some integrative interpretation—of the prehistory of native Middle America and Peru. These are the peaks of New World civilization, the high contours, so to

speak, of the American "Oikoumene." What is their interrelationship? What archeological traces of historical contact can be identified between these two centers? That some relationship existed is evident. Maize and a variety of other cultivated plants are shared by the two areas. So are numerous culture elements. To deal with these problems most effectively it is necessary to turn to chronologies—absolute and relative—and to see if we can co-ordinate in time, in any manner whatsoever, the sequences of events in prehistoric Peru and Middle America.

The greatest difficulty in effecting chronological correlations between Middle America and Peru is the lack of adequate archeological sequence data in the intervening regions of lower Central America, Colombia, and Ecuador. Middle American relative chronologies have been pushed southward only to the Ulua-Comayagua drainages in Honduras, and reliable Peruvian archeological sequences have been established only as far north as the Chicama Valley and the Callejon de Huaylas. For the vast area between, there is a substantial amount of survey information, but, except for an occasional, isolated stratigraphic datum, there is little in the way of time ordering of prehistoric cultures. A long sequence in northeastern Colombia (Reichel-Dolmatoff 1954) which as yet has only local significance, the beginnings of chronology in Panama (Willey and McGimsey 1954), and some partly established, partly inferential, chronological arrangements in Ecuador (Jijón y Caamaño 1927, 1930; Collier and Murra 1943; Bennett 1946a; Bushnell 1951) are among these few exceptions. It is, of course, possible to trace various traits through these intervening areas, between Middle America and Peru, without reference to the time factor; but in the absence of relative chronological alignments such trait distributions are not convincing as proof of historical interrelationships. In attempting cultural and chronological correlations between Peru and Middle America we must, then, rely chiefly upon sequences within these two areas and upon means of supplying absolute dates for these sequences. Where possible we shall utilize such chronological information as is available from the intervening regions.

In recent papers (Willey Ms. a, b) I have reviewed the subject of Middle American-Peruvian interrelationships from an archeological point of view, discussing certain conditions and limiting circumstances which surround the problem. In the first place, the nature of the evidence linking the two major American civilizational areas is that of culture content, not style. Second, certain myths and nonmaterial traits recorded from the ethnohistoric periods, while strong arguments for ancient contacts, are not, in most cases, identifiable in the archeological and relative chronological records. Third, the data of physical anthropology are not yet complete enough, or are not sufficiently specific, to be of much help on this problem. A possible exception is the cultural-physical trait of cranial deformation. The case for contact, then, is essentially an archeological one.

Prior to about 1000 B.C. there are no good evidences of diffusion between the Middle American and Peruvian centers of Nuclear America. That New World migrations and diffusions of a general north-to-south direction took place long

before this date is attested by the presence of man in the Valley of Mexico and at the Straits of Magellan as early as 9000 and 6000 B.C. (Libby 1952b, nos. 204, 485). A few thousand years later it is likely that techniques of grinding and polishing stone and certain stone forms, such as the Californian "charm-stone," were diffused from North to South America. But such contacts antedate the rise of American maize agriculture and have no immediate bearing upon the growth and historical interrelatedness of the New World "Oikoumene." Maize agriculture, it will be remembered, is at least as early as 2500 B.C. in northeastern Mexico, and a similar primitive strain of corn was present in preceramic cultures in New Mexico as early or earlier (Libby 1952a, various dates on Bat Cave, New Mexico). A local agricultural complex of the Peruvian coast is approximately contemporaneous with these dates, but this complex is without maize. The first substantial evidence of interrelationship between Middle America and Peru comes several hundred years later with the appearance of more fully developed maize and the Cupisnique culture of north Peru. The most reliable radiocarbon dating association with Cupisnique culture is the mean date of 715 B.C. (Libby 1952b, no. 75).

Historical connections between Middle American cultures of about 700 B.C. and Peruvian Cupisnique are suggested by much more than the common possession of developed maize. As Porter (1953) has shown, there are a number of fairly complex items which are shared by Cupisnique and the Valley of Mexico Tlatilco phase. Tlatilco appears to date somewhere in the middle Formative sequence of Mexico. Such a placement would be approximately midway between the Early Zacatenco and Cuicuilco phases whose previously cited dates are *circa* 1350 and 400 B.C., respectively. Such a time position is reasonably consistent with the Cupisnique radiocarbon dates, and this chronological alignment enhances the possibilities of Middle American-Peruvian diffusions of Tlatilco-Cupisnique culture elements (see Wauchope 1954, "Scheme A" for a similar alignment). One of the trait elements which Cupisnique and Tlatilco share is rocker-stamped pottery. In general, rocker-stamped ware has a consistent middle to late Formative time position wherever it is found in Middle America. Between Honduras and Peru the rocker-stamped technique has been found in only one locality. This is on the lower Magdalena River in northern Colombia where Reichel-Dolmatoff (1954) places it at the bottom of a sequence of polychrome wares and postulates a respectable antiquity for it. In Peru, rocker-stamped pottery is known only from Cupisnique and other Chavín horizon phases. Traits besides the one of rocker-stamped decoration of pottery which link Tlatilco and Cupisnique include stirrup-spouted vessels, combined incised and painted pottery, predominance of polished black-brown wares, whistling jars, the jaguar motif, and pottery stamps. All these traits are found in one or another region of the interlying Ecuadorian-Colombian-Central American areas, but they are not found as a complex nor can their earliest occurrences be defined as to sequence position.

Another important trait which is first known from Peru on the Chavín horizon is the platform mound used as a base for presumed religious or politico-

religious buildings. In coastal Peru these are constructed largely of adobe; in Middle America they consist, variously, of adobe, rubble, and stone masonry. In Middle America, as we have noted before, the platform mound is a late Formative trait in most regions although it appears to be somewhat earlier in the Guatemalan highlands (Libby 1954, no. 886—1017 ± 240 B.C.—Majadas phase²). Thus, although platform mounds are not associated with the Tlatilco phase in the Valley of Mexico middle Formative, they are widespread throughout Middle America at a slightly later time and, in Guatemala, seem to be as early as, or earlier than, Tlatilco. It is suggested that the idea of the platform mound diffused from Middle America to Peru between 1000 and 500 B.C. and that it was a part of the same general diffusion that introduced developed maize and rocker-stamped pottery. This is, in effect, a restatement of Spinden's "Archaic" hypothesis. At the present time it cannot be proved, but the typological, stratigraphic, and radiocarbon dating evidences so far assembled favor the interpretation. Temple or platform mounds are found in Nicaragua and Costa Rica (Strong 1948b), and a few small ones have been reported from Panama (Stirling 1949). Large mounds are known from parts of the Ecuadorian coast, but in Colombia mound building seems to have been restricted mainly to burial tumuli (Bennett 1946b; Hernandez de Alba 1946). Nowhere in these geographically intervening areas can the earliest appearances of platform mounds be dated securely or with reference to Middle American sequences. The distributional data, thus, do little to support the hypothesis of the diffusion of the platform mound from Middle America to Peru, but, at the same time, they do not rule it out.

Historical contact between Middle America and Peru seems to have continued, following these earliest evidences for diffusion. Resist-dye painting of pottery, which in Peru is just post-Chavín horizon, has its first Valley of Mexico occurrences as a minority type in Tlatilco and as a more important type in the late Formative Ticoman phase (Vaillant 1931). This is, for the most part, the chronological position of negative painted ware in other Middle American regions. An exception is Usulután ware which, in the Guatemalan highlands, is as early as the Las Charcas phase. There is, however, some doubt whether Usulután is a resist-dye technique. Considering the popularity of negative painted ware in intervening Ecuador, Colombia, and much of lower Central America, it is reasonable to suspect that it diffused between Peru and Middle America. Inasmuch as chronological priority cannot be established for either the Middle American or the Peruvian negative painting occurrences, the point of origin of the technique is obscure. Its greatest frequency would appear to be in the north Peruvian and Ecuadorian highlands.

Another technical trait, the figurine mold, has a later inception than negative painting or any of the traits yet discussed. It first occurs in the Valley of Mexico in the early Classic Teotihuacan III (Xolalpan) phase (Armillas 1950), where moldmade figurines are common. In the Maya region the date for the figurine mold seems to be a few centuries later, coincident with the late Classic Tepeu phase. In Peru, the first moldmade figurines date from the

Mochica culture of the north coast. The Teotihuacan III (or Xolalpan) phase of the Valley of Mexico, as placed on the early Classic horizon, would date from about A.D. 300-600 if we follow the 11.16.0.0.0 correlation as it applies to the cross-datable Tzakol phase of lowland Maya. Following the 12.9.0.0.0 correlation, these dates for Teotihuacan III might be pushed back to about A.D. 0-300. Radiocarbon is of little or no help in dating Teotihuacan III.³ In Peru, the Mochica date which seems most consistent with other dates and with the stratigraphic record is A.D. 112 ± 190 (Libby 1951, no. 619). From this, about all we can conclude is that the use of the mold appeared in the early centuries of the Christian Era in the Valley of Mexico and in north Peru. No continuity of distribution by land from Mexico to Peru can be demonstrated, but the argument for diffusion is strengthened by the occurrences of moldmade figurines on the north and central coasts of Ecuador. In the Guayas region of Ecuador, moldmade figurines first date from the middle periods of the prehistoric sequences (Bushnell 1951)—a position which can be reconciled, in a general way, with their Classic-stage chronological appearance in Peru and Mexico. Added to this, there are a number of rather specific resemblances between figurines of various Mexican regions and those of the Ecuadorian coast (Lehmann 1948, 1951). There is in all this a strong suggestion of contacts by sea between Middle America and Ecuador-Peru which were responsible for the diffusion of the figurine mold as early as the first centuries of the first millennium A.D. The center of origin of the figurine mold in the Americas is uncertain, but the ancient and well-established tradition of handmade figurines in the Formative phases of Mexico offers a logical situation for the development of the mold device.

Metallurgy, in the sense of technical processes such as casting, gilding, annealing, soldering, and alloying, appears to have its earliest American centers in Peru. On the north coast metalwork goes back to the Chavín horizon (Lothrop 1941), and by the Gallinazo phases of the late Formative-early Classic it was well developed. Gold and copper and alloys of these were the principal metals of the Formative and Classic; silver and bronze came into common use in the Postclassic. Both ornaments and utilitarian artifacts were fashioned. The age of metallurgy in Ecuador and Colombia is unknown, but it seems likely that the Guangala-phase occurrences of copper tools and ornaments (Bushnell 1951) are contemporaneous with the Peru Classic periods. Colombian metallurgical centers, such as the Quimbaya, may have arisen as the result of Ecuadorian and Peruvian stimuli. Certainly the Panamanian, Costa Rican, and Nicaraguan prehistoric metalcraft is closely allied to Colombia both in technology and in style, and all these lower Central American metallurgical developments appear to be relatively late (within the last five hundred years preceding the Spanish conquests). Although some metal trade objects undoubtedly reached Middle America from lower Central America, it is likely that the most important Mexican metallurgical centers resulted from direct sea trade with Peru or Ecuador. The abundance and variety of metals in southwest and west Mexico substantiate this. Middle American metals are gen-

erally thought of as being entirely Postclassic, but occasional copper and gold finds come from contexts which are Classic and, perhaps, even earlier (Sorenson 1954). Continued research in west Mexico may reveal a deeper tradition of metallurgy than has heretofore been admitted for Middle America.

There are other traits which strongly indicate the possibility of at least an occasional coastwise sea trade between Middle America and Peru-Ecuador on a relatively late time horizon (see Kidder II 1940). Pottery, reminiscent of Postclassic Peru in shape and design, has been found in Pacific Guatemala (Dieseldorf 1933, pl. 53, fig. 141). A pottery seal from the Ecuadorian coast has a design which incorporates the Middle American concept of the speech scroll (Brainerd 1953). These and other items suggest a pattern of random acceptance, and rejection, in the diffusion between the two areas—a pattern consistent with intermittent and casual contacts.

In summation, the archeological records in the Middle American and Peruvian centers support the hypothesis of an early and significant contact between the two areas. Maize agriculture, temple platform mounds, and several ceramic traits may have been diffused at a time between 1000 and 500 B.C. As there is a still earlier record of agricultural-sedentary, pottery-making civilization in Middle America, it is further suggested that this primary diffusion moved from Middle America to Peru. For later times, these evidences of contact continue to appear in both the Middle American and Peruvian sequences. The direction of diffusion can only be postulated, but there is a suggestion that it was, first, from north-to-south and, later, from south-to-north.

So far this discussion has not taken into account the question of contacts between Old and New World. Nuclear America has been treated as an entity, separate in its history, from the Old World Oikoumene. This may have been the case, but we are, as yet, unable to rule out all possibilities of trans-Pacific diffusion. There are a number of writings on this theme, and they cannot be dealt with, or even summarized, here. I am unconvinced of the linkages of style, in art and architecture, which have been advanced (Heine-Geldern and Ekholm 1951; Ekholm 1953). On the other hand, certain technical inventions, modes, or complex features do argue for pre-Columbian contact. Some of these traits, like the well-known patolli game, may be of trans-Pacific derivation, or, possibly, the results of ancient migrations and diffusions across the Bering Straits and down through the Americas. One such trait is the rocker-stamped technique of pottery decoration which we have pointed to as a Middle American-Peruvian connective. Rocker-stamped ware dates back to 2000 B.C. in Mongolia-Manchuria (Liang 1930). I am inclined to believe that it has a common world-wide history. The rocker-stamped technique may have been diffused into the New World from across the Pacific. From an original American focus in Middle America it may have spread to Peru (as we have argued), and it may also have spread into the Mississippi and Ohio valleys. We should not, however, overlook the other possibility—that the diffusion of the trait was from north Asia into North America and, thence, from Mississippian and Ohio centers into the pottery complexes of Middle America. Radiocarbon dates on

the rocker-stamped technique in the Ohio-Illinois regions range from about 300 B.C. to A.D. 200, seemingly a bit too late to have antedated the Middle American occurrences; but the data and radiocarbon dates are still few, and the question must be kept open.

It is, then, possible that technical and other traits and elements of the New World civilizations are Old World inventions and that they have, by one route or another, moved into Middle America or Peru. I do not feel, however, that these possibilities invalidate the arguments for diffusion within the Nuclear American orbit. It is a possibility, but in my opinion a very remote one, that trans-Pacific diffusions introduced the same trait onto the shores of both Middle America and Peru, thereby complicating the timing and tracing of diffusion between these two areas.

CONFIGURATIONAL CORRELATION OF MIDDLE AMERICAN AND PERUVIAN SEQUENCES

In the preceding section an attempt was made to align Peruvian and Middle American archeological sequences with absolute time and, thereby, with each other. In so doing, certain culture elements in the two sequences have been brought into approximate chronological juxtaposition, and this has served to suggest diffusion and a degree of historical unity between the two areas. It is not, however, these occasional similarities of element content (of which there are many more than the few just described) which provide the most spectacular resemblances between the high civilizations of pre-Columbian Middle America and Peru but the striking likenesses in total cultural configuration.

These configurational parallels in the rise of Middle American and Peruvian civilizations are evident in the synopses which have been presented in this paper. They may be summarized here.

On the Formative stage, Middle America and Peru are similar in that the agricultural village is the basic community. Significant cultural content, as well as treatment of content, is shared by the two areas. Arts and crafts show competence but lack the aesthetic brilliance of the later Classic stages. Special structures, probably of a religious nature, were built on flat-topped pyramidal mounds. Throughout, the Formative population seems to have increased. Differences are seen in the presence of a "Village Formative," or early Formative, period in Middle America, where religious or central structures are lacking (Wauchope 1950; MacNeish 1954), and in the absence of a comparable "Village Formative" in Peru.⁴ The Peruvian Formative, at least on the north coast, begins with temple mound structures. In other words, the Peruvian Formative has a closer configurational resemblance to Middle American late Formative. There is also, in the beginning of the Peruvian Formative, the Chavín art style and its remarkable distribution. A partial parallel to this is the Middle American late-Formative Olmec style, although the intensity and wide geographical spread of Olmec is not as great as that of Chavín. Military architecture characterizes the Peruvian Formative in Post-Chavín times; it was unknown in the Middle American Formative.

Classic-stage configurations in Middle America resemble those of Peru in the achievement of a climax in pyramid mound and temple construction. In both areas this was foreshadowed in the Formative. During the Classic there was a mutual trend in the construction of what appear to be "palaces" (elaborate multiroomed buildings) in connection with ceremonial centers. Arts and crafts were brought to a peak of refinement and elaboration. Regionalism in style was marked—more so than in the preceding Formative or the succeeding Postclassic. Differences at this time are striking. Although we are speaking mainly of configuration, there are sharp distinctions in cultural content and in emphasis of content that deserve to be mentioned. Metallurgy and the working of gold, copper, and alloys was common to most of Peru but rare or absent in Middle America. The precious material of the latter area was jade rather than gold. Irrigation and terracing begun in the Peruvian Formative was perfected in the Classic. The evidence for Classic-period appearances of these traits in Middle America is uncertain. Writing and the calendar were carried to great heights in some parts of Middle America on the Classic level and were possessed in all parts. Comparable developments are lacking in Peru. Organized warfare and conquest states are very much a part of the Peruvian Classic, at least as far as the north coast is concerned. Although organized fighting and conflict were not completely absent from Middle America at this time, there is much less evidence for them in the archeological record than there is in the central Andes.

Middle American-Peruvian resemblances on the Postclassic stage include the phenomenon of cultural fusion over multiple regions and the apparent large-scale movements of peoples. Probably related to this is the tendency for increased military activities and empire building. In Peru there were Classic forerunners of these trends, but in Middle America the change seems to have been a sharper one. In certain regions of both areas there are evidences of urban concentrations of populations during the Postclassic. In Peru this trend can be traced from the Classic; in Middle America there are some evidences of earlier urbanism but the record for the Postclassic is more convincing. In both areas there are indications of the growing power of secular authority in the Postclassic. There are significant differences between the Peruvian and Middle American civilizations on this late stage, and knowledge of some of these comes from ethnohistoric accounts in addition to the archeological record. Although the two areas share the pattern of cultural fusion of their component regions at this time, it is interesting that horizon style phenomena are Peruvian but not Middle American. In the latter area certain traits like Fine Orange ware or the basal-flanged bowl are widely distributed at specific periods; but Middle American styles, in the sense of a complex iconography, do not have the same far-flung distributions and pervasive qualities that characterize Peruvian Chavín, Tiahuanaco, or Inca. In Peru the Inca state was all powerful and extended well into the adjoining northern and southern Andes. Effective systems of political and social incorporation had been developed. In Mexico, the Aztec domain was much smaller and less systematically administered. Under the Inca the Peruvian became a government worker

or bureaucrat whose duty it was to produce and to distribute the productions; in Middle America strong and independent artisan and merchant classes were important parts of the Aztec nation.

The meaning of these configurational parallels between the Peruvian and the Mexican-Central American cultures has been the source of speculation as to causality (Kroeber 1948; Steward 1948, 1949; Strong 1951; Adams Ms.). The differences and divergences have also given rise to speculation (Willey 1950). I do not believe that we can arrive at satisfactory solutions to the problems posed at the present state of Americanist knowledge. We have reviewed the case, or part of the case, for element diffusion between Middle America and Peru, and it is a relatively strong one. The nature of the evidence implies both gradual indirect (Strong 1951) and rapid direct (Lehmann 1951) transferences. In following out the arguments for diffusions it was noted that the major chronological divisions of Middle American and Peruvian archeology have a rough time coincidence. That is, assuming the correctness of a majority of the radiocarbon dates, the Formative stage in the two areas is largely restricted to the millennium preceding the Christian Era, while the Classic stage appears to begin early in the first millennium A.D. and is estimated to continue until approximately A.D. 1000. Postclassic cultures are, then, confined to the last five hundred years preceding the arrival of the Europeans. Thus, the two configurations of culture growth are not only similar but *synchronous*. This synchronicity—of over two thousand years duration—is a powerful argument for historical interrelatedness. Yet, in spite of this evidence and the acceptance of the historical relationship between these two areas of Nuclear America, the story is obviously not one of diffusion alone. Styles and other complex patterns of Middle America and Peru are quite distinct, and this suggests a considerable independence in cultural creativeness.

SUMMARY

The New World has an orbit of prehistoric and native agriculture which covers perhaps two-thirds of the South American continent and nearly half of North America. The generative center for this diffusion sphere lies in the central areas of Middle America, Peru, and the lands which lie between them. This center is Nuclear America—a sort of American “Oikoumene” comparable to the heartland of civilization of the Old World. The available data of archeology indicate that sedentary village life, based upon this agriculture, was fully developed by 1500 B.C. and that the actual domestication of the maize plant was at least one thousand years earlier. The evidence also indicates that this kind of culture was widely diffused at a relatively early date. In Middle America and in Peru these sedentary agricultural beginnings of the later American civilizations have been designated as the Formative. Radiocarbon dates suggest that the Middle American Formative cultures had an earlier inception than those of Peru, and a case can be argued for the diffusion of significant Formative elements from Middle America to Peru at a time between 1000 and 500 B.C. The close of the Formative stages and the opening of the Classic stages appear to be roughly synchronous in both major areas—a date of ap-

proximately A.D. 1. Throughout the Classic and Postclassic stages there was continued diffusion, direct and indirect, between Peru and Middle America. Traces of some of these Middle American-Peruvian contacts are seen in the intervening regions of lower Central America, Colombia, and Ecuador, but lack of sufficient archeological sequence information from this geographical intermediate area makes synchronization difficult.

It should be emphasized that the evidences of diffusion between Middle America and Peru are those of culture elements and culture content. In style and patterning the arts and institutions of the two areas are quite distinct. This distinctiveness is more pronounced in the Classic and Postclassic cultures than in those of the Formative. There is little question but what styles and patterns resulted from local creativeness and inventiveness in each area and within smaller local regions of each area.

On a grander scale than either cultural content or cultural patterning are the similarities in over-all configurations of culture growth in Middle America and Peru. We do not yet know how to account for these parallels—of trends and emphasis—through time. Perhaps they were conditioned, directed, and given momentum by the intermittent but continued diffusions between the two areas. Perhaps they were largely the result of similar human and social responses to similar situations. And in attempting to appraise the parallels we should not overlook the divergences in cultural configuration. They are of equal interest in the prehistory of Nuclear America and of equal importance in the study of this prehistory for the elucidation of cultural process.

NOTES

¹ It should be cautioned that not all radiocarbon dates from Middle America are consistent with each other or with archeological stratigraphy. About 80 per cent of the published dates can be so reconciled or harmonized. These dates have a general tendency to lower the beginning and ending of the Classic-stage phases from previous estimates (A.D. 300-900), which are in cross-dating accord with the 11.16.0.0.0 (Goodman-Thompson) Maya calendrical correlation, to dates (A.D. 0-600) which are closer to the 12.9.0.0.0 (Spinden) correlation.

Archeologists cannot accept, uncritically, the radiocarbon datings that have, thus far, been provided. At the same time they cannot ignore this important new line of evidence.

² The Majadas phase follows the Arevalo phase in which platform mounds are also known.

³ An averaged date for the immediately preceding Teotihuacan II period is 294 ± 180 B.C. (Arnold and Libby 1951, no. 422). This seems too early, although it can be reconciled with the Cuicuilco dates. A Teotihuacan III reading of 1474 ± 230 B.C. is, obviously, in error.

⁴ An early "Village Formative," as opposed to a later "Temple Formative," seems to hold for most Middle American regions. In Peru the earliest Formative phases of the north coast and north highlands have temple mounds, but in other Peruvian regions the temple or platform mound feature seems to be lacking at this time (Willey and Corbett 1954).

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